

# Delta Conservation Framework

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## Draft Overarching Goals, Strategies, Objectives and Actions:

### Contents

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GOAL A: Integrate Regular Stakeholder Communication and Socio-Economic Considerations into Delta Conservation Planning and Implementation Processes. ....	3
Strategy A1: Build Partnerships and Develop Collaborative Practices and Forums .....	3
Strategy A2: Consider Delta Socio-Economic Factors in Conservation Planning, Implementation and Management to Support Economic Vitality and Highlight Conservation Related Contributions.....	4
GOAL B: Build a Program that Promotes Public Education and Outreach Focused on Delta Community Integration with Ecosystem Conservation .....	5
Strategy B1: Determine Responsible Entity and Build Education and Outreach Program Focused on Delta Communities .....	5
Strategy B2: Develop and Run Local, State, and National Campaigns to Promote Delta Issues and the Role of Conservation to a Wide Audience .....	6
GOAL C: Develop Multi-Benefit Focused Conservation and Land Management Solutions to Balance Environmental and Human Needs .....	7
Strategy C1: Incorporate Conservation Goals with Levee Maintenance and Flood Management Practices to Provide Additional Habitat and Improve Existing Habitats along Delta Channels, River Corridors, and Riparian Zones.....	7
Strategy C2: Support Sustainable Wildlife-Friendly Agriculture to Provide Connectivity and Additional Foraging and Roosting Habitats for Wildlife and Migratory Birds .....	7
Strategy C3: Reverse Land Subsidence by Implementing “Carbon Farming” Projects where High Organic Matter Building Plants Sequester Carbon and Build Up Soils Over Time.....	8
Strategy C4: Advance State Agency and Stakeholder Land Management Processes and Procedures ....	8
Strategy C5: Develop Action Guidelines for Assuring Reliable Water Supply for In-Delta Uses When Implementing Conservation .....	9
Strategy C6: Integrate Solutions for Improving Water Quality into Conservation Project Planning and Implementation .....	9
GOAL D: Protect, Restore, Enhance and Sustain the Physical Processes that Create and Maintain Connected, Resilient and Diverse Aquatic and Terrestrial Delta Ecosystems and their Transitional Zones at a Scale and Landscape Configuration that Supports Prime Ecological Function and that Integrates with Human Needs.....	10

Strategy D1: Protect Delta Ecosystems and Transition Zones with Potential for Conservation and Human Benefits.....	10
Strategy D2: In Designated Conservation Lands Restore, Enhance and Manage Ecosystem Processes to Improve Function and Habitat Quality for Life History Support for Resident and Migratory Wildlife .....	10
GOAL E: Create Conditions Conducive to Meeting or Exceeding the Goals in Existing Species Recovery Plans.....	14
Strategy E1: Optimize the Level of Wildlife Population and Ecosystem Connectivity at Multiple Scales .....	14
Strategy E2: Optimize the Level of Ecosystem Function at Multiple Scales to Support a Thriving Delta Food Web.....	15
Strategy E3: Develop and Implement Coordinated and Proactive Approaches for the Early Detection, Rapid Response, and Long-Term Control and Management of Harmful Invasive Species.....	15
Strategy E4: Optimize the Level of Co-Benefits for Human Use of Conservation Areas and Reduced Adverse Effects on Delta Wildlife from Human Disturbance.....	16
GOAL F: Build Climate Change Adaptation Considerations and Adaptive Management Approaches into Planning and Implementation of Delta Conservation Projects. ....	17
Strategy F1: Develop Resources and a Suite of Recommended Management Actions for Integrating Delta Climate Change Adaptation into Delta Conservation and Community Planning.....	17
Strategy F2: Directly Integrate Adaptive Management into Conservation Project Planning .....	17
GOAL G: Improve the Capacity and Approaches for Permitting Processes in the Context of Delta Conservation Implementation. ....	18
Strategy G1: Develop Regional Permitting Frameworks for the Delta Conservation Opportunity Regions.....	18
Strategy G2: Directly Engage with Permitting Agencies to Find Ways to Improve the Permitting Process for Conservation-related Projects.....	18
GOAL H: Develop Mechanisms to Secure Long-Term Funding for Continued Conservation Implementation and Long-Term Management of Conservation Lands. ....	20
Strategy H1: Integrate with Existing Short-Term State Funding Opportunities .....	20
Strategy H2: Develop Long-Term Funding Support for Delta Conservation and Adaptive Management .....	20
Strategy H3: Develop Tools for Effectively Broadcasting Available Funding Opportunities.....	21

## GOAL A: Integrate Regular Stakeholder Communication and Socio-Economic Considerations into Delta Conservation Planning and Implementation Processes.

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### **Strategy A1: Build Partnerships and Develop Collaborative Practices and Forums**

- *OBJECTIVE A1-1: By 2018, build one partnership per conservation opportunity region and one for the entire planning area and initiate regularly scheduled forums for each, to facilitate conservation practitioners, and federal and state planning and permitting agencies to effectively work with local governments, farmers, landowners and other community members when planning and implementing conservation projects.*
  - *Example ACTION A1-1-1: Build on existing partnerships and collaboration models, such as the Yolo Bypass working group, Central Valley Joint Venture, etc.*
  - *Example ACTION A1-1-2: Start by communicating with existing stakeholder groups and conduct early project outreach and consultation to build broad buy-in and interagency coordination.*
  - *Example ACTION A1-1-3: Strive to maximize communication across interests by following a model of cross-sector and cross-stakeholder collaboration and inclusivity.*
  - *Example ACTION A1-1-4: Work in close collaboration with the Delta community throughout planning and implementation of conservation projects that strive for community benefits and minimal impacts.*
  - *Example ACTION A1-1-5: Follow guidelines outlined in good-neighbor check lists when implementing conservation projects*
  
