

Sierra to Sea Watershed Outcomes Bank (WOB) Charter

v. May 2025

Executive Summary

The *Watershed Outcomes Bank* (WOB) concept was originally pursued by the Healthy Eldorado Landscape Partnership (HELP)¹ as a framework to collectively secure more funding for conservation and restoration treatments across HELP's Caldor-Cosumnes Focal Area.² Building on and expanding this intent, this WOB charter is meant to improve regional resilience by integrating activities from the forested headwaters of the Eldorado National Forest (ENF) down through the South Fork American, Cosumnes, and Mokelumne Rivers, and into to the agriculture-rich Central Valley. Given the multitude of implicated jurisdictional boundaries, this area is heretofore referred to as the "Sierra to Sea" WOB area. As the HELP members move to implement the WOB in the Sierra to Sea project area, they have recognized the need for a document that outlines the essential characteristics of the WOB, defines roles and responsibilities, and memorializes a collaboration agreement between the relevant HELP members and additional non-HELP affiliated partners. This Charter is intended to serve that purpose.

The motivation for an innovative conservation funding strategy such as WOB stems from several years of deep partner engagement and the realization that many important yet siloed project efforts are underway across the lower, middle, and upper parts of the Sierra to Sea area. Each effort faces its own jurisdictional, funding and capacity constraints, which makes it difficult to scale up region-wide results supported by a properly sized workforce and supply chain. The fundamental premise of the WOB is to better integrate and leverage concerted efforts by arriving at a shared portfolio of priority projects, quantifying those projects in standardized outcome units that better connect communities, projects, and funders, and building up a leveraged funding and implementation effort that can deliver resilience at speed and scale. This Charter summarizes the "operating" agreement partners are making to pilot the WOB in the Sierra to Sea area.

Introduction

The undersigned is a coalition of natural resource-focused organizations and federal, state, and local government agencies dedicated to building and deploying a regionally integrated watershed funding and implementation framework to accelerate the pace and scale of resilience from "Sierra to Sea," starting in the headwaters of the Eldorado National Forest, moving down through the watershed, and out through the Sacramento Delta and into San Francisco Bay. This region supports one of California's largest drinking water supplies, key urban and rural communities, a critical estuary, and hosts of built infrastructure at high risk of future catastrophe. Portions of the region have experienced devastating stand-replacing wildfires (the 2021 Caldor Fire burned nearly 222,000 acres), major flooding and slope destabilization (2023 floods), and significant drought and water shortages (heavy groundwater pumping depletes river flow while making it costlier and less reliable to secure drinking water or grow crops and increases flood and saltwater intrusion risks). These major compounding events signaled the urgency for partners to respond at a corresponding regional scale.

¹ HELP is a collaborative partnership that aims to attract, leverage, and deploy funding at the pace and scale needed to achieve landscape-scale resilience objectives for the Eldorado National Forest and associated watersheds.

² HELP has sub-divided its investment areas into four major geographic focal areas: Crystal Basin, King Fire Footprint, Western Georgetown, and the Caldor Fire-Cosumnes River Watershed.

The traditional, project-by-project, partner-by-partner approach to funding and implementing conservation and restoration work is no longer capable of delivering watershed resilience at the pace or scale necessary to achieve the outcomes envisioned in the Tahoe Central Sierra Initiative (TCSI) Pillars of Resilience,³ ENF's Forest Resilience Strategy, and other regional plans. Currently, funds are split across multiple agency programs with complex eligibility and process requirements that often do not integrate well together; large landscapes are broken into isolated jurisdictional efforts; and under-capacity local stakeholder groups step into the breach to piece together funds to implement a fraction of the needed projects.

Recognizing these practical challenges and the need for a structural response, HELP partners came together to integrate planning, funding, and implementation efforts across the region into a landscape level resilience framework. Recognizing the opportunity presented by these dynamic partners, The Freshwater Trust was engaged to help develop a watershed outcomes bank (WOB) approach to secure landscape-level leveraged funding, connect those coordinated funds to a high-impact portfolio of projects, and complete a lot more projects a lot faster.

