Program Spotlight: Carbon Credit Regional Operator Pilot

By Kayla Seaforth

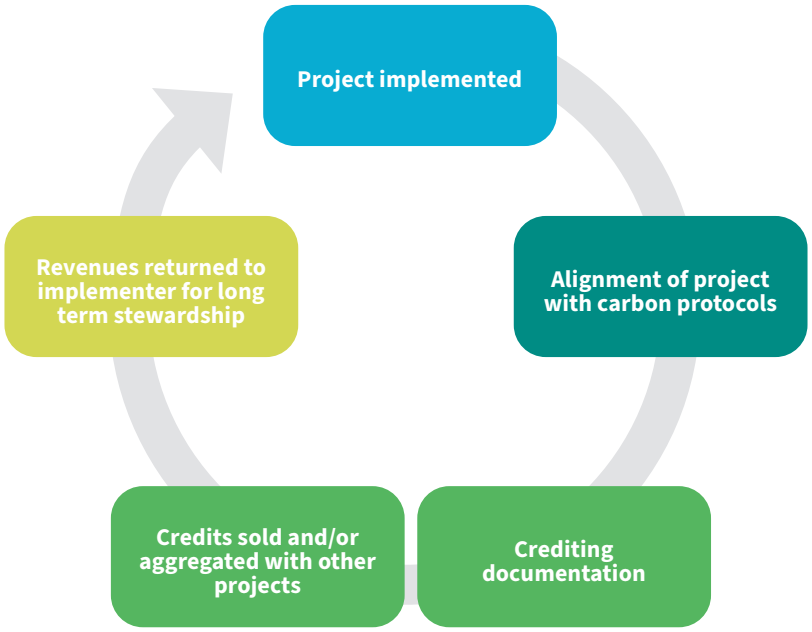
Each biennium, hundreds of millions of dollars are awarded to fund habitat restoration and protection in the Pacific Northwest. These are essential investments to move the needle on salmon recovery, biodiversity preservation, water quality improvement, carbon sequestration, wildlife habitat and more. While these dollars make a significant impact, they are typically short term in nature, and don't provide the means to steward newly restored or protected lands for the amount of time needed to ensure they are ecologically successful. Without complementary stewardship funding, these sites run the risk of being neglected, and failing to provide many of the benefits that they were originally restored or protected to provide.

Organizations are often forced to cobble together many small or limited funding sources to fund long-term stewardship, or forgo it altogether because available funding is too inconsistent to build a functional stewardship program. This paradigm is what led staff at Bonneville Environmental Foundation (BEF) to develop the recently launched Carbon Credit Regional Operator (CCRO) program. By quantifying and leveraging the carbon sequestered through restoration and preservation projects, this program seeks to build capacity for restoration project implementers so that they may leverage environmental markets to fill a funding gap for ongoing, long-term stewardship.

To help fill the long term stewardship funding gap, BEF has partnered with more than 20 groups, including tribes, conservation districts, local governments, fisheries enhancement groups, land trusts, and non-profits across Washington and Oregon. BEF provides technical assistance to verify carbon credits from these partners' new restoration and protection projects, and sell them on the Voluntary Carbon Market (VCM), creating revenues that fund long-term stewardship activities. In this model, partner organizations implement projects, and BEF connects them with carbon registries to translate their on-the-ground activities to verified carbon credits. BEF also provides technical assistance throughout the crediting process, so that implementation partners are not left to wade through the dense technical details associated with the various steps of the carbon crediting processes unsupported.

A variety of partners have been recruited to explore how the carbon crediting process can integrate best with their current programs. This pilot phase of the CCRO has a heavy emphasis on learning how this mechanism works best for each partner, and identifying where improvements can be made, or new solutions can be explored to address gaps and barriers that may hinder participation and access to carbon credit markets.

CCRO Process



"We had been working with one landowner for some time to find the right program that met his goals. One thing that was really important to him was to have continued support for the project. He is a retired individual who doesn't have the tools or skillset to take care of a 12 acre planting and for him this was a good model because it ties us [Skagit Conservation District] to the property for 26 years. He has a consistent organization to provide technical support, advice, and a pathway to make this viable in a longer term capacity."

- Emmett Wild, District Manager, Skagit Conservation District

Work kicked off in late 2023 with an original cohort of 6 partners and funding from EPA's National Estuary Program (NEP) through a Habitat Strategic Initiative Lead (HSIL) grant. Over this first program year, BEF staff worked with project managers at Skagit Conservation District and South Puget Sound Salmon Enhancement Group and carbon registry staff from **City Forest Credits** (CFC) to determine which elements of each organization's recent planting projects would be eligible to receive credits under City Forest Credit's Afforestation and Reforestation Protocol. Both of these projects are considered "small" in the world of the VCM, offsetting just under 2,000 metric tons of carbon dioxide each over their 26 year project periods. While on their own they may not be a typical purchase for major carbon buyers, the high quality nature of the projects and the ability to aggregate sales with those that will be certified through this program in the next 2-5 years represent an opportunity for a significant investment by carbon buyers.