- *OBJECTIVE A1-2: By 2018, develop a website with a set of collaborative practices, coordination guidelines, and links to other resources for early and consistent communication between stakeholders about conservation projects and management, related agricultural operations, or other considerations.*
  - *Example ACTION A1-2-1: Determine entity to set up and manage website and secure funding for site set up and maintenance.*
  - *Example ACTION A1-2-2: Provide good neighbor BMP check lists and agreement options (e.g. Federal safe harbor agreements) for conservation practitioners and landowners to avoid negative landowner impacts from listed species encroachment.*
  - *Example ACTION A1-2-3: Develop and post outreach materials to improve awareness of opportunities for collaboration and partnerships.*
  - *Example ACTION A1-2-4: Develop guidelines that recognize the realistic limitations of conflicting land uses when setting conservation project planning goals*
  - *Example ACTION A1-2-5: Provide guidelines to establish an onsite land conservation project manager that can help with neighboring landowner communications.*

- *Example ACTION A1-2-6: Encourage the support of existing local efforts during conservation implementation and management to reduce nuisance and illegal activities.*
- *Example ACTION A1-2-7: Recommend engaging in multi-level planning, considering short- and long-term outcomes of conservation Example ACTIONS with an explanation of how links between conservation and local communities play out on both time scales.*
- *Example ACTION A1-2-8: Encourage conservation practitioners to coordinate stakeholder outreach with Reclamation Districts or County agricultural commissioners.*
- *Example ACTION A1-2-9: Emphasize the importance of a constructive, positive approach to working in collaborative contexts.*

### **Strategy A2: Consider Delta Socio-Economic Factors in Conservation Planning, Implementation and Management to Support Economic Vitality and Highlight Conservation Related Contributions.**

- *OBJECTIVE A2-1: By 2020, complete at least two Delta-specific socioeconomic research projects relating to costs and benefits of Delta conservation allowing for both short-and long-term considerations, and show how findings can be incorporated into conservation project planning and evaluation.*
  - *Example ACTION A2-1-1: Provide state funding support for conducting Delta-specific socioeconomic research projects related to conservation implementation.*
  - *Example ACTION A2-1-2: Conduct and monitor studies*
  - *Example ACTION A2-1-3: Disseminate study results widely via presentations to Delta stakeholders and other forums and by publishing findings to reach a variety of audiences.*
  - *Example ACTION A2-1-4: Determine how to incorporate findings from research projects into Delta conservation planning and show how conservation can contribute to the Delta's economic vitality.*

## GOAL B: Build a Program that Promotes Public Education and Outreach Focused on Delta Community Integration with Ecosystem Conservation

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### **Strategy B1: Determine Responsible Entity and Build Education and Outreach Program Focused on Delta Communities**

- ***OBJECTIVE B1-1: By 2018, determine a responsible entity for the Delta Outreach and Education Program and secure funding support for 5-year program implementation***
  - ***Example ACTION B1-1-1: Research and evaluate available funding opportunities to build Delta Outreach and Education Program***
  - ***Example ACTION B1-1-2: Identify and contact potential responsible entities for the Delta Outreach and Education Program.***
  - ***Example ACTION B1-1-3: Potential responsible entity develops funding proposal for Delta Outreach and Education Program.***
  - ***Example ACTION B1-1-4: With secured funding, responsible entity writes program implementation plan.***
- ***OBJECTIVE B1-2: By 2020, responsible entity initiates a 5-year Delta Outreach and Education Program***
  - ***Example ACTION B1-2-1: Responsible entity develops and disseminates outreach materials, including a program website, and information pamphlets that highlight how the Delta community can benefit from, integrate with and support ecosystem conservation.***
  - ***Example ACTION B1-2-2: Responsible entity develops and implements curriculum for a variety of school levels that highlights how the Delta community can benefit from, integrate with and support ecosystem conservation.***
  - ***Example ACTION B1-2-3: Responsible entity develops opportunities to educate the public at a variety of forums with agendas that highlight how the Delta community can benefit from, integrate with and support ecosystem conservation.***
  - ***Example ACTION B1-2-4: With secured funding, responsible entity measures impact of the 5-year Outreach and Education Program over five to ten years.***
- ***OBJECTIVE B1-3: By 2018, provide a quarterly forum including an annual “planning congress” for all Delta stakeholders and the public to engage with one another to keep conservation-related discussions current and ongoing.***
  - ***Example ACTION B1-3-1: Responsible entity develops funding proposal and solicits funding support for planning and implementation of annual “Delta Planning Congress.”***
  - ***Example ACTION B1-3-2: Responsible entity develops website presence and disseminates outreach materials about “Delta Planning Congress.”***
  - ***Example ACTION B1-3-3: Responsible entity finds appropriate venue and develops engagement plan with focus on a public audience.***
  - ***Example ACTION B1-3-4: Responsible entity implements annual “Delta Planning Congress.”***
  - ***Example ACTION B1-3-5: Responsible entity gathers and disseminates findings from each annual “Delta Planning Congress.”***

## **Strategy B2: Develop and Run Local, State, and National Campaigns to Promote Delta Issues and the Role of Conservation to a Wide Audience**

