

PROGRESS REPORT 4

February 14, 2024

Welcome to the fourth progress report of the 2022 Estuary Blueprint.

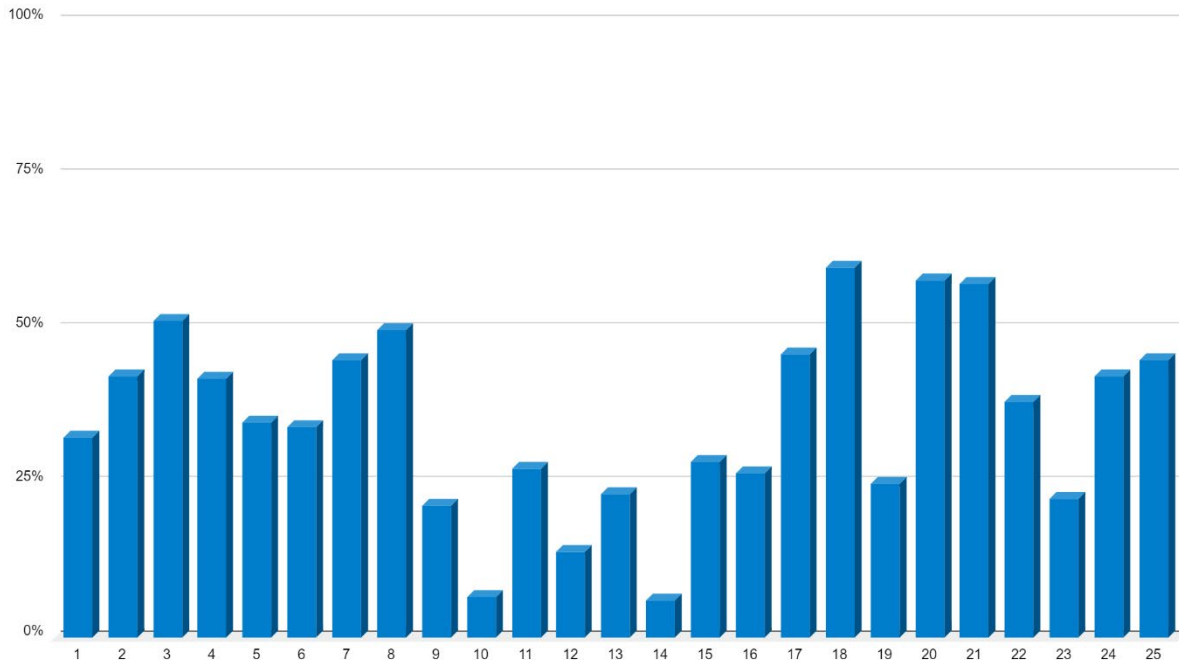
This report shares progress toward completion of the 25 Blueprint actions including current status of the 126 Blueprint tasks, and highlights successes and significant progress made in implementing the Blueprint, including the completion of eight tasks.

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ACTION PROGRESS

Percent Complete by Action



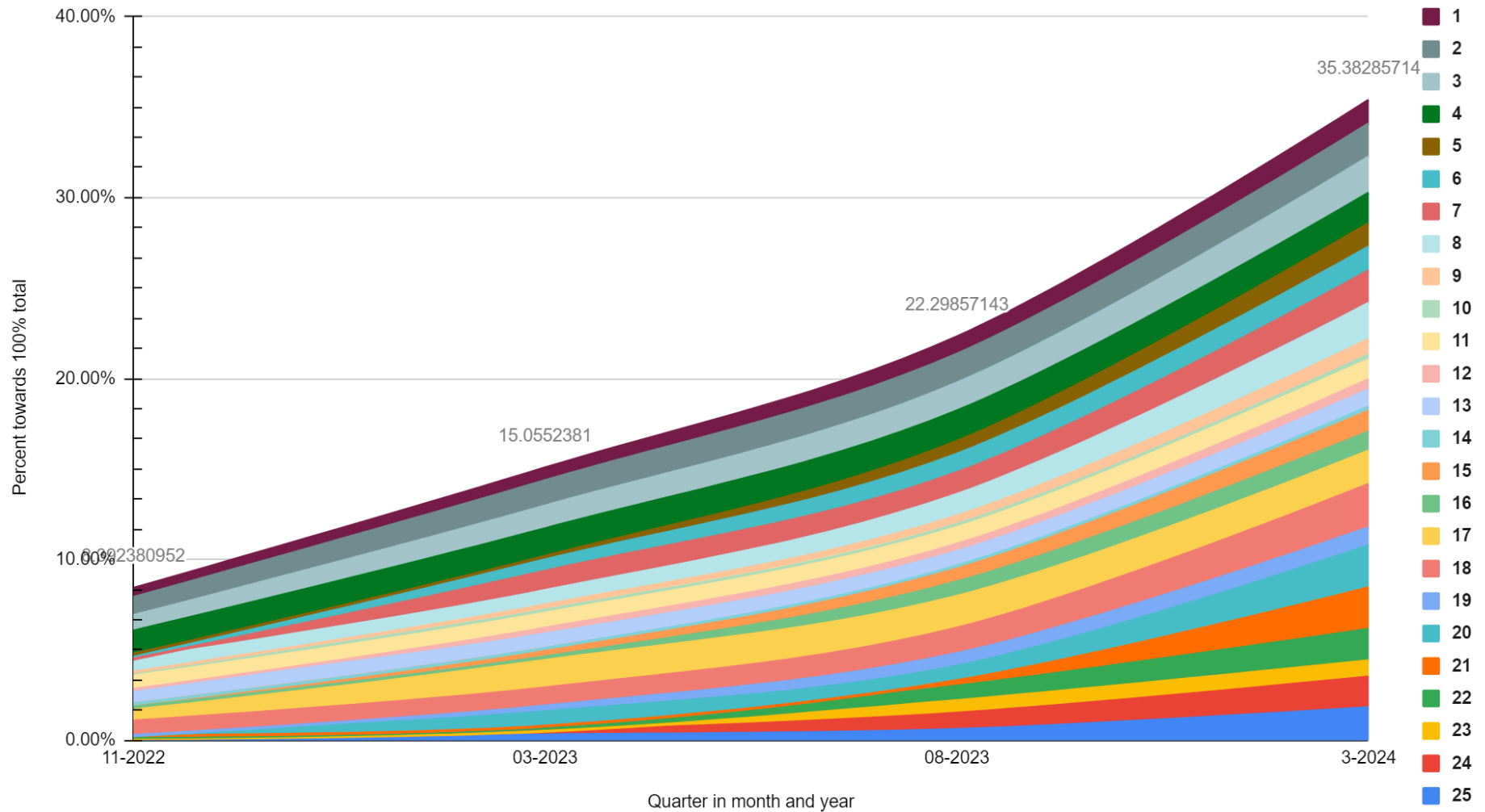
With this progress report, less than two years from the release of the Blueprint, all Actions are showing some progress, and several Actions are approaching or surpassing 50% completion.

