



Blue Carbon Collaborative (BCC)

Meeting #14 - Notes

Monday, December 16th, 2024

1:00 pm – 2:30pm Pacific Time

Register in advance for this meeting:

<https://us02web.zoom.us/j/81734787640?pwd=QOUOqyzkgm2dSnrcGPssVahhrWnrWs.1>

After registering, you will receive a confirmation email containing information about joining the meeting.

Meeting Objectives:

- 1) Share about latest with BCC participants about blue carbon projects and developments.
- 2) Learn from experts currently working on blue carbon case studies and decision support tools necessary for assessing and progressing blue carbon implementation in the US.
- 3) Discuss the strategies, processes, lessons learned and barriers you have experienced relating to starting blue carbon projects.

Meeting Agenda:

1:00 pm	Welcome, Roll Call, Review Agenda
1:15 pm	Panel Presentations “Updates and Check Ins from the Field of Blue Carbon” <ul style="list-style-type: none"> • Sydney Chamberlin, Project Director, The Nature Conservancy • Jim Holmquist, Wetland Ecologist, Smithsonian Environmental Research Center • Alex Clayton Moya, U.S. Conservation Officer, The Pew Charitable Trusts • Extended Updates <ul style="list-style-type: none"> ○ Project updates and developments (all)
1:50 pm	Discussion
2:30 pm	End of Meeting



Meeting Notes:

Panel Presentations “Updates and Check Ins from the Field of Blue Carbon”

Sydney Chamberlin, Project Director, The Nature Conservancy

- The Nature Conservancy (TNC) worked on CA Natural and Working Lands (NWL) Strategy- built relationships with policy/resource managers, shared how NWL reduce greenhouse gases (GHG).
- NWL first included in CA climate goals under EO B-30-15 and expanded with EO N-82-20.
- California Air Resources Board (CARB) included modeling NWL as part of their 2022 Scoping Plan for achieving carbon neutrality, however coastal systems were not considered.
- California Assembly Bill 1757: directed state agencies to include over 81 acreage targets for expanding NWL as part of carbon neutrality efforts, questions remain about how to implement this
- TNC created a roadmap to accelerate action around nature-based solutions (NBS) for CA.
- TNC partnered with Pew, SFEI and ERG to break down barriers to implement and accelerate wetland restoration.

Jim Holmquist, Wetland Ecologist, Smithsonian Environmental Research Center

- Smithsonian developed the Coastal Carbon Network (CCN) to accelerate blue carbon and provide data, tool, and information synthesis needed to make informed decisions.
- Coastal Carbon Library (CCL): the largest standardized coastal carbon soil database (and a part of this effort) and has led to the Coastal Carbon Atlas.
- Blue Carbon Report Card (BCRC): part of CCN, scores data for states across four categories: quantity, quality, spatial coverage, and habitat coverage. The tool highlights where state level data gaps can be targeted to improve national coverage.
- Smithsonian recognized that some data was not meeting CCL standardization requirements, so staff were trained to help rescue the data so it could be included in the BCRC.

Alex Clayton Moya, U.S. Conservation Officer, The Pew Charitable Trusts

- Carbon assessment plans typically include “3Ms”: mapping, measuring, and managing, to inform targets to set and develop management strategies.
- Pew helps connect regulatory agencies mandating GHG inventories with technical experts in blue carbon science to fill policy gaps, this helps to include coastal habitats in government planning efforts.
- Pew uses the CCA to inform state initiatives for GHG targets and incorporate blue carbon into NWL strategies.
- Pew worked alongside the Atlantic Conservation Coalition to include blue carbon initiatives in the largest grant awarded for NBS under the EPA Climate Pollution Reduction Grants program. They will continue to work closely with this project to meet target goals.
- They are currently tracking emerging research on the role of lateral flux in transporting and storing carbon to improve carbon accounting.



Extended updates from other BCC members

WILDCOAST (WC)

- They are currently working with Scripps on a blue carbon study in the S. CA coastal lagoons and hope to improve California BCRC score as data comes in.
- WC is looking to address how quickly a restored wetland can match the carbon storage potential of older reference wetlands
- They are looking for consistent and large amounts funding

Chris Janousek - Pacific Northwest (PNW) Blue Carbon Working Group

- Chris and his group are studying restoration of carbon stocks and sequestration. They are monitoring if old restoration projects (2-6 years) are sequestering as much carbon as reference marsh land.
- Wetland Regional Monitoring Program (WRMP): project with SFEI and affiliates, they are looking to build a blue carbon component into this project.
- They have been measuring other GHGs such as methane and nitrous oxide for a variety of ecosystems across the PNW, such as at a large restoration project in Tillamook Bay.
- They have purchased a continuous monitoring (flux tower) for all the gases emitted.
- PNW Blue Carbon calculator: aiming to create a tool to support scenario planning for restoration. They are looking for collaborators.

