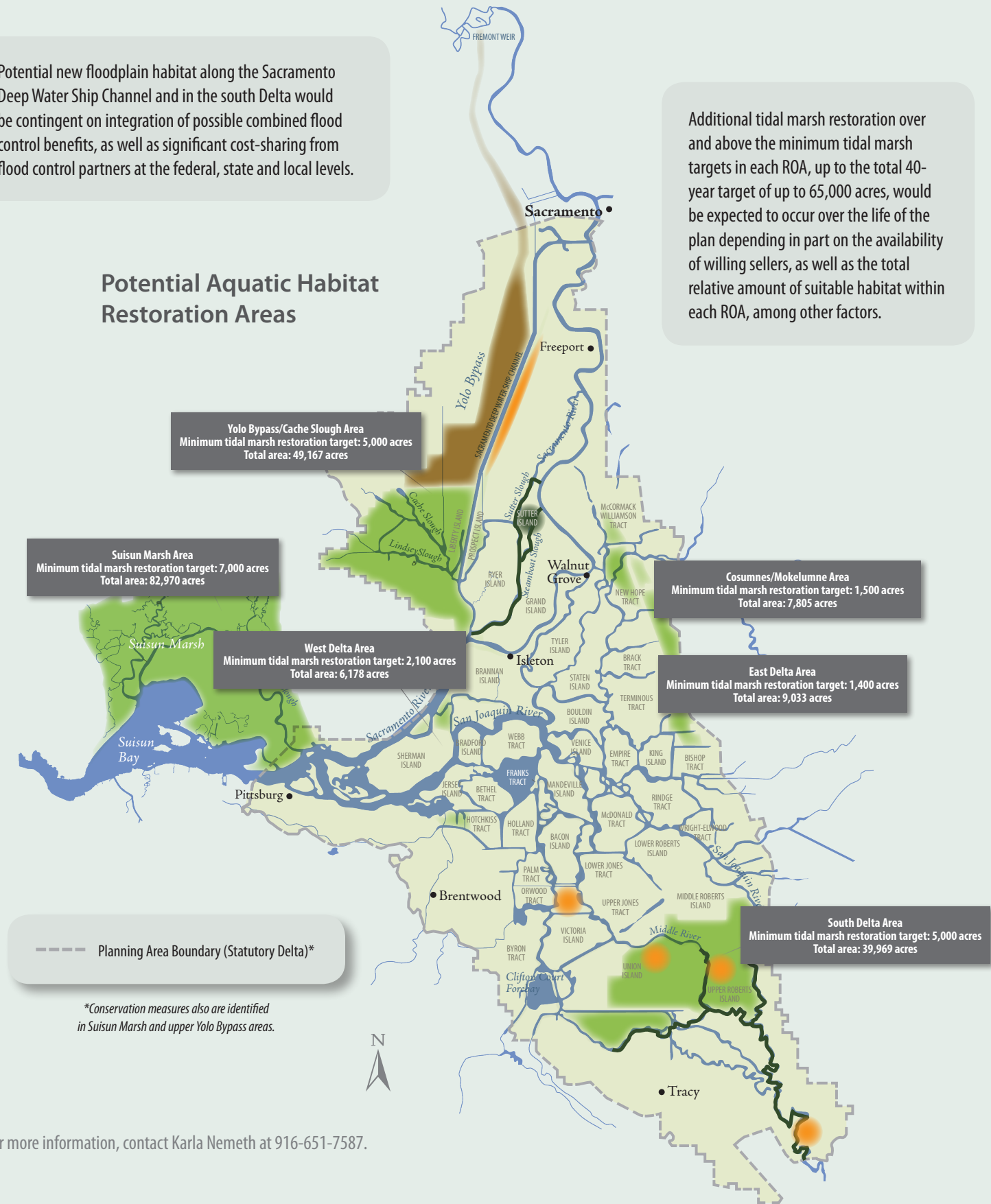


BDCP Aquatic Habitat Restoration

The Bay Delta Conservation Plan will include a comprehensive approach for restoring key natural ecosystem functions in the Delta's highly altered environment. A central component of this plan focuses on aquatic habitat conservation, which includes seasonally inundated floodplain, riparian, channel margin, and tidal marsh restoration and enhancement in strategic locations throughout the Delta. Although specific restoration and enhancement sites may not be identified until plan implementation, the chart below and map at right note potential areas where habitat restoration could occur after additional review and environmental analysis. Please see reverse page for more information about future site selection criteria and management plans.

PROPOSED HABITAT RESTORATION AND ENHANCEMENT TYPES, AREAS AND ACREAGE TARGETS				
Habitat Type	Phasing of Restoration Over Time			Potential Area (general location)
	By Year 10	By Year 15	By Year 40	
Channel Margin -restore/enhance shaded riverine, marsh, mudflat habitat			20 linear miles	Potentially any project levees along the San Joaquin River and other levees anywhere in the planning area that are important to salmon. In the north Delta, current interest is focused on Steamboat and Sutter sloughs.
Floodplain (new) -levee setbacks, land surface re-contouring, natural meander belts		1,000 Acres	10,000 Acres	Potentially anywhere in the planning area, with current interest along the San Joaquin River downstream of Vernalis; on Fabian tract along Old River; on Union Island and Upper Roberts Island on Middle River. The plan currently identifies a narrow area along the eastern alignment of the Sacramento Deep Water Ship Channel as a potential new flood bypass for future study.
Floodplain (enhanced existing)		11,500–21,000		Increased frequency and duration of existing floodplain inundation in the Yolo Bypass targeting inundation for 30 to 45 days from December to April.
Tidal Marsh -intertidal marsh, subtidal estuarine, upland sea level rise accommodation	14,000 Acres	25,000 Acres	65,000 Acres	Minimum acreage targets set in Restoration Opportunity Areas (ROAs) as noted at right. Initial restoration would be focused on Cache Slough, Suisun, and West Delta ROAs. Over the 50-year plan horizon, restoration would be expanded within these areas, and additional restoration would be located in Cosumnes-Mokelumne, East Delta, and South Delta ROAs.
Riparian -riparian forest and scrub restoration	1,300 Acres	2,300 Acres	5,000 Acres	Potentially anywhere in the planning area, although favoring locations where other restoration is occurring as appropriate.



