



Partnership for Coastal Watersheds Action Plan

Partnership for Coastal Watersheds Steering Committee
South Slough NERR
Coos Watershed Association
Charleston, Oregon November 2012



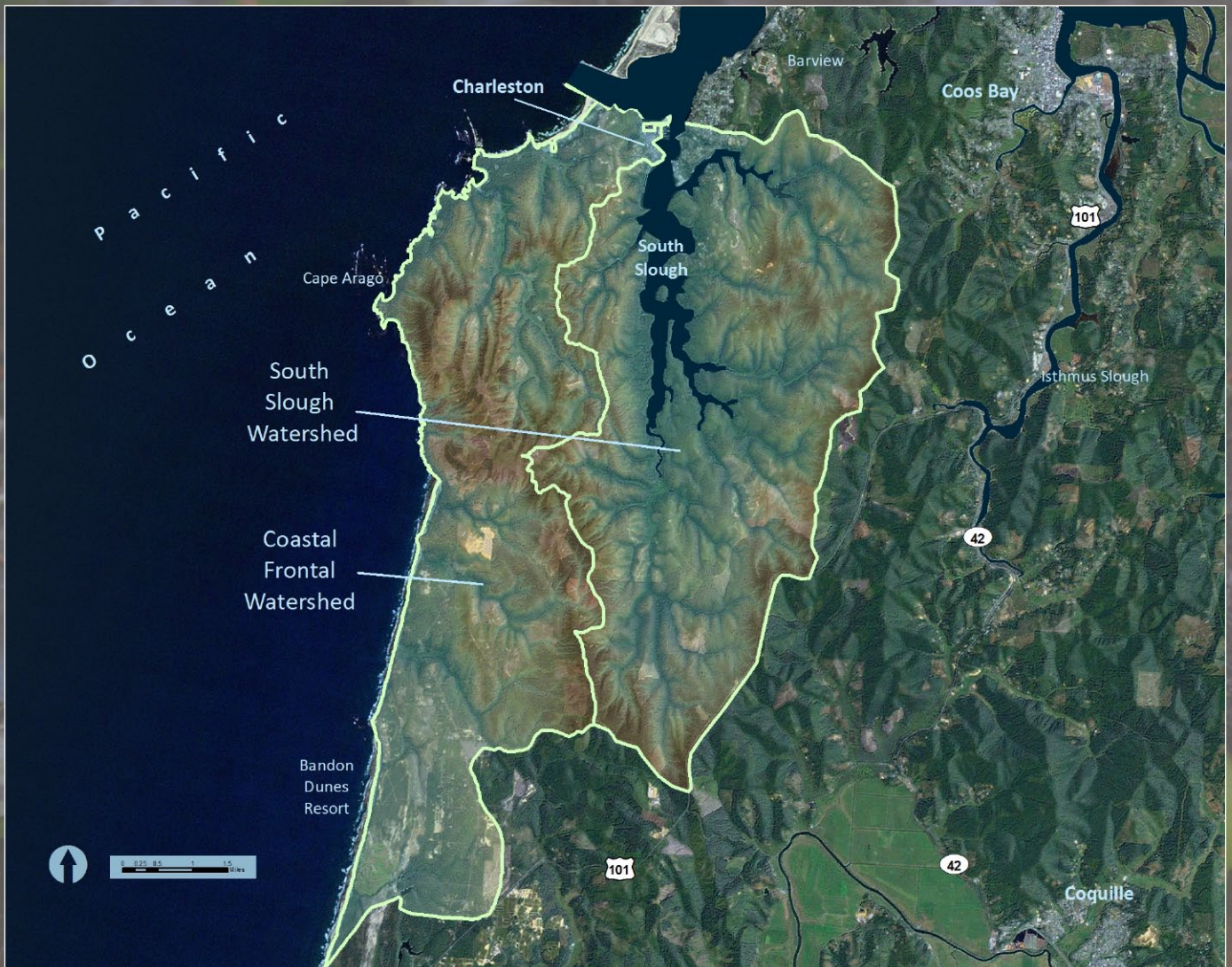


Figure 1. Partnership for Coastal Watersheds Project Area

Introduction

This Action Plan is intended to provide a roadmap for the Partnership for Coastal Watersheds to implement projects in Coos Bay's South Slough and Coastal Frontal watersheds (see Figure 1 on facing page) to achieve the community's vision for its future. Through a series of facilitated meetings convened in 2011 and 2012, the Partnership for Coastal Watersheds Steering Committee, which embodies a diverse array of community perspectives, developed a Mission Statement, created a Community Vision for desired conditions in the project area in the next 20-25 years, and with the use of project area status information in the State of the Watersheds assessment (see below), generated and prioritized a suite of potential actions intended to assist in achieving that vision. The recommendations outlined in this Action Plan, also accessible online (www.partnershipforcoastalwatersheds.org) were summarized by the project facilitators, staff at the South Slough National Estuarine Research Reserve and Coos Watershed Association, and will be reviewed at the next Partnership Steering Committee in December 2012 and adopted at the pleasure of the Partnership Steering Committee.

The Partnership Steering Committee based its work on the "triple-bottom line" philosophy of sustainability that explicitly considers community, economy, and environment effects in determining how to proceed with future planning and developments, an approach embodied in Partnership for Coastal Watersheds' mission and vision. The triple-bottom line philosophy is also evident in the broad array of projects that are considered as priorities for implementation.

This document is a companion to the Partnership for Coastal Watersheds State of the Watersheds assessment (also accessible from the Partnership for Coastal Watersheds web site) which is a summarization of newly collected and existing data which describe the environmental and socioeconomic conditions in the South Slough and Coastal Frontal watersheds. The State of the Watersheds assessment is intended to be a dynamic resource with which to track the health of our community and watersheds over time.

Additional information about this Action Plan, the State of the Watersheds assessment and the Partnership for Coastal Watersheds is available on the Partnership for Coastal Watersheds web site (www.partnershipforcoastalwatersheds.org) and from Craig Cornu at the South Slough Reserve (craig.cornu@state.or.us) or Jon Souder at the Coos Watershed Association (jsouder@cooswatershed.org).

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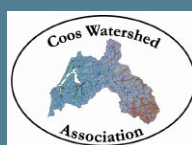


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November 2012

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Partnership for Coastal Watersheds: Action Plan



Background

The Partnership for Coastal Watersheds (Partnership or PCW) was launched in 2010 by the Partnership Steering Committee, a diverse community stakeholder group, and facilitated by staff at the South Slough National Estuarine Research Reserve (SSNERR) and the Coos Watershed Association (CoosWA). Through a series of collaborative meetings in 2011 and 2012, the Partnership Steering Committee developed a Mission Statement and produced a number of community planning documents including a Community Vision for the next 20 years, a State of the Watersheds assessment and this Action Plan. The Action Plan identifies 37 priority actions that, when applied, will provide a roadmap to implement projects in Coos Bay's South Slough and coastal frontal watersheds (see Figure 1 on facing page), helping the community achieve the vision for its future.

The Partnership Steering Committee based its work on the "triple-bottom line" philosophy of sustainability that explicitly considers effects on the community, economy, and environment in determining how to proceed with future planning and developments, an approach embodied in the Partnership for Coastal Watersheds' mission and vision. The triple-bottom line philosophy is also evident in the broad array of projects that are considered in this plan as priorities for implementation.

The recommendations outlined in this Action Plan were summarized by the project facilitators and staff at the SSNERR and CoosWA to generate a draft document in November 2012. The Partnership Steering Committee reviewed the draft Action Plan in December 2012 and provided their feedback to produce this first revision of the Action Plan in May 2013.

This document is a companion to the *Partnership for Coastal Watersheds State of the South Slough and Coastal Frontal Watersheds* assessment, which is a summarization of newly collected and existing data that describe the current environmental and socioeconomic conditions in the South Slough and coastal frontal watersheds. The assessment is intended to be a dynamic resource with which to track the health of our community and watersheds over time (see Appendix 4 for graphics summarizing status and trends derived from this assessment).

Electronic copies of the Action Plan and the *State of the South Slough and Coastal Frontal Watersheds* assessment, and information about the Partnership for Coastal Watersheds, is available at: www.partnershipforcoastalwatersheds.org. For further information, contact Craig Cornu at the SSNERR (craig.cornu@state.or.us) or Jon Souder at the CoosWA (jsouder@cooswatershed.org).

Introduction

The following Action Plan describes the process the Partnership Steering Committee and project facilitators used to identify and prioritize all actions. The first part of the Action Plan describes the PCW goals, the Community Vision, and the process for identifying potential actions. The remainder of the document focuses on the process used to prioritize the actions, a description of the resultant 37 Priority Actions and the recommendations for implementing them. Additional data in three appendices are provided to show the complete results of the planning process, including an illustrated ranking of all potential actions.

The Partnership for Coastal Watersheds project is based on the following premises and associated guiding questions:

Premise 1: The local effects of climate change and changes in land use have the potential to affect our community's quality of life and long-term economic viability.

How can our community plan ahead to address these potential changes?

Premise 2: Our community does not have an effective way to collaborate or make decisions about the opportunities and issues we need to address now and in the future.

How can our community effectively address current and future opportunities and issues?

Process for Action Planning

The Partnership Steering Committee used a four step process (Figure 2) to develop this Action Plan. The first task was for the group to develop a mission to guide discussions. The development of this mission statement involved contextualizing the Partnership project area within the broad framework of sustainability.

The Steering Committee decided to use an approach to sustainability called the “triple-bottom line” as a way to conceptualize and organize their discussions. There are three pillars—or legs—to take into consideration when using this approach: community, economy, and environment (Figure 3). At its May, 2011 meeting, the Steering Committee incorporated this idea into its accepted definition of sustainability:

Sustainability is the social, economic and environmental practices that protect and enhance the human and natural ecosystems and resources needed by future generations to enjoy a quality of life equal to or greater than our own.

Figure 2. Steps in the action planning process.



With this idea of sustainability as a foundation, the Steering Committee stated its purpose with the following mission statement:

The Partnership for Coastal Watersheds collaborates to understand watershed conditions and address their capacity and resiliency to serve ecological, economic, and social needs for present and future generations.

This mission encompasses a broad range of current and future concerns for the project area.

Community Vision

Developed over a series of meetings during 2011, the Vision describes conditions desired by the Partnership Steering Committee for the project area spanning the next 20-25 years. The following principles guided the creation of the Vision:

A community vision:

- *is an expression of possibility - an ideal future state the community hopes to attain;*
- *provides the basis from which the community determines priorities and performance targets; and,*
- *serves as a foundation of goals, plans, and policies directing future action by various sectors.*¹

The Partnership's Community Vision (see page 10) provides a model of desired conditions to compare to current conditions. The Action Plan then identifies steps needed to make progress toward attaining those desired conditions.