- ***OBJECTIVE B2-1:*** *By 2019, launch an initial statewide education campaign about water in California and the related issues and importance of the SSJ Delta in order to gain public understanding and support for programs benefitting the region*
  - ***Example ACTION B2-1-1:*** *Research and evaluate available funding opportunities to build 5-year Delta statewide education campaign.*
  - ***Example ACTION B2-1-2:*** *Identify responsible entities for the Delta statewide education campaign.*
  - ***Example ACTION B2-1-3:*** *Responsible entity develops funding proposal for Delta statewide education campaign.*
  - ***Example ACTION B2-1-4:*** *With secured funding, responsible entity writes campaign implementation plan.*
- ***OBJECTIVE B2-2:*** *By 2020, responsible entity implements a 5-year Delta statewide education campaign.*
  - ***Example ACTION B2-2-1:*** *Responsible entity develops and disseminates outreach materials, including a program website, and information pamphlets and other media that highlights how all California residents benefit from, and can support ecosystem conservation in the Delta.*
  - ***Example ACTION B2-2-2:*** *Responsible entity develops and implements curriculum for a variety of school levels that highlights how all California residents benefit from, and can support ecosystem conservation in the Delta.*
  - ***Example ACTION B2-2-3:*** *Responsible entity develops opportunities to educate the California public at a variety of forums with agendas that highlight how all California residents benefit from, and can support ecosystem conservation in the Delta.*
  - ***Example ACTION B2-2-4:*** *With secured funding, responsible entity measures impact of the 5-year Delta statewide education campaign over five to ten years.*
- ***OBJECTIVE B2-3:*** *By 2020, implement a one-year media campaign to build statewide and national support for Delta conservation and to widely promote "Delta as a Place" (like "Keep Tahoe Blue")*
  - ***Example ACTION B2-3-1:*** *Research and evaluate available funding opportunities to build a one-year state and national SSJ Delta media campaign.*
  - ***Example ACTION B2-3-2:*** *Identify and contact potential responsible entities for the one-year state and national SSJ Delta media campaign.*
  - ***Example ACTION B2-3-3:*** *Potential responsible entity develops funding proposal for a one-year state and national SSJ Delta media campaign.*
  - ***Example ACTION B2-3-4:*** *With secured funding, responsible entity writes implementation plan for a one-year state and national SSJ Delta media campaign.*
  - ***Example ACTION B2-3-5:*** *With secured funding, responsible entity implements the one-year state and national SSJ Delta media campaign.*
  - ***Example ACTION B2-3-6:*** *With secured funding, responsible entity measures impact of the one-year state and national SSJ Delta media campaign over one – three years.*

## GOAL C: Develop Multi-Benefit Focused Conservation and Land Management Solutions to Balance Environmental and Human Needs

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### **Strategy C1: Incorporate Conservation Goals with Levee Maintenance and Flood Management Practices to Provide Additional Habitat and Improve Existing Habitats along Delta Channels, River Corridors, and Riparian Zones**

- ***OBJECTIVE C1-1:** By 2018, as part of regional conservation strategies identify opportunities in each region, and develop an implementation plan for enhancing Delta channels, river corridors and riparian zones by creating a levee system designed to secure flood protection and provide habitat value to native fish and wildlife, where possible.*
  - ***Example ACTION C1-1-1:** Establish a responsible entity to oversee and coordinate a planning team that includes responsible state and federal agencies, reclamation districts, pertinent landowners and other stakeholders.*
  - ***Example ACTION C1-1-2:** Build on existing planning efforts (e.g. Delta Levees Subventions Program, Delta Levees Investment Strategy) to develop multi-benefit opportunities for levee maintenance and improvement and flood management practices.*
  - ***Example ACTION C1-1-3:** Develop funding proposal to secure needed support for planning and implementation*
  - ***Example ACTION C1-1-4:** With secured funding, continue planning and prioritize projects for implementation in each region.*
  - ***Example ACTION C1-1-5:** Implement recommended projects and incorporate adaptive management.*
  - ***Example ACTION C1-1-6:** Whenever possible, reuse dredge materials for habitat and levee improvements.*

### **Strategy C2: Support Sustainable Wildlife-Friendly Agriculture to Provide Connectivity and Additional Foraging and Roosting Habitats for Wildlife and Migratory Birds**

- ***OBJECTIVE C2-1:** By 2020, implement a long-term state or federally funded program that provides economic incentives to agricultural practitioners and landowners to sustainably expand wildlife-friendly agriculture and land uses where possible in the Delta and its watershed.*
  - ***Example ACTION C2-1-1:** Establish a responsible entity to oversee and coordinate this program.*
  - ***Example ACTION C2-1-2:** Solicit funding support to establish the program and coordinate partnerships that foster and coordinate wildlife-friendly farming and low-impact recreation near or on conservation lands.*

- *OBJECTIVE C2-2: By 2020, triple the implementation of agricultural conservation easements that also benefit conservation by working in close collaboration with the National Resource Conservation Service and other pertinent agencies and stakeholders.*
  - *Example ACTION C2-2-1: Start a Delta focused education campaign about agricultural and related conservation easements to inform landowners by sharing information about successful easements*
  - *Example ACTION C2-2-2: As part of establishing regional conservation strategies, plan regional conservation projects in conjunction with agricultural and land stewardship strategies that incorporate agricultural and conservation easements as tools.*

### **Strategy C3: Reverse Land Subsidence by Implementing “Carbon Farming” Projects where High Organic Matter Building Plants Sequester Carbon and Build Up Soils Over Time**