As a reminder, this graph is most useful for showing which Actions are making strong progress, since the Actions do not have a uniform number of Tasks. For example, Action 18 (Recycled Water) has four Tasks, and has completed two, with some progress made on the other two. Action 6 (Sediment), in comparison, has seven Tasks, five of which show substantial progress, but overall equates to a lower percent completed.

A supplemental graph below shows the relative progress of each Action as well as progress toward the overall goal of 100% completion of all Tasks. The graph provides a snapshot of the variation among the Actions, as well as the cumulative progress of all Actions toward a 100% implemented Blueprint. Currently, the cumulative progress is 35%, or over one-third complete.

PROGRESS TOWARD 100% COMPLETION OF ALL TASKS

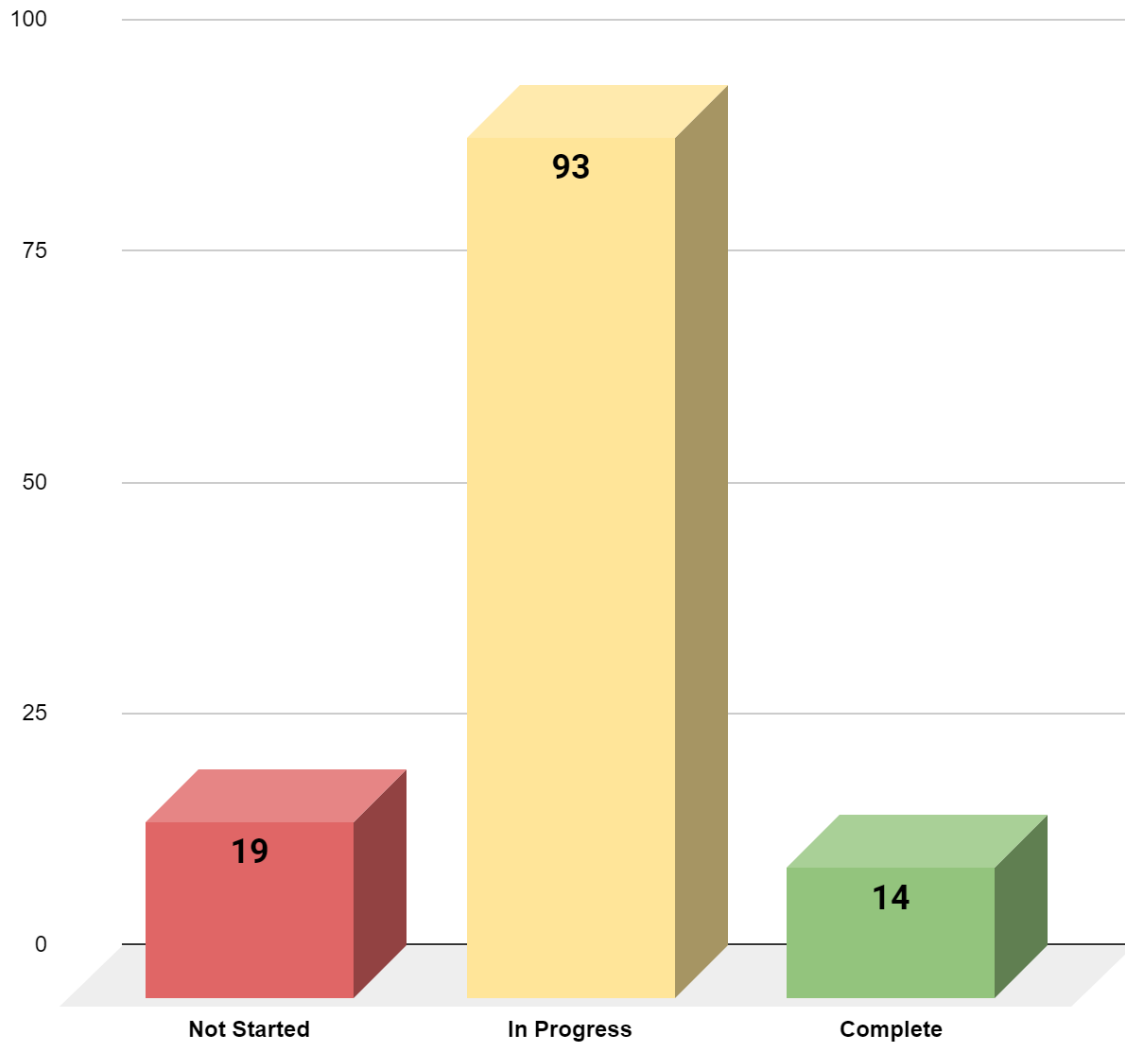
Shows the progress towards 100% achievement for past quarters



