NERRS Science Collaborative Progress Report for the Period 09/01/2012 through 02/28/2013

Project Title: **Partnership for Coastal Watersheds**

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Contributing team members and their roles in the project:

Jon Souder, Coos Watershed Assn. (CoosWA): Applied Science Investigator
Bessie Joyce, CoosWA: Co-collaborative lead
John Bragg, SSNERR: Co-collaborative lead
Alicia Helms, SSNERR: Applied Science Investigator
Adam Demarzo, SSNERR: Applied Science Investigator
David Sutherland, University of Oregon: Applied Science Investigator
Elise Hamner, Oregon International Port of Coos Bay: End User Representative
Chris Claire, Oregon Department of Fish and Wildlife: End User Representative
Members of the Partnership for Coastal Watersheds Steering Committee: End User Representatives and Technical Advisors

A. Progress overview

The overall goal of the Partnership for Coastal Watersheds (PCW) Phase 2 project is to apply lessons learned from the first phase of the PCW to:

- Provide for our community the tools with which to understand long-term environmental and socioeconomic change in our watersheds and communities including the expansion of South Slough NERR's estuarine water quality network to the Coos estuary in partnership with local tribes, the facilitation of a Coos estuary hydrodynamic model, and the development of a suite of environmental and socioeconomic indicators for the community.
- Characterize and model specific community-relevant attributes associated with the:
    1) Local effects of climate change;
    2) Local effects of human activities and land use changes; and
    3) Cumulative effects of changes our community makes as we work towards the community vision by implementing the Partnership Action Plan.

In the first six months of the project we expected to hire an assistant project coordinator/data manager, develop the contract with the Coos Watershed Association (CoosWA), establish and convene meetings with a Partnership Steering Committee (PSC) Transition Team to apply lessons learned from the project's first phase to planning the second phase tasks, begin repairing existing and purchasing new sondes and loggers for the water quality network expansion and hydrodynamic model validation, and establish the locations in the Coos estuary where those sondes and loggers need to be deployed.

All those tasks have been completed or are in process. We've hired the assistant project coordinator/data manager and the contract with the CoosWA has been completed and authorized. The PSC Transition Team is in the final stages of developing a PCW Phase 2 game plan to recommend to the

full Partnership Steering Committee. We have repaired the Reserve's Acoustic Doppler Current Profiler (ADCP) and have ordered the YSI 6600 sondes and sensors for the expanded estuarine water quality network and have established sites for those new sondes. We are working with University of Oregon's Dr. Dave Sutherland and grad students to address the tricky logistics associated with deploying the ADCPs, water level and conductivity loggers in or near the Coos estuary's main shipping channel for hydrodynamic model validation.

B. Working with Intended Users

The members of the Partnership for Coastal Watersheds Partnership Steering Committee (PSC) are both intended users and intended user representatives. During this reporting period, a PSC Transition Team, formed in recognition of the need to re-assess the way the Partnership Steering Committee does its work (as noted in the final PCW Phase 1 final report), met several times to work out how they would recommend the Partnership Steering Committee proceed with the PCW Phase 2 opportunity.

The Transition Team recommended specific changes in how an expanded Partnership Steering Committee will do its work- and that the PCW Phase 2 project be organized around an update of the 1975-era Coos Bay Estuary Management Plan (universally acknowledged to be very much out of date). The Coos Bay Estuary Management Plan (CBEMP) is the land use guidance document the county developed and adopted 38 years ago using a public process. The county planning office uses that guidance to review proposed development and conservation measures in and around the Coos estuary.

The idea of updating the plan was discussed at length among Transition Team members and with the Coos the county commissioner who oversees the Coos County Planning Department. She expressed great interest in the project, as has the director of the Coos County Planning Department, both key to initiating the project.

The Transition Team is interested in the idea of organizing the Partnership for Coastal Watersheds around this project because an update of the CBEMP:

- Would give our community a more up to date and complete foundation for evaluating proposed land uses in the PCW Phase 2 project area. An updated plan would accurately account for land use and resource management changes, including many zone changes, ownerships, jurisdictions and special designations that have occurred in and around the estuary over the past 38 years.
- Is consistent with the PCW mission, goals and community vision (it's one of the high priority actions identified in the Partnership for Coastal Watersheds Action Plan developed in the PCW Phase 1).
- Would require the development of a common understanding of the environmental and socioeconomic conditions in the Coos estuary and associated sub-basins (Oregon statewide planning goals 16 and 17 inventory information) which the PCW Phase 1 has already begun with the completion of the Nov. 2012 edition of the Partnership for Coastal Watersheds State of the Watersheds assessment.
- Could be greatly facilitated by the use of the estuarine water circulation model being developed by University of Oregon scientists with support from the PCW Phase 2 grant funds. The model can be used to simulate change in the estuary due to various land use designations or due to

climate change (rising sea levels, greater storm intensity) to explore the various likely effects of those changes and thus inform the CBEMP revision.

- Would incorporate the use of the environmental and socioeconomic indicators being developed with PCW Phase 2 grant funds to keep the planning document responsive to both near- and long-term changes.
- Would require the use of a volunteer collaborative community process similar to the PCW planning process, including training in collaborative learning.
- Would take advantage of an estuary plan update support project being undertaken by the Oregon Department of Land Conservation and Development in 2013-2014 which will update Oregon's estuarine habitat classification maps, standardizing them using the Coastal and Marine Ecological Classification Standard scheme.

The Transition Team reinforced during meeting discussions that the Phase 2 Partnership Steering Committee will need to represent the full suite of community stakeholders to effectively take on this project and highlighting the need to establish effective processes for recruiting additional members for the PCW Phase 2 Partnership Steering Committee.