Additional partners who are not formally affiliated with HELP but who have complementary plans for natural resource management in the Sierra to Sea focal area or surrounding focal areas may also become a Charter signatory for the WOB since these efforts to identify priority projects, aggregate funding, standardize outcomes, and accelerate the pace and scale of projects may have benefits and impacts to their resource management efforts.

This Charter describes the signatories' commitment to pilot this WOB approach in the Sierra to Sea project area, with the goal of expanding more broadly if successful. The partners are committed to information and resource sharing, leveraging and coordinating activities, and collective action. The Charter defines the vision and purpose, partner roles and responsibilities, operating structure, and agreement framework of the Sierra to Sea WOB. The charter is designed to be a living document, and so as new information, technologies or partnership opportunities emerge, there may be a need to modify the Charter.

Watershed Outcomes Bank Vision & Mission

WOB Vision: *To systematically enable partners in the region to fund and implement interconnected and reinforcing resilience projects to quickly and efficiently achieve cross-boundary and high-impact regional fire risk reduction, water quality, water volume, biodiversity and wildlife habitat, and flood risk reduction targets.*

WOB Mission: *WOB partners will use a common set of resilience metrics to quantify projects and drive toward a more unified set of priority projects, intentionally integrate outreach efforts, secure more leveraged funding, deliver leveraged funding to more projects, secure financing to unlock project work, and track progress against targets. The signatories seek to take advantage of the economic importance of this region to collectively attract more public and private funds. The WOB will provide resources in a way that enables local partners to plan, scale, and prioritize project work on an annual basis without the uncertainties associated with funding access and timing.*

³ For more information about the Tahoe Central Sierra Initiative, including the Pillars of Resilience, see <https://research.fs.usda.gov/psw/partnerships/tcsi#research>.

Partner Roles & Responsibilities

The WOB framework requires four key partner roles in order to operate effectively. Some partners may fulfill multiple roles. The following paragraphs describe these roles and their associated actions and responsibilities. A table identifying the current partners and the current roles they each play is attached as Appendix A.

- (1) Funding Navigator: Several partners are well-positioned to target, secure, and leverage funding commitments (e.g., agency grants/cooperative agreements, utility or corporate contracts, donations) to support projects. In addition to pursuing grant applications, some partners maintain extensive relationships with downstream beneficiaries and external donors who may agree to contribute funds to the project portfolio based on the standardized outcomes quantified and calculated prior to implementation. Funding Navigators, with support from the Aggregator, should maintain an updated, consolidated list of funding resources to ensure that funding pursuits are not duplicated. Funding commitments should be accounted for in WOB accounting by the Aggregator;
- (2) Implementer: Some partners are well-positioned to receive funds or loans and can plan and/or manage sub-contracting of ecologically-relevant conservation and treatment activities in the region. Implementers may also be Funding Navigators based on the projects and project outcomes identified. For projects on National Forest System land, project funding and financing received by Implementers can be distributed via partnership agreements with the U.S. Forest Service;
- (3) Data Leads: In order to prioritize and then develop a portfolio of priority projects, it is necessary to quantify the environmental outcomes associated with each project. The HELP Data Workgroup spent one year assessing available outcome metrics and prioritized a consolidated set of funding metrics that can be quantified for most project types and funders: reduced sediment runoff, improved water volume, reduced fire risk, reduced flood risk, and reduced emissions. A summary of the resulting Metrics Proposal can be found in Appendix B. Quantifying these outcomes will require Data Leads to be assigned for each identified project. Data Leads must ensure that projects are designed to maximize the outcomes relevant to co-funders, and coordinate with Implementers to track and apportion benefits back to individual and collective funding commitments. Data Leads will verify that project costs and acreages are updated over time as treatments/actions are successfully completed.
- (4) Aggregator: The Aggregator manages the WOB, helps match and leverage together funding commitments and contracts, completes project benefit and financial accounting, deploys payments to Implementers, and supports consolidated progress reporting and tracking. The Aggregator is responsible for centralizing the administrative functions and data management of the WOB. In the event that a funder or investor requires funds to flow through the recipient entity instead of directly through the aggregator, disbursement of funds will occur through the recipient partner, with the Aggregator working with the recipient partner to maximize coordination and co-funding leverage .

