


Delta Conservation Framework

FOR THE SACRAMENTO-SAN JOAQUIN DELTA, YOLO BYPASS AND SUISUN MARSH – 2017-2050

CALIFORNIA DEPARTMENT OF FISH & WILDLIFE

CALIFORNIA natural resources AGENCY

SACRAMENTO - SAN JOAQUIN DELTA CONSERVANCY
A California State Agency

DELTA STEWARDSHIP COUNCIL
A California State Agency

DEPARTMENT OF WATER RESOURCES · STATE OF CALIFORNIA ·

Importance

- *NOT A PLAN*
  - Non-regulatory
- Approach focused on finding common ground
  - "Floating all boats"
  - Public lands first
- Regional collaborative partnerships
  - Invitation to willing Delta stakeholders to participate
  - Cross-sector collaboration opportunity

Purpose

- *Common Vision* for 2050
- *California Water Action Plan*
- *Delta Reform Act*
  - Inform Delta Plan ecosystem chapter amendment
- *High-level goals for Delta conservation*
  - Strategies and objectives for long-term, landscape-scale solutions
- *Beyond California EcoRestore*

Meeting Overview

Desired Meeting Results

- Seek stakeholder feedback on the public draft of the Delta Conservation Framework.
- Encourage a dialogue among the varied Delta stakeholders that can be continued into the future

Guidelines

- Listen Courteously
- Speak Candidly and Concisely
- Suspend Certainty
- Be Present

Agenda

6:00/35	Welcome, Overview & Update to the Framework
6:35/20	Q&A
6:55/5	Prepare for Discussions in Small Groups
7:00/40	Small Group Discussions
7:40/15	Small Group Report Outs
7:55/5	Wrap up and Close

Stakeholder Outreach

- **Email announcements/invitations**
  - Personal email invitations
  - Delta Restoration Network listserve
  - Delta Stewardship Council listserve
  - Delta Protection Commission listserve
- **Fliers distributed throughout Delta**
- **Local champions**
- **Additional presentations given**
  - Delta Counties Coalition
  - Central Valley Joint Venture Management Board
  - Delta Levees Habitat Advisory Committee
  - Delta Stewardship Council
  - Delta Plan Interagency Implementation Committee
  - Delta Protection Commission
  - Delta Protection Advisory Committee

2016Workshop Participation

State
CA Natural Resources Agency
CA Department of Fish & Wildlife
CA Department of Water Resources
Delta Stewardship Council
Delta Science Program
SSJ Delta Conservancy
Delta Protection Commission
State Water Quality Control Board

Federal
US Bureau of Reclamation
Central Valley Joint Venture
US Fish & Wildlife Service
SF Bay NERR

Private
Delta Residents & Businesses

Regional
Bethel Island Municipal Improvement District
Contra Costa County
Clarksburg Fire
Reclamation District 999
Sacramento County
Sacramento Regional County Sanitation District
San Joaquin County
Solano County
Solano County Water Agency
Solano RCD – Suisun RCD
Yolo County
Yolo Habitat Conservancy

Metropolitan Water District

Academic
UC Davis, UC Santa Cruz

NGOs
Audubon California
American Rivers
San Francisco Estuary Institute
The Freshwater Trust
The Nature Conservancy
Yolo Basin Foundation

Consulting Firms
AECOM
Douglas Environmental
ESA
Flow West
MBK Engineers
Mosaic Associates
Stillwater Sciences
The Catalyst Group – Delta Vision Foundation


Photo: C. Sloop

2016 Workshop Series

June 28	Introduction to the Delta Restoration Network
August 18	Vision, Purpose, Principles, and Solutions to Challenges
September 21	Setting Conservation Goals and Finding Strategies
October 20	Conservation Actions, Success Evaluation, and Planning Boundaries
November 30	Regional Conservation Strategies
December 1	Overview of Workshop Series

A Common Vision for the Delta

- **In 2050, the Delta is composed of resilient natural and managed ecosystems situated within a mosaic of towns and agricultural landscapes, where people prosper and healthy wildlife communities thrive.**