Focusing on the idea of sustainability, the first three vision statements highlight the social quality of life in the project area; the next five vision statements stress economic vitality; the final three are oriented towards maintaining and improving environmental integrity.

Actions to Achieve the Community Vision

Actions—organized efforts to change conditions—are intended to improve current conditions in the project area to meet those described in the Partnership's Community Vision. Using the Community Vision as a starting point, a five-step process was taken to generate specific potential actions:

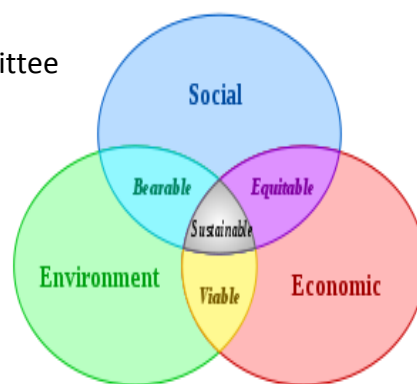


Figure 3. The three pillars of sustainability are not mutually exclusive and can be mutually reinforcing.

¹ Okubo, Derek, 2000, *The Community Visioning and Strategic Planning Handbook*, National Civic League Press, Denver, CO.

1. Identify key phrases in vision statement.

For each of the eleven Community Vision statements, one to two key phrases were extracted.

2. Define attributes of the key phrases.

Next, two to nine attributes were derived from each key vision statement phrase (see Appendix 1 for a complete list).

3. Identify performance measures for attributes.

The performance measures tied to the environmental attributes came from a study done by a University of Vermont graduate student, Foushee (2010)². The performance measures for socioeconomic attributes were drawn from various sources, including the Oregon Progress Board Report and commonly used quality of life metrics (e.g., travel time to work).

4. Evaluate current conditions of the attributes.

The State of the Watersheds assessment provided data on current conditions, which were evaluated using the performance measures. If current conditions did not meet standards described in the vision, performance measures were used to determine necessary improvements.

5. Identify potential actions to address conditions needing improvement.

The Steering Committee and Partnership staff identified potential actions to meet desired conditions through collaborative work sessions during the first half of 2012. A Steering Committee subcommittee met in July, 2012 to edit the long list of potential actions. At the end of this process, 159 potential actions were identified.

² Foushee, Autumn, 2010, *Identifying Ecological Indicators of Climate Change and Land Use Impacts to a Coastal Watershed*, University of Vermont.

The Collaborative Process

The process used to develop the Community Vision, generate potential actions to achieve the Vision, and then filter and prioritize them into an Action Plan goes beyond how watershed assessments are usually conducted. By having a diverse group of community stakeholders drive the process, a more durable, insightful outcome was realized. The collaborative nature of the Partnership Steering Committee also provided numerous opportunities for the organization to obtain feedback and test assumptions. While not an exhaustive chronology of meetings, it is useful to reflect on some of the collaboration used to develop this Action Plan:

- May 2011: Steering Committee members completed a Values and Vision for the Future Questionnaire, intended to identify common desires related to the mission. Questions were applied to each of the three sustainability sectors.

Sectors:

- ✓ Social, family and personal quality of life
- ✓ Local economic conditions and economic drivers
- ✓ Environment / watershed condition and function

Questions:

- ✓ Why do you live or work here?
- ✓ What do you value the most about this area?
- ✓ What would you like to see happening here in 20 years?

- Jun. 2011: Steering Committee members verbally shared their own (or their organization's) visions for the future in a roundtable session. Using the results from the May questionnaire, members identified missing elements, contradictions, and challenges, and began drafting vision statements.
- Sep. 2011: An *ad hoc* subcommittee met to review and edit a draft set of statements developed from previous committee input. This work resulted in a set of 18 vision statements that was later edited to the final 11 statements comprising the *Community Vision*. The *ad hoc* subcommittee approved a process to develop action items from the 11 vision statements.
- Jan.-Jun. 2012: Attributes were developed for each vision statement (Appendix 1). Potential actions to address conditions needing improvement were drafted based on identified data sources and evaluation of current conditions associated with attributes.
- Jul. 2012: An *ad hoc* subcommittee met to edit the long list of potential actions and review proposed methods of prioritizing the actions. Prioritization criteria were discussed and refined, and methods of delivering the prioritization survey tool were agreed upon.

Partnership for Coastal Watersheds

Community Vision

Our community vision describes the desired future conditions we want to see in 20 years in our quality of life, environment and economy. We will work toward attaining the community vision because we are proud of where we live and are protective of the high quality of life we enjoy and maintain here for ourselves and for future generations.

- 1. Our community has a rural, small town feel with a high quality of life.*
- 2. We have strong and culturally-diverse social networks and proven methods for resolving disputes.*
- 3. We have a variety of transportation options.*
- 4. We encourage the retention and development of stable enterprises engaging in a wide variety of sustainable economic activities.*
- 5. Our products, many of which showcase the unique character of the area, its people and culture, are competitive in regional, national and global markets.*
- 6. Our urban waterfront continues to be a defining economic, recreational and social center for us.*
- 7. We continue to find innovative ways to generate much of our energy locally and to consume our energy efficiently.*
- 8. We have a strong understanding of the cultural history of the area and the natural environment that our social and economic systems depend upon.*
- 9. Our watersheds meet or exceed environmental standards.*
- 10. Our watersheds are resilient to chronic and catastrophic change.*
- 11. Our watersheds include a diversity of land uses that allow for working landscapes, fully functioning natural processes and critical habitat for people, plants and wild animals.*

Vision Statements 1-3 pertain to social quality of life; statements 4-8 pertain to economic vitality; and, statements 9-11 pertain to environmental integrity and land uses.

Prioritization of Actions for Implementation

The 159 potential actions covered a broad range of focus areas with varying timeframes and resource needs (e.g., staff time, funding, organizational capacity). While each of these actions could progress the community toward its Vision, it became clear to the Steering Committee and Partnership staff that prioritizing the actions for implementation during the next five years would produce the strongest and most pragmatic Action Plan. The prioritization process ultimately chosen used multi-attribute scoring criteria adapted from a similar process CoosWA developed to identify potential watershed restoration actions. Through an iterative process, staff proposed criteria and then a Steering Committee subcommittee further refined them.

Prioritization was finalized with the following criteria:

1. Urgency exists within the PCW
2. The need has been widely recognized but has not been addressed by others
3. The community has the capability/expertise to address the action
4. Adequate human and financial resources exist
5. This action is a pre-requisite for other actions

A scoring rubric, developed to improve consistency among the evaluators, gave each of these criteria five possible descriptive positions (Appendix 2). Members of the Partnership Steering Committee used the scoring rubric to prioritize each of the 159 potential actions in an on-line survey taken fall, 2012. Seventeen Steering Committee members participated in the survey, with 11 members completing the entire survey of 800 questions (159 potential actions x 5 criteria).

Staff ranked every action by first averaging the response scores for each of the five prioritization criteria. The five averages were then summed to produce a single overall score associated with that action. These overall scores ranged from a low of zero to a high of 20.

The top ranked quartile of these 159 actions was considered to be a priority for

Figure 4. Total Scores of All Actions

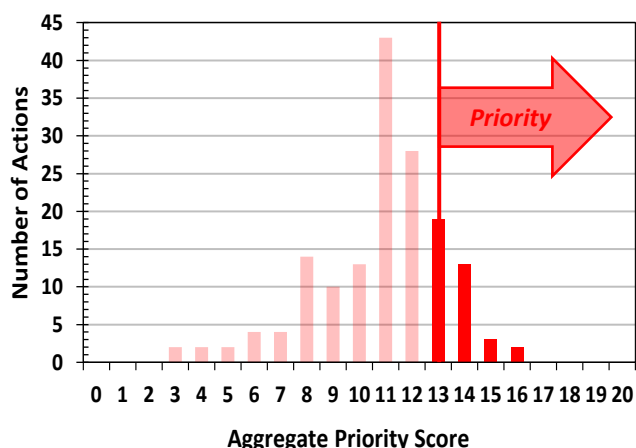
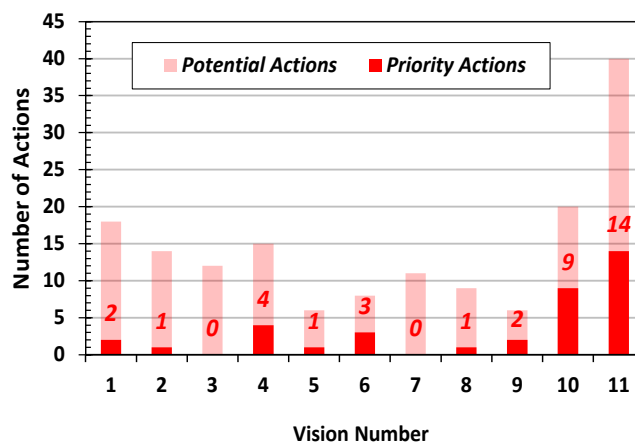







Figure 5. Number of Actions per Vision



implementation within the next five years. Based on breakpoints in the distribution of overall scores (Figure 4), an action was considered to be a priority if it received a score of 13 or greater, a process that resulted in 37 priority actions. The distribution of these priority actions varied by Community Vision statement (Figure 5). Two visions, number 3 dealing with transportation and number 7 dealing with energy, had no priority actions; the other nine visions had at least one priority action, with visions 10 and 11, dealing with environmental concerns, receiving both the largest number and highest percentage of priority actions.

The 37 priority actions are listed in the first column in Table 1. In the next column, the overall prioritization score is given for each action. The most common score for each of the five prioritization criteria for that action is then displayed using a system of symbols inspired by those used by Consumer Reports (Figure 6). The vision statement associated with each action is represented by a statement number and the associated attribute text. While lead partners are suggested in the far right column, additional partners will be required for full implementation. Appendix 3 shows all 159 potential actions in a similar fashion to Table 1.













Figure 6. Criteria Scoring Key

Symbol	Meaning
	Most respondents indicated they strongly agreed with the criteria.
	Most respondents indicated they mildly agreed with the criteria.
	Most respondents indicated they felt neutral about the criteria.
	Most respondents indicated they mildly disagreed with the criteria.
	Most respondents indicated they strongly disagreed with the criteria.

Resulting Implementation Plan

Table 2 displays an implementation strategy for the 37 priority actions. It divides related topics into the three sustainability pillars—community, economy, environment—and further splits them into near-term goals or mid-term goals. Priority actions are intended to be implemented by the project facilitators and Steering Committee members, their associated organizations, and new partners. Implementation is contingent on availability of resources and capacity to support such efforts. Many of the near-term actions are planned for the second phase of the Partnership for Coastal Watersheds, which began in 2013 and expands the project area to address conditions in the wider Coos watershed.