Partner Commitments

With the shared goal of achieving meaningful region-wide resilience consistent with the TCSI Pillars of Resilience, the undersigned partners agree to participate in the data-driven, coordinated funding and implementation approach of the WOB in the Sierra to Sea region. HELP has a goal of securing resources

for project implementation that can be shared amongst the participating Partners and other implementation stakeholders. The partners commit to the following:

1. To the maximum extent practicable, partners agree to voluntarily share information about their project priorities, secured funding amounts, and funding and financing needs.
2. Partners will rely on a common set of metrics identified by the HELP Data Workgroup in Appendix B to:
 - a. Identify watershed resilience targets;
 - b. Quantify potential projects in those same outcome units;
 - c. The Freshwater Trust has developed a data-driven portfolio optimization tool for the Cosumnes River project area called “the Solver Tool.” Partners agree that this Tool will be managed by the Aggregator and that the Partnership will initially use the Tool to identify an optimal portfolio of outcomes that can be attained by project activities;
 - d. Attempt to negotiate with funders to define success outcomes in at least one of these units; and
 - e. Collectively quantify and track projects against those watershed targets.
3. Partners will use these common metrics to drive toward a more unified set of priority projects. In identifying and cultivating priority projects for funding and implementation:
 - a. Partners will intentionally engage with supporting entities, communities, and other beneficiaries to meaningfully incorporate needs;
 - b. Implementers will start developing potential projects that align with Solver results, and provide Data Leads with project scale information;
 - c. Data Leads will quantify potential project costs and outcomes;
 - d. The Aggregator will consolidate potential projects (and their estimated costs and outcomes) into a single ranking list and web map managed by the Aggregator.
4. With a more unified set of priority projects, Funding Navigators will:
 - a. Intentionally integrate their sales efforts to pursue and secure the funding necessary to rapidly implement identified priority projects;
 - b. Use shared lead tracking/assignments to avoid redundancy and minimize territoriality in making solicitations (and where necessary, obtain consent and/or work through existing relationships before initiating new outreach);
 - c. Work together to identify the “most catalytic” role for each potential funder solicitation; and
 - d. Define “project” funding proposals as expansively as possible to maximize opportunities for funding match and leverage.
5. The Aggregator will:
 - a. Confirm that each leveraged funder can support a particular project, and then facilitate “matchmaking” of funding resources to priority projects;
 - b. Flexibly contract with partners to enable this funding coordination (e.g., act as a fiscal sponsor, make subawards, sign leveraged funding commitments);
 - c. Secure financing, as needed, to unlock project work that would otherwise be constrained by funding reimbursement timelines;
 - d. Secure as-built project outcome data from Data Leads and as-built project cost data from Implementers, and then manage project transaction accounting;
 - e. Endeavor to utilize grant and other funding resources efficiently (e.g., by minimizing overhead and other administrative costs) so as to prioritize funding support for project implementation.
6. Implementers will
 - a. Identify and plan priority projects to include in leveraged funding applications; and
 - b. Implement priority projects.

- c. Lead or assist with the collection of data measuring outcomes during project implementation.
- 7. On a regularly defined cycle, partners will convene:
 - a. To recalibrate the portfolio (e.g., update Solver targets or data, incorporate new metrics, account for new proposed priority projects, archive outdated projects);
 - b. Identify upcoming needs and opportunities;
 - c. Identify the upcoming period for funding and project implementation and any coordination needs.
- 8. Data Leads will
 - a. Work with Project Implementers to ensure that outcomes data is collected from each project
 - b. Clean, analyze, visualize, and submit project data to the Aggregator and others as needed
 - c. Meet annually to analyze and review data overall to help develop and report on big picture outcomes.
- 9. The partners commit to sharing in the acknowledgement of the work performed by each member using consistent metrics and communications.

Enabling Agreement Framework

The U.S. Forest Service will officially recognize the WOB through a new five-year Master Participating Agreement (MPA) with The Freshwater Trust (TFT) as the WOB Aggregator, which in turn will establish and operate the WOB. Though no funds will initially be transacted directly between the U.S. Forest Service and TFT, funds could be added by either party in the future via Supplemental Project Agreement (SPAs) tiered from the MPA. TFT could then make use of any U.S. Forest Service funding directly to support WOB operations, or indirectly as sub-awards or sub-contracts to third parties to carry out project work.