Beyond these first two projects, BEF is working with 18 additional partners to scope future carbon projects. Many of these will quantify the carbon benefits of restoration plantings, but some will also explore protocols related to forest preservation, improved forest management, and emerging practices like biochar and blue carbon. All of this work will be done in partnership with the implementing partner organizations in a manner that promotes shared learning and practice.

The projects implemented by Skagit Conservation District and South Puget

Project Profiles

SKAGIT CONSERVATION DISTRICT

13 acres
riparian planting across 2 sites

6,650
trees and shrubs planted

1,775
Carbon+ Credits generated

Learn more **here**

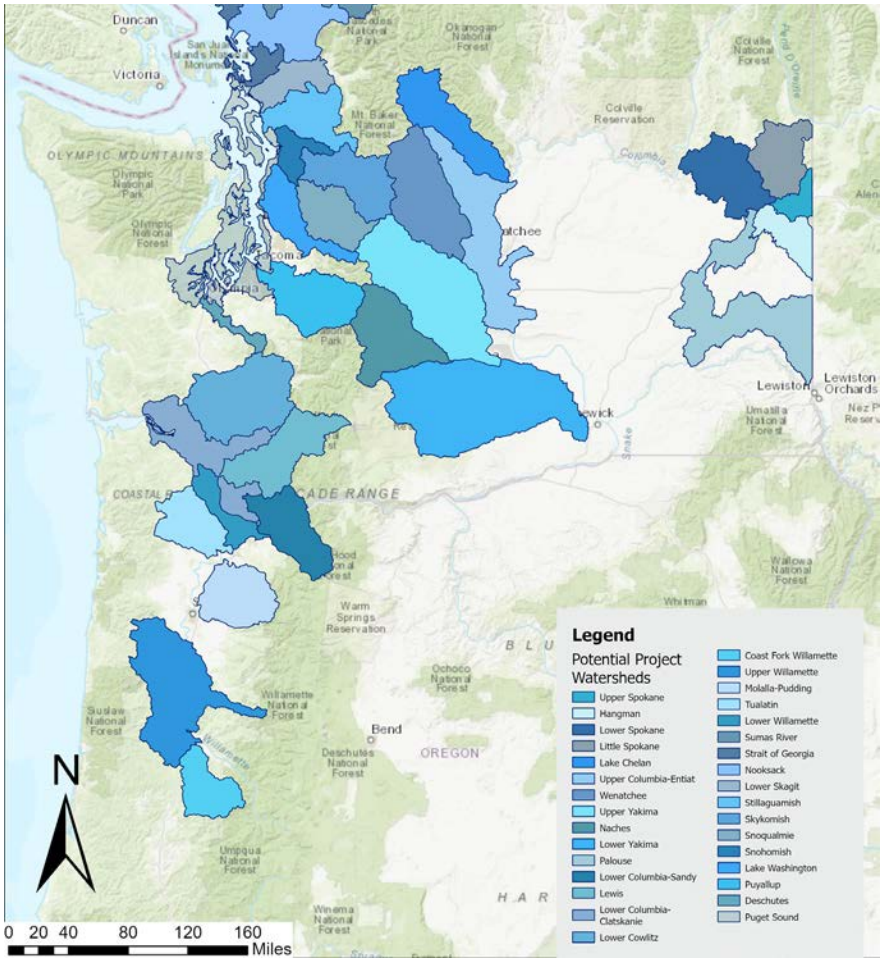
SOUTH PUGET SOUND SALMON ENHANCEMENT GROUP

15 acres
riparian planting across 2 sites

9,300
trees and shrubs planted

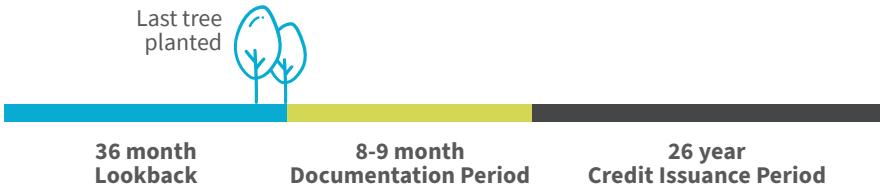
1,607
Carbon+ Credits generated

Learn more **here**



The map above depicts the watersheds that various CCRO implementation partners are working to restore. We are working with partners across these geographies to understand where and how carbon credits can be effectively used to fund long term stewardship.

Planting Timeline



Sound Salmon Enhancement Group, along with the majority of projects in development are planting projects. The carbon and other benefits of these projects will be quantified using an afforestation and reforestation protocol, and will generate ex-ante (also called forward removal) carbon credits. These credits estimate carbon that will be stored over a 26 year project term, as defined by the CFC protocol, and credits are released to project operators at pre-scheduled intervals after they document that the project is progressing as modelled.