Table 1. Priority Action Ranking

ID	Symbol Key:	5 Criteria for Ranking Actions							Vision Attribute	Lead Partner
		TOTAL SCORE	Urgency Exists	Need Identified But Not Yet Addressed	Local Expertise Exists	Local Resources Exist	Pre-requisite to Other Actions	Vision Statement #		
	 Strong Agreement  Mild Agreement  Neutral  Mild Disagreement  Strong Disagreement									
1	Keep active a future planning and issue discussion forum like the PCW Steering Committee to cooperate on projects and focus on common ground.	16						2	Improve dispute resolution	PCW Steering Committee
2	Advise county on Comprehensive Plan with regards to shoreline infrastructure, estuary (CBEMP) and wetlands management.	16						10	Sea Level Rise (SLR)	DLCD
3	Improve riparian vegetative cover for: 1. Erosion control, 2. Shade / water quality, 3. Habitat	15						11	Streams	CoosWA
4	Continue improvement of salmon habitat passage barriers.	15						11	Fish	CoosWA
5	Develop climate change scenarios, level of certainty and vulnerability assessments.	15						10	Climate Change	OSU
6	Work with fisherman and seafood processors to expand certification programs for seafood products.	14						4	Encourage small & medium sized businesses	Oregon Sea Grant
7	Work with the Charleston community to increase opportunities for ecotourism.	14						4	Encourage small & medium sized businesses	Charleston Merchants, OR Tourism Comm.
8	Encourage long-term partnerships to retain significant employers such as fish processors, OIMB and ODFW and continue their investment in the area.	14						6	The waterfront is an economic center for the community	Port, State Representatives
9	Identify ways to make the waterfront more appealing to new businesses, investors and visitors (also see 19 and 21)	14						6	The waterfront is an economic center for the community	Port, Coos County
10	Join efforts to improve local awareness and preparations for environmental hazards (earthquakes and tsunamis).	14						6	The waterfront is safe for businesses, visitors, and residents re. climate change and natural hazards	DOGAMI
11	Identify bacteria and nutrient hotspots and develop remediation program (also see 25).	14						9	Estuary	DEQ, ODA
12	Address "gaps" in freshwater quality data for TMDLs.	14						9	Streams	CoosWA
13	Research effects of climate change on timber industry, forest ecology and fire regime, fish and wildlife habitat and life cycles, wetland function, hydrology, coastal infrastructure, eco-tourism, invasive species, commercial and recreational shellfish production etc.	14						10	Climate Change	PCW Steering Committee, OCCRI
14	Incorporate climate change effects into habitat restoration and management plans (also see 32).	14						10	Climate Change	CoosWA
15	Emphasize tidal wetland restoration over the long term to offset the effects of sea level rise, flooding and storm surge.	14						10	Climate Change	CoosWA
16	Educate and engage the community about human impacts on the watershed, with emphasis on the estuary, strategies to reduce those impacts (e.g., low-impact development, stormwater management), and watershed restoration strategies.	14						11	Collaborate with Community and Landowners	SSNERR
17	Educate and engage the community on climate data and methods for mitigating and adapting to effects of climate change.	14						11	Collaborate with Community and Landowners	SSNERR's CTP

*ID numbers are meant for reference only; they do not indicate an ordered ranking of actions. Rather, the Total Score indicates the priority for each action. Multiple actions that received the same score have equal priority.

Table 1 (cont.) Priority Action Ranking










































ID	Symbol Key:  Strong Agreement  Mild Agreement  Neutral  Mild Disagreement  Strong Disagreement	5 Criteria for Ranking Actions							Vision Attribute	Lead Partner
		TOTAL SCORE	Urgency Exists	Need Identified But Not Yet Addressed	Local Expertise Exists	Local Resources Exist	Pre-requisite to Other Actions	Vision Statement #		
18	Continue operating stream gauges and monitoring attributes in addition to stream discharge.	14						11	Management of Working Landscapes	CoosWA
19	Assess attractiveness of PCW area to visitors and potential businesses through surveys, focus groups, interviews, etc (also see 9 and 21).	13						1	Community assessment to gauge 'quality of life'	RDI's Hometown Competitiveness Program
20	Provide a forum for resolution of local concerns through an information exchange, discussion forums, and educational opportunities.	13						1	Community assessment to gauge 'quality of life'	PCW Steering Committee
21	Participate in strategic planning and development for the Charleston shipyard, marina, and waterfront for the project area (also see 9 and 19).	13						4	Encourage small & medium sized businesses	Port
22	Gain a better understanding of the role of fish processors in the sustainability of the fishing fleet.	13						4	Encourage sustainable economic activities	Oregon Sea Grant
23	Promote small businesses.	13						5	Innovative new products continue to find markets	SCDC
24	Incorporate more cultural history into school enrichment program curricula and outreach.	13						8	Increase historical awareness and understanding	Coos Historical and Maritime Museum, Tribes
25	Investigate the frequency and cause of algal blooms (also see 11).	13						11	Estuary	SSNERR
26	Address stream habitat issues identified in the AHI: 1. Pool frequency, depth; 2. Unstable banks; 3. Large wood abundance, volume, frequency; and 4. Gravel abundance, sediment quality.	13						11	Streams	SSNERR, CoosWA
27	Address spread of forest disease and invasive species.	13						10	Forest	OSU Extension
28	Reduce feral cat and dog population; educate cat/dog owners.	13						11	Birds	Cape Arago Audobon Society
29	Continue restoration of native oysters.	13						11	Shellfish	ODFW
30	Investigate the potential for the shipping channel deepening and widening to affect shellfish and other economically viable species, and evaluate change in flow characteristics in estuary using hydrodynamic modeling.	13						11	Shellfish	Port, University of Oregon
31	Identify consensus on acceptable "level of risk" for use in planning. E.g., stream damage, sea level rise, upland changes, changes in forest fire regime.	13						10	Climate Change	Undetermined
32	Incorporate SLR and other climate change scenarios into salmonid habitat restoration design and planning (also see 14).	13						10	Sea Level Rise (SLR)	CoosWA
33	Encourage best management practices and seek watershed restoration projects with landowners and managers (also see 35).	13						11	Collaborate with Community and Landowners	CoosWA
34	Understand and track land use effects on hydrology.	13						11	Management of Working Landscapes	CoosWA
35	Encourage invasive species control through county ordinances (also see 33).	13						11	Management of Working Landscapes	Coos County Weed Board, County Commissioners
36	Implement riparian erosion control plantings and bio-engineering.	13						11	Sediment	CoosWA
37	Provide training in Early Detection Rapid Response, monitoring, identifying/ reporting invasive species (especially animals and other nuisance species), and safe practices for living near wildlife.	13						10	Invasive Species	OSU Sea Grant

Table 2: Strategies to implement priority actions (ID numbers of the individual action items from Table 1 are indicated in parentheses).

<div> <div>Color Code:</div> <div> <div>Green = Need is Currently Being Met or will be Satisfied with current actions</div> <div>Yellow = Some Progress is being made toward this need</div> <div>Red = No/Limited Progress is being made toward this need</div> </div> </div>		
Near-Term Actions (1 – 2 Years)	Progress (as of 8/16/13)	Potential Next Steps & Partners
<u>Outreach and Education:</u>		
Keep active a future planning and issue discussion forum like the PCW Steering Committee to cooperate on projects and focus on common ground. (1)	<ul style="list-style-type: none"> PCW still active. PCW and other community groups, such as the Ford Family Foundation (FFF), planning a community visioning process. 	
Incorporate more cultural history into school enrichment program curricula and outreach. (24)	<ul style="list-style-type: none"> Coos Historical and Maritime Museum has such programs, and PCW may be able to supplement or participate. CoosWA's youth program includes some cultural history, could add more. 	
Join efforts to improve local awareness and preparations for environmental hazards (earthquakes and tsunami). (10)	<ul style="list-style-type: none"> FFF is involved with education program, PCW may be able to help facilitate. SWOCC is offering/has offered CERT training. Charleston Harbor Master Plan: interpretive signs. 	
Advise county on Comprehensive Plan with regards to shoreline infrastructure, estuary (CBEMP) and wetlands management. (2)	<ul style="list-style-type: none"> PCW is moving forward with estuary inventory which will help inform the CBEMP, and County has formed a Comprehensive Plan update committee. 	
Educate and engage the community about human impacts on the watershed, with emphasis on the estuary, strategies to reduce those impacts (e.g., low-impact development, stormwater management), and watershed restoration strategies. (16)	<ul style="list-style-type: none"> CoosWA's Water Quality Coalition and Watershed Approach program are gearing up to deliver workshop about estuarine water quality and best management practices. 	
Educate and engage the community on climate data and methods for mitigating and adapting to effects of climate change. (17)	<ul style="list-style-type: none"> SSNERR is developing a social-science intern position that can help coordinate community climate change education program. Charleston Harbor Master Plan: interpretive signs 	
Provide training in identifying, reporting, and Early Detection Rapid Response for monitoring and treating invasive species. (37)	<ul style="list-style-type: none"> SSNERR is developing a social-science intern position that can help coordinate invasive species education program. Port is installing a trailered-boat washing station with educational signs as recommended in the Charleston Master Plan. PCW and partners may be able to assist. 	<ul style="list-style-type: none"> Sam Chan/OSU and PSU's Center for Lakes and Reservoirs are good resources for training.
Provide a forum for resolution of local concerns through an information exchange, discussion forums, and educational opportunities. (20)	<ul style="list-style-type: none"> PCW beginning to plan educational opportunities. 	<ul style="list-style-type: none"> Neighbor to Neighbor