The MPA does not preclude TFT or the WOB from entering into separate bilateral agreements with other partners to pass through, leverage, or match together funding commitments to support projects identified in the portfolio. All HELP partners must adhere to the terms and conditions set forth in corresponding partnership agreements and procurements documents established by subsequent awarding entities.

Charter Signatories

Signatory organizations to this Charter formally indicate a shared commitment to pilot the WOB in the Sierra to Sea area as outlined in this document. This Charter is intended to reflect the willingness of the WOB Partners to voluntarily participate in the implementation of the WOB. It is not a contract and is not intended to, and does not, create legally binding obligations or rights. Nothing in this Agreement shall be construed as constituting a partnership, joint venture, employment relationship, agent/principal relationship, or other association of any kind, between the signatory organizations, and no organization shall have the power to obligate or bind another in any manner whatsoever. The Charter will be revisited on a recurring basis or as additional signatories are added:

	The Freshwater Trust	
<i>Signature</i> Name: _____	<i>Organization</i>	<i>Date</i>
	American Forests	
<i>Signature</i> Name: _____	<i>Organization</i>	<i>Date</i>
	American Rivers	
<i>Signature</i> Name: _____	<i>Organization</i>	<i>Date</i>
	Blue Forest	
<i>Signature</i> Name: _____	<i>Organization</i>	<i>Date</i>
	El Dorado and Georgetown Divide Resource Conservation District	
<i>Signature</i> Name: _____	<i>Organization</i>	<i>Date</i>
	El Dorado County Water Agency	
<i>Signature</i> Name: _____	<i>Organization</i>	<i>Date</i>
	The Great Basin Institute	
<i>Signature</i> Name: _____	<i>Organization</i>	<i>Date</i>

National Forest Foundation

<i>Signature</i> <i>Name:</i> _____	<i>Organization</i>	<i>Date</i>
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<i>Signature</i> <i>Name:</i> _____	<i>Organization</i>	<i>Date</i>
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Appendix A.

The following table indicates initial assessments of WOB Partner operational capabilities and roles. This table will be revised as Partners indicate changes in their level of participation in the WOB implementation effort, including adding or terminating roles, and as new signatories to the Charter are added. Some signatories to the Charter may not have an operational role (e.g., oversight, funder), so are not included in this table of operational capabilities and roles.

HELP Partner	Implementer	Data Leads	Aggregator	Funding Navigator
American Forests	X			X
American Rivers	X			
Blue Forest		X		X
El Dorado and Georgetown Divide Resource Conservation District	X			
El Dorado County Water Agency ⁴				X
The Great Basin Institute	X	X		
National Forest Foundation	X			X
Sierra Nevada Conservancy				X
Tahoe-Central Sierra Initiative		X		
U.S. Forest Service	X			X
The Freshwater Trust		X	X	X

⁴ The primary capability and role of the El Dorado Water Agency in this partnership is to facilitate collaborative watershed management with local partners to ensure project alignment and coordinated implementation of a shared vision. El Dorado Water Agency convenes and collaborates with the Upper American River Watershed Group and other local entities in accordance with the Programmatic Watershed Plan (2023).

Appendix B: HELP Metrics Summary

BACKGROUND

The HELP Data Workgroup worked through a large volume of data, models, tools, metrics, and frameworks to identify a select group of metrics that could link together watershed resilience objectives, projects, funder needs, and regional resilience outcomes into an actionable framework to help secure more funding and financing, cultivate better projects, and ensure ecological progress. The Workgroup's operating theory was that we could identify a handful of "Rosetta Stone" metrics that could be applied to most project types, matter to most funders, could be quantified readily with available data and models, and help us determine the portfolio of projects that would maximize outcomes most cost-effectively then we could better integrate otherwise fragmented efforts into a more powerful regional effort. The Workgroup understood that this process would not cover all projects, funders, or stakeholder needs but sought to maximize the complexity of converting insight into action on the ground. This summary is a synopsis of the [Metrics Proposal](#).

