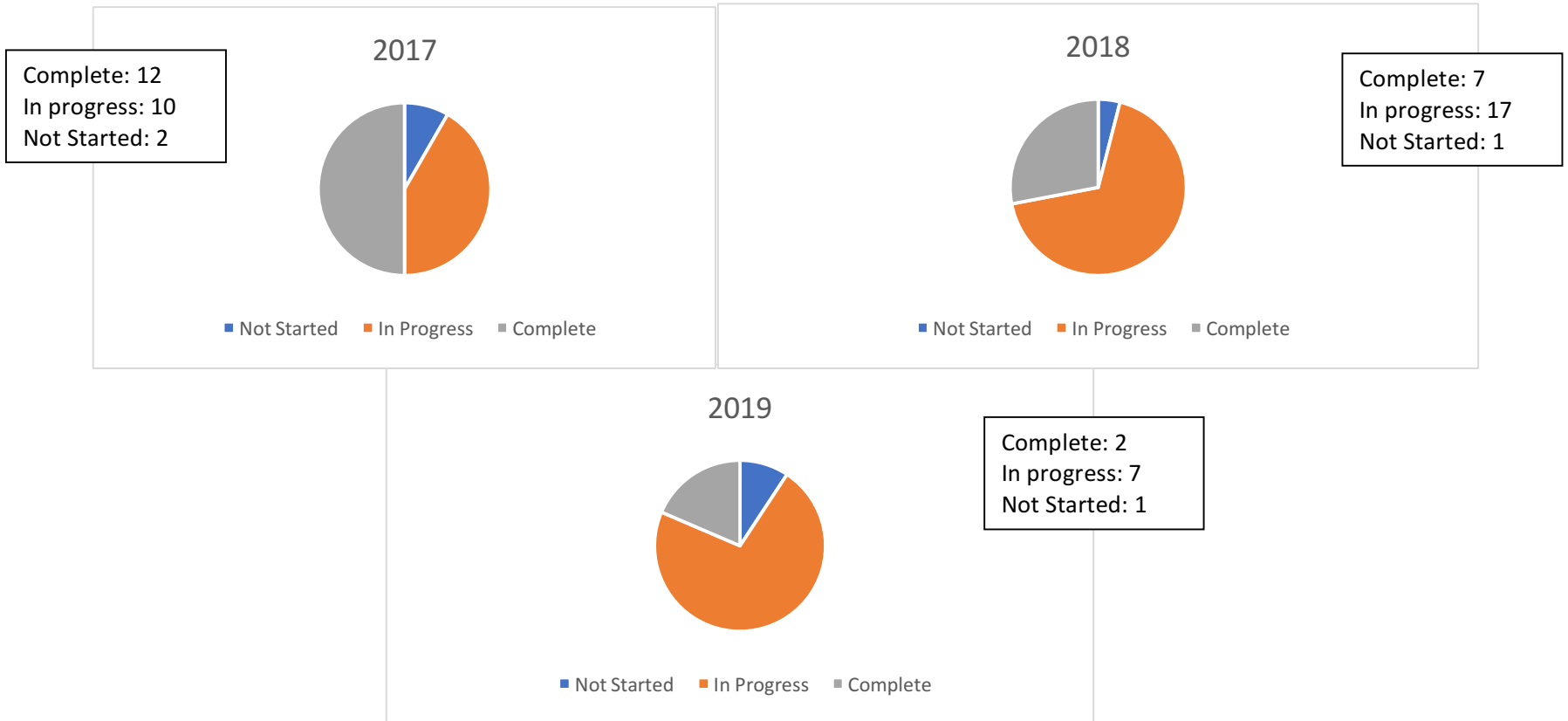


Estuary Blueprint Task Status Updates March 6, 2019



Estuary Blueprint 2017, 2018 & 2019 Task Status Updates

2017 TASKS						
Action Name	Task #	Task Description	Milestone	% Complete	Owner	SFEP Contact
Develop and implement a comprehensive, watershed-scale approach to aquatic resource protection	1.1	Develop a written framework that explains the need for watershed-based aquatic resource protection; frames an approach to meet this need; and identifies and incorporates supporting technical tools and policies. The framework should also address relevant regulatory and governance issues	Complete framework.	55	SFEI	Josh Bradt josh.bradt@sfestuary.org
Identify, protect, and create transition zones around the Estuary	4.1	Develop a regional steering committee and technical advisory committee to guide a bay-wide, science-based, inventory of existing and projected future transition zones. Base the inventory on current baylands restoration projects, land use, ownership, topography, elevation, and other criteria consistent with climate change adaptation science and regional, state, and federal agency initiatives.	Establish transition zone inventory steering and technical advisory committees.	100	SFBJV, SFEP	Heidi Nutters heidi.nutters@sfestuary.org
Protect, restore, and enhance seasonal wetlands	8.1	Re-establish the Interagency Vernal Pool Stewardship Initiative among state and federal agencies. Build relationships through the Initiative with land trusts and conservancies, landowners, Resource Conservation Districts, and municipalities to coordinate planning efforts.	Re-establish the Vernal Pool Stewardship Initiative.	0	SFEP	Caitlin Sweeney caitlin.sweeney@sfestuary.org
Restore watershed connections to the Estuary to improve habitat, flood protection and water quality	12.2	Advance a multi-benefit project in the Yolo Bypass by establishing a common vision for improvements supported by local, state, and federal agencies.	Initiate construction of multiple fish passage improvement projects within the Yolo Bypass.	100	DWR	Adrien Baudrimont audrien.baudrimont@sfestuary.org
Manage sediment on a regional scale and advance beneficial reuse	13.1	Strengthen Long Term Management Strategy (LTMS) policies on the beneficial reuse of dredged material by expanding programs such as "SediMatch." Resolve logistical issues in matching sediment supply from dredging projects and upland construction sites with habitat restoration and shoreline adaptation projects.	Expand and improve SediMatch.	82	BCDC, SF Bay JV, SFEI	Adrien Baudrimont audrien.baudrimont@sfestuary.org