Table 2: continued

<u>Assessment and Monitoring:</u>		
Participate in strategic planning and development for the Charleston shipyard, marina, and waterfront for the project area. (21)	<ul style="list-style-type: none"> Charleston Harbor Master Plan: Viewing platform, elevated walkway, commercial buying dock, sidewalk along Guano Rock In; Landscaping on Kingfisher; repair existing marine ways in shipyard; replace travel lift; expand shipyard work docks; Troller Rd improvements; construct multi-purpose buildings; expand shipyard's shoreside capacity 	
Assess attractiveness of PCW area to visitors and potential businesses through surveys, focus groups, interviews, etc. (19)		
Continue operating stream gauges at Big, Winchester, and 3 Mile Creeks (18).	<ul style="list-style-type: none"> CoosWA continues and is expanding gauging program. 	
Identify ways to make the waterfront more appealing to new businesses, investors and visitors. (9)	<ul style="list-style-type: none"> Charleston Harbor Master Plan: Viewing platform, interpretive signs, elevated walkway, commercial buying dock, sidewalk along Guano Rock In; Landscaping on Kingfisher; dog park; repair existing marine ways in shipyard; replace travel lift; expand shipyard work docks; Troller Rd improvements; construct multi-purpose buildings; expand shipyard's shoreside capacity 	
Address "gaps" in freshwater quality data needed for TMDL development (12).	<ul style="list-style-type: none"> CoosWA is facilitating Estuary Water Quality Coalition to work with DEQ, and DEQ's TMDL committee, to inventory existing data and assess gaps. 	
Develop climate change scenarios, level of certainty and vulnerability assessments. (5)		<ul style="list-style-type: none"> Could be paired with, or initiated by a community climate change education program or event. Some resources assessments: http://www.theresourceinnovationgroup.org/about-us/ http://www.fs.fed.us/ccrc/livelearn/wva/
Research effects of climate change on timber industry, forest ecology and fire regime, fish and wildlife habitat and life cycles, wetland function, hydrology, coastal infrastructure, eco-tourism, invasive species, commercial and recreational shellfish production etc. (13)		<ul style="list-style-type: none"> See above
Identify consensus on acceptable "level of risk" for use in planning. E.g., stream damage, sea level rise, upland changes, changes in forest fire regime. (31)		<ul style="list-style-type: none"> See above

Table 2: continued

<u>Restoration:</u>		
Continue restoration of native oysters. (29)	<ul style="list-style-type: none"> • SSNERR and OIMB participate in on-going native oyster restoration. 	
Encourage best management practices and seek watershed restoration projects with landowners and managers. (33)Address stream habitat issues identified in the AHI: 1. Pool frequency, depth; 2. Unstable banks; 3. Large wood abundance, volume, frequency; and 4. Gravel abundance, sediment quality. (26)	<ul style="list-style-type: none"> • CoosWA will conduct spawning surveys in South Slough sub-basin. • CoosWA will begin targeted outreach to high priority landowners, and developing restoration projects in 2013. 	
Encourage invasive species control through county ordinances. (35)		<ul style="list-style-type: none"> • Involve County and County Weed Board in invasive species education program.

Appendix 1: Vision Statements and Attributes

#	<i>Social Well-being and Quality of Life</i>
1	<p>Our community has a rural, small town feel with a high quality of life.</p> <p>A. Affordable housing <i>There is a lack of quality low-cost rental housing in the project area, especially multi-unit buildings.</i></p> <p>B. Improve safety <i>Safety from crime is of great concern to many Charleston residents.</i></p> <p>C. Quality schools in community <i>Coos Bay School District (#9) does not meet many academic standards and there is a lack of schools in the PCW area.</i></p> <p>D. Community assessment to gauge 'quality of life' <i>Assessing concerns and providing a forum for discussions is needed to maintain community vitality</i></p>
2	<p>We have strong and culturally-diverse social networks and proven methods for resolving disputes.</p> <p>A. Increase community involvement, especially with youth <i>Increase access to and appeal of community activities.</i></p> <p>B. Strengthen social networks <i>Establish a process to welcome people who have recently moved to the area, and who do not traditionally participate in community events, and remove obstacles to holding community events.</i></p> <p>C. Improve dispute resolution <i>Knowing how to, and where to, obtain assistance, in resolving disputes will strengthen social networks.</i></p>
3	<p>We have a variety of transportation options.</p> <p>A. Improve public transportation <i>Available, easily used, and affordable public transit benefits all, particularly lower income/wage residents and workers</i></p> <p>B. Improve commercial transportation <i>Freight truck traffic should not conflict with other traffic.</i></p> <p>C. Improve pedestrian walkways <i>Safe and convenient walking improves health and reduces energy use and attracts people to the area.</i></p> <p>D. Improve bikeways <i>The Oregon Coast Bike Trail extends through the PCW area but is narrow and dangerous to riders.</i></p>

Vision Statements and Attributes (continued)

Community Economics	
4	<p>We encourage retention and development of stable enterprises in a wide variety of sustainable economic activities.</p> <p>A. Encourage small & medium sized businesses <i>Facilitate the retention, expansion and establishment of small and medium sized businesses in the PCW area.</i></p> <p>B. Encourage sustainable economic activities[1] [1] “Sustainable enterprise” is defined as having no negative impact on the global or local environment, community, society, or economy—an organization that strives to meet the triple bottom line in which decisions are made thinking of people, planet and profit in equal measure.</p> <p>C. Encourage a variety of economic activities and opportunities</p>
5	<p>Our products, many of which showcase the unique character of the area, its people and culture, are competitive in regional, national and global markets.</p> <p>A. Traditional products (timber, fish, mining products) continue to find markets</p> <p>B. Innovative new products continue to find markets</p> <p>C. Tribal contributions to the local economy</p> <p>D. Future Opportunities</p>
6	<p>Our urban waterfront[2] continues to be a defining economic, recreational and social center. ^[2] <u>Charleston waterfront</u>: Includes the small and large boat basin, boat ramp, restaurants and shops in and around the basin parking lots, and stores and restaurants along Boat Basin Road, and Cape Arago Highway on both sides of the South Slough Bridge, including the distant water fleet dock and boat yard south of the bridge.</p> <p>A. The waterfront is an economic center for the community</p> <p>B. The waterfront is a safe location for businesses, visitors, and residents in regards to climate change and natural hazards</p> <p>C. Improve community infrastructure</p>
7	<p>We continue to find innovative ways to generate much of our energy locally and to consume our energy efficiently.</p> <p>A. Improve energy conservation and use</p> <p>B. Generate more energy locally[3] [3] Local energy production: Includes both de-centralized and centralized energy produced accessible to homes, businesses and boats in the project area.</p>
8	<p>We have a strong understanding of the cultural history of the area and the natural environment that our social and economic systems depend upon.</p> <p>A. Increase historical awareness and understanding (European and pre-contact)</p> <p>B. Increase availability of cultural history programs</p>

Vision Statements and Attributes (continued)





























































































Watershed Health and Sustainability	
<i>Note: Environmental vision statements have attributes that span multiple statements.</i>	
9	Our watersheds meet or exceed environmental standards.
A.	Estuary
B.	Streams
C.	Contaminants
10	Our watersheds are resilient to chronic and catastrophic change.
A.	Sea Level Rise (SLR)
B.	Climate Change
C.	Forest
D.	Invasive Species
E.	Estuary
F.	Fish
11	Our watersheds include a diversity of land uses that allow for working landscapes, fully functioning natural processes and critical habitat for people, plants and wild animals.
A.	Birds
B.	Fish
C.	Shellfish
D.	Streams
E.	Estuary
F.	Forest
G.	Sediment
H.	Collaborate with Community and Landowners
I.	Management of Working Landscapes

Appendix 2. Multi-attribute Action Prioritization Scoring Rubric

Attribute	Score of the attribute if the following condition exists				
	0	1	2	3	4
There is a sense of urgency within the Partnership for Coastal Watersheds (PCW)	I completely disagree.	I disagree somewhat.	I neither agree nor disagree.	I agree somewhat.	I completely agree.
Does the action address a need already being addressed by others?	Others are adequately addressing this. PCW should move on to something else.	The need has not been identified or addressed by anyone else.	Others are addressing this need but the PCW can play an important role.	This action fully addresses at least one need of the PCW's.	Others have identified this need. No one else is addressing it; the PCW should.
Does our community have the strengths, expertise and problem-solving capacity to address this action?	The community has no capacity to address this action.	The community cannot address this action without significant assistance.	The community has some capacity to address this action with assistance or training.	The community is able to address this action without assistance.	The community's capability to address this action will leverage new ideas and concepts for resolving other issues.
People and financial resources are available to address this action.	I completely disagree.	I disagree somewhat.	I neither agree nor disagree.	I agree somewhat.	I completely agree.
Performing this action is required before addressing other actions.	No. The action will have no effect on other tasks.	No. The action will have no effect on other tasks.	Yes, but better timing and coordination will make subsequent tasks easier	Yes. Performing the action now will make a few other tasks easier.	Yes. Performing the action now will make subsequent tasks easier.

Appendix 3: All Actions Ranked
































































































ID	Symbol Key: <div><div></div> Strong Agreement</div> <div><div></div> Mild Agreement</div> <div><div></div> Neutral</div> <div><div></div> Mild Disagreement</div> <div><div></div> Strong Disagreement</div>	TOTAL SCORE	Urgency Exists					Local Expertise	Local Resources Exist	Pre-requisite to Other Actions	Vision Statement #	Vision Attribute	Lead Partner
			Urgency Exists	Need Identified But Not Yet Addressed	Local Expertise	Local Resources Exist	Pre-requisite to Other Actions						
1	Keep active a future planning and issue discussion forum like the PCW Steering Committee to cooperate on projects and focus on common ground.	16						2	Improve dispute resolution	PCW Steering Committee			
2	Advise county on Comprehensive Plan with regards to shoreline infrastructure, estuary (CBEMP) and wetlands management.	16						10	Sea Level Rise (SLR)	DLCD			
3	Improve riparian vegetative cover for: 1. Erosion control, 2. Shade / water quality, 3. Habitat	15						11	Streams	CoosWA			
4	Continue improvement of salmon habitat passage barriers.	15						11	Fish	CoosWA			
5	Develop climate change scenarios, level of certainty and vulnerability assessments.	15						10	Climate Change	OSU			
6	Work with fisherman and seafood processors to expand certification programs for seafood products.	14						4	Encourage small & medium sized businesses	Oregon Sea Grant			
7	Work with the Charleston community to increase opportunities for ecotourism.	14						4	Encourage small & medium sized businesses	Charleston Merchants, OR Tourism Comm.			
8	Encourage long-term partnerships to retain significant employers such as fish processors, OIMB and ODFW and continue their investment in the area.	14						6	The waterfront is an economic center for the community	Port, State Representatives			
9	Identify ways to make the waterfront more appealing to new businesses, investors and visitors (also see 19 and 21)	14						6	The waterfront is an economic center for the community	Port, Coos County			
10	Join efforts to improve local awareness and preparations for environmental hazards (earthquakes and tsunami).	14						6	The waterfront is safe for businesses, visitors, and residents re. climate change and natural hazards	DOGAMI			
11	Identify bacteria and nutrient hotspots and develop remediation program (also see 25).	14						9	Estuary	DEQ, ODA			
12	Address “gaps” in freshwater quality data for TMDLs.	14						9	Streams	CoosWA			
13	Research effects of climate change on timber industry, forest ecology and fire regime, fish and wildlife habitat and life cycles, wetland function, hydrology, coastal infrastructure, eco-tourism, invasive species, commercial and recreational shellfish production etc.	14						10	Climate Change	PCW Steering Committee, OCCRI			
14	Incorporate climate change effects into habitat restoration and management plans (also see 32).	14						10	Climate Change	CoosWA			
15	Emphasize tidal wetland restoration over the long term to offset the effects of sea level rise, flooding and storm surge.	14						10	Climate Change	CoosWA			
16	Educate and engage the community about human impacts on the watershed, with emphasis on the estuary, strategies to reduce those impacts (e.g., low-impact development, stormwater managemet), and watershed restoration strategies.	14						11	Collaborate with Community and Landowners	SSNERR			
17	Educate and engage the community on climate data and methods for mitigating and adapting to effects of climate change.	14						11	Collaborate with Community and Landowners	SSNERR's CTP			