METRICS

The HELP Data Group identified two types of metrics, which are used for different purposes (Figure 1):

1. **Funding Metrics** are readily applied to most core projects, are well established with funders, are quantified with publicly available data, are updated frequently, and are tracked annually by project.
2. **Performance Metrics** are longer-term landscape indicators not attributable to a particular project. They are suitable for evaluating trends at a larger scale and can feed into broader tracking efforts, such as the Tahoe Central Sierra Initiative and the California Wildfire Task Force.

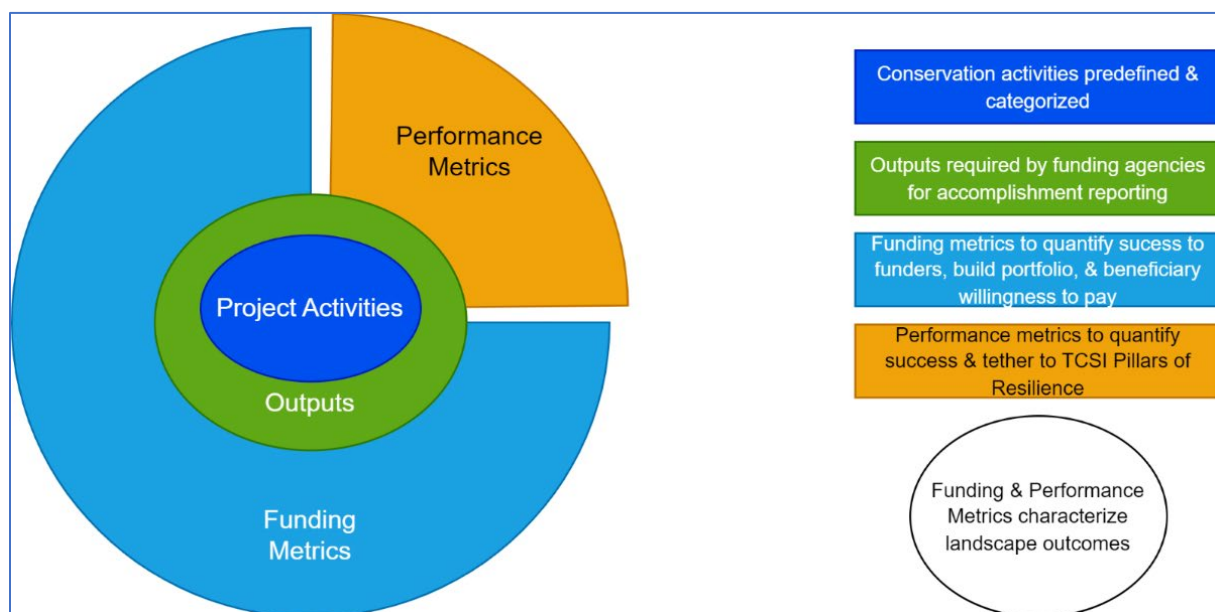


Figure 1: Relationship between project activities, outputs, funding, and performance metrics.

Metrics were chosen from a broad array of accepted indicators based on ease of collection and accuracy, portraying the system's state. The work group prioritized each by category to narrow down the total number of metrics (see Figure 2).