Manage sediment on a regional scale and advance beneficial reuse	13.4a	Advance understanding of how the creation of sandy beaches and their replenishment provides multiple benefits in terms of ecosystem health, shoreline erosion control, and sea level rise adaptation. Create (or enhance an existing) monitoring tool to identify potential sites for sandy beach creation or replenishment projects, choose pilot project sites, and track progress. Provide information about the benefits of sandy beaches to regulators and the restoration community.	Release the monitoring and tracking tool.	0	SF Bay JV	Adrien Baudrimont adrien.baudrimont@sfestuary.org
Demonstrate how natural habitats and nature-based shoreline infrastructure can provide increased resiliency to changes in the Estuary environment.	14.1	Develop a primer on how bayshore projects can be designed and optimized to achieve multiple rather than single benefits. Challenge designers and planners to look beyond a primary objective and find opportunities to incorporate not only flood protection but also habitat enhancement and recreational access, among other objectives, in proposed projects.	Develop primer and implement outreach strategy for primer.	20	SFEI, SFEP	Adrien Baudrimont adrien.baudrimont@sfestuary.org
Advance natural resource protection while increasing resiliency of shoreline communities in the Bay Area	15.2	Integrate resiliency and natural resource protection into Plan Bay Area. Lay the groundwork for a more comprehensive regional resiliency effort.	Complete resiliency section in the 2017 update of Plan Bay Area.	100	BARC, SCC	Heidi Nutters heidi.nutters@sfestuary.org
Integrate natural resource protection into state and local government hazard mitigation, response, and recovery planning	16.1	Establish and implement innovative approaches for integrating natural resources into hazard mitigation, response and recovery planning in the Delta.	Complete the Delta Levee Investment Strategy.	100	Delta Stewardship Council	Heidi Nutters heidi.nutters@sfestuary.org
Improve regulatory review, permitting, and monitoring processes for multi-benefit climate adaptation projects	17.3a	Analyze current San Francisco Bay Regional Water Quality Control Board regulations and policies governing the permitting of multi-benefit projects designed to address sea level rise. Develop findings, alternatives, and recommendations to support the Board's evaluation of baylands climate adaptation projects. Address concerns about balancing long-term wetlands protection, restoration, and enhancement against short terms losses in ecosystem function.	Complete report with recommendations.	90	SF Bay Regional Board	Natasha Dunn natasha.dunn@sfestuary.org