- *OBJECTIVE C3-1: By 2025, triple the number of “carbon farming” projects that aim to manage lands to reverse land subsidence and sequester carbon with funding support through carbon market opportunities*
  - *Example ACTION C3-1-1: Conduct funding solicitations focused on expanding agricultural practices or restoration projects that facilitate carbon sequestration to attract willing practitioners to establish demonstration projects as precedents.*
  - *Example ACTION C3-1-2: Develop and implement education campaign among Delta agricultural and restoration practitioners.*
  - *Example ACTION C3-1-3: Identify suite of Delta conservation lands that will be best suited for this practice.*
  - *Example ACTION C3-1-4: With solicited funding, implement recommended projects and incorporate adaptive management.*

### **Strategy C4: Advance State Agency and Stakeholder Land Management Processes and Procedures**

- *OBJECTIVE C4-1: By 2020, identify a suite of 5-10 recommended tactics to improve cross-agency and stakeholder communication and coordination for management of state-owned lands.*
  - *Example ACTION C4-1-1: Recognizing that different entities will be appropriate for managing lands in different parts of the Delta, implement a partnership approach and link to existing collaborative efforts, where possible.*
  - *Example ACTION C4-1-2: Make it common practice to implement good neighbor checklist guidelines when managing state owned lands.*
  - *Example ACTION C4-1-3: Recognize major land management challenges for state agencies and coordinate potential solutions for implementation as part of the Delta regional conservation strategies.*



## **Strategy C5: Develop Action Guidelines for Assuring Reliable Water Supply for In-Delta Uses When Implementing Conservation**

- **OBJECTIVE C5-1:** *By 2020, develop a suite of 5-10 action guidelines to help preserve access to reliable water supplies for use within the Delta.*
  - **Example ACTION C5-1-1:** *Identify, share and implement water diversion practices that minimize adverse effects on native fish and wildlife through landowner coordination.*
  - **Example ACTION C5-1-2:** *Identify responsible entity to develop and solicit support for implementation of water diversion practices.*
  
- **OBJECTIVE C5-2:** *By 2020, develop a suite of 5-10 action guidelines to help secure local water supply when implementing conservation projects*
  - **Example ACTION C5-2-1:** *Develop practices and tools to improve coordination of water supply for restored lands.*
  - **Example ACTION C5-2-2:** *Identify responsible entity to develop practices and tools to improve coordination of water supply for restored lands.*

## **Strategy C6: Integrate Solutions for Improving Water Quality into Conservation Project Planning and Implementation**

- **OBJECTIVE C6-1:** *By 2020, integrate best practices for improved water quality into conservation projects where appropriate.*
  - **Example ACTION C6-1-1:** *Consider changes in residence time (related probability of Microcystis blooms) and salinity when planning and siting restoration projects.*
  - **Example ACTION C6-1-2:** *Consider the potential for large scale effects on water quality when implementing local-scale conservation projects (e.g. system-wide or localized salinity or methyl mercury effects).*

**GOAL D:** Protect, Restore, Enhance and Sustain the Physical Processes that Create and Maintain Connected, Resilient and Diverse Aquatic and Terrestrial Delta Ecosystems and their Transitional Zones at a Scale and Landscape Configuration that Supports Prime Ecological Function and that Integrates with Human Needs.

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### **Strategy D1: Protect Delta Ecosystems and Transition Zones with Potential for Conservation and Human Benefits**

- **OBJECTIVE D1-1:** *By 2025, protect terrestrial ecosystems and transition zones important for connectivity of terrestrial ecosystems in the long-term to provide resilient habitats and life history support for resident and migratory wildlife into the future*
  - **Example ACTION D1-1-1:** *Identify terrestrial ecosystems and transition zones with long-term potential for landscape scale connectivity to explore solutions with willing landowners.*
  - **Example ACTION D1-1-2:** *Identify available funding streams for implementation of ecosystem protection, including fee-title purchase and conservation or agricultural easements.*
- **OBJECTIVE D1-2:** *By 2050, establish a diversity of functioning ecosystems throughout the Delta as diverse mosaics of complementary habitat types supporting a broad suite of ecological processes and species with landscape-scale connectivity over the long term.*
  - **Example ACTION D1-2-1:** *Engage in regional planning to establish Regional Conservation Strategies through an inclusive public stakeholder planning process.*
  - **Example ACTION D1-2-2:** *Integrate regional planning with landscape-level dynamics.*

### **Strategy D2: In Designated Conservation Lands Restore, Enhance and Manage Ecosystem Processes to Improve Function and Habitat Quality for Life History Support for Resident and Migratory Wildlife**

- **OBJECTIVE D2-1:** *By 2050, re-establish **fluvial processes** along streams to provide resilient habitat and foster life history support for healthy populations of resident and anadromous fish and other wildlife species.*
  - **Example ACTION D2-1-1:** *Reestablish a functional hydrograph.*
  - **Example ACTION D2-1-2:** *Establish appropriate flows and sediment transport/delivery to maintain in-channel habitats.*
  - **Example ACTION D2-1-3:** *Establish appropriate flows and sediment transport/delivery to create, maintain, and activate complex off-channel, floodplain, and woody riparian habitats.*
  - **Example ACTION D2-1-4:** *Increase the frequency of long-duration inundation events.*
  - **Example ACTION D2-1-5:** *Allow for groundwater recharge to support non-tidal freshwater emergent marshes and transition zones.*