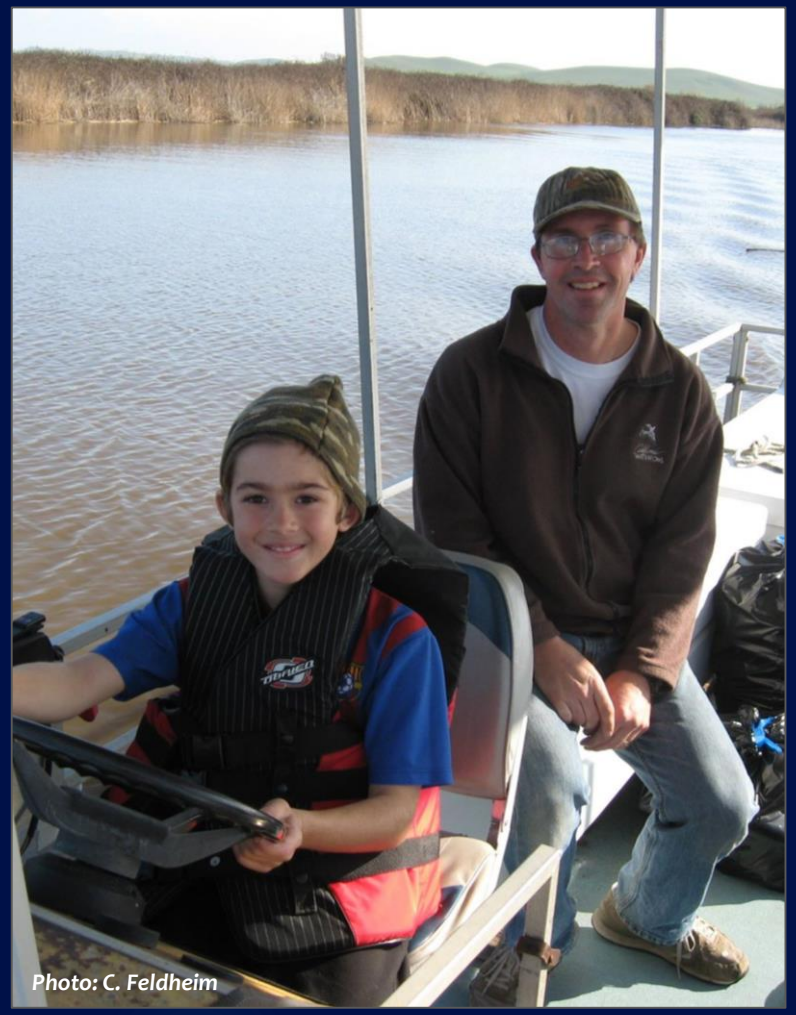
Photo: CDFW

A Call to Action

- **Work together and develop resilient solutions for the future that integrate the needs of all Delta stakeholders with conservation over the long-term.**