Improve regulatory review, permitting, and monitoring processes for multi-benefit climate adaptation projects	17.4	Bring major permitting and regulatory agencies together with project implementers and other key stakeholders in workshops to facilitate the creation of a more transparent and predictable system for the review and approval of multi-species and multi-benefit projects over the long-term. Design a model process and overall system that reduces time and conflicts while also outlining a roadmap for those entering into this process for the first time.	Institute a once or twice yearly workshop.	75	Coastal Hazards Adaptation Resiliency Group	Natasha Dunn natasha.dunn@sfestuary.org
Improve the timing, amount, and duration of freshwater flows critical to Estuary health	18.1	Work with partners to disseminate a report highlighting the contribution of freshwater flows to the health of the lower Estuary, San Francisco Bay.	Disseminate report.	100	SFEP	Darcie Luce darcie.luce@sfestuary.org
Develop long-term drought plans	19.1	Fund an assessment that analyzes which retail and wholesale water supply agencies around the Estuary have long-term water supply plans for five to 10 year drought.	Complete assessment.	90	SFEP	Darcie Luce darcie.luce@sfestuary.org
Expand the use of recycled water	22.1	Promote existing outreach activities educating the public about recycled water. Encourage the sharing of informational materials, resources, and program models among municipalities, wastewater agencies, and drinking water agencies.	Develop platform for sharing resources	30	BACWA, SFEP	Darcie Luce darcie.luce@sfestuary.org
Integrate water into the updated Plan Bay Area and other regional planning efforts	23.2	Incorporate water and San Francisco Bay related issues into the Plan Bay Area 2017 update. Consider ways to reduce per capita water use and optimize water recycling in the update, as well as issues such as landscape water use, water quality, stormwater management (low impact development and green infrastructure), and drought preparedness.	Complete an update of Plan Bay Area.	100	SFEP, ABAG	Josh Bradt josh.bradt@sfestuary.org
Manage stormwater with low impact development and green infrastructure	24.1	Develop outreach materials on lessons learned and the current state of LID benefits knowledge.	Develop materials.	100	SFEP, EPA	Josh Bradt josh.bradt@sfestuary.org
Manage stormwater with low impact development and green infrastructure	24.2	Improve the San Francisco Estuary Institute's LID tracking tool "GreenPlan-IT." Enhance all components of the LID planning tool, "GreenPlan-IT."	Complete refined GreenPlan-IT.	100	SFEP, EPA	Josh Bradt josh.bradt@sfestuary.org
Decrease raw sewage discharges into the Estuary	26.1	Review sewer lateral repair ordinances currently in operation around the region, and target 30 percent of the uncovered jurisdictions for assistance in developing and passing sewer ordinance modeled on existing ordinances.	Complete review and identify jurisdictions.	100	SFEP	James Muller james.muller@sfestuary.org

Decrease raw sewage discharges into the Estuary	26.4a	Develop a mobile app for boaters to report broken pumpouts, and for marinas to report pumpout use and operational status; pilot a mobile pumpout program for marinas and recreational boaters in the Oakland Estuary. Install 10 new dockside pumpout systems in marinas to increase the size and availability of the pumpout network.	Launch application and pilot program.	100	SFEP	James Muller james.muller@sfestuary.org
Decrease raw sewage discharges into the Estuary	26.5	Work with the Bay Area Pollution Prevention Group (BAPPG) to identify new audiences for outreach messages about reducing non-flushable items to sanitary sewers to reduce sanitary sewer overflows	Identify new audiences.	25	SFEP	Darcie Luce darcie.luce@sfestuary.org
Implement Total Maximum Daily Load projects in the Estuary, including projects to reduce mercury, methylmercury, pesticides and areas of low dissolved oxygen	27.1	Develop and implement a multi-media outreach campaign aimed at reducing household indoor and outdoor pesticide use.	Complete final report on outreach campaign.	100	SFEP	Heidi Nutters heidi.nutters@sfestuary.org
Advance nutrient management in the Estuary	28.1	Secure additional funding to ensure continuation of long-term monitoring of nutrient-related parameters in the Bay through the San Francisco Bay Regional Water Quality Control Board's Nutrient Management Strategy.	Secure funding and continue monitoring.	35	SF Bay Regional Board, SFEI	Natasha Dunn natasha.dunn@sfestuary.org
Advance nutrient management in the Estuary	28.2	Undertake and fund water quality research to attain an improved quantitative understanding of San Francisco Bay's "dose response" to nutrients.	Secure funding and continue research.	35	SF Bay Regional Board, SFEI	Natasha Dunn natasha.dunn@sfestuary.org
Advance nutrient management in the Estuary	28.4	Develop a Nutrient Research Plan for the freshwater Sacramento-San Joaquin Delta through the Central Valley Regional Water Quality Control Board. Use the plan to determine whether nutrient objectives are needed to protect beneficial uses in upper Estuary.	Complete Delta Nutrient Research Plan.	100	Central Valley Regional Board	Natasha Dunn natasha.dunn@sfestuary.org