The transition team is also recommending that the Partnership Steering Committee:

- Conduct its work as a series of semi-autonomous sub-committees instead of as a single group that does most of its work during four hour meetings. The subcommittees would do their work in shorter, more focused meetings and report their results to the whole Partnership Steering Committee at periodically held (quarterly?) whole committee meetings. The details of this arrangement still need to be worked out.

- Support PCW project facilitators (Craig Cornu and Bessie Joyce) in their development and delivery of presentations to community organizations (including local government) as they report the results of the PCW Phase 1 and to introduce the PCW Phase 2 to the community (many of whom will have heard from us when we presented the Phase 1 idea to them). Support would come in the form of reviewing the content of presentations, suggesting appropriate organizations and community events for presentations, and being present at presentations to help field questions.

Project facilitators briefed the Transition Team on the concept of organizing a PCW Leadership Team raised in Gregg Walker team's Phase 1 evaluation and will discuss it further at the next Transition Team meeting scheduled for March 27. The leadership team would consist of four or five Partnership Steering Committee members (both existing members and those to be recruited) who would join the project facilitators (Jon Souder, Bessie, Craig) to plan the work of the Partnership Steering Committee (e.g., develop draft project goals, plan meetings, develop meeting agendas, contact committee members, recruit new members…).

Specific details about how the Partnership for Coastal Watersheds group would help update the CBEMP will be discussed with the Coos County planning director, members of the Oregon Department of Land Conservation and Development, several Transition Team members and project facilitators on March 18.

It should be noted that project facilitators reinforced the notion that the PCW not turn entirely into a single project organization that goes away once the CBEMP update project is completed. The point was

made that several subcommittees should be coordinating multiple projects in parallel, including forming a projects team whose job it is to develop and facilitate the implementation of projects articulated in the Partnership for Coastal Watersheds Action Plan, building on the community's experience with the American Institute of Architects 's Sustainable Design Action Team process and develop a community vision for the Bay Area, hosting a Coastal Zone Management 101 workshop for the community in support of the CBEMP update…etc.

Preliminary evidence suggests the CBEMP update concept and additional recommendations will likely be supported by the Partnership Steering Committee.

C. Progress on project objectives for this reporting period

Objectives for the current reporting period:

Hire an assistant project coordinator/data manager: Hired Jenni Schmitt as the project's assistant coordinator and data manager. Jenni has an MS from the University of Oregon Institute of Marine Biology and among other work and real-world experiences, Jenni developed for the Coos Watershed Association a sophisticated water quality database which is a compilation of water quality data collected in the Coos estuary/watershed from a wide variety of sources, all spatially referenced to community-accessible layers created in Google Earth. Jenni is taking the lead on expanding the geographic scope of the data summaries in the State of the Watersheds assessment to accommodate the Phase 2 scope, working with the Partnership Steering Committee to develop draft environmental and socioeconomic indicators and then working with a technical advisory group to refine those indicators to a working set we can test, facilitating the siting of South Slough NERR water quality data sondes in the Coos estuary and loggers for hydrodynamic model validation, and facilitating the work of the various subcommittees established by the Partnership Steering Committee (see below). It should be noted that Jenni gave birth to a healthy baby girl on February 26 and is currently on leave until early or mid April.

Develop the contract with the CoosWA: Contract completed and authorized

Establish and convene meetings with the Partnership Steering Committee Transition Team: See Working with Intended Users above.

Begin repairing existing and purchasing new sondes and loggers for the water quality network expansion and hydrodynamic model validation: We have begun to create a Coos estuary-wide water quality monitoring network by integrating four new water quality monitoring stations in the Coos estuary with the three existing Coos estuary water quality monitoring stations operated by the Coquille Tribe and the Confederated Tribes, and the five existing South Slough System-Wide Monitoring Program (SWMP) stations operated by SSNERR. SSNERR staff members have ordered the YSI 6600 sondes and sensors and have begun field reconnaissance to identify likely SWMP sites in the Coos estuary and potential logistical issues.

The SSNERR science team has been meeting with UO's Dr. Dave Sutherland to site and work out the logistics for placing water level, conductivity and temperature loggers and two ADCP's (the SSNERR ADCP having been repaired with the use of NSC funds) as close to Coos Bay's shipping channel as possible in the lower and mid portions of the estuary.

It's worth noting that a companion proposal requesting additional funding for the hydrodynamic model and associated climate change workshops to be integrated with the PCW process has been submitted to NOAA's Climate Program Office, Coastal and Ocean Climate Applications program by a team led by Oregon State University's Dr. David Hill. UO's Dr. Sutherland is an associate principal investigator on that proposal.

Project objectives for the next six months:

- Discuss and develop consensus among the full Partnership Steering Committee about Transition Team recommendations
- Develop and begin implementing a plan for how the PCW Partnership Steering Committee will facilitate an update of the Coos Bay Estuary Management Plan
- Recruit additional members for the PCW Partnership Steering Committee representative of the expanded PCW Phase 2 project area and relevant to Phase 2 tasks
- Secure permits and develop contract for establishing pilings for new SWMP stations in the Coos estuary
- Deploy at least two of the new SWMP stations in the Coos estuary
- Deploy all loggers for validating the hydrodynamic model
- Complete next edition of the State of the Watersheds assessment and begin Coos estuary-wide State of the Watersheds assessment
- Complete draft environmental and socioeconomic indicators- plan for Fall technical advisory group meeting
- Complete presentations to community organizations including local government - develop outreach plan (?)

D. Benefit to NERRS and NOAA: Nothing to report for this section yet.

E. Additional Information: Nothing additional to report.