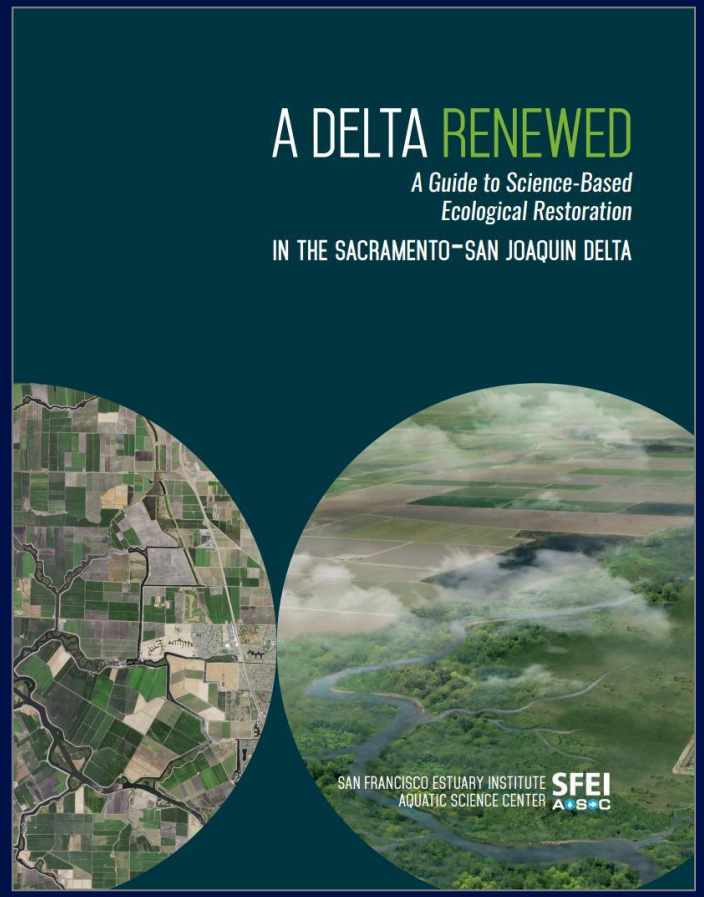
Tackling Delta Challenges

- **People and Place**
  - **GOAL A**: Stakeholder communication and socio-economic considerations
  - **GOAL B**: Public education and state/national outreach campaigns
  - **GOAL C**: Multi-benefit conservation solutions



Tackling Delta Challenges

- **Ecosystem Function**
  - **GOAL D**: Improving ecological processes for ecosystem function
  - **GOAL E**: Science-based decision-making and coordinated adaptive management



Tackling Delta Challenges

- **Facilitating Conservation Implementation and Management**
  - **GOAL F**: Improved capacity and approaches for project permitting
  - **GOAL G**: Secure long-term funding to support conservation

Document Layout

Section I
Background, Purpose
Vision, Principles, Focus

Section II
Community
Integration
Goals A B C

Section III
Ecosystem
Function
Goal D

Section IV
Conservation
Based in Science
Goal E

Section V
Permitting
Funding
Goals F G

Section VI
Path forward, Partnerships,
Processes & Tools
Regional Conservation Strategies

Appendices

Appendices

I. Goals, Strategies, Objectives

II. COR Overviews

III. BDCP Conservation Measures

IV. California *EcoRestore*

V. Delta Plan Amendment Nexus

VI. Workshop Summaries

VII. Existing Plans

VIII. Current Delta Plan Alignment

IX. Good Neighbor Checklist

X. Wildlife-friendly Agriculture

XI. Species Recovery Briefs

XII. Ecosystem/ Habitat Types

XIII. Regulatory Compliance and Permitting

XIV. Grants

XV. Planning Tools

Regional Planning Partnerships

SUISUN MARSH

Conservation Opportunity Region Overview

Regional Setting

The 116,000-acre Suisun Marsh (Marsh) is a key area of public focus for many short- and long-term planning processes. The Marsh is located at the western edge of the Delta, downstream of the Sacramento–San Joaquin River Delta, and the eastern edge of the San Francisco Bay, in Solano County. The Marsh lies within a unique geographic mixing zone of the fresh water outflow of the Central Valley and the tidal mixing of salt water from the San Francisco Bay, creating a unique and ecologically rich brackish wetland complex. Located downstream of the Sacramento–San Joaquin Delta, the Marsh is a mosaic of brackish tidal and managed wetlands, bays, and sloughs and extensive uplands that provide habitat for resident and migratory fish and wildlife; preserves and enhances California's wetland resources; and also supports significant private and public recreational opportunities.