TASK PROGRESS

Tasks by Status

Indicates task status across all actions



Now that Blueprint progress tracking is well underway, approximately 85% of the Tasks have started or have been completed. Since the last progress report in August 2023, an additional 24 Tasks have started. As stated previously, of the 19 tasks that are listed here as “not started,” most are, in fact, under review and development. This includes the challenging tasks that staff are actively seeking to advance by pursuing funding sources and reaching out to potential project partners, among other activities.

Completed Tasks are highlighted in this progress report and in upcoming editions of the Estuary Blueprint e-newsletter.

PROGRESS HIGHLIGHTS: COMPLETED TASKS

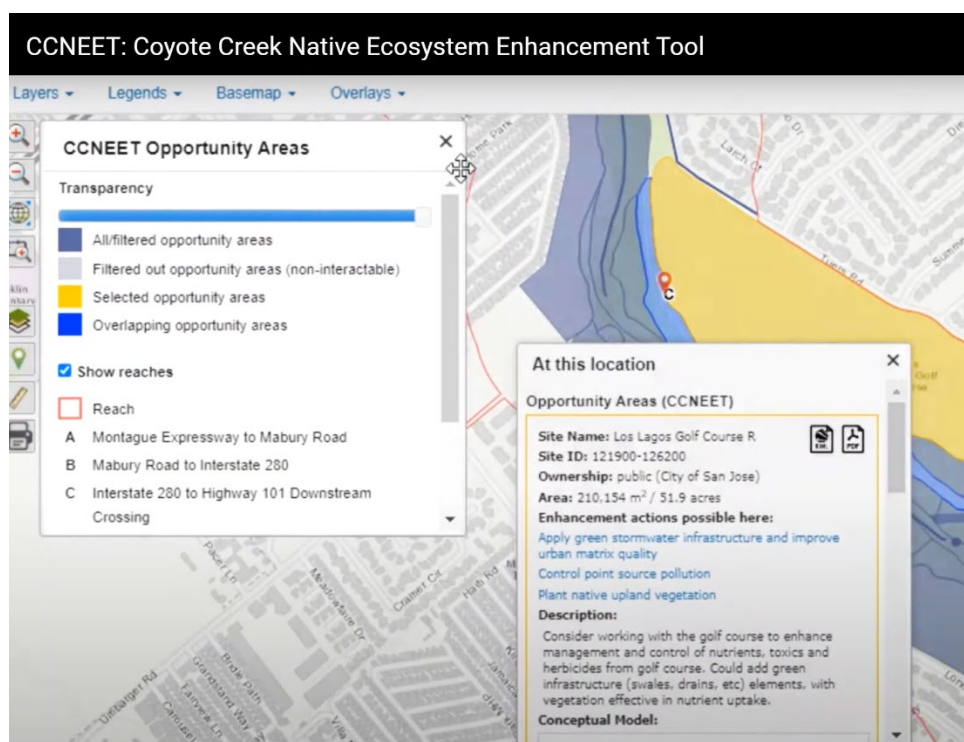
This tracking cycle celebrates the completion of eight tasks, and significant progress on 15 tasks.

Action 5: Watershed Connections

Restore watershed connections to the Estuary to improve habitat, flood protection, and water quality.

TASK 5-1

Advance a watershed-based approach to landscapes to align reservoir, stormwater, flooding, groundwater, sediment, wildfire, restoration, nonpoint source pollution control, and climate change adaptation management activities as well as water supply planning, compensatory mitigation, and voluntary restoration, to provide multiple benefits.



Example of the uses of the CCNEET Coyote Creek Native Ecosystem Enhancement Tool (SFEI).

MILESTONE

Demonstration watershed identified and principal land and resource managers convened to explore existing tools, datasets, and appropriate numerical models for the development of coordinated permitting and management activities in the watershed for multiple benefits.

UPDATE

The Coyote Creek Ecosystem Enhancement Tool or CCNEET is now available for use and can be accessed through EcoAtlas. Valley Water is currently using this tool in coordination with their Coyote Creek One Water efforts to identify opportunities for ecosystem enhancement and is designed to serve cross-program and inter-agency coordination efforts. Valley Water is interested in continuing to develop the tool in collaboration with local partners and stakeholders. They are currently exploring ways to expand the tool's footprint to include major tributaries (e.g. Upper Penitencia Creek).

PERCENT COMPLETED – 100%

Action 17: Water Conservation

Reduce water use around the Estuary.

TASK 17-3

Improve Model Water Efficient Landscape Ordinance (MWELO) compliance by providing MWELO and regenerative landscape trainings, and an MWELO Toolkit to municipal staff throughout the Estuary and other regions that obtain water from the Estuary or its watersheds.

MILESTONE

20 regenerative landscape and MWELO trainings throughout the Estuary and its watersheds.

UPDATE

ReScape CA (formerly the Bay-Friendly Landscaping & Gardening Coalition) has conducted over 30 regenerative landscape and MWELO trainings, webinars, workshops, certifications, roundtables, and presentations since March 2022, mostly in the Bay Area, Sacramento, or Southern California.



The 8 Principles approach used by Rescape CA in their landscape trainings for professionals, public works staff, and home gardeners.

PERCENT COMPLETED - 100%

Action 18: Recycled Water

Expand the use of recycled water.