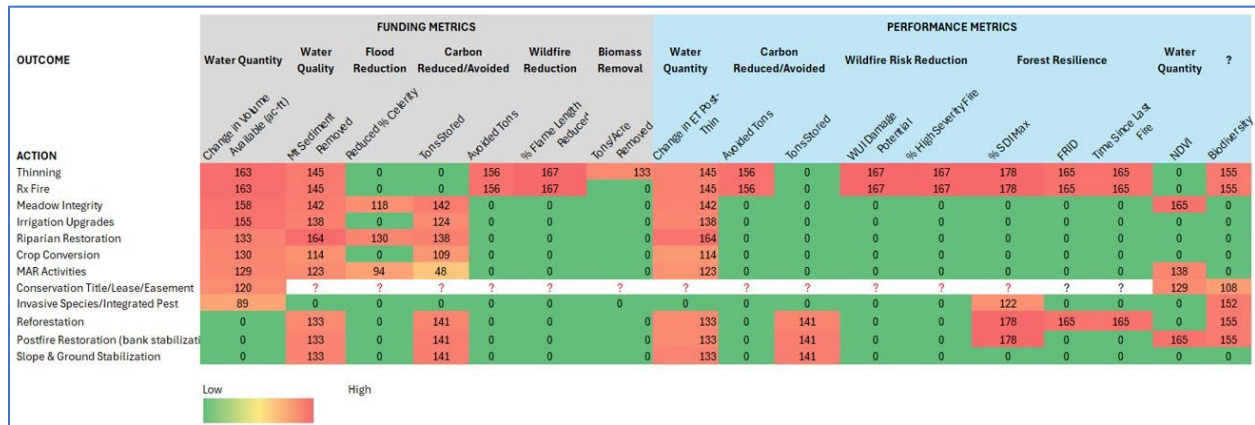


Figure 2. Ranking and prioritization of metrics by category.

WORKFLOW & GOVERNANCE

Data collection, analysis, sharing, and learning will be incorporated across projects and the HELP landscape (Figure 3). At the project scale, after leads are assigned and a funding analysis connecting the project to the WOB, metrics and outputs for the project will be identified. Funding metrics will be measured post treatment/implementation, whereas performance metrics may be measured according to project funding requirements and every five years.

Science Leads will be appointed for each Outcome Category and Resilience Pillars, irrespective of whether sub-metrics are Funding- or Performance-oriented. The Science Lead is responsible for working with Project Leads to complete and/or oversee pre- and post- treatment quantification, and aggregate results to the appropriate watershed scale to record progress and trends. The Science Lead will also verify outcomes to report on the Watershed Outcomes Banking ledger once projects are completed.

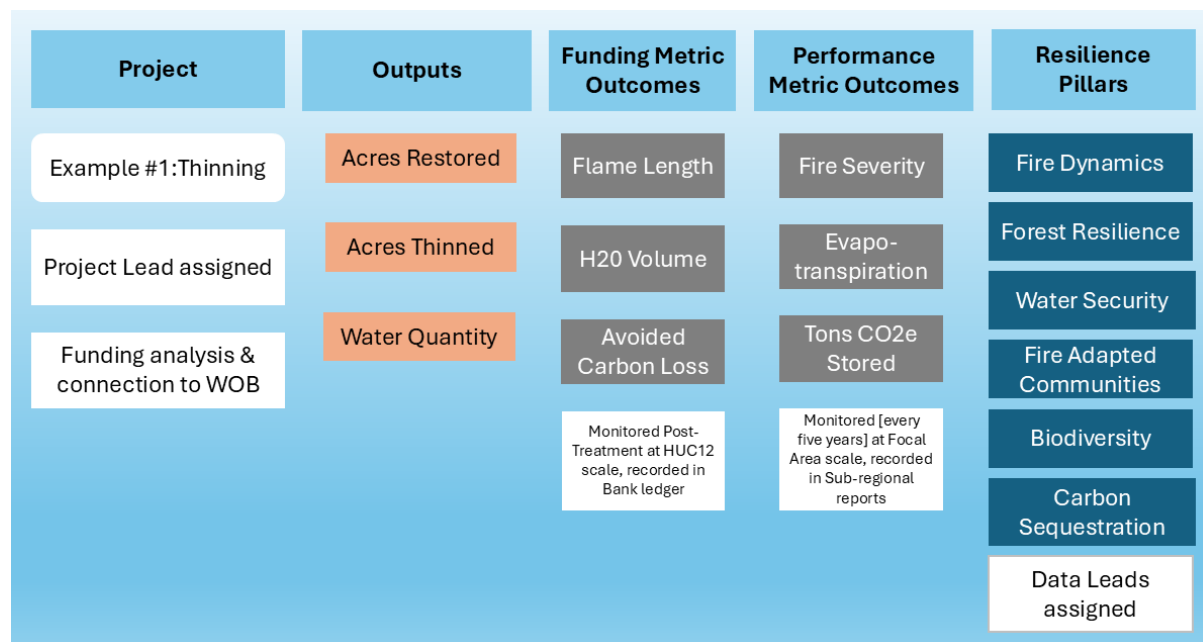


Figure 3. Data workflow and governance diagram showing a thinning project as an example.