ID	Symbol Key:  Strong Agreement  Mild Agreement  Neutral  Mild Disagreement  Strong Disagreement		TOTAL SCORE						Vision Attribute	Lead Partner
			Urgency Exists	Need Identified But Not Yet Addressed	Local Expertise Exists	Local Resources Exist	Pre-requisite to Other Actions	Vision Statement #		
18	Continue operating stream gauges and monitoring attributes in addition to stream discharge.	14						11	Management of Working Landscapes	CoosWA
19	Assess attractiveness of PCW area to visitors and potential businesses through surveys, focus groups, interviews, etc (also see 9 and 21).	13						1	Community assessment to gauge 'quality of life'	RDI's Hometown Competitiveness Program
20	Provide a forum for resolution of local concerns through an information exchange, discussion forums, and educational opportunities.	13						1	Community assessment to gauge 'quality of life'	PCW Steering Committee
21	Participate in strategic planning and development for the Charleston shipyard, marina, and waterfront for the project area (also see 9 and 19).	13						4	Encourage small & medium sized businesses	Port
22	Gain a better understanding of the role of fish processors in the sustainability of the fishing fleet.	13						4	Encourage sustainable economic activities	Oregon Sea Grant
23	Promote small businesses.	13						5	Innovative new products continue to find markets	SCDC
24	Incorporate more cultural history into school enrichment program curricula and outreach.	13						8	Increase historical awareness and understanding	Coos Historical and Maritime Museum, Tribes
25	Investigate the frequency and cause of algal blooms (also see 11).	13						11	Estuary	SSNERR
26	Address stream habitat issues identified in the AHI: 1. Pool frequency, depth; 2. Unstable banks; 3. Large wood abundance, volume, frequency; and 4. Gravel abundance, sediment quality.	13						11	Streams	SSNERR, CoosWA
27	Address spread of forest disease and invasive species.	13						10	Forest	OSU Extension
28	Reduce feral cat and dog population; educate cat/dog owners.	13						11	Birds	Cape Arago Audobon Society
29	Continue restoration of native oysters.	13						11	Shellfish	ODFW
30	Investigate the potential for the shipping channel deepening and widening to affect shellfish and other economically viable species, and evaluate change in flow characteristics in estuary using hydrodynamic modeling.	13						11	Shellfish	Port, University of Oregon
31	Identify consensus on acceptable "level of risk" for use in planning. E.g., stream damage, sea level rise, upland changes, changes in forest fire regime.	13						10	Climate Change	Undetermined
32	Incorporate SLR and other climate change scenarios into salmonid habitat restoration design and planning (also see 14).	13						10	Sea Level Rise (SLR)	CoosWA
33	Encourage best management practices and seek watershed restoration projects with landowners and managers (also see 35).	13						11	Collaborate with Community and Landowners	CoosWA
34	Understand and track land use effects on hydrology.	13						11	Management of Working Landscapes	CoosWA
35	Encourage invasive species control through county ordinances (also see 33).	13						11	Management of Working Landscapes	Coos County Weed Board, County Commissioners
36	Implement riparian erosion control plantings and bio-engineering.	13						11	Sediment	CoosWA
37	Provide training in Early Detection Rapid Response, monitoring, identifying/ reporting invasive species (especially animals and other nuisance species), and safe practices for living near wildlife.	13						10	Invasive Species	OSU Sea Grant

ID	Symbol Key: <div><div></div>Strong Agreement</div> <div><div></div>Mild Agreement</div> <div><div></div>Neutral</div> <div><div></div>Mild Disagreement</div> <div><div></div>Strong Disagreement</div>	TOTAL SCORE							Urgency Exists		Need Identified But Not Yet Addressed		Local Expertise Exists		Local Resources Exist		Pre-requisite to Other Actions		Vision Statement #		Vision Attribute	Lead Partner
38	Research what other communities do to engage youth (possibly through the Ford Institute).	12															2	Increase community involvement, especially with youth				
39	Investigate other communities' strategies for providing assistance with dispute resolution.	12															2	Improve dispute resolution				
40	Ensure that there are public transit links between affordable housing and jobs (i.e., Charleston to Bandon).	12															3	Improve public transportation				
41	Recognize sustainability certifications (e.g., for crab and shrimp) and encourage the use of sustainability certifications for forestry, agriculture and other fisheries.	12															4	Encourage sustainable economic activities	Fisheries commissions, Oregon Tilth, OSU Extension			
42	Provide eco-forestry and sustainable wood products education programs	12															4	Encourage sustainable economic activities	OSU Extension, CoosWA, SSNERR			
43	Increase availability of 'living wage' jobs[4]	12															4	We have a diverse and dynamic workforce				
44	Provide options and information for energy conservation to those who want it.	12															7	Improve energy conservation and use	Pacific Power; Energy Trust of OR; ORCCA; local			
45	Provide options and information for those interested in producing energy locally.	12															7	Generate more energy locally[6]	Energy Trust of OR; Pacific Power; Sol Coast			
46	Incorporate local cultural tradition and history into planning, designing and promoting habitat restoration projects.	12															8	Increase historical awareness and understanding (European and pre-contact)	SSNERR; CoosWA; Tribes; Port, CHM Museum			
47	Engage those who value and have existing cultural history knowledgeable to educate others.	12															8	Increase historical awareness and understanding (European and pre-contact)	FOSS, senior citizens, longtime businesses, CHM Museum			
48	Encourage/support the Friends of South Slough's efforts to construct and maintain a float house in the style traditionally used in Coos Bay.	12															8	Increase availability of cultural history programs	FOSS, SSNERR; Tribes			
49	Inquire of the Coos, Lower Umpqua And Siuslaw Indians their plans for development at Coos Head and request any available planning documents.	12															8	Increase availability of cultural history programs	Tribes			
50	Support more lamprey summit meetings and other events that celebrate/raise awareness of the cultural history / natural history connections for natural resource managers.	12															8	Increase availability of cultural history programs	SSNERR, ODFW, Tribes, USFWS, CHM Museum			
51	Continue tidal wetland vegetation monitoring associated with NERRS Sentinel Sites program.	12															11	Estuary	SSNERR			
52	Monitor nutrient levels.	12															11	Streams	CoosWA, SSNERR, ODFW			
53	Evaluate AHI (Aquatic Habitat Inventory) streams for shade.	12															11	Streams	CoosWA, ODFW			
54	Assist private property owners with the use of forest assessment and enhancement techniques.	12															11	Forest	OSU, Landowners			
55	Evaluate status of non-salmonid anadromous species such as lamprey.	12															11	Fish	ODFW; USFWS; CoosWA; SSNERR; Tribes			
56	Coordinate volunteer bird surveys with training program.	12															11	Birds	SSNERR			

ID	Symbol Key:		TOTAL SCORE	Urgency Exists	Need Identified But Not Yet Addressed	Local Expertise Exists	Local Resources Exist	Pre-requisite to Other Actions	Vision Statement #	Vision Attribute	Lead Partner
	Strong Agreement Mild Agreement Neutral Mild Disagreement Strong Disagreement										
57	Implement a dark skies initiative.	12							11	Birds	CoosWA, USFWS, CAAS, Cities, State Parks, Port
58	Stabilize or improve populations of little neck clams and cockles.	12							11	Shellfish	CoosWA, SSNERR, ODFW, commercial shellfish growers
59	Periodically adapt management plans as knowledge is gained.	12							10	Climate Change	PCW Steering Committee
60	Continue water level monitoring associated with NERRS Sentinel Sites program.	12							10	Sea Level Rise (SLR)	
61	Educate and assist landowners with leaky septic systems.	12							11	Collaborate with Community and Landowners	Landowners
62	Investigate the attractiveness of specific bird species or popular birding observation points to eco-tourism developers.	12							11	Management of Working Landscapes	CoosWA, SSNERR, USFWS, CAAS
63	Address at-risk culverts and road drainage features.	12							11	Sediment	CoosWA, landowners, Port
64	Help develop storm water and riparian ordinances with city and county, with particular attention to road-related runoff.	12							11	Sediment	CoosWA, DEQ, City, County, Port
65	Promote and use DEQ's toxics pick-up day for residents.	12							9	Contaminants	CoosWA, DEQ
66	Encourage OIMB to revitalize its undergraduate program.	11							1	Quality schools in community	OIMB
67	Encourage volunteer participation in enrichment programs.	11							1	Quality schools in community	
68	Assess local community concerns through a survey that can be periodically (~5 years) administered to track trends.	11							1	Community assessment to gauge 'quality of life'	
69	Encourage more young adult (18-23) involvement by developing internship programs and opportunities.	11							2	Increase community involvement, especially with youth	
70	Provide opportunities for community involvement and service projects through existing groups.	11							2	Increase community involvement, especially with youth	
71	Develop marketing plan to increase community involvement (potentially in conjunction with survey).	11							2	Increase community involvement, especially with youth	
72	Establish, identify and publicize neighborhood gathering spots such as parks, meeting venues, community center, etc.	11							2	Strengthen social networks	CCEC
73	Encourage and facilitate community projects such as parks, bike paths, community centers.	11							2	Strengthen social networks	Port, City, SSNERR, CoosWA, CCEC
74	Develop appropriate access to commercial loading docks and facilities.	11							3	Improve commercial transportation	
75	Raise awareness among businesses on the marketing advantages of local markets and products and connect businesses to marketing opportunities.	11							4	Encourage small & medium sized businesses	
76	Investigate the status of the Charleston fishing fleet and the long term outcomes of current trends. (i.e., are smaller boats being replaced with fewer larger Boats?)	11							4	Encourage sustainable economic activities	TNC (commissioning a fleet study), Port, OR Troll Salmon