Figure 1: Suisun Marsh sunset. *Photo: Cliff Feldheim*

The Marsh is protected under the 1974 Suisun Marsh Preservation Act and the 1976 Suisun Marsh Protection Plan to "preserve the integrity and assure continued wildlife use" and maintain habitat for waterfowl. Primary land uses in the Marsh are the conservation of 52,000 acres of managed wetland and wildlife habitat as waterfowl management areas and duck clubs. The Marsh is a principal area for wintering waterfowl of the Pacific Flyway and is the largest contiguous brackish marsh remaining on the Pac United States,[1] and it represents approximately 12 percent of California's of public and privately owned lands. The largest public landowner is Calif (CDFW), managing over 15,000 acres of wildlife management areas and r complex. The exterior levees of the Marsh's managed wetlands not only values of the Marsh, but also protect California's Delta water supply from and public infrastructure. Significant examples of infrastructure in the M Amtrak Capitol Corridor, the petroleum product pipelines, Solano County transmission pipelines, electrical transmission lines, and the Department Bureau of Reclamation (Reclamation) water conveyance facilities.

The Marsh has also been identified as an area with high potential for tida elevations, location in the estuary, abundance of undeveloped existing m turbidity, high primary and secondary productivity, and use by Delta smel salmon (*Oncorhynchus tshawytscha*), and other native fishes. Both feder the Marsh as a prime area to advance habitat conservation to benefit en Joaquin Delta. Located below the Sacramento–San Joaquin River Delta, th further upstream, especially modification to state and federal water con use, the location of X2, salt water intrusion, and habitat restoration proj

PUBLIC DRAFT

YOLO BYPASS

Conservation Opportunity Region Overview

Regional Setting

Constructed about 100 years ago to divert floodwaters on the Sacramento River, the 59,000-acre Yolo Bypass landscape is primarily a flood management area, reducing the risk of flooding in the Sacramento region through a system of weirs (Figures 1 & 2). These weirs connect the Yolo Bypass to the Sacramento River to the north (Fremont Weir, Figures 1 & 3) and to the east (Sacramento Weir), with additional inflows from various local creek bypass waters. The bypass ultimately drains into the Cache Slough Complex and Sacramento-San Joaquin River Delta to the south. Fremont Weir overtopped in approximately 70 percent of flood seasons between 1934/35 and 2011/12, augmenting flows from western tributaries.[1]

Figure 1: Sacramento River spilling over Fremont Weir at north end of Yolo Bypass in 2016

The Yolo Bypass includes private duck clubs and extensive public lands, with wetlands that are managed for migratory waterfowl habitat, public education, and recreation, such as bird watching

Figure 2.

the Yolo Bypass is ing rice, tomatoes, nternational , the Yolo Bypass is odplain habitat to recovering the ning industry. The terstate 80) is ncludes the Fremont . The southern a mosaic of private s Wildlife Area. uous floodplain ise and ern parts of the Yolo ners should be going forward.

North Delta

Conservation Opportunity Region Overview

Regional Setting

A diverse and historical part of California, the North Delta region is characterized by legacy towns and surrounding communities, each sharing common and blended foundational characteristics with its neighbors, but each also with its own unique and rich past. These legacy towns and surrounding communities include Freeport, Clarksburg, Hood, Courtland, Isleton, Walnut Grove, Ryde, and Locke. These communities support, and are in turn supported by, long-standing and diverse agriculture, including grapes, pears, and corn, and a number of high-value ecosystems supporting people and wildlife. Located in the northeast portion of the region, Stone Lakes National Wildlife Refuge[2] (NWR) is partially owned and managed by the U.S. Fish and Wildlife Service (USFWS) and comprises a 17,640-acre area in the North Delta within which the USFWS is authorized to acquire, protect, and manage land. Established as a NWR in 1992, the unique lakes and waterways of the Stone Lakes basin are entirely within the 100-year floodplain. Its strategic location buffers urban encroachment into the Delta and provides a habitat link with the neighboring Cosumnes River Preserve.[3] Extending from Clarksburg, Elk Slough, another feature of the North Delta, provides a combination of floodplain, riparian, and channel margin habitat for Delta wildlife. The Elk Slough riparian ecosystem remains as one of the most intact of its kind in the Delta. Together and connected with Sutter and Steamboat Sloughs to the south, Elk Slough connects back to the Sacramento River near Rio Vista, providing an alternative migratory route for salmonids headed to or from the Sacramento River. Due to the proximity of the Sacramento River and its tributaries, including the American River, there is inherent flood risk in varying measures to the North Delta region's lands, citizens, infrastructure, and environment.

