

**San Francisco Bay Joint Venture
Implementation Plan Revision 2017
Updating Habitat Goals**

Purpose: To generate habitat goals for the revised San Francisco Bay Joint Venture (SFBJV) Implementation Plan that are modeled somewhat on the goals-setting approach of the original Implementation Plan (2001) as outlined in [Appendix E](#), but modified to incorporate expanded habitat categories and modified geographic scope and accelerating challenges posed by sea level rise.

Outcome: A revised table and accompanying descriptive text that identifies and justifies a robust set of new habitat goals for the SFBJV partnership. Revised acreage goals will be the basis for updated strategies and actions so acreage goals should have meaning and be based on the mission and objectives of the SFBJV.

Content editing: (steps under revision)

- The written descriptive narrative will be edited by John Hart, the Primary Writer.
- Final process of setting goals and early drafts of content will be reviewed by the Implementation Plan team.
- Later drafts will be delivered for review by Management Board (with interim reviews as needed).

Process from the original Implementation Plan

The original Implementation Plan used derived projections of regional wetlands objectives from the Baylands Goals Report as a framework for the wetlands classifications and goals for the Implementation Plan. This required three adaptations of the Goals Project:

1. Reduction of its implicit longer-term time frame to a more practical horizon
2. Revision of the geographic scope to accommodate the Joint Venture's geographic boundaries (which excluded the Suisun Marsh and included San Mateo coastal areas)
3. A simplification of the Goals Project's 14-category classification into the Joint Venture's three habitat categories. This required a two step process:
 - (3-1) translating the Goals Project's habitat categories into the Joint Venture's "tracked habitats" and, in turn,
 - (3-2) combining these to create three habitat goal categories for the Implementation Strategy. The three goal categories consisted of Bay Habitats, Seasonal Wetlands, and Creeks and Lakes.

These categories served as the primary measures of SFBJV in meeting its objectives for wetland acquisition, restoration, and enhancement. [Figure 3-1](#) summarizes this classification process, showing how the Goals Project categories mapped onto the three Joint Venture habitat goals.

Guidance for developing an approach to update habitat goals

Changes to the original approach described above should be based on already adopted changes and revisions to our priority habitats, geographic scope and foundational plans (Bayland Goals Science Update, Subtidal Goals, Tidal Marsh Recovery Plan). While we look to replicate a similar approach as described above,

Assumptions and thoughts about the process to consider and incorporate:

1. We want to keep and add to our original habitat **categories and types** as possible (for simplicity and consistency of tracking). Categories are derived from the Bayland Goals and can be extrapolated through a similar process as in the original SFBJV Implementation Plan.

Action: Put together a small team that can do this extrapolation of Bayland Goals

**Figure 3-1
San Francisco Bay Joint Venture Habitat Classification**

Regional Goals Project Habitat Types		Joint Venture Tracked Habitat Types		Joint Venture Goals Categories
Tidal Flat, Bay-Associated Tidal Flat, Channel-Associated	┌──┐	Tidal Flat	┌──┐ ├──┐ ├──┐ ├──┐ ├──┐	Bay Habitats
Young, Low/Mid-Elevation Tidal Marsh Young, High-Elevation Tidal Marsh Old, High-Elevation Tidal Marsh Muted Tidal Marsh	┌──┐ ├──┐ ├──┐ ├──┐	Tidal Marsh		
Beach	_____	Beach		
Lagoon	_____	Lagoon		
Inactive Salt Pond Low Salinity Salt Pond Medium Salinity Salt Pond High Salinity Salt Pond Salt Crystallizer	┌──┐ ├──┐ ├──┐ ├──┐ ├──┐	Salt Pond		
Storage/Treatment Pond Diked Marsh Managed Marsh	┌──┐ ├──┐ ├──┐	Diked Wetland	┌──┐ ├──┐ ├──┐ ├──┐	Seasonal Wetland
Farmed Bayland Ruderal Bayland Grazed Bayland Moist Grassland Grassland/Vernal Pool Complex	┌──┐ ├──┐ ├──┐ ├──┐ ├──┐	Grassland and Associated Wetlands		
Creek	_____	Creeks		
Perennial Pond	_____	Lakes and Ponds		
Riparian Forest Willow Grove	┌──┐	Riparian zone	┌──┐	Creeks, Lakes, & Ponds

Source: SFBJV (1999)

2. **Subregional goals** - the original Implementation Plan sets goals for SF Bay region, Suisun, North Bay, Central Bay, and South Bay. New regions are the Coast and Russian River. We need to decide if we will set goals for any or all of the JV sub regions.