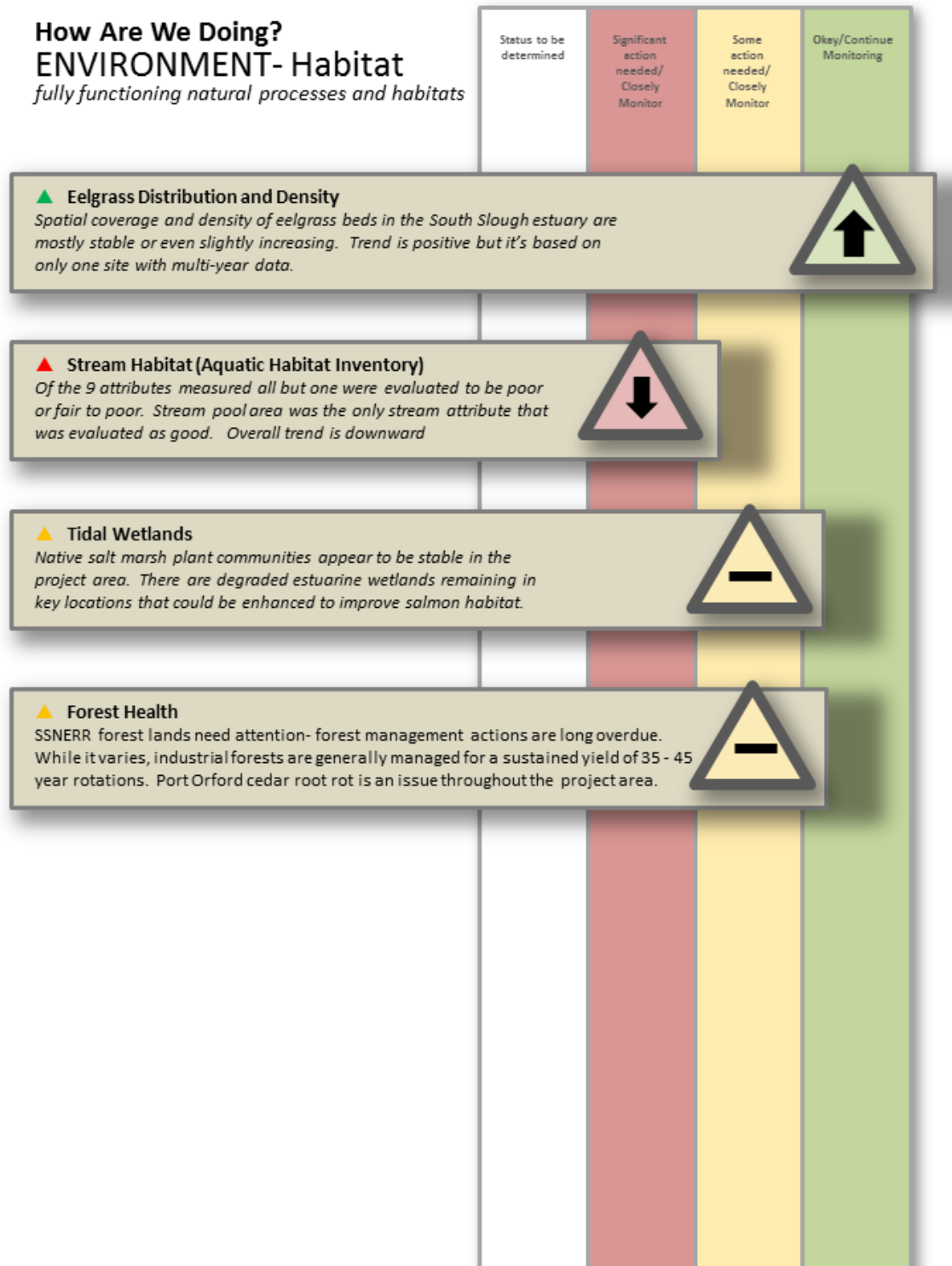
ID	Symbol Key:		TOTAL SCORE	Urgency Exists					Need Identified But Not Yet Addressed			Local Expertise Exists		Pre-resources Exist		Vision Attribute	Lead Partner
				Strong Agreement	Mild Agreement	Neutral	Mild Disagreement	Strong Disagreement	Urgency Exists	Need Identified But Not Yet Addressed	Local Expertise Exists	Local Expertise Exists	Pre-resources Exist	Pre-resources Exist	Other Actions to Vision Statement #		
77	Engage SWOCC in applied research, i.e., business applications, ecotourism.	11	0	0	0	0	0	0	0	0	0	0	0	0	4	Support new and innovative businesses	
78	Investigate the feasibility of the SWOCC's Culinary Institute cooperating with local seafood processors to develop new seafood products that add value beyond what is provided through minimal processing.	11	0	0	0	0	0	0	0	0	0	0	0	0	5	Traditional products (timber, fish, mining products) continue to find markets	SWOCC, processors, Salmon and Crab Commissions, Sea Grant Extension; Business Oregon, SBDC, Bay Area
79	Coos Head facility coordination and discussion of potential community uses.	11	0	0	0	0	0	0	0	0	0	0	0	0	5	Tribal contributions to the local economy	CTCLUSI, CoosWA, SSNERR
80	Consider how factors beyond the control of the PCW may influence local events or provide new opportunities that were not previously accessible (for example, unexpected impacts resulting from global economic development or climate change).	11	0	0	0	0	0	0	0	0	0	0	0	0	5	Future Opportunities	
81	Improve access to the Charleston Shipyard.	11	0	0	0	0	0	0	0	0	0	0	0	0	6	The waterfront is an economic center for the community	Port; Coos Co.; ODOT
82	Promote community partnerships to get grants for improvements in order to keep businesses viable and visually attractive.	11	0	0	0	0	0	0	0	0	0	0	0	0	6	The waterfront is an economic center for the community	Port, CCEC, Charleston Merchants
83	Encourage owners of rental units to install energy conservation upgrades if they haven't already.	11	0	0	0	0	0	0	0	0	0	0	0	0	7	Improve energy conservation and use	Pacific Power; Energy Trust of OR; ORCCA
84	Work with the fish processors to increase energy efficiency at their facilities.	11	0	0	0	0	0	0	0	0	0	0	0	0	7	Improve energy conservation and use	Oregon Sea Grant, Pacific Power, Energy Trust of OR, NW Natural
85	Encourage owners of rental units to install alternative energy devices if they haven't already.	11	0	0	0	0	0	0	0	0	0	0	0	0	7	Generate more energy locally[6]	Pacific Power; Energy Trust of OR; ORCCA, NW Natural
86	Enhance cultural history programs with the findings of new or recently acquired science.	11	0	0	0	0	0	0	0	0	0	0	0	0	8	Increase historical awareness and understanding (European and pre-contact)	OIMB, SSNERR, Tribes
87	Provide local cultural history programs that target younger people and recent arrivals to the area.	11	0	0	0	0	0	0	0	0	0	0	0	0	8	Increase availability of cultural history programs	SSNERR, State Parks; Tribes, CHM Museum, Charleston Visitor's Center
88	Encourage participation in the existing Boat Building School in Empire.	11	0	0	0	0	0	0	0	0	0	0	0	0	8	Increase availability of cultural history programs	FOSS
89	Begin monitoring ocean pH, and understand the rising pH trend and potential links.	11	0	0	0	0	0	0	0	0	0	0	0	0	10	Estuary	SSNERR
90	Continue monitoring eelgrass beds at multiple sites to establish multi-year trends.	11	0	0	0	0	0	0	0	0	0	0	0	0	11	Estuary	SSNERR
91	Restore remaining degraded/historically converted tidal wetlands.	11	0	0	0	0	0	0	0	0	0	0	0	0	11	Estuary	SSNERR, CoosWA, ODFW
92	Restore lost scrub-shrub and Sitka spruce swamp habitat.	11	0	0	0	0	0	0	0	0	0	0	0	0	11	Estuary	SSNERR, CoosWA, ODFW
93	Evaluate AHI streams for macroinvertebrates.	11	0	0	0	0	0	0	0	0	0	0	0	0	11	Streams	CoosWA, ODFW, Tribes
94	Evaluate status of various surf perch species.	11	0	0	0	0	0	0	0	0	0	0	0	0	11	Fish	ODFW; NOAA
95	Understand marine survival of coho and Chinook salmon.	11	0	0	0	0	0	0	0	0	0	0	0	0	11	Fish	ODFW; NOAA-NWFSC; OSU; CoosWA

ID	Symbol Key: <div> Strong Agreement</div> <div> Mild Agreement</div> <div> Neutral</div> <div> Mild Disagreement</div> <div> Strong Disagreement</div>	<div><div>TOTAL SCORE</div><div>Urgency Exists</div><div>Need Identified But Not Yet Addressed</div><div>Local Expertise Exists</div><div>Local Resources Exist</div><div>Pre-requisite to Other Actions</div><div>Vision Statement #</div></div>							Vision Attribute	Lead Partner
96	Investigate utility of hatcheries in maintaining robust salmon populations.	11						10	Fish	ODFW
97	Reintroduce salmon and lamprey runs where appropriate.	11						11	Fish	SSNERR, CoosWA, ODFW
98	Advise the update of the County Comprehensive Plan with regards to climate change issues, shoreline infrastructure, update of environmental information, avoid timberland conversion, and special attention to the Coos Bay Estuary Management Plan.	11						10	Climate Change	DLCD, County Planning Commission, CoosWA, SSNERR, many others
99	Work with public agencies and private property owners to plan for impacts to existing infrastructure, including wharves and piers, buildings, utilities, etc.	11						10	Sea Level Rise (SLR)	
100	Educate and engage community in monitoring, prevention and eradication of invasive species (aquatic and terrestrial) and restoration of native species.	11						11	Collaborate with Community and Landowners	SSNERR; NOAA Regional Council; DSL, OSUE, CoosWA
101	Investigate (and manage for) the relationship between working landscapes, fish and wildlife habitat, and landownership fragmentation.	11						11	Management of Working Landscapes	ODFW, TNC, CoosWA
102	Encourage development of non-timber forest products industries, and specialized wood products from small wood lots.	11						11	Management of Working Landscapes	SCBD, OSU
103	Manage storm water runoff (i.e., bio-swales, pervious surfaces etc.), especially from roads and other impervious surfaces.	11						11	Management of Working Landscapes	CoosWA, SSNERR, DEQ, Port
104	Promote forest management that considers the needs of elk and deer while producing sustainable forest products.	11						11	Management of Working Landscapes	CoosWA, SSNERR, ODFW
105	Understand the status of identified contaminant “hot spots” in the estuary.	11						9	Contaminants	SSNERR, CoosWA, DEQ, Port
106	Remove and prevent spread of invasive species, and restore native species, with emphasis on native plant species.	11						10	Invasive Species	Citizens, landowners
107	Determine: 1. Additional inventory needs; 2. The local effects of climate change with respect to climate vulnerability; 3. The status of invasive species controls; 4. Gaps in invasive species controls; 5. Funding sources to augment invasive species inventory and control measures and sources and model climate change effects.	11						10	Invasive Species	CoosWA, County Weed Board, State and Federal Lists...etc.
108	Install a boat-washing station to prevent spread of invasive species.	11						10	Invasive Species	Port, CoosWA, Marine Board
109	Provide incentives to attract and retain high quality teachers.	10						1	Quality schools in community	
110	Work to complete the Oregon Coast Trail from Hollering Point to Cape Arago.	10						3	Improve pedestrian walkways	OPRD
111	Extend dedicated bike lane along Cape Arago highway and Seven Devils road and remove stop signs erected for bicycles at side-street crossings.	10						3	Improve bikeways	ODOT, City of Coos Bay, Coos County Road Dept CCEC, Port, SSNERR
112	Engage in local strategic planning for the use of existing or new facilities in Charleston to support offshore energy generation projects.	10						4	Encourage sustainable economic activities[3]	Port, Business Oregon, SBDC
113	Research the potential use of waste products from fisheries and forestry for fertilizers and compost-derived products, ethanol, or other locally-produced, value-added products.	10						5	Innovative new products continue to find markets	