TASK 18-3

Collaborate with the Bay Area Clean Water Agencies' Recycled Water Committee and others to convene stakeholders to identify opportunities for the broader use of recycled water, understand funding and planning gaps, and address regulatory and permitting constraints.

MILESTONE

Forum to discuss overcoming challenges to regional recycled water projects.

UPDATE

The first recycled water forum, held in September 2023, brought together water and wastewater agencies with rich discussion and follow-up from BACWA about next steps. BACWA would like to continue holding more forums like this one, but wants to understand the best use of time based on participant feedback. This task may ultimately get to 200%!

Advancing Water Reuse in the Bay Area: Exploring Opportunities and Challenges for Interagency Collaboration

Moderated by: Melody LaBella, Central San

September 20, 2023



PERCENT COMPLETED - 100%

Action 20: Nutrients

Advance nutrient management in the Estuary.

TASK 20-3

Undertake studies in the Estuary related to developing and evaluating alternatives for nutrient management actions, including initial considerations of costs and environmental effects.

MILESTONE

Evaluation of opportunities completed to manage nutrient loading via nature-based solutions and recycled water.

UPDATE

The BACWA-funded study on nature-based solutions for nutrient management has been completed by SFEI, and the report is online at <https://www.sfei.org/projects/nature-based-solutions-nutrient-removal/>. Additional funding has been secured to continue to work with wastewater treatment plants around the region on nutrient removal potential using nature-based approaches. Further studies are continuing.



Las Gallinas Wastewater Treatment Plant (photo: Ellen Plane, SFEI)

PERCENT COMPLETED - 100%

Action 21: Emerging Contaminants

Address emerging contaminants in the Estuary's waters.

TASK 21-4

Support the Department of Toxic Substances Control's (DTSC) Safer Consumer Products Program's efforts to reduce CECs like PFAS (Per- and polyfluoroalkyl substances: stain and water repelling chemicals widely used in industrial and consumer products) and ethoxylated surfactants found in cleaning products and detergents to protect people (e.g., fish consumers) and the Bay ecosystem by providing management-relevant information, and through local implementation of measures to promote safer alternatives (e.g., purchasing preferences).

MILESTONE

Management-relevant information provided to support two management actions.

UPDATE

More than two studies have been released on the emerging contaminants highlighted in this task, including:

- 2023: study on polyethoxylare surfactants (SFEI)
- 2023: study on quaternary ammonium compounds or QACs (SFEI)
- 2023: study on tire wear emissions estimates (SFEI)
- 2022: study of per- and polyfluoroalkyl substances (PFAS) in Bay Area POTWs (SFEI)

Effective October 1, 2023, DTSC has finalized a regulation pursuant to the Safer Consumer Products (SCP) Regulations to list a new Priority Product: motor vehicle tires containing N-(1,3-dimethylbutyl)-N'-phenyl-p-phenylenediamine (6PPD).

AS WE DRIVE OUR CARS, OUR TIRES SHED TINY PARTICLES WHERE DO ALL THOSE PARTICLES END UP?

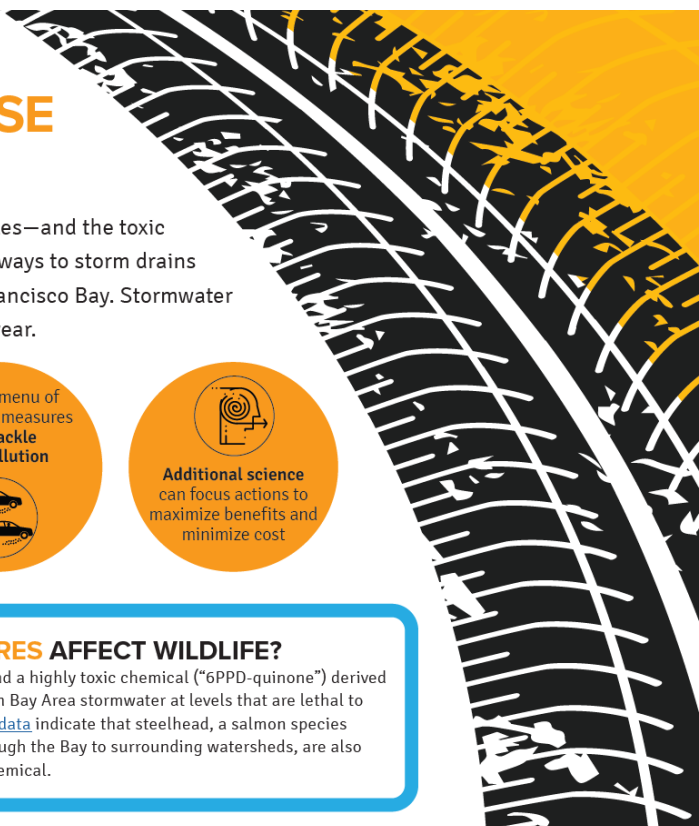
When it rains, stormwater runoff carries tire particles—and the toxic chemicals they contain—from city streets and highways to storm drains and fish habitat in creeks and estuaries like San Francisco Bay. Stormwater washes trillions of tire particles into the Bay each year.

KEY FACTS



HOW DO TIRES AFFECT WILDLIFE?

A recent [study](#) found a highly toxic chemical ("6PPD-quinone") derived from vehicle tires in Bay Area stormwater at levels that are lethal to coho salmon. New [data](#) indicate that steelhead, a salmon species still migrating through the Bay to surrounding watersheds, are also sensitive to this chemical.



PERCENT COMPLETED - 100%

Action 22: Health Risks of Contaminants

Reduce human health risks due to legacy contaminants and contaminants in fish.