Figure 1: Isleton is one of North Delta's legacy towns
Photo: Birds Eye View

Planning History

In 2016, as partial implementation of the Delta Reform Act of 2009 and Chapter 5 of the Delta Plan, and improving upon the "Delta as evolving Place" concept contained in Water Code § 85054, the Delta Protection Commission published Community Action Plans for three main north Delta communities: Clarksburg, Walnut Grove and Courtland.[3,4,5] These plans lay out goals and actions with implementation steps based on the issues and ideas community members shared during interviews and community surveys. The main themes of the plans include transporation, communications, community amenities, public safety, housing and infrastructure, and all-age education opportunities. Although they do not include a specific focus on conservation, community members generally voiced an appreciation for the open spaces, fresh air, and scenic views the Delta provides; the recreational opportunities local residents and tourists can enjoy; and a desire to expand access to the river and other natural areas. Community members also valued the economic benefits of tourism related to local culture, nature, and agriculture, particularly the festivals and events in connection to the arrival and celebration of sandhill cranes (*Antigone canadensis*). However, balancing tourism with maintaining a living community and working agriculture, and with adequate law enforcement is also of critical importance.[6] Community members also voiced concerns over the resolution of big issues such as flood insurance, California *WaterFix*, and aquatic invasive species.

PUBLIC DRAFT 1

CACHE SLOUGH COMPLEX

Conservation Opportunity Region Overview

Regional Setting

The Yolo Bypass/Cache Slough region (YBCS) is a key area of public focus for many short- and long-term planning processes. The 53,000-acre Cache Slough Complex (CSC) is located in the northwest corner of the Sacramento-San Joaquin River Delta in Solano and Yolo counties, at the downstream end of the YBCS, and is an integral part of the regional landscape, hydrology, and flood planning (Figure 1). It links directly to the Sacramento River via Miner and Steamboat Sloughs, while low-lying grasslands and seasonal wetland/vernal pool complexes separate it from the northeast corner of Suisun Marsh .[1]

The CSC has been identified as an area with potential for tidal restoration as a result of its connectivity with the Yolo Bypass floodplain, suitable elevations, high turbidity, high primary and secondary productivity, and use by Delta smelt (*Hypomesus transpacificus*), Chinook salmon (*Oncorhynchus tshawytscha*), and other native fishes. Both federal and state wildlife agencies consider the CSC as a prime area to advance habitat conservation to benefit endangered species in the Sacramento-San Joaquin Delta and incorporate improvements to the regional flood management system (Figures 2 & 3).

Primary land uses in the Cache Slough Complex region include agriculture, local and regional flood protection, terrestrial and aquatic wildlife habitat, and water supply for local agriculture and regional

Figure 1: Map of Cache Slough
Source: Department of Wate

mpleted or currently being i pect Island, and Lindsey Slou fforts are under way through e effectiveness of floodplain

SOUTH DELTA

Conservation Opportunity Region Overview

Regional Setting

The south Delta region is predominately characterized by agriculture, bordered by the cities/towns of Brentwood, Discovery Bay, Tracy, and Vernalis to the west and Manteca, Lathrop, and Stockton to the east. The main aquatic features include the San Joaquin River, and the Middle and Old Rivers, connecting the south Delta to the central Delta islands and confluence with the Sacramento River. Most of the island areas in the northern portion of the south Delta are subsided, while land in the southern portion is predominantly at current intertidal elevations or above sea level.[1] The San Joaquin River National Wildlife Refuge[2] is located southeast of Vernalis along the San Joaquin River, and Caswell Memorial State Park is situated east of the Stanislaus River confluence.[3] Paradise Cut is a slough west of Lathrop that, with sufficient flow, bounds Stewart Tract on the south and connects the San Joaquin River with Old River downstream. Historically, it was one of the chief distributary branches of the San Joaquin River. Twice during the 19th century, the main floodwaters of the San Joaquin River flowed through Paradise Cut and will likely do so again during exceptionally high-flow years. Paradise Cut plays a critical role in protecting the River Islands development from flooding and directing floodwaters away from the urbanizing floodplains in Lathrop and Stockton.[4] An extended floodway also provides opportunities to restore lost Delta wildlife habitat. In order to protect new development, new levees could be built, set well back from the bank of Paradise Cut, with a strip seven miles long and at least 1,000 feet wide, open to seasonal inundation.[5] This could offer the potential for riparian forests to reestablish, as well as for large areas of restored freshwater marsh downstream from Paradise Cut, into which floodwaters could feed.