Action: Assemble small team that does extrapolation of Bayland Goals

Note: Revised extrapolation should consider the Bayland Goals Science Update recommendation that we need to increase the pace and scale of wetland restoration. The SSC recommends that JV goals include all remaining Bayland Habitat Acreage Goals

3. Revisions to **seasonal wetlands goals** will be incorporated.

The SFBJV revised their [Seasonal Wetland Goals](#) in 2010. Acquisition goals changed from 37,000 to 12,000 acres and Enhancement changed from 23,000 to 11,000 acres. The seasonal wetland (SW) protection (acquisition) goal is the land identified by the public meetings plus the existing amount of SW protected by the SFBJV partner projects. The SW restoration goal remains unchanged. The SW enhancement goals is the original 23,000 acres minus Suisun's 6,000 acres and minus half of the original 12,000 acres for North Bay. The North Bay correction reflects projects that were originally planned as seasonal enhancement and are now planned as tidal restoration.

4. **Subtidal Goals** will be included. They can be incorporated as feasible into the acreage goals chart or by acknowledging the adoption of the goals as laid out in the report and linking to it. If the latter, we can consider pulling in just the overarching or most relevant goals and recommendations or again simply referencing them with a link.
5. We recommend that no acreage goals be set for transition zones, but rather that we acknowledge the importance of adjacent uplands that provide refugia and potential for marsh migration. This will be further fleshed out in the strategies section.
6. **Other new or modified habitat categories:** Other habitat categories are within the SFBJV region and either don't have current goals or have goals that need to be re-evaluated. Decisions must be made on how/whether to address and incorporate these habitats/regions.
 - **Coastal habitats** - coastal estuaries and riparian (Marin, Sonoma, San Mateo). Do we want to also establish goals for other habitats within the coastal sub-region. Much of the coast is already protected. Coastal goals could be determined through conversations with primary project managers for coastal projects and properties.
 - **Russian River sub region (Sonoma).** Goals could be determined through conversations with primary project managers for projects and properties.
 - **Creeks and Lakes:** As identified in the original Implementation Plan, the creek goals were not based on any original planning document, they were identified by miles of known streams and goals set to 10%, based upon what seemed feasible, given the urban natures of Bay Area streams. It also did not include goals for our Coastal sub-region.

- Stock Ponds: Since the original Implementation Plan, we have added Stock Ponds as a specific subcategory of Lakes (according to criteria) but have not developed specific acreage goals for stock ponds. Is it feasible or desirable to determine acreage goals?
7. From the [Tidal Marsh Recovery Plan](#) and the Refuge, there is an effort to classify “high quality tidal marsh habitat.” The Refuge complex has established a process to define “high quality habitat” and has established acre goals for a 10-year time horizon. We should consider how/whether to incorporate this as a category and utilize the same process. This discussion may be more appropriate for defining habitat strategies, but can be considered for goals.
 8. Habitat quality
 9. Habitat tracking - Goal setting should have our current method of tracking accomplishments in mind. Changes will need to be incorporated into Project Tracker as feasible. It should also inform and be informed by Science Steering Committee Net Landscape Change plans/efforts to map and track habitats.

We recommend

- Review original Implementation Plan Habitat goals and accomplishments to date.
- Using the tables from the original Implementation Plan, incorporate new habitats and sub-regional geographies to delineate regional and potentially sub-regional goals.
- Review best sources used from the original Implementation Plan for each habitat for the four time representations, if we keep all four - past, present, future, and protected to inform goals for acquisition, restoration and enhancement.
- Identify and consult with the appropriate technical experts as needed.