TASK 22-2

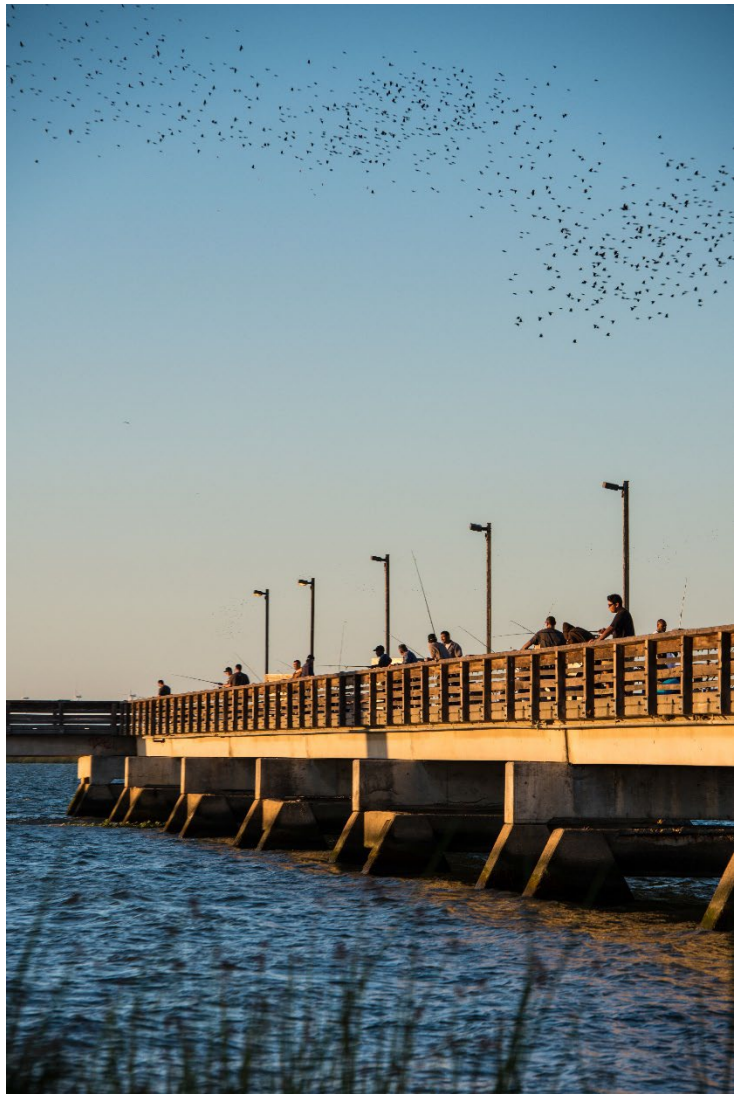
Partner with community-based organizations to collect information on subsistence fishing in the Estuary, focusing on disadvantaged and underserved communities, to develop an understanding of health risks and how stakeholder values, and cultural, recreational, natural resource, and agricultural uses vary geographically and across demographics.

MILESTONE

Funding secured for community-based organizations to collect data on subsistence fishing practices and consumption in at least two communities in the San Francisco Estuary.

UPDATE

Two independent efforts have secured funding to complete fish consumption surveys: the San Francisco Bay Regional Water Quality Control Board and community-based organization All Positives Possible. The Water Board is working with community groups to develop a fish consumption survey questionnaire to be completed by summer 2024. The survey instrument will be administered by community-based organizations in at least one community, with funding provided by BACWA. All Positives Possible secured an EPA grant to conduct fish consumption surveys in the Vallejo community.



Fishing off Antioch Pier (Photo: Florence Low, DWR)

PERCENT COMPLETED - 100%

Action 24: Public Access

Provide equitable public access and recreational opportunities compatible with wildlife.

TASK 24-3

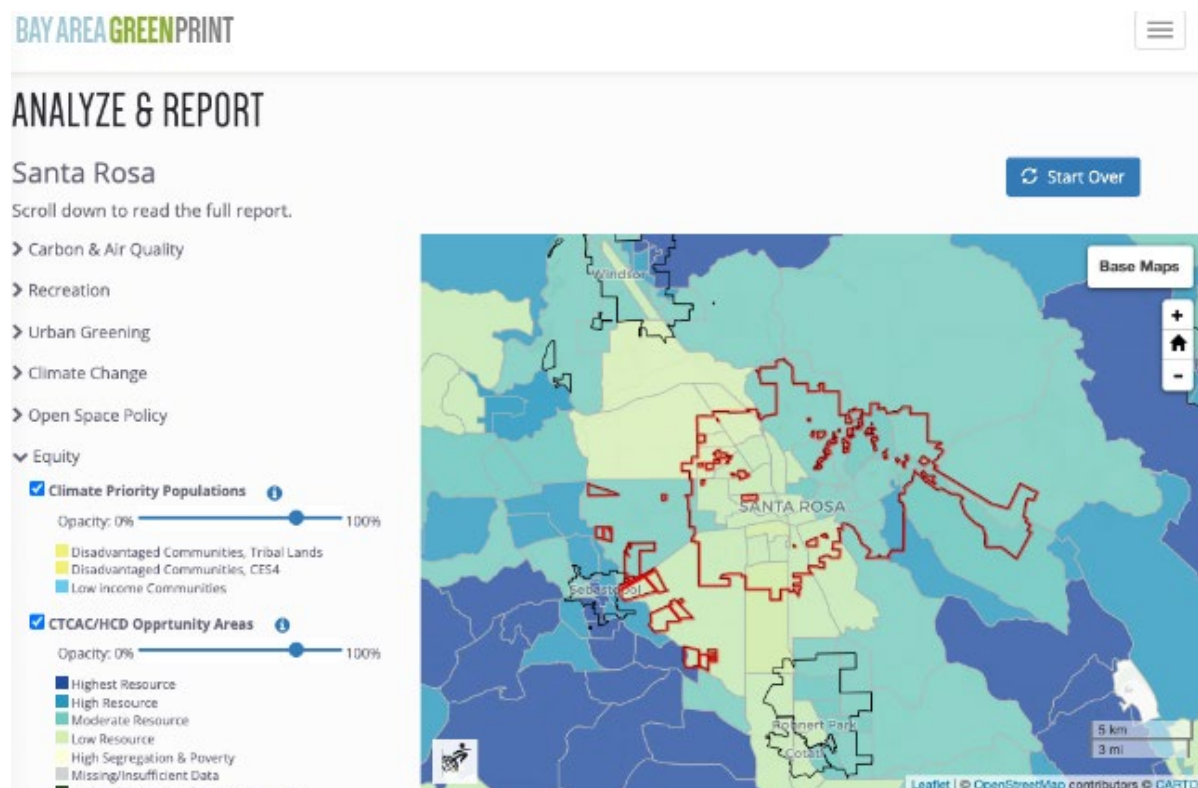
Advance the consideration of equity and resilience within parks and open space planning efforts through development of two new Bay Area Greenprint modules using Geographic Information System (GIS)-based analytics and tools.