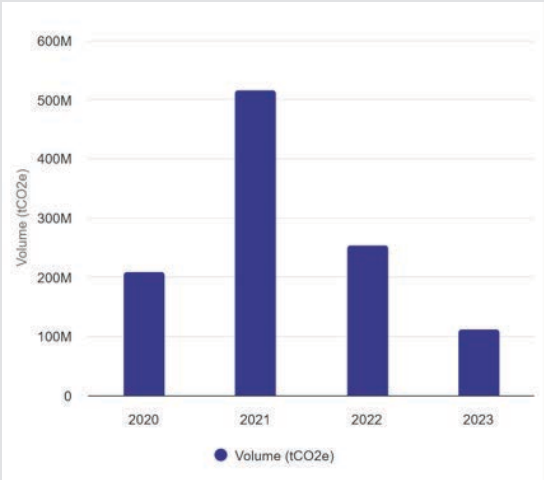
While this program will create another tool to support additional capacity for BEF's partners, it's no silver bullet. Part of the learning journey with our grant partners is also overcoming uncertainty in the carbon market itself. In recent years, the carbon market has been under significant pressure due to some high profile concerns about fraudulent projects and increased buyer due diligence. Fortunately, new integrity initiatives like the Integrity Council for the Voluntary Carbon Markets (ICVCM) **Core Carbon Principles** (CCP), **International Carbon Reduction and Offset Alliance** (ICROA), **BeZero**, **Calyx**, **Renoster** and **Sylvera** have all been developed to provide ratings and standards to ensure projects deliver the benefits they claim. This is a marked shift in the industry from where it began, and a move toward higher integrity credits across the board.

In the case of projects put forward by the Carbon Credit Regional Operator, these go through additional vetting, beyond what is covered during the carbon credit registration process. All of the CCRO partners bring forward projects that they've developed and implemented in accordance with broader habitat recovery strategies, which often require adherence to design standards that have been proven to work. The projects are working toward specific objectives like improved salmon habitat and enhanced biodiversity, which create real ecosystem benefits that also happen to be great at storing atmospheric carbon. The sale of carbon credits ensures that these project operators receive

What's Going on With the VCM?

Once quantified and verified, carbon credits can be bought and sold by businesses or other groups on the voluntary market. Several regulatory-driven compliance markets also exist, however the voluntary markets are not regulated and tend to be more affordable. As more players have entered this market, and as buyers have become more sophisticated in their purchasing strategies, there have been fluctuations in market activity. Credit volumes peaked at around 500 million tonnes of CO2 equivalent (MtCO2e) in 2021, valued at over $200 billion, and since then have contracted, with just 111 million MtCO2e transacted, worth around $723 million in 2023. Experts cite several causes for this downturn, including media scrutiny of projects, and a response by all parts of the sector to promote higher quality credits across the board. In 2023, the Integrity Council published its **Core Carbon Principles**, a set of standards against which to measure new credits that promotes integrity. Now adopted as a minimum for measuring carbon credit quality, it took some time for CCP approval to be issued, which may be part of the reason for the market contraction in 2023. Buyers, enthusiastic about purchasing credits that had this backing, transacted fewer credits while waiting for various methodologies to receive this seal of approval. These and other ratings and standards bodies that have emerged recently all point to the maturation of the market and actions to ensure that it remains a tool for credible transition to decarbonization.

Total Volume (tCO2e) by Year



funding to maintain the sites well into the future, an element that is very difficult to fund in the system as it exists today.

In the first year of this program, BEF watersheds staff identified some key needs to provide a more robust support toolkit for partner organizations, and secured additional funding through a US Forest Service grant to develop these and work with 15 additional partners. Additionally, as this program grows, staff are exploring ways to embed it programmatically within restoration funding programs, first through a contract with the Department of Ecology to work with recipients of the Puget Sound Riparian Systems Lead grant.

Areas that will be further investigated and developed over the next several years include:

1. **Buyer outreach and development:** This body of work, already underway, will include developing a sales strategy and educating potential credit buyers on the unique nature of these credits. We hope these efforts will lead to a pool of buyers who understand and believe in the multi-faceted nature of partner projects.
2. **Development of landowner outreach materials:** Willing and educated landowners are key to this program's success, and as we develop tools to streamline the carbon crediting process, we will develop a package of landowner outreach materials to ensure landowners have the information they need to participate fully.
3. **Engage new registries:** Our early projects partner with a carbon registry that quantifies high quality credits in urban and peri-urban environments. While this is a good fit for many of our partners, others work in rural landscapes, and other methodologies will be needed to ensure equitable access to carbon financing. We will also be exploring other quantifiable project types that enhance the carbon storage across the region through nature-based solutions.
4. **Refining understanding of carbon storage of PNW ecosystems:** In coordination with City Forest Credits and a forest carbon expert, BEF will engage in study of the carbon storage potential of several ecosystems in the Pacific Northwest.
5. **Onboarding remote monitoring tools:** Projects require regular monitoring to make sure they are meeting their targets, and this may be streamlined through the use of remote monitoring tools. BEF will work with Upstream Tech to offer their Lens platform to partners as a tool to aid in project planning, quantification, and ongoing monitoring.

Combined, these initiatives will lead to a more flexible program that is available to more partners working in different PNW geographies and across several nature-based project types.

If you are interested in learning more about how this program might benefit your own organization's restoration efforts, or purchasing carbon credits, please reach out to Kayla Seaforth at **kseaforth@b-e-f.org**.

Buck rub at a restoration planting site. Photo Credit: Kayla Seaforth

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