2018 TASKS						
Action Name	Task #	Task Description	Milestone	% Complete	Owner	SFEP Contact
Develop and implement a comprehensive, watershed-scale approach to aquatic resource protection	1.2	Develop criteria to evaluate watersheds that could be used to pilot the Task 1-1 framework. Select a pilot watershed that drains into San Francisco Bay based on these criteria.	Complete criteria and select pilot Bay watershed	10	SFEI, SFEP	Josh Bradt josh.bradt@sfestuary.org
Establish a regional wetland and stream monitoring program	2.1	Develop and implement a Bay Area and Delta regional wetland monitoring plan that establishes separate, yet closely coordinated, steering committees for the upper and lower Estuary.	Hold initial meeting of the steering committees.	65	SF Bay JV, SF Bay Regional Board, SFEI	Heidi Nutters heidi.nutters@sfestuary.org
Establish a regional wetland and stream monitoring program	2.2	Determine how much funding is needed to support program management and administration, technology purchase and upgrades, hardware and software operations and maintenance, practitioner training, and annual data synthesis and report; develop a business model to meet these funding needs .	Complete the business model.	30	SF Bay JV, SFEP	Heidi Nutters heidi.nutters@sfestuary.org
Establish a regional wetland and stream monitoring program	2.3	Complete the California Aquatic Resource Inventory (CARI) for the Delta; complete riparian inventories for the Delta and the Bay Area; upload the inventories into the California EcoAtlas information system	Complete the Delta CARI and the Delta and Bay Area riparian inventories.	20	SF Bay JV, SFEI	Heidi Nutters heidi.nutters@sfestuary.org
Identify, protect, and create transition zones around the Estuary	4.2	Complete a regional inventory of transition zones based on the methodology developed by the technical advisory committee.	Complete Bay transition zone inventory.	100	SF Bay JV, SFEP	Heidi Nutters heidi.nutters@sfestuary.org
Protect, restore, and enhance seasonal wetlands	8.3	Develop a white paper on best practices for grazing management to protect seasonal wetlands and enhance habitat quality.	Complete white paper.	15	SF Bay JV	Caitlin Sweeney caitlin.sweeney@sfestuary.org
Increase the efficacy of terrestrial predator management	10.1a	Develop a map showing priority areas in the San Francisco Estuary where actions can be taken to reduce feral cat predation on sensitive species, particularly Ridgway's Rail.	Produce feral cat threat assessment and opportunities map	10	Point Blue, USFWS	Karen McDowell karen.mcdowell@sfestuary.org