ID	Symbol Key: <div><div></div> Strong Agreement</div> <div><div></div> Mild Agreement</div> <div><div></div> Neutral</div> <div><div></div> Mild Disagreement</div> <div><div></div> Strong Disagreement</div>		TOTAL SCORE						Urgency Exists		Need Identified But Not Yet Addressed		Local Expertise Exists		Local Resources Exist		Pre-requisite to Other Actions		Vision Statement #		Vision Attribute	Lead Partner
114	Construct covered bus stops.	10							6	Improve community infrastructure	CCAT, City of Coos Bay, Port											
115	Research ways that residents who don't own their own home can conserve energy.	10							7	Improve energy conservation and use	Energy Trust of OR											
116	Work with the fishing fleet to increase vessel fuel efficiency.	10							7	Improve energy conservation and use	Oregon Sea Grant, Port											
117	Offer incentives and assistance to people who want to install alternative energy production devices in their homes.	10							7	Generate more energy locally[6]	Energy Trust of OR; Pacific Power; local businesses											
118	Determine how the rate of local SLR is expected to accelerate between now and 2100.	10							10	Sea Level Rise (SLR)	SSNERR, CoosWA, OSU (OCCRI)											
119	Move water treatment plant outflows away from sensitive areas of estuary.	10							11	Management of Working Landscapes	Charleston Sanitary Dist., Port											
120	Research the short and long term effects of low-level contaminants chronically introduced estuary (e.g., oil and other hydrocarbons herbicides, surfactants, pesticides), especially their effects on salmonid populations.	10							9	Contaminants	CoosWA, SSNERR, OSU, DEQ											
121	Research the history of the Joe Ney landfill and its possible long term effects.	10							9	Contaminants	CoosWA, SSNERR, OSU, DEQ											
122	Improve public area lighting and sidewalks.	9							1	Improve safety	Port, CCEC											
123	Continue and expand assistance to schools to deliver enrichment programs.	9							1	Quality schools in community	CB District #9, OIMB, SSNERR, SWOCC, CoosWA, ODFW, USFWS											
124	Encourage partnerships between businesses and educational institutions (internships, directed training, mentoring).	9							1	Quality schools in community												
125	Offer information and outreach about dispute resolution assistance available for a variety of needs (e.g., family, community, land use, etc.)	9							2	Improve dispute resolution												
126	Consider designation of commercial truck routes / streets.	9							3	Improve commercial transportation	City of Coos Bay, Port											
127	Designate appropriate commercial truck parking areas.	9							3	Improve commercial transportation												
128	Work to improve walkways and crossings along Cape Arago Highway in Charleston.	9							3	Improve pedestrian walkways	ODOT, CCEC, Port											
129	Encourage establishment of absent businesses and services such as grocery stores and health clinics.	9							4	Encourage variety of economic activities and opportunities	CCEC, City of Coos Bay											
130	Investigate and promote natural gas availability in Charleston.	9							7	Improve energy conservation and use												
131	Identify indicators of climate change (and or land use changes) to track wildlife trends. E.g., populations of cavity nesters.	9							10	Climate Change	CoosWA, SNERR, USFWS, CAAS											
132	Establish and publicize Neighborhood Watch Committees.	8							1	Improve safety	Coos Co. Sheriff's Department											
133	Provide outreach about women's resources for help with domestic violence.	8							1	Improve safety	Women's Safety & Resource Center											
134	Support and improve awareness of local Head Start and day care programs.	8							1	Quality schools in community												
135	Match retirees with local volunteer opportunities.	8							2	Strengthen social networks	SEA, Rotary											
136	Increase awareness of options for public transportation by establishing covered bus stops with signs and schedules.	8							3	Improve public transportation	CCAT, City of Coos Bay, ODOT											








Symbol Key:																		
<div><div></div> Strong Agreement</div> <div><div></div> Mild Agreement</div> <div><div></div> Neutral</div> <div><div></div> Mild Disagreement</div> <div><div></div> Strong Disagreement</div>																		
ID		TOTAL SCORE	Urgency Exists					Need Identified But Not Yet Addressed		Local Expertise Exists		Local Resources Exist		Pre-requisite to Other Actions		Vision Statement #	Vision Attribute	Lead Partner
137	Synchronize bus schedules with fish plant and Bandon Dunes worker shifts.	8							3	Improve public transportation								
138	Consider commercial truck turning radiuses in street design and improvements.	8							3	Improve commercial transportation								
139	Promote and celebrate the completion of public improvement projects.	8							3	Improve pedestrian walkways								
140	Raise awareness of business support programs.	8							4	Encourage small & medium sized businesses	SWOCC/Port, SBDC; Business OR.							
141	Examine ways to leverage the trans-Pacific fiber optic cable to develop local opportunities.	8							4	Encourage small & medium sized businesses	ORCA;							
142	Encourage SWOCC to develop a welding training course in association with the Charleston Shipyard.	8							4	We have a diverse and dynamic workforce	SWOCC, Port							
143	Coordinate with sovereign tribal nations in the Coos Bay area to assess their interests in, and need for, economic development.	8							5	Tribal contributions to the local economy	CTCLUSI; Coquille Tribe							
144	Construct centrally-located public bathrooms.	8							6	Improve community infrastructure	City of Coos Bay, Port							
145	Encourage/support efforts to develop offshore wind and wave energy and on-shore solar, wind, biomass, and coal bed methane generation consistent with environmental and fisheries protections.	8							7	Generate more energy locally[6]	Port; Pacific Power, ODFW							
146	Explore possibility of water taxi between North Spit and Charleston/Empire for Oregon Coast Trail.	7							3	Improve pedestrian walkways	Venture in Eastside							
147	Seek low-interest loans for businesses to make infrastructure improvements.	7							6	The waterfront is an economic center for the community	Port, CCEC, Charleston Merchants							
148	Improve electrical service so that it is more efficient and reliable.	7							7	Improve energy conservation and use	Pacific Power							
149	Investigate viability of wind energy production in PCW area and assess potential adverse effects of production, including any effects of turbines on birds.	7							7	Generate more energy locally[6]	CoosWA, SSNERR, USFWS, CAAS							
150	Encourage Tribes to be more active in the Charleston community (i.e., community meeting space at Coos Head facility.	6							2	Increase community involvement, especially with youth	Coquille Tribe, CTCLUSI							
151	Consider the Charleston School as potential for housing, charter school, community center etc.	6							2	Strengthen social networks								
152	Encourage provision of training in dispute resolution (e.g. "Neighbor-to-Neighbor").	6							2	Improve dispute resolution								
153	Investigate how to make legal representation available if needed to resolve disputes.	6							2	Improve dispute resolution								
154	Cooperate with Habitat for Humanity to build their 5 lots in Charleston and encourage additional sites.	5							1	Affordable housing	Habitat for Humanity							
155	Encourage CBSD#9 or others to create a Technology Outreach Hub in Charleston with computers and high-speed Internet for distance learning.	5							1	Quality schools in community	CB District #9, OIMB, SSNERR, SWOCC							
156	Investigate whether the CTCLUSI intend to provide affordable housing at Coos Head.	4							1	Affordable housing	CTCLUSI							
157	Investigate potential support to establish a charter school in Charleston	4							1	Quality schools in community								
158	Investigate whether ORCCA/Coos-Curry Housing Authority would establish \$8 housing units.	3							1	Affordable housing	CCHA; ORCCA, Habitat for Humanity; Umpqua Dev. Corp.							
159	Establish deputy law enforcement stationed in Charleston.	3							1	Improve safety	Coos Co. Sheriff's Department							

Appendix 4: Status and Trends Graphics, from the State of the South Slough and Coastal Frontal Watersheds assessment. Triangle colors depict status (e.g. green = status is ok) and symbols depict trend (e.g. dash = trend is staying even; circle = unknown trend)








How Are We Doing? ENVIRONMENT- Water

fully functioning natural processes and habitats

	Status to be determined	Significant action needed/ Closely Monitor	Some action needed/ Closely Monitor	Okay/Continue Monitoring
<p>▲ Estuarine water quality <i>Estuarine water quality has been generally stable but is trending very slightly downward over the past 7 to 15 years. Eight of the nine attributes measured show slight downward trends.</i></p>				
<p>▲ Estuarine water quality: pH in the South Slough estuary <i>pH in the ocean has been dropping for many years (ocean acidification) but for at least the past 16 years, pH has been rising in the South Slough estuary. Research is needed to understand the situation better.</i></p>				
<p>▲ Stream water quality <i>Overall, bacteria counts do not exceed DEQ standards for recreational freshwater and estuarine waters (non-shellfish growing areas). Nutrient levels do not exceed DEQ standards, but occasionally exceed EPA levels. Streams don't exceed stream temperature standards</i></p>				
<p>▲ Local tide heights <i>Local average tide height is rising at a rate of about 1.3 mm/year (5.1 inches in 100 years). This rate is expected to accelerate due to predicted changes in ocean temperatures and ice cap melting. Trend: concern for degrading conditions due to sea level rise</i></p>				
<p>▲ Sediment sources <i>Eleven of the 69 culverts evaluated in the project area are deemed at risk-five of those are deemed high risk for releasing significant amounts of sediment and inadequate for upstream drainage of fifty year rain events.</i></p>				
<p>▲ Contaminants- <i>Parts of the largely undeveloped project area are under development creating new sources of potential contaminants; in the estuary 1990's DEQ widespread toxic sediment sampling identified hot spots, some of which were cleaned up- need additional monitoring. Trend: Uncertain.</i></p>				
<p>▲ Hydrology <i>Hydrology appears to be in good to fair condition in the project area. Issues include increased run-off from agriculture and impervious surface areas, increased peak stream flows from simplified stream systems, over-allocation of water rights in Winchester, and Joe Ney Creeks.</i></p>				