MILESTONE

Resilience and Equity Modules for Bay Area GreenPrint released.

UPDATE

The Bay Area Greenprint team secured funding to draft the Equity Module tool, then held two informal workshops and collaborated with community partners to refine the data and functionality of the tool. The Bay Area Greenprint officially launched the Equity Module in November 2023. The Equity Module is designed to support on-the-ground work focused on environmental justice and to elevate equity into regional and environmental planning. The Equity Module provides place-based analyses and mapping including: disparities in access to parks and trails; disparities in exposure to urban heat island effect, air pollution, and other hazards including sea level rise, wildfire, and contamination; housing opportunity and displacement; and demographics. The Bay Area Greenprint Resilience Module is also complete. The Resilience Module provides place-based analyses for key climate risks and associated nature-based solutions that improve resilience including: carbon emissions; community risk and resilience to sea level rise, floods, fire risk, water supply, heat island, and air quality; food production risk and resilience; and ecological risk and resilience including priority habitats, sensitive species, and habitat connectivity important to species and habitat migration.



Snapshot from the current Greenprint dashboard.

PERCENT COMPLETED - 100%

Action 25: Champion the Estuary

Champion the Estuary.

TASK 25-1

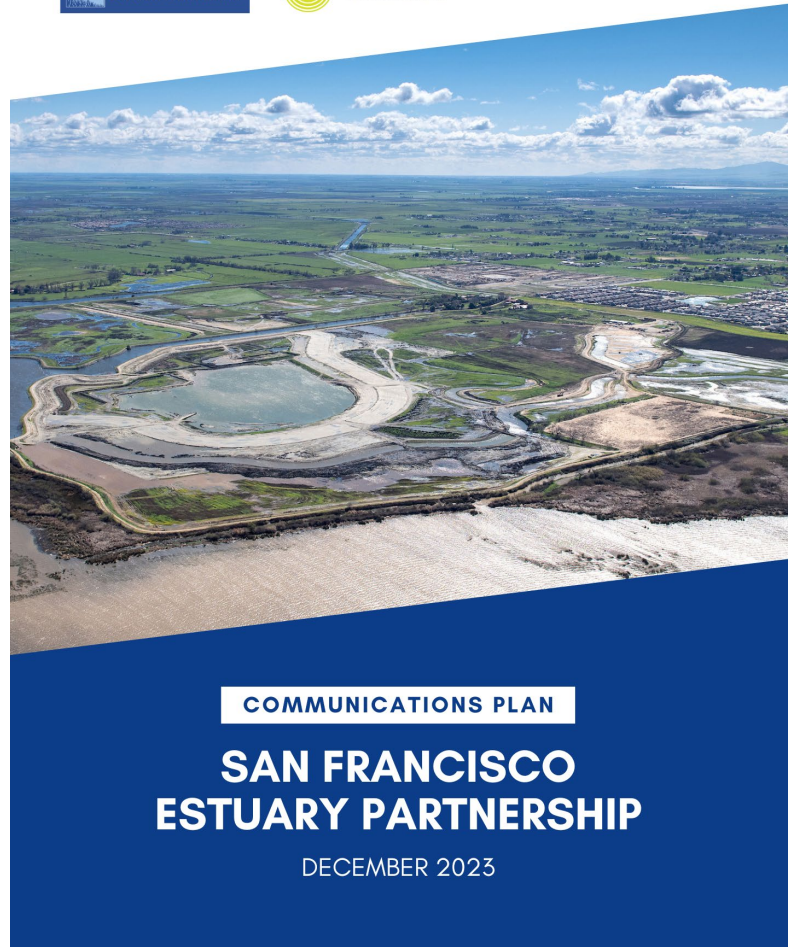
Update and advance implementation of the Estuary Partnership's Strategic Communications Plan, leveraging existing platforms and partnerships to increase awareness of and engagement in the goals of the Estuary Blueprint.

MILESTONE

Update and fund the Strategic Communications Plan.