- Example ACTION D2-1-6: Ensure that woody riparian habitats are connected to the processes that maintain them (i.e., adjacent to streams).
- Example ACTION D2-1-7: Ensure that woody riparian corridors are as wide as possible.
- Example ACTION D2-1-8: Ensure that woody riparian corridors are as large as possible.
- Example ACTION D2-1-9: Minimize the length and frequency of gaps in woody riparian corridors.
- Example ACTION D2-1-10: Ensure that flood basins have connections at upstream and downstream ends.
- **OBJECTIVE D2-2**: By 2050, re-establish **functional channels and river corridors and tidal floodplains** for support of resident and migratory aquatic species.
  - Example ACTION D2-2-1: Restore flooding regimes with a magnitude, timing, extent, and duration of inundation that supports desired ecological functions.
  - Example ACTION D2-2-2: Increase delivery of flows with high suspended sediment concentrations to marshes in fluvial-tidal transition zone.
  - Example ACTION D2-2-3: Prepare for migration of fluvial-tidal zone upstream with sea level rise.
  - Example ACTION D2-2-4: Maximize marsh-woody riparian edge through the restoration of riparian habitat next to marshes
- **OBJECTIVE D2-3**: By 2050, re-establish **tidal marsh processes in areas at intertidal elevations** to provide resilient habitats and life history support for marsh wildlife
  - Example ACTION D2-3-1: Restore tidal marshes to full tidal action.
  - Example ACTION D2-3-2: Restore complex and variable patterns of tidal inundation.
  - Example ACTION D2-3-3: Reconnect tidal marshes to processes that allow them to maintain their extent over time.
  - Example ACTION D2-3-4: Conserve large marshes as much as possible.
  - Example ACTION D2-3-5: Minimize distances between marshes.
  - Example ACTION D2-3-6: Maximize the ratio of core to edge habitat.
  - Example ACTION D2-3-7: Increase the ratio of marsh to open water.
  - Example ACTION D2-3-8: Maximize marsh-water edge length through the development of interior channel networks.
- **OBJECTIVE D2-4**: By 2050, re-establish **tidal marsh processes in subsided areas** to provide resilient habitats and life history support for marsh wildlife
  - Example ACTION D2-4-1: Halt or limit ongoing subsidence by increasing groundwater levels
  - Example ACTION D2-4-2: Maximize the vertical accumulation of organic matter by optimizing managed wetland hydrology.
  - Example ACTION D2-4-3: Maximize the vertical accumulation of inorganic matter (where appropriate).
  - Example ACTION D2-4-4: Minimize the distance from subsidence reversal projects to freshwater inputs with high sediment supplies.
  - Example ACTION D2-4-5: Once elevations are recovered, follow guidelines for reestablishing processes in intertidal areas.

- **OBJECTIVE D2-5:** By 2050, re-establish **tidal processes in channel and open water areas** to provide resilient habitats and life history support for marsh wildlife
  - Example ACTION D2-5-1: Increase the extent and duration of land-water connectivity.
  - Example ACTION D2-5-2: Improve tidal flow regimes, bathymetry, and channel geometries that increase spatial and temporal variability of abiotic conditions.
  - Example ACTION D2-5-3: Improve water quality in tidal zone, including regulating water temperature and sediment concentrations.
  - Example ACTION D2-5-4: Maintain freshwater flow regimes that result in temporal variability in estuarine salinity in the tidal zone at the Delta's western margin.
  - Example ACTION D2-5-5: Embed tidal channels within tidal marshes.
  - Example ACTION D2-5-6: Increase the ratio of blind channel length to flow-through channel length.
  - Example ACTION D2-5-7: Ensure that blind tidal channels have an appropriate branching geometry.
  - Example ACTION D2-5-8: Ensure that blind channels are longer than the tidal excursion length.
  
- **OBJECTIVE D2-6:** By 2050, re-establish **tidal-terrestrial transition zones** to provide resilient habitats and life history support for wildlife.
  - Example ACTION D2-6-1: Restore hydrologic connectivity from upland to wetland habitats (upland hydrology).
  - Example ACTION D2-6-2: Allow tidal flows to access the transition zone (tidal hydrology).
  - Example ACTION D2-6-3: Allow for internal processes that maintain ecotones.
  - Example ACTION D2-6-4: Allow space for migration/transgression of transition zone upslope with sea level rise.
  - Example ACTION D2-6-5: Maximize the length and continuity of the transition zone.
  - Example ACTION D2-6-6: Maximize the width of the transition zone.
  - Example ACTION D2-6-7: Increase the diversity of transition zone types at the scale of the full Delta.
  
- **OBJECTIVE D2-7:** By 2050, re-establish **connected terrestrial habitats around the periphery of the Delta** to provide resilient habitats and life history support for wildlife and migratory birds.
  - Example ACTION D2-7-1: Improve exchange of shallow groundwater and surface water, and ground water/surface water interactions.
  - Example ACTION D2-7-2: Consider soil dynamics.
  - Example ACTION D2-7-3: Consider drainage patterns.
  - Example ACTION D2-7-4: Maximize the width of terrestrial habitats buffering wetlands.
  - Example ACTION D2-7-5: Maximize the continuity of high quality terrestrial habitats at the periphery of the Delta.
  - Example ACTION D2-7-6: Maximize the patch size of terrestrial habitat types at the periphery of the Delta.