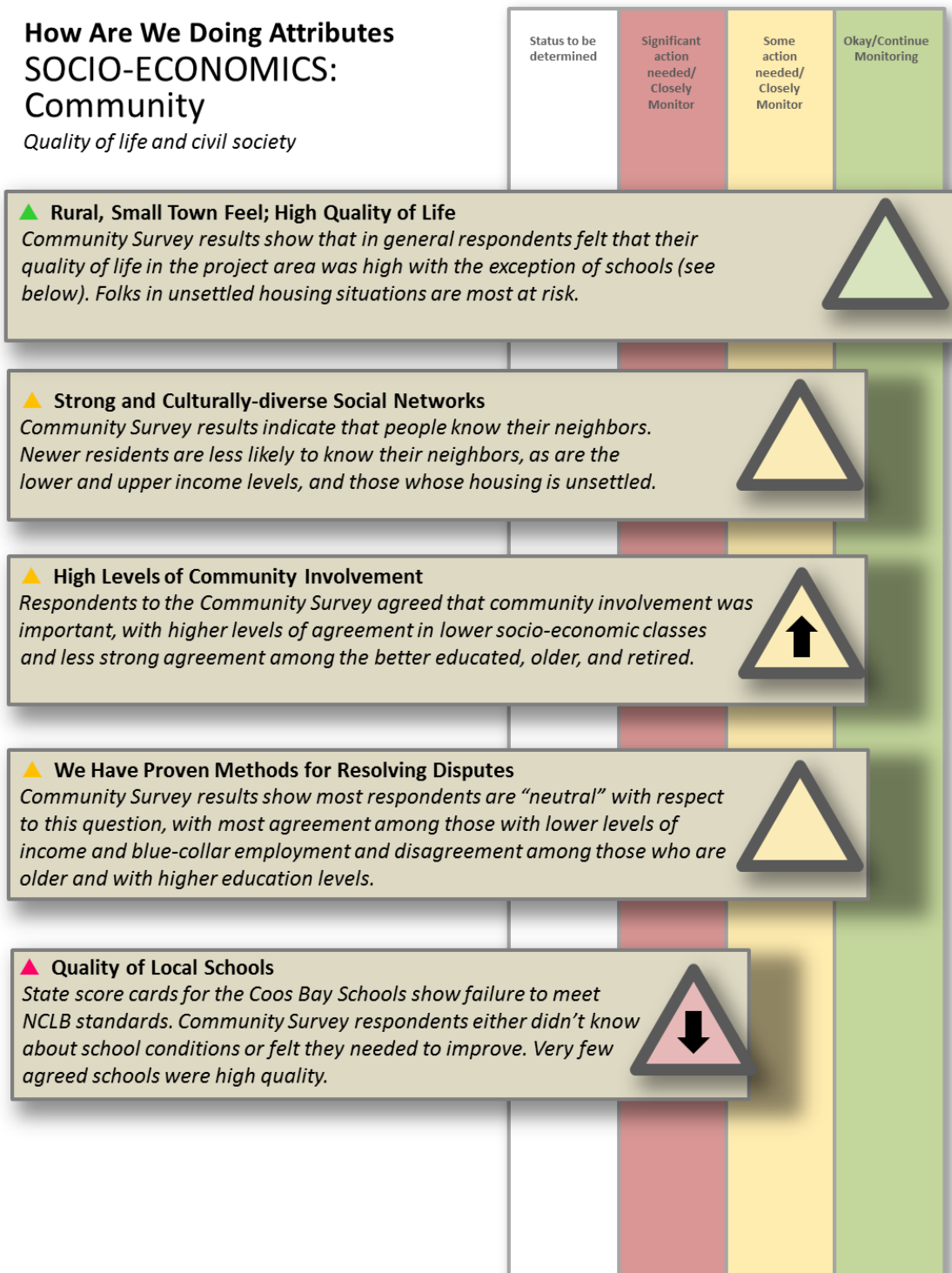
How Are We Doing? ENVIRONMENT Living Resources

fully functioning natural processes and habitats

	Status to be determined	Significant action needed/ Closely Monitor	Some action needed/ Closely Monitor	Okay/Continue Monitoring
<p>▲ Salmonids in the project area <i>The Winchester Creek coho salmon run is in a vulnerable state. Smaller runs in the coastal frontal streams are similarly vulnerable. Overall trend is no change.</i></p>				
<p>▲ Birds in the County <i>Local bird populations appear to be stable. Several species may have shifted their ranges and population densities but research is needed to verify these apparent trends.</i></p>				
<p>▲ Dungeness crab in Oregon <i>The Dungeness crab population in Oregon appears to be stable, supporting what appears to be a sustainably managed commercial and recreational fishery; questions remain about potential effects of climate change.</i></p>				
<p>▲ Recreational clams in the lower South Slough and Coos estuaries <i>Populations of butter and gaper clams have increased since a similar assessment was completed in the 1970's. Populations of native littleneck clams and cockles have generally fallen since that time in the areas sampled.</i></p>				
<p>▲ Native Oysters <i>The Olympia oyster is present in much smaller numbers today than it was in the early 20th century. In an effort to encourage a local Olympia oyster population, researchers are re-introducing adult native oysters in the South Slough.</i></p>				

How Are We Doing Attributes SOCIO-ECONOMICS: Community

Quality of life and civil society



How Are We Doing Attributes SOCIO-ECONOMICS: Work & Housing

Diverse and dynamic workforce

	Status to be determined	Significant action needed/ Closely Monitor	Some action needed/ Closely Monitor	Okay/Continue Monitoring
<p>▲ Diverse and Dynamic Workforce (Summary) <i>Workforce in fish plants is semi-skilled and temporary (undocumented). Lots of service industry jobs with high turnover. Housing is challenging for these workers.</i></p>				
<p>▲ Work Is Available At Fair Wages <i>The Community Survey shows respondents almost universally feel that fair wage work is unavailable in the Charleston area. People working multiple jobs with lower incomes surprisingly more likely to be able to find jobs at fair wages compared to the higher educated.</i></p>				
<p>▲ High Quality Labor Force Is Available and Trained <i>The Community Survey had very low participation rates by employers. Of those responding, most said they could find good workers. Need additional data on labor demand and supply.</i></p>				
<p>▲ Work Conditions Are Safe <i>Numerous industries (fishing, logging, mining) have high levels of worker injuries. Need additional data on injury rates in project area compared to industry standards. Survey respondents thought work conditions were safe.</i></p>				






How Are We Doing Attributes SOCIO-ECONOMICS: Business

Diverse and dynamic workforce

	Status to be determined	Significant action needed/ Closely Monitor	Some action needed/ Closely Monitor	Okay/Continue Monitoring
<p>▲ Retention and Development of Stable Enterprises <i>Opening of Oregon Resources mining, expansion of Bandon Dunes. Rebuilding of Englund Marine and Chuck's Seafood. Forestry respondents in the Community Survey did not feel this is a good area to do business, other sectors are ~equivalent between good and bad.</i></p>				
<p>▲ Charleston Waterfront As Economic Force <i>Limited fishing seasons for salmon and groundfish. Need information on fishing fleet and fish processing. Most survey respondents agree that the waterfront is an economic force except those who are unemployed.</i></p>				
<p>▲ New Business Starts in Charleston Waterfront <i>Concern over the rate of business starts versus their persistence, i.e., turnover rates. Most Community Survey respondents were neutral to slightly positive about the attractiveness for new businesses. Need more data.</i></p>				
<p>▲ Local Purchasing Options <i>Availability of local groceries (i.e., food deserts), filling stations, other services to support residents in the project area. Uniformly, Community Survey respondents used local businesses, with some relying on them because of limited transportation options.</i></p>				
<p>▲ Local Ocean Products Purchase Availability <i>Retail market appears to be saturated with Chuck's Seafood expansion and numerous other smaller sellers. May be a monopsony on part of the fish processors. Survey respondents, however, uniformly agreed that local ocean products were available.</i></p>				
<p>▲ Local Products Competitive Regionally, Nationally, Globally <i>Local products include seafoods, timber, mineral sands, and developed recreation. Seafoods, mineral sands, and Bandon Dunes are nationally competitive; however, lumber is a commodity product.</i></p>				

How Are We Doing Attributes SOCIO-ECONOMICS: Transportation

Variety of transportation options

	Status to be determined	Significant action needed/ Closely Monitor	Some action needed/ Closely Monitor	Okay/Continue Monitoring
<p>▲ Variety of Transportation Options (Summary) <i>Transportation options include busses and shuttles, taxis, bicycles, and pedestrian walkways and paths. Community Survey respondents were split in their feelings: Females tended to think options were not available, as did those with "other" for work arrangements.</i></p>				
<p>▲ Availability of Public Transit <i>Public transit is limited to infrequent CCAT public buses, Dial-A-Ride, Mill Casino shuttles, and taxis. No direct links between Charleston and Bandon. There was no clear consensus among the Community Survey respondents with respect to the ease of using public transit.</i></p>				
<p>▲ Affordability of Public Transit <i>The Community Survey results show that residents either "don't know" or think that public transit is affordable, especially those who have a need for it. However, large numbers of people hitch-hike between town and Charleston, which may indicated potential problems.</i></p>				
<p>▲ Bicycle Level of Service <i>Bicycle Level of Service (LOS) and Bicycle Compatibility Index (BCI) are low due to narrow shoulders and poor pavement conditions even though the Oregon Coast Bike Route goes through the area. More survey respondents would ride if bikeways or sidewalks were better.</i></p>				
<p>▲ Pedestrian Level of Service <i>Pedestrian Level of Service (LOS) is low in the project area, although improvements are going to construction on Boat Basin Drive and the Oregon Coast Trail. Survey responses indicate more people would walk if sidewalks and trails were available.</i></p>				

How Are We Doing Attributes SOCIO-ECONOMICS: Energy

Generate energy locally and use efficiently

	Status to be determined	Significant action needed/ Closely Monitor	Some action needed/ Closely Monitor	Okay/Continue Monitoring
<p>▲ Energy Production</p> <p><i>Potential sources are coalbed methane, wind, wave, biomass, solar. Coalbed methane developed currently stalled due to low natural gas prices; wind energy being evaluated; no biomass facility; residential solar only. Local production is important to survey respondents except the homeless.</i></p>				
<p>▲ Energy Use Is Efficient</p> <p><i>Difficult to determine efficiency: based on per capita use, energy footprint, etc. Conserving energy is uniformly important to Community Survey respondents, although less so for the homeless.</i></p>				
<p>▲ Energy Conservation Actions</p> <p><i>The Community Survey indicated that wealthier residents are more likely to have made conservation improvements, but most who own homes or live in RVs plan to do so. Almost all respondents said they had changed their habits to reduce energy use.</i></p>				