Potential new floodplain habitat along the Sacramento Deep Water Ship Channel and in the south Delta would be contingent on integration of possible combined flood control benefits, as well as significant cost-sharing from flood control partners at the federal, state and local levels.

Additional tidal marsh restoration over and above the minimum tidal marsh targets in each ROA, up to the total 40-year target of up to 65,000 acres, would be expected to occur over the life of the plan depending in part on the availability of willing sellers, as well as the total relative amount of suitable habitat within each ROA, among other factors.

For more information, contact Karla Nemeth at 916-651-7587.

Future Site Selection Criteria

The following is a list of some of the site selection criteria that will be used, along with local input, to identify lands for habitat restoration and enhancement.

Feasibility

- Minimized effects on existing land uses
- Site availability
- Cost effectiveness in implementing restoration
- Potential effects on mosquito vector control

Biological Attributes

- Ability to achieve multiple biological objectives for multiple species
- Proximity to channel systems that could benefit from restoration (e.g., increased tidal flows may help reduce bi-directional flows in upstream channels, or support greater mixing in channels, both of which are beneficial for native fish)
- Capacity to contribute to more natural transitions between habitats in the Delta (seasonal wetland, riparian, grassland)
- Proximity to existing habitats so that new restoration adds to and develops habitat corridors for fish and wildlife
- Minimal effects of other stressors (such as nearby water diversions or discharges of low quality water) that could offset intended fish and wildlife benefits

Habitat Restoration Management Plans

Individual habitat management plans will guide long-term management of restoration sites and will include:

- Biological goals and objectives to be met by the restoration activity
- Site-specific monitoring requirements and approach to adaptive management
- Controls for invasive plants
- Controls for non-native predators and competitor species
- Vegetation management and infrastructure maintenance
- Public access and other allowable uses

Important Habitat Strategy Concepts

One of the primary conservation benefits of separating the water supply system from the Delta estuary is that it creates the ability to restore critical ecosystem functions—such as spawning and rearing habitat, production of food for fish, and fish migration patterns—throughout the Delta that are essential for species recovery.

Broad geographic distribution of habitat throughout the estuary is intended to improve ecological processes and function. During the first 10 years of implementation, while the Delta estuary remains the sole water supply conveyance route, habitat restoration would be focused in the north and west Delta and Suisun Marsh. After a dual conveyance system is operational, habitat restoration would be expanded to the Mokelumne and San Joaquin River areas. This approach is intended to help fish species recover by improving productivity and habitat quality and their resilience to variations in the ecosystem that could occur with climate change.

Another overarching strategy guiding the conservation plan is to restore habitat in large patches to increase the likelihood of providing the desired levels of ecological functions and to support large numbers of covered species.

Terrestrial Species

The draft conservation strategy includes biological goals and objectives for more than 40 sensitive wildlife and plant species, and also provides for the development of conservation measures to help their recovery. Design of conservation measures for these species would build upon the habitat restoration components of this plan but also would include additional habitat protection measures to complement the strategies of locally led conservation plans in areas next to and overlapping the Delta, many of which recognize and acknowledge the terrestrial habitat value of working agricultural lands in the Delta. Plant and wildlife conservation measures would be implemented in coordination with the local organizations in a way that complements local habitat conservation goals and, where feasible, would build on compatible existing land uses (as through conservation easements and wildlife-friendly agriculture).

Frequently Asked Questions

Q: How much land and what locations are identified for potential habitat restoration?

A: The draft Conservation Strategy identifies acreage targets for various habitat restoration types that would be a legal requirement of the plan. It identifies general areas where restoration could be focused, such as potential suitable tidal marsh restoration areas and floodplain enhancement in the Yolo Bypass. It also identifies areas of particular interest for further habitat restoration study, such as Steamboat and Sutter Sloughs (channel margin enhancement), and Old and Middle Rivers (restoration of seasonally inundated floodplain habitat) although these types of habitat restoration potentially could occur in numerous places throughout the statutory Delta and Suisun Marsh.

Q: How would landowners be affected by restoration activities?

A: If the BDCP is approved, its implementing entity would identify and evaluate specific lands based in part on restoration suitability and the willingness of landowners to sell their property or grant conservation easements. Once a location is identified, habitat restoration designs and long-term habitat restoration management plans will be developed. This detailed information will be subject to site-specific environmental review in addition to the environmental review currently underway on the entire BDCP so that impacts can be adequately identified and mitigated.

Q: What would happen to habitat restoration activities planned, in progress, or needing monitoring if there is not enough funding?

A: All lands acquired by the BDCP for habitat restoration would be managed in perpetuity. As required by law, the BDCP will include a cost and financing plan for all conservation measures, including habitat restoration.