- *Example ACTION D2-7-7: Increase the connectivity to terrestrial areas outside of the Delta.*
- **OBJECTIVE D2-8:** *By 2050, expand **wildlife-friendly agriculture** and operate **managed wetland processes** to provide resilient habitat and foster life history support for healthy populations of resident and migratory wildlife species.*
  - *Example ACTION D2-8-1: Plant and maintain hedgerows that are wide, tall, structurally complex, diverse, and connected to other semi-natural and natural habitat types.*
  - *Example ACTION D2-8-2: Maintain or increase the extent of high-quality migratory bird habitat to support viable populations of native resident and migratory bird species.*
  - *Example ACTION D2-8-3: Foraging habitats for wintering waterfowl should be large enough to minimize the effects of human disturbance*
  - *Example ACTION D2-8-4: Minimize negative impacts from agricultural operations where possible (e.g. adjust timing of practices such as delaying harvest to avoid impacts during nesting season).*
  - *Example ACTION D2-8-5: Support the creation of seasonal or permanent wetlands within agricultural fields, hedgerows and buffer strips, reduced pesticide and herbicide application, water conservation measures, among other measures.*
  - *Example ACTION D2-8-6: Minimize impacts to water quality through practices including reduced pesticide use, integrated pest management, settling basins, and buffer strips to filter runoff.*
  - *Example ACTION D2-8-7: Implement water conservation measures*
  - *Example ACTION D2-8-8: Minimize the potential for negative impacts on Delta wildlife through water diversions and effects on water quality.*
  - *Example ACTION D2-8-9: Continue planting of wildlife-friendly row crops and rice fields to support waterbirds and fish in the Delta.*
  - *Example ACTION D2-8-10: Gain public support for wildlife-friendly agriculture by promoting events as the Sandhill Crane Festival in Lodi and Duck Days in Davis.*
- **OBJECTIVE D2-9:** *By 2050, re-establish **ecological functions in urban areas** to provide resilient habitats and life history support for urban and migratory wildlife and birds*
  - *Example ACTION D2-9-1: Reuse and reconnect freshwater used in cities.*
  - *Example ACTION D2-9-2: Increase terrestrial buffers around streams/wetlands within or adjacent to Delta urban areas and cities.*
  - *Example ACTION D2-9-3: Increase native vegetation cover in Delta urban areas and cities.*
  - *Example ACTION D2-9-4: Increase amount of open space and native vegetation patches within Delta urban areas and cities.*

## GOAL E: Create Conditions Conducive to Meeting or Exceeding the Goals in Existing Species Recovery Plans

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### **Strategy E1: Optimize the Level of Wildlife Population and Ecosystem Connectivity at Multiple Scales**

- ***OBJECTIVE E1-1: By 2025, develop and initiate at minimum five projects to address priority actions realize opportunities for improved connectivity and meandering water ways along riverine and riparian migratory corridors for fish, birds, and other wildlife along selected Delta rivers, sloughs, agricultural channels, or streams.***
  - ***Example ACTION E1-1-1: Reestablish flows and flooding that sustain dynamic woody riparian habitats.***
  - ***Example ACTION E1-1-2: Reestablish and maintain hydrologic connections to the watershed***
  - ***Example ACTION E1-1-3: Restore wide, continuous woody riparian areas***
  - ***Example ACTION E1-1-4: Restore diversity of riparian habitats***
  - ***Example ACTION E1-1-5: Connect Delta woody riparian corridors to habitats in the upper watershed tributaries***
  - ***Example ACTION E1-1-6: Restore and buffer urban creeks***
  - ***Example ACTION E1-1-7: Plant and maintain wide, tall, functionally complex hedgerows that are connected to other habitat types***
  - ***Example ACTION E1-1-8: Maintain appropriate groundwater levels to support riparian habitats***
- ***OBJECTIVE E1-2: By 2025, develop and initiate at minimum five projects to address priority actions to remove barriers and realize opportunities for improved connectivity along terrestrial (overland) movement corridors, including established migratory corridors for birds, and other wildlife.***
  - ***Example ACTION E1-2-1: Support and expand wildlife-friendly agriculture***
  - ***Example ACTION E1-2-2: Plant and maintain wide, tall, functionally complex hedgerows that are connected to other habitat types***
- ***OBJECTIVE E1-3: By 2025, develop and initiate at minimum five projects to address priority actions to remove barriers and realize opportunities for improved connectivity across transitional zones.***
  - ***Example ACTION E1-3-1: Reestablish small sinuous wetland channels to maintain or improve connectivity between wetlands and open water to allow for exchange of materials, energy, and organisms.***
  - ***Example ACTION E1-3-2: Restore, maintain, and protect long, continuous marsh-tidal-terrestrial transition zones to support marsh migration, materials exchange, and wildlife refuge, acclimation and adaptation.***

## **Strategy E2: Optimize the Level of Ecosystem Function at Multiple Scales to Support a Thriving Delta Food Web**

- ***OBJECTIVE E2-1: By 2025, develop and implement 5 projects to address priority actions to reestablish a thriving Delta aquatic food web to support native fauna.***
  - ***Example ACTION E2-1-1: Restore large areas of marsh, and protect existing large marsh areas.***
  - ***Example ACTION E2-1-2: Maintain, support, and reestablish the natural processes that support marsh ecosystem function and persistence.***
  - ***Example ACTION E2-1-3: Support landscape configurations that allow connectivity among marshes.***
  - ***Example ACTION E2-1-4: Maintain habitat complexity and diversity at a landscape level.***
  - ***Example ACTION E2-1-5: Restore complex dendritic channel networks to maintain connectivity between wetlands and open water and allow for exchange of materials, energy, and organisms***
  - ***Example ACTION E2-1-6: Maintain unleveed connections between marsh and open water.***
  - ***Example ACTION E2-1-7: Restore marshes near existing remnant and restored marshes.***

## **Strategy E3: Develop and Implement Coordinated and Proactive Approaches for the Early Detection, Rapid Response, and Long-Term Control and Management of Harmful Invasive Species.**