Planning History

The Paradise Cut Expansion, also called Lower San Joaquin River Bypass (LSJRB), represents a multi-benefit project in the south Delta that could provide increased flood protection and alleviate constrained riparian reestablishment along the San Joaquin River, thereby enhancing river and floodplain ecosystems.[6] A suite of studies, spanning 15 years, evaluated its feasibility (see text box below). In 2007, Senate Bill 5 directed the DWR and Central Valley Flood Protection Board to evaluate the feasibility of significantly reducing flood stage in the San Joaquin River watershed upstream and south of Paradise Cut, through bypasses or floodways. The 2013 Delta Plan also recommends implementation of the LSJRB and prohibits encroachments in the LSJRB planning area.[7] The 2017 Central Valley Flood Protection Plan further proposes construction of the LSJRB, dependent on the evaluation of potential major physical and operational elements.[8]

In 2016, the San Joaquin County Resource Conservation District (SJCRCD) received Proposition 1 funding support from the Sacramento-San Joaquin Delta Conservancy for the development of the *Paradise Cut Conservation and*

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CENTRAL DELTA CORRIDOR PARTNERSHIP

Conservation Opportunity Region Overview

Regional Setting and Management History

The Central Delta Corridor (Figure 1) is characterized by lakes, floodplain, and tidal wetland areas within the Stone Lakes National Wildlife Refuge (NWR), Cosumnes River Preserve (CRP), and the Cosumnes-Mokelumne river confluence to the north and northeast; deeply subsided islands[1] southward (Staten, McCormack-Williamson Tract, Bouldin, Webb, Holland, Bacon, Twitchell, Sherman, and Decker); and the flooded Franks Tract Recreation Area (Figure 2). The integrity of central Delta island levees is critically important due to their strategic position in the Delta. This single characteristic drives much of the vision and opportunities for conservation in the area. The region is crisscrossed by transmission lines, natural gas transmission and underground storage facilities, and shipping lanes. These infrastructure assets can represent significant constraints when converting agricultural land use to wetlands. Because of their predominately below sea level elevations, these islands offer opportunities for subsidence reversal actions that can store carbon by planting of certain crops, provide revenue, and provide wildlife habitat and the potential for habitat restoration.[2]

WEST DELTA

Conservation Opportunity Region Overview

Regional Setting

The West Delta Conservation Opportunity Region (COR) is located in northeastern Contra Costa County. It is a unique region characterized by open space and beautiful vistas, where the Bay Area, Delta, and Central Valley meet. Its convenient location near the San Francisco Bay Area, natural beauty, and mild climate have attracted many people to the area, with a predicted increase of 127,000 people in Contra Costa County between 2007 and 2025.[1] While retaining a rural lifestyle, the West Delta provides new housing, jobs, farms, and ranches. The West Delta also contains habitat for endangered species, where a significant portion of this urban growth will occur, creating a potential conflict between conservation and economic development. The East Contra Costa County Habitat Conservation Plan/Natural Community Conservation Plan (ECCC HCP/NCCP)[2] seeks to avoid such conflict by providing an opportunity to preserve diverse ecosystems, unique species, and scenic landscapes while clearing regulatory obstacles to continued economic development and growth.

Figure 1: General overview map of the West Delta (Source: East Bay Regional Parks District) PLACEHOLDER ONLY

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