Manage sediment on a regional scale and advance beneficial reuse	13.2	Identify funding to pay for the additional costs of dredged materials disposal beyond "least-cost" options, including costs for offloaders to pump sediment for beneficial reuse projects on Estuary shorelines.	Identify and secure funding.	15	SF Bay Joint Venture	Adrien Baudrimont adrien.baudrimont@sfestuary.org
Manage sediment on a regional scale and advance beneficial reuse	13.3	Identify funds and conduct research and monitoring to quantify all potential sediment sources to the Estuary. Determine sediment needs for maintaining current habitats under various sea level rise projections.	Complete study and share results.	60	SF Bay JV, SFEI	Adrien Baudrimont adrien.baudrimont@sfestuary.org
Demonstrate how natural habitats and nature-based shoreline infrastructure can provide increased resiliency	14.2	Develop a system for describing the variety of shorelines around the Estuary based on shoreline features, ecosystem processes, land use, and other relevant factors.	Develop shoreline typologies.	98	SFEI, SFEP	Adrien Baudrimont adrien.baudrimont@sfestuary.org
Improve the timing, amount, and duration of freshwater flows critical to Estuary health	18.2	Assist the State Water Resources Control Board in updating the San Francisco Bay/Sacramento-San Joaquin River Delta Water Quality Control Plan (Bay Delta WQCP) by providing concise, scientifically sound data to the State Board and by keeping the public and local officials informed.	Complete update of the Bay-Delta WQCP with updated flow objectives.	30	SFEP	Darcie Luce darcie.luce@sfestuary.org
Improve the timing, amount, and duration of freshwater flows critical to Estuary health	18.3	Work with relevant partners and agencies to more broadly incorporate integrated freshwater flow and habitat messages and information in public outreach materials or relevant programs.	Add messages to the materials of at least 3 partners.	30	SFEP	Darcie Luce darcie.luce@sfestuary.org
Reduce water use for landscaping around the Estuary	21.1	Work with water supply agencies, municipalities, the California Department of Water Resources (DWR), the California State Water Resources Control Board, and others to develop a standardized approach to quantifying and reporting on water use	Ensure standardized reporting in place.	15	SFEP	Darcie Luce darcie.luce@sfestuary.org
Reduce water use for landscaping around the Estuary	21.2	Working with the partners identified in Task 21-1, develop permanent (i.e., non-drought) performance standards against which progress in reducing landscape water use region-wide will be measured.	Ensure performance standards in place.	5	SFEP	Darcie Luce darcie.luce@sfestuary.org
Expand the use of recycled water	22.2	Collaborate with BACWA's Recycled Water Committee and others to: expand incorporation of recycled water in local and regional water resources planning processes; identify opportunities for the broader use of recycled water; overcome funding and planning gaps; and address regulatory and permitting constraints.	Hold three meetings.	33	BACWA, SFEP	Darcie Luce darcie.luce@sfestuary.org

Manage stormwater with low impact development and green infrastructure	24.3	Partner with local jurisdictions to analyze LID and GI potential in select areas using Green Plan-IT and other applicable planning tools, and integrate findings into relevant agency planning mechanisms and policies for adoption and implementation.	Complete identification and analysis.	100	SFEP, US EPA	Josh Bradt josh.bradt@sfestuary.org
Manage stormwater with low impact development and green infrastructure	24.4	Develop and promote a comprehensive regional road map that identifies key policies, documents, legislation, agencies, and specific actions needed for integrating GI with future climate change, transportation, and other infrastructure investments, including looking for opportunities to implement large regional projects.	Complete work plan.	100	SFEP, US EPA	Josh Bradt josh.bradt@sfestuary.org
Manage stormwater with low impact development and green infrastructure	24.5	Create and make available to municipalities and other interested parties design tools for LID retrofits, such as: cost-effective, low maintenance standard design details for LID retrofits of typical road configurations; unit cost estimates for both LID retrofit practices and non-LID standard street details; and “lessons learned” reports.	Complete design tools and make available.	100	SFEP, US EPA	Josh Bradt josh.bradt@sfestuary.org
Manage stormwater with low impact development and green infrastructure	24.6	Create a GIS-based database to track completed LID and GI projects in the public and private realms; coordinate the database with Total Maximum Daily Load (TMDL) accounting systems developed by other local partners to identify and quantify the load reduction benefits.	Launch database.	95	SFEP, US EPA	Josh Bradt josh.bradt@sfestuary.org
Address emerging contaminants	25.2	Support the continuation and evaluate the effectiveness of the regional education program aimed at reducing or eliminating the use of triclosan and triclocarban. Evaluate tools, such as non-purchase agreements, ordinances, or inclusion as a priority product by the California Department of Toxic Substances Control.	Complete evaluations.	100	Bay Area Pollution Prevention Group, CA PSP, SFEP	Darcie Luce darcie.luce@sfestuary.org
Decrease raw sewage discharges into the Estuary	26.2	Produce and promote a white paper that describes existing and potential funding mechanisms for residents to help pay for private sewer line repair and replacement, such as grant programs and financing strategies	Complete white paper.	100	SFEP	James Muller james.muller@sfestuary.org
Implement Total Maximum Daily Load projects in the Estuary, including projects to reduce mercury, methylmercury, pesticides and areas of low dissolved oxygen	27.2	Evaluate Best Management Practices (BMPs) in Suisun Marsh to improve marsh water quality and address dissolved oxygen and methylmercury impairment. Characterize managed wetland responses to BMPs through water quality modeling.	Develop water quality model.	90	SF Bay Regional Board, SFEP, Suisun RCD	James Muller james.muller@sfestuary.org