Additional/more detailed considerations:

- Subtidal
 - Since the original Implementation Plan, the SFBJV has added Subtidal as a broad habitat category, along with the sub categories:
 - Which sub-categories are these? The protection goals for most subtidal categories is no net loss.
 - Acreage goals to follow the above table as adopted goals
 - Restoration acreage goals exist for SAV (eelgrass) and for shellfish beds
 - Goal - increase native eelgrass populations in SF bay within 8,000 acres of suitable subtidal.intertidal area over a 50-year time frame using a phased approach under a program of adaptive management
 - The [Subtidal Goals Report](#) is the guiding document for work on these habitats
- Coastal Sub-region
 - Marin, Sonoma, San Francisco, San Mateo
 - See Number 6 above.
 - Focus on coastal estuaries and riparian/pond habitats (Creeks, Rivers, Lakes, Ponds)
- Russian River sub region

- See Number 6 above. We recommend following the same process.
- Note that the Laguna de Santa Rosa has been our main focus in this sub-region but the Sonoma Land Trust has been working on other wetlands such as Pitkin Marsh. NOAA and the Sonoma County Water Agency are working on projects within the Russian River.
- Creeks/Lakes/Ponds/Stock Ponds
 - Creeks and Lakes
 - As identified in the original Implementation Plan, the creek goals were not based on any original planning document, they were identified by miles of known streams and goals set to 10%, based upon what seemed feasible, given the urban natures of Bay Area streams. It also did not include goals for our Coastal sub-region.
 - This warrants a larger discussion on this category, how to update goals, and what documents to use when updating goals
 - Conservation Lands Network - Do we use a subset of their goals? CEMAR - Do we prioritize CEMAR stream/rivers? Please provide a recommendation.
 - Stock Ponds
 - As an updated to the original Implementation Plan, in 2011 we added Stock Ponds as a specific subcategory of Lakes (according to criteria) but have not developed specific acreage goals for stock ponds. Our advice is to not add specific acreage goals for stock ponds since these projects are largely on private land, but rather include goals for stock ponds within the goals for creeks and lakes.
- Transition Zones
 - Subsequent to the 2001 Implementation Plan, we have dedicated resources to classifying and understanding Upland Transition Zones and has made efforts to map and track the location and functions of these “t-zones”. There should be some text in the descriptive section to acknowledge the importance of these habitats.
- Adjacent Uplands? Today’s uplands are tomorrow’s wetlands. (CADS does have conservation actions identified for “migration space” but not acreage targets.) Please recommend whether we should and if so how to establish goals for this category.

Reference material:

- [JV Implementation Plan](#), Restoring the Estuary (2001) sections:
 - [Description of habitat types](#)
 - [Goals-setting worksheet](#) (Appendix E)
 - [Chapter 4, Objectives and Strategies](#)
- [San Francisco Bay Joint Venture Implementation Strategy Update Seasonal Wetlands Opportunity Analysis](#) (2015)
- [BEHGU](#)
 - Change in Baylands Habitat Over Time (page 14)
 - [Appendix B: Change in the Extent of Baylands Habitats](#)

- Regional Actions to Promote Resilience (page 104-117)
 - <http://baylandsgoals.org/wp-content/uploads/2016/10/Baylands-Chapters-1-2-2016.pdf>
 - [Specific recommendations by subregion and location](#) (page 118-230)
 - Includes considerations and challenges
- Link to relevant actions outlined in [CCMP](#) with SFBJV ownership
- Climate Commons Habitat descriptions (see page 20)
<http://climate.calcommons.org/sites/default/files/basic/Detailed%20Summary.pdf>
- [SFBJV Climate Adaptation Decision Support](#) (CADS) – threats and drivers influence diagrams; strategies for climate change adaptation recommendations; T-Zone chapter developed by B. Fulfroost & D. Thompson for this effort
- Subtidal Goals Report - [Habitat descriptions and Habitat goals](#)
- CEMAR - [San Francisco Estuary Watersheds Evaluation](#)
- Relevant [SFBJV Monitoring and Evaluation module\(s\)](#)
- Relevant [Tidal Marsh Recovery Plan](#) information – goals and habitat targets
- [NFWF business plan](#)
- [Stock pond criteria \(for freshwater habitats\)](#)
- The Habitat [Crosswalk](#), which includes habitat classifications from:
 - The original SFBJV Implementation Strategy
 - The new Project Tracker, shared by the SFBJV, CVJV and Delta Conservancy
 - EcoAtlas
 - The BEHGU Science Update
 - The Conservation Lands Network
- [Conservation Lands Network](#)
- SFBJV Project Tracker ([EcoAtlas](#))
- Wetland Restoration and Projected Impacts from Climate Change [white paper](#)
Recommendations: pages 17-21
- Others?