- ***OBJECTIVE E3-1: By 2020, support Delta county weed management areas to prioritize implementation of area-wide control for problematic invasive species***
  - ***Example ACTION E3-1-1: Partner with experienced organizations to take a multi-agency approach and leverage jurisdictions, equipment and data for invasive species control.***
  - ***Example ACTION E3-1-2: During project planning consider how to control invasive species after construction of conservation projects (e.g. Decker Island), using project design, adaptive management, and early action supported by monitoring.***
  - ***Example ACTION E3-1-3: Widely distribute guidelines on how to control invasive species after construction of conservation project among practitioners in the Delta.***
- ***OBJECTIVE E3-2: By 2030, double the current level of early detection and management of invasive species of concern in the Delta to reduce negative impacts on ecosystem function, special status species, and Delta community interests.***
  - ***Example ACTION E3-2-1: Determine responsible entity to establish 5-10 year control and management plan for the Delta, where management and funding needs are clearly outlined.***
  - ***Example ACTION E3-2-2: Determine responsible entity to develop mechanisms to increase funding support for invasive species control management***

- *Example ACTION E3-2-3: Clearly articulate and recognize limitations of effective control and management of invasive species.*
- *Example ACTION E3-2-4: Whenever possible, focus invasive species management and control efforts on early detection and rapid response.*
- *Example ACTION E3-2-5: Responsible management entities implement 5-10 year control and management plan.*

#### **Strategy E4: Optimize the Level of Co-Benefits for Human Use of Conservation Areas and Reduced Adverse Effects on Delta Wildlife from Human Disturbance**

- *OBJECTIVE E 4-1: By 2020, develop a Public Access Plan for Delta conservation lands recognizing existing management plans and management objectives to clearly outline a needed balance between conserving Delta ecosystems and support public access and recreation activities.*
  - *Example ACTION E4-1-1: Establish a responsible entity to develop Delta focused public access plan.*
  - *Example ACTION E4-1-2: Responsible entity solicits funding for public access plan and implements plan development once funds are secured.*
  - *Example ACTION E4-1-3: Responsible entity works with land managers, public and stakeholders in an open process to develop public access plan, clearly articulating the need for a balanced approach to restricted areas and public access.*
  - *Example ACTION E4-1-4: Public access plan provides specific examples of co-benefits such as coordinated hunting access balanced with large foraging habitats for wintering waterfowl sheltered from recognized disturbance impacts from public access to promote waterfowl population health.*
  - *Example ACTION E4-1-5: Once finalized, and adopted by land management agencies, responsible entity widely distributes public access plan to public via online media, webinars, and meetings.*
  - *Example ACTION E4-1-6: Agencies and other Delta land managers implement Delta Public Access Plan.*



## GOAL F: Build Climate Change Adaptation Considerations and Adaptive Management Approaches into Planning and Implementation of Delta Conservation Projects.

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### **Strategy F1: Develop Resources and a Suite of Recommended Management Actions for Integrating Delta Climate Change Adaptation into Delta Conservation and Community Planning**

- **OBJECTIVE F1-1:** *By 2018, develop a suite of guidelines for how climate change adaptation should be integrated into existing conservation planning documents and efforts.*
  - **Example ACTION F1-1-1:** *Establish a responsible entity to develop Delta focused guidelines for addressing climate adaptation in conservation planning and implementation.*
  - **Example ACTION F1-1-2:** *Responsible entity widely distributes guidelines to practitioners via online media, webinars, and meetings.*
  - **Example ACTION F1-1-3:** *Responsible entity works with granting agencies to develop procedures for how to integrate climate change adaptation requirements into grant solicitation language.*
- **OBJECTIVE F1-2:** *By 2019, implement Delta conservation management actions to directly address the effects of sea-level rise, salinity intrusion, precipitation & temperature changes, and extreme weather events.*
  - **Example ACTION F1-2-1:** *While planning conservation projects ensure that they withstand additional pressures from sea level rise and extreme weather events.*
  - **Example ACTION F1-2-2:** *When managing conservation lands, make small infrastructure improvements over time to manage long-term cost.*

### **Strategy F2: Directly Integrate Adaptive Management into Conservation Project Planning**

- **OBJECTIVE F2-1:** *By 2018, develop guidelines on how adaptive management should best be integrated into ongoing Delta conservation planning and implementation efforts.*
  - **Example ACTION F2-1-1:** *Integrate clearly articulated, objective-based adaptive management requirements into state and federal grant solicitation language to ensure that adaptive management becomes a cohesive part of the project 's budget and implementation requirements, even if longer-term monitoring is required.*
  - **Example ACTION F2-1-2:** *Develop examples of how the guidelines can be realized as part of funding guidelines for State funded projects.*

## GOAL G: Improve the Capacity and Approaches for Permitting Processes in the Context of Delta Conservation Implementation.