Advance nutrient management in the Estuary	28.3	Update the Nutrient Management Strategy for San Francisco Bay based on monitoring and modeling and load reduction study results from Tasks 28-1 and 28-2.	Update Nutrient Management Strategy.	0	SF Bay Regional Board, SFEI	Natasha Dunn natasha.dunn@sfestuary.org
Engage the scientific community in efforts to improve baseline monitoring of ocean acidification and hypoxia effects in the Estuary.	29.1	Convene scientists from around the San Francisco Estuary, including from leading marine laboratories and universities, to identify potential impacts of ocean acidification and hypoxia on beneficial uses of the state's waters. Build a conceptual model that can inform design and implementation of monitoring approach.	Convene workshop and complete a meeting summary with recommended actions.	100	SFEI, SFEP	Heidi Nutters heidi.nutters@sfestuary.org
Champion and implement the CCMP	32.3a	On a five-year cycle, provide current information about the health status of the Estuary through an updated State of the Estuary Report. Continue to gather data for current indicators, and develop new indicators that provide needed information regarding Estuary health and align with actions in the CCMP.	Develop a strategy for updating the 2015 State of the Estuary Report, including advancing new indicators.	75	SFEP	Caitlin Sweeney caitlin.sweeney@sfestuary.org

2019 TASKS						
Action Name	Task #	Task Description	Milestone	% Complete	Owner	SFEP Contact
Establish a regional wetland and stream monitoring program	2.4	Establish a regional network of sentinel tidal marsh monitoring stations within the Delta and the Bay to support ecological functioning and planning, incorporating and building on the San Francisco Bay National Estuarine Research Reserve program.	Establish sentinel marsh monitoring network.	20	SF Bay JV, SF Bay NERR, SFEP	Heidi Nutters heidi.nutters@sfestuary.org
Increase the efficacy of terrestrial predator management	10.1b	Develop a map showing priority areas in the San Francisco Estuary where actions can be taken to reduce feral cat predation on sensitive species, particularly Ridgway's Rail.	Engage managers on feral cat management and report on findings.	10	Point Blue, USFWS	Karen McDowell karen.mcdowell@sfestuary.org
Increase the efficacy of terrestrial predator management	10.2a	Guide predator management on publicly-owned conservation lands that support threatened and endangered species by: 1) assessing the impacts of management strategies (including the direct removal of predators and landscape alterations to reduce predator access to sensitive habitats) on populations of listed threatened and endangered species (in particular Ridgway's rail, Western snowy plover, and California least tern); 2) developing data and protocols for predator management activities (including predator surveys); 3) engaging managers of conservation lands in needs assessments.	Complete and disseminate predator management assessment report and recommendations.	10	USFWS	Karen McDowell karen.mcdowell@sfestuary.org
Restore watershed connections to the Estuary to improve habitat, flood protection and water quality	12.3	Use the tools developed in Task 12-1, as well as findings from other research and projects (including the Yolo Bypass project) to identify and select sites for multi-benefit projects. In partnership with property owners and public entities, assess existing conditions in the context of historic and projected conditions (including sea level rise) to develop appropriate project scopes and conceptual restoration designs for selected sites.	Develop project scopes and conceptual restoration designs for four sites.	100	SFEP	Adrien Baudrimont adrien.baudrimont@sfestuary.org
Demonstrate how natural habitats and nature-based shoreline infrastructure can provide increased resiliency to changes in the Estuary environment.	14.3	Based on the primer developed in Task 14-1 and the system developed in Task 14-2, develop best practices guidelines for natural and nature-based shoreline features that increase the resiliency of the Estuary and provide multiple ecosystem benefits to the region.	Develop best practices guidelines and recommendations.	25	SFEI, SFEP	Adrien Baudrimont adrien.baudrimont@sfestuary.org