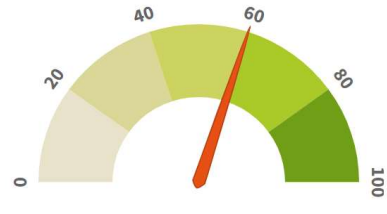


UPDATE

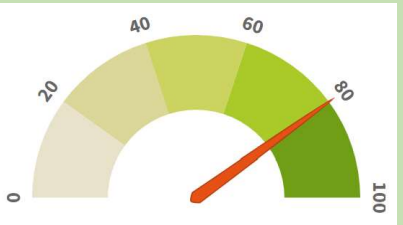
Working with consultants, the Estuary Partnership's communications team has completed a draft communications plan for the Estuary Partnership. The goal of the plan is to: 1) help SFEP become more well-known among key audiences; 2) more concisely and crisply define SFEP and tell our story; 3) better communicate SFEP's impact; and 4) better differentiate SFEP from other organizations in the field. The plan lays out goals for both external and internal communications, defines key audiences, and outlines a messaging framework, as well as covers strategies for internal alignment, regional coordination, reaching key audiences, and adding implementation capacity.



PERCENT COMPLETED - 100%

PROGRESS HIGHLIGHTS: SIGNIFICANT UPDATES

| Task Number | Task Description | Milestone | Update | Percent Complete |
|-------------|--|--|--|--|
| Task 1-4 | Determine need for new, or modification of existing, regulatory authority to protect shoreline habitats and open space while pursuing measures to protect communities and infrastructure from climate impacts through establishment of a collaborative working group. | Shoreline regulatory authority Impact and Needs Assessment. | The passage of SB 272 requires a shoreline local jurisdiction to develop a shoreline adaptation plan (SAP) that must be approved by either BCDC or the California Coastal Commission. With the passage of SB 272, local governments will create a sea level rise plan that will use best available science to assess vulnerability of at-risk communities, identify adaptation strategies and lead implementation agencies along a defined timeline. SB 272 provides clearer authority for SLR adaptation. Staff will continue to track further progress in this arena |  <p>50%</p> |
| Task 3-3 | Revise or create regulatory policies, guidelines, or regulations to accelerate natural and nature-based adaptation projects consistent with the overall protection of the health of the Estuary (such as San Francisco Bay Conservation & Development Commission's creation of new sediment management policies, revision of the Suisun Marsh Protection Plan, San Francisco Bay Regional Water Quality Control Board's revised sediment reuse and climate change policies, the Delta Stewardship Council's Delta Plan revised ecosystem guidelines, or creation of new programmatic permitting approaches). | Three new or revised policies, guidelines, or regulations to facilitate natural or nature-based adaptation projects. | The Regional Shoreline Adaptation Plan, led by BCDC, will include a regional vision and guidelines for subregional adaptation plans. These will comply with SB272, a new law requiring subregional SLR resiliency plans consistent with regional guidelines. In addition, BCDC is leading the Sediment for Marsh Adaptation Project that will look at improving processes, policy and funding for beneficial reuse of sediment. This will include an action roadmap, Bay Plan policy amendments and a funding plan. Additional regulatory improvements are underway |  <p>60%</p> |
| Task 3-5 | Further integrate resilience and natural resource protection into Plan Bay Area by restructuring Metropolitan Transportation Commission and Association of Bay Area Governments' Priority Conservation Area (PCA) Program to advance natural and nature-based strategies for climate resilience. | Restructured Metropolitan Transportation Commission and Association of Bay Area Governments' Priority Conservation Area (PCA) Program. | The PCA Refresh project is nearing completion. The project team completed the final TAC meeting and is preparing a draft final framework to present to the ABAG Executive Board in March. The updated framework includes a new PCA overlay for Climate Adaptation, and has identified a suite of metrics and data to inform conservation priorities. |  <p>90%</p> |
| Task 6-2 | Pilot shallow water placement of sediment in restoration projects and conduct pre- and post-placement modeling and monitoring such that the regulatory agencies can evaluate the benefits and impacts | 2016 Water Resources Development Act Resilient San Francisco Bay Strategic Placement Project and associated monitoring completed. | The Redwood City Port dredging project is the pilot project for this task. Construction was completed in December 2023. Monitoring activities started in Fall 2023 prior to construction and post-construction monitoring is on-going throughout 2024. |  <p>80%</p> |

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| Task 6-6 | Obtain funding for research efforts to address the 16 critical knowledge gaps identified in the 2021 Sediment for Survival Report. | Technical reports addressing sediment demand for vertical accretion, lateral movement of sediment, sediment supply, and organic matter accumulation. | Two funded projects have moved forward in addressing knowledge gaps in the 2021 Sediment for Survival Report. The RMP-funded USGS work addresses Knowledge Gap 14: "The fraction of Bay and watershed sediment that is available for bayland deposition and the controlling factors", and the USACE 1122 work addresses Knowledge Gap 13: "Effective approaches for strategic placement of sediment to increase sediment supply to baylands". Additionally, the Bayland change map addresses Knowledge Gap 5: "Updated regional mapping of existing intertidal and subtidal habitats and areas with plans to be or in the process of being restored". Reports and manuscripts are anticipated to come out later in 2024. |  <p>50%</p> |
| Task 7-3 | Increase economic impact of carbon markets in the Estuary to advance wetland restoration and management goals. | Report detailing the potential impacts and benefits of various co-management activities on lands included in the carbon market, various strategies to scale participation in the market through regionally coordinated applications for multiple sites, and the institutional and regulatory barriers that limit entry of wetland restoration and agriculture projects into the carbon market. | SFEI has produced two reports, "Delta Wetland Futures: Blue Carbon & Elevation Change" and "Delta Wetland Futures: Tidal Marsh Resilience to Sea Level Rise" that largely fulfill the intent of this milestone. In addition, the regulatory and funding landscape has changed, and the benefits of such projects are now well understood and acknowledged. Currently, practitioners are actively driving forward projects that this report was intended to support. |  <p>70%</p> |
| Task 7-4 | Advance research on submerged aquatic vegetation (SAV) and its potential for carbon management in the Estuary, and develop recommendations on how to better protect, plan for, and manage existing SAV habitats and restoration efforts to maximize the potential of native SAV to provide sustained carbon storage. | Reported results and initial recommendations from at least one project gathering site-based carbon sediment core data in or adjacent to eelgrass habitat. | The project has been extended through 2024 but some preliminary results on the project are already in; the full blue carbon results will be ready to share by early fall. The final report is expected to go to the Ocean Protection Council by the end of the year. |  <p>80%</p> |