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### **Strategy G1: Develop Regional Permitting Frameworks for the Delta Conservation Opportunity Regions**

- ***OBJECTIVE G1-1: By 2018, develop guidelines and find lead implementation agency for regional permitting frameworks in the Delta.***
  - ***Example ACTION G1-1-1: Create a regional permitting coordination committee to guide regional permitting frameworks in the Delta.***
  - ***Example ACTION G2-1-2: Identify an entity to hold a Delta regional permit.***
  - ***Example ACTION G1-1-3: Address inconsistent permit requirements (e.g. Tule Red wetland fill mitigation).***
  - ***Example ACTION G1-1-4: Develop compliance assessment guidelines for coordinated regional restoration.***
  - ***Example ACTION G1-1-5: Provide executive sponsorship/championship (Governor, legislature, etc.) to overcome hurdles (e.g. different authorities of different regulatory agencies).***
  - ***Example ACTION G1-1-6: Develop a guidebook for practitioners regarding: who to go to for each permit; keep it updated online.***

### **Strategy G2: Directly Engage with Permitting Agencies to Find Ways to Improve the Permitting Process for Conservation-related Projects**

- ***OBJECTIVE G2-1: By 2017 bring together wetland restoration regulators and experts for regular regional meetings to discuss ways to streamline conservation related permitting processes and requirements.***
  - ***Example ACTION G2-1-1: Establish a responsible entity to develop funding support and convene regular meetings.***
  - ***Example ACTION G2-1-2: Responsible entity develops online tool and guidebook to clarify processes to maximize efficiency in obtaining permits and to summarize lessons learned from past projects.***
  - ***Example ACTION G2-1-3: Develop approaches to consider “ecosystem function” goals in the context of CESA/ESA permitting.***
  - ***Example ACTION G2-1-4: Build (fee-based) permitting into program cost.***
  - ***Example ACTION G2-1-5: Establish a permitting ombudsman - someone to mediate potentially conflicting requirements and answer restoration practitioners' questions about permitting.***
  - ***Example ACTION G2-1-6: Use federal ESA Safe Harbor Agreements & State equivalent, i.e., CDFW-approved Voluntary Local Programs to enhance and maintain listed species.***
  - ***Example ACTION G2-1-7: Acknowledge species lifecycles in take permits.***
  - ***Example ACTION G2-1-8: Design self-mitigating projects.***
  - ***Example ACTION G2-1-9: Expand mitigation banks and make them more affordable (e.g. public banks; Twitchell Island by DWR).***

- *OBJECTIVE G2-2: By 2018, develop and initiate 5-10 strategies to provide funding to double dedicated regulatory staff positions for restoration projects.*
  - *Example ACTION G2-2-1: Establish a responsible entity to convene regular meetings of Delta regulatory agency team of experts.*
  - *Example ACTION G2-2-2: Responsible entity leads agency team of experts to develop funding support for doubling available regulatory staff focused on Delta conservation permitting for next 5 years.*
  - *Example ACTION G2-2-3: Agencies implement strategies to double regulatory staff focused on Delta conservation permitting for next 5 years.*

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## GOAL H: Develop Mechanisms to Secure Long-Term Funding for Continued Conservation Implementation and Long-Term Management of Conservation Lands.

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### **Strategy H1: Integrate with Existing Short-Term State Funding Opportunities**

- **OBJECTIVE H1-1:** *By 2017, update grant solicitation language for available State funding opportunities to directly tie Delta Conservation Framework goals to available State funds*
  - **Example ACTION H1-1-1:** *Work with State agency grant programs to review available grant guidelines and explore possibility to incorporate Delta Conservation Framework goals into solicitation language.*
  - **Example ACTION H1-1-2:** *Educate funding community and legislature about Delta Conservation Framework goals through presentations, and distribution of media, including website posts.*
  
- **OBJECTIVE H1-2:** *Recognizing the potential limitations of current and future funding programs, work with policy staff to improve new bond language to support Delta Conservation Framework goals on an ongoing basis.*
  - **Example ACTION H1-2-1:** *Stay informed on new bond measures and work with state agency policy staff to incorporate language reflecting Delta Conservation Framework goals where possible*
  - **Example ACTION H1-2-2:** *Educate funding community and legislature about Delta Conservation Framework goals through presentations, and distribution of media, including website posts.*

### **Strategy H2: Develop Long-Term Funding Support for Delta Conservation and Adaptive Management**

- **OBJECTIVE H2-1:** *By 2018, develop a suite of 5-10 strategies to develop and secure long-term funding streams for continued implementation and management of conservation lands.*
  - **Example ACTION H2-1-1:** *Develop an expert working committee to craft feasible strategies for creating long-term funding support for Delta Conservation and adaptive management practices*
  - **Example ACTION H2-1-2:** *Work with policy advisors and legislature to develop pertinent policy solutions for creating long-term funding support for Delta Conservation and adaptive management practices (e.g. with State general fund providing taxpayer benefits through long-term Delta conservation and management)*
  - **Example ACTION H2-1-3:** *Work with economic and policy experts to consider endowments for long-term operation and management and incorporate into planning process early.*
  - **Example ACTION H2-1-4:** *Work with economic and policy experts to continue to incentivize wildlife-friendly agricultural practices.*

- *Example ACTION H2-1-5: Work with economic and policy experts to develop resources for monitoring to inform long-term management as an integrative part of conservation implementation and long-term management practices.*
- *Example ACTION H2-1-6 Encourage and offer financial incentives to land management agencies to build citizen science programs to support standardized monitoring informing land management efforts where possible.*
- *Example ACTION H2-1-7: Work with policy experts to raise awareness for and find solutions to address unfunded mandates.*

### **Strategy H3: Develop Tools for Effectively Broadcasting Available Funding Opportunities**

- *OBJECTIVE H3-1: By 2017, develop and maintain an ongoing information exchange and clearinghouse for available funding opportunities*
  - *Example ACTION H3-1-1: Determine responsible entity to develop and maintain online website tool with funding resources including a consolidated list of Delta funding opportunities*
  - *Example ACTION H3-1-2: Responsible entity solicits long-term funding support for online site development and maintenance.*
  - *Example ACTION H3-1-3: Responsible entity holds regular online or in person workshops to further broadcast and explain available funding opportunities.*