Increase regional agricultural water use efficiency	20.1	Fund and complete a report assessing one Bay and one Delta area in the Estuary region, evaluating current practices against the range of applicable water use efficiency methods and management practices. Outline the mechanisms by which conserved water could produce great instream flow and groundwater recharge.	Complete report.	20	SFEP	Darcie Luce darcie.luce@sfestuary.org
Reduce water use for landscaping around the Estuary	21.3	Support expansion of local or regional water efficient landscape maintenance training programs that use the watershed approach. Support use of models such as the California Friendly Landscape Training Program and Bay-Friendly Landscape (Rescape California) Program.	Launch training programs in three new regions around the state.	75	SFEP, Rescape California	Darcie Luce darcie.luce@sfestuary.org
Integrate water into the updated Plan Bay Area and other regional planning efforts	23.3	Evaluate opportunities to take similar action through state mandated Sustainable Communities Strategies in the Delta region, using the Plan Bay Area update process as a model.	Complete evaluation.	33	SFEP, ABAG	Darcie Luce darcie.luce@sfestuary.org
Decrease raw sewage discharges into the Estuary	26.3	Publish an industry-supported, technically vetted sewage management manual for marinas.	Complete sewage management manual for marinas.	100	SFEP	James Muller james.muller@sfestuary.org
Advance nutrient management in the Estuary	28.5	Synthesize existing data and models in the Delta to update and expand the Department of Water Resources' report entitled, Characterizing and quantifying nutrient sources, sinks and transformations in the Delta: synthesis, modeling, and recommendations for monitoring. Use this synthesis to inform the design of the Delta Regional Monitoring Program and develop assessment questions.	Update report.	0	Central Valley RWQCB	Natasha Dunn natasha.dunn@sfestuary.org

All Actions – Average % Complete

Action	%	Action	%	Action	%	Action	%
Action 1: Develop and implement a comprehensive, watershed-scale approach to aquatic resource protection	23	Action 9: Minimize the impact of invasive species	14	Action 17: Improve regulatory review, permitting, and monitoring processes for multi-benefit climate adaptation projects	71	Action 25: Address emerging contaminants	89
Action 2: Establish a regional wetland and stream monitoring program	31	Action 10: Increase the efficacy of terrestrial predator management	8	Action 18: Improve the timing, amount, and duration of freshwater flows	53	Action 26: Decrease raw sewage discharges into the Estuary	78
Action 3: Protect, restore and enhance tidal marsh and tidal flat habitat	18	Action 11: Increase carbon sequestration through wetland restoration, creation, and management	37	Action 19: Develop long-term drought plans	87	Action 27: Implement Total Maximum Daily Load projects in the Estuary	98
Action 4: Identify, protect, and create transition zones around the Estuary	73	Action 12: Restore watershed connections to the Estuary	90	Action 20: Increase regional agricultural water use efficiency	15	Action 28: Advance nutrient management in the Estuary	30
Action 5: Protect, restore, and enhance intertidal and subtidal habitats	12	Action 13: Manage sediment on a regional scale and advance beneficial reuse	31	Action 21: Reduce water use for landscaping around the Estuary	24	Action 29: Improve baseline monitoring of ocean acidification and hypoxia	100
Action 6: Maximize habitat benefits of managed wetlands and ponds	44	Action 14: Demonstrate how natural habitats and nature-based shoreline infrastructure can provide increased resiliency	36	Action 22: Expand the use of recycled water	32	Action 30: Reduce trash input into the Estuary	38
Action 7: Conserve and enhance riparian and in-stream habitats throughout the Estuary's watersheds	28	Action 15: Advance natural resource protection while increasing resiliency of shoreline communities in the Bay Area	85	Action 23: Integrate water into the updated Plan Bay Area and other regional planning efforts	78	Action 31: Foster support for resource protection and restoration by providing public access and recreational opportunities compatible with wildlife	59
Action 8: Protect, restore, and enhance seasonal wetlands	22	Action 16: Integrate natural resource protection into hazard mitigation, response, and recovery planning	38	Action 24: Manage stormwater with low impact development and green infrastructure	99	Action 32: Champion and implement the CCMP	42