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| Task 8-2 | Determine how efforts to restore tidal marshes affect the distribution, abundance, and health of plants and animals and coordinate with related monitoring efforts, including the State of the Birds reporting. | One to two Standard Operating Procedures for biological and ecological indicators. | Vegetation, hydrogeomorphic, and fish & fish habitat Standard Operating Procedures are complete. More work is underway to refine them before considering this task complete. |  <p>90%</p> |
| Task 9-1 | Determine habitat suitability for native eelgrass in context with potential future climate changes in San Francisco Bay. Learn, respond, and adapt strategies to account for natural variability and climate change stressors. | Habitat Suitability Model for Eelgrass in San Francisco Bay. | In December 2023, Audubon California, San Francisco State University Estuary & Ocean Science Center, and Merkel & Associates released the San Francisco Bay Eelgrass Habitat Suitability Model. The model predicts habitat suitability for current conditions and future climate scenarios. Outputs from the model will help inform policy, management, restoration, and conservation of eelgrass in San Francisco Bay. Reports are in progress. |  <p>90%</p> |
| Task 20-1 | Ensure the continuation of a long-term monitoring and modeling program of nutrient-related indicators in San Francisco Bay through the San Francisco Bay Regional Water Quality Control Board's Nutrient Management Strategy and program partnerships, and in the Delta through the U.S. Geological Survey and Interagency Ecological Program. | Funding for long-term monitoring and modeling program renewed at sustainable levels, and additional funding sources investigated. | The Nutrient Management Strategy secured WQIF funding last year and is in the process of drafting another proposal this year. The program also is seeking NOAA funding, among other sources. While long-term funding remains a challenge, the task level reflects the incremental progress being made on funding for the next several years. |  <p>60%</p> |
| Task 20-4 | Disseminate information to decision-makers and the public regarding the status and trends of nutrient-related indicators and research findings, as well as the opportunities, constraints, and costs associated with various nutrient load management strategies. | Outreach materials related to the status and trends of crucial nutrient indicators shared via an annually updated web-based portal and public-facing syntheses of research findings shared annually. | The BACWA-funded nutrient study has generated a series of case studies, which are under development. In addition, an equity workshop was held in March 2023 for wastewater treatment plant operators and managers. The NMS website is currently being updated. |  <p>50%</p> |

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|-----------|---|--|--|--|
| Task 20-5 | Develop a framework for monitoring, modeling, and disseminating information on the extent, severity, and impacts of Harmful Algal Blooms (HABs) in the Delta. | HABs framework for the Delta. | The Delta Science Program hosted a two-day workshop on HABs in the Delta, and has produced a draft Delta HAB monitoring strategy that will cover monitoring, management questions, and data sharing. Agency staff, including the Water Boards, are guiding and reviewing strategy components through a multi-agency working group. The Delta Plan Interagency Implementation Committee will hold a discussion about the Delta HABs Strategy in March. In addition, the NOAA-funded MERHAB (Monitoring and Event Response for Harmful Algal Blooms) grant project just started. Project led by Meredith Howard: Advancing an Integrated HAB Detection and Monitoring System Across the San Francisco Estuary. |  <p>50%</p> |
| Task 21-1 | Review and update the San Francisco Bay Regional Monitoring Program contaminants of emerging concern (CEC) and microplastics monitoring strategies every two years. Develop management-relevant information to support selection and implementation of management measures addressing CECs and microplastics by the Department of Toxic Substances Control (DTSC) and the San Francisco Bay Regional Water Quality Control Board. | Updated RMP monitoring strategies every two years with distribution of associated management-relevant information. | SFEI is drafting a CEC Strategy Revision document, which they plan to share with RMP stakeholders for discussion during the emerging contaminants workgroup meeting in April. |  <p>70%</p> |
| Task 21-3 | Support statewide efforts to address microplastic pollution by providing management-relevant information to the Ocean Protection Council, the Department of Toxic Substances Control, and other agency partners to support management actions. | Management-relevant information to support two management actions. | The 2023 report "Tire Wear: Emissions Estimates and Market Insights to Inform Monitoring Design" from SFEI partially meets the task milestone. Upcoming information will be produced to inform microplastics management actions by the Ocean Protection Council to establish a strategy, which will complete this task. |  <p>50%</p> |
| Task 24-2 | Add to the San Francisco Bay Area Water Trail, creating or enhancing high quality public water access and paddle in camping opportunities. Access should be designed to avoid adverse impacts to sensitive resources and wildlife. | Six (with two specifically in the Suisun Marsh area) new or enhanced San Francisco Bay Area Water Trail sites, including two new or enhanced kayak-in campgrounds. | During this reporting period, an ADA access enhancement project was completed at the Point San Pablo Harbor in the City of Richmond. Staff continues to coordinate with BCDC and the State Coastal Conservancy regarding potential new or improved access, particularly within Suisun Marsh. |  <p>50%</p> |