Melissa Ward

- Worked on seaweed carbon credit method for Verra.
- Through Silvestrum Sciences: worked with the Port and Navy in San Diego on carbon stock assessment of seagrass meadows.
- Developed document for co-management of shellfish and seagrasses.
- Worked with CNRA and CARB to make recommendations on blue carbon models.
- Worked on implementation targets for NWL.
- How to better include coastal carbon into future interaction.
- Melissa is working with others doing restoration of seagrass in the new channels that are being dug in the Elkhorn Slough
- Melissa will also be an author on the 6th National Climate Assessment

The Mid-Atlantic Regional Council on the Ocean

- They have started a working group on mCDR, Blue Carbon, and nature-based solutions

OpenOceans

- Project is addressing the overlap between plastic-fouled mangroves, loss of carbon-carrying capacity for plastic-degraded mangroves, opportunities for restoration of the mangroves, and their carbon-carrying capacity.
- Focused on the Caribbean now. Still looking for GIS layers, thoughts on resources welcomed.
- Email: Carl Nettleton, carl@openoceans.org

Greg Fugro



- Greg presented last week to the Florida geospatial working group, most people there have never heard of blue carbon, but there is a lot of interest in potential applications for it
- His company has been involved in mapping seagrass across Italy's coastline (a marine restoration project and blue carbon stock assessment)
- He is expecting Louisiana CPRA to announce something significant about coastal blue carbon in 2025.
- Greg Murphy's contact: Greg.Murphy3@Fugro.com

Q&A

Question to Melissa- Do you anticipate the blue carbon work with the Navy will continue with the new federal administration and their changing priorities?

- Melissa- This is a good question, they aren't sure and much is still to be determined. She will keep us posted.
 - There is "big navy" that has larger, long-term goals that change with the administration.
 - She said the smaller picture work that is already ongoing on at local scales will continue such as her work in San Diego.

Question to Alex- In the absence of federal leadership, how can states continue to share information and learn from one another?

- Alex- working groups become an important venue to share information and keep updates on what is still going on.
 - US Nature for Climate- A coalition of groups started by the Nature Conservancy is broadly working on climate science a.
 - Wetlands are generally not as well represented and get involved.

Question to Jim- What is the most important data to be collecting for California at this point?

- For blue carbon, CA is lacking "the gold standard" which includes before versus after and control versus experiment measurements
- There are a lot of habitat restoration projects that can incorporate blue carbon and be used as testing sites for scientists.
- Barriers exist for restoration practitioners to include blue carbon in their monitoring: no regulatory requirements and additional funds needed. The CCN has public models to help planners make decisions around blue carbon and impacts of sea level rise.
- Jim is excited about connecting the data and analytics to adaptive management potential.

Question for Sydney- I know these targets came out a little earlier this year. Can you tell us about any progress that has occurred to fill some of the data gaps you mentioned?

- How do we really implement AB 1757 the targets into reality and how to reduce barriers to scale actions.
- There is a lot of great science going to inform these targets but she can't speak to it.
- Wetlands for Climate Partnership met in August and now has a regional meeting that connects state level objectives to the local practitioners.



- There are two key barriers that commonly come up around restoration of blue carbon systems.
 - Funding Barriers - How can we work to get a more dedicated stream for funding.
 - \$10B bond is one time funding and can't be used for ongoing maintenance or monitoring
 - There is an effort to make sure some of the proceeds that come from the cap-and-trade program go to blue carbon.
 - Permitting Barriers – How to prevent slowed progress of implementing work.
 - There is a state-level effort to cut the green tape (reduce permitting barriers)
- Ongoing question- How do we connect the right people to break down these barriers?

General Question- What is next in 30x30 discussions?

- Pamela Heatherington is the co-regional lead for the 30X30 efforts in San Diego and sits on the Power in Nature Oceans sub-committee for the 30x30 efforts. She said there is no conversation about blue carbon (unless WILDCOAST is there).

Helpful Links:

- CA NBS Climate Targets: <https://resources.ca.gov/-/media/CNRA-Website/Files/Initiatives/Expanding-Nature-Based-Solutions/Californias-NBS-Climate-Targets-2024.pdf>
- TNC Roadmap for NBS: [Nature-Based Climate Solutions](#)
- SFEI Partnership Research: <https://www.sfei.org/projects/blue-carbon-science-support-climate-action>.
- Wetlands for Climate Partnership: <https://tnc.box.com/s/qob9wojco9q5i41r312c9mc3zh5eif81>
- Coastal Carbon Atlas: [Coastal Carbon Atlas](#)
- Pacific Northwest Working Group: [Blue Carbon | PNW Blue Carbon Working Group](#)
- Seaweed carbon credit method for Verra: <https://verra.org/methodologies/methodology-framework-for-seaweed-carbon-projects/>
- Science-based Guidance for Best Co-Management Practices for Submerged Aquatic Vegetation and Molluscan Shellfish in Oregon Bays and Estuaries: https://www.windwardsciences.com/uploads/1/4/3/1/143107749/wardreport_finaldraft.pdf
- <https://opc.ca.gov/wp-content/uploads/2024/07/Blue-carbon-model-assessment-report-508.pdf>
- <https://agupubs.onlinelibrary.wiley.com/doi/full/10.1029/2023JG007823>
- https://resources.ca.gov/-/media/CNRA-Website/Files/Initiatives/Expanding-Nature-Based-Solutions/1757_EAC_Recommendations_Implementation_Targets_for_NWL.pdf
- <https://agupubs.onlinelibrary.wiley.com/doi/full/10.1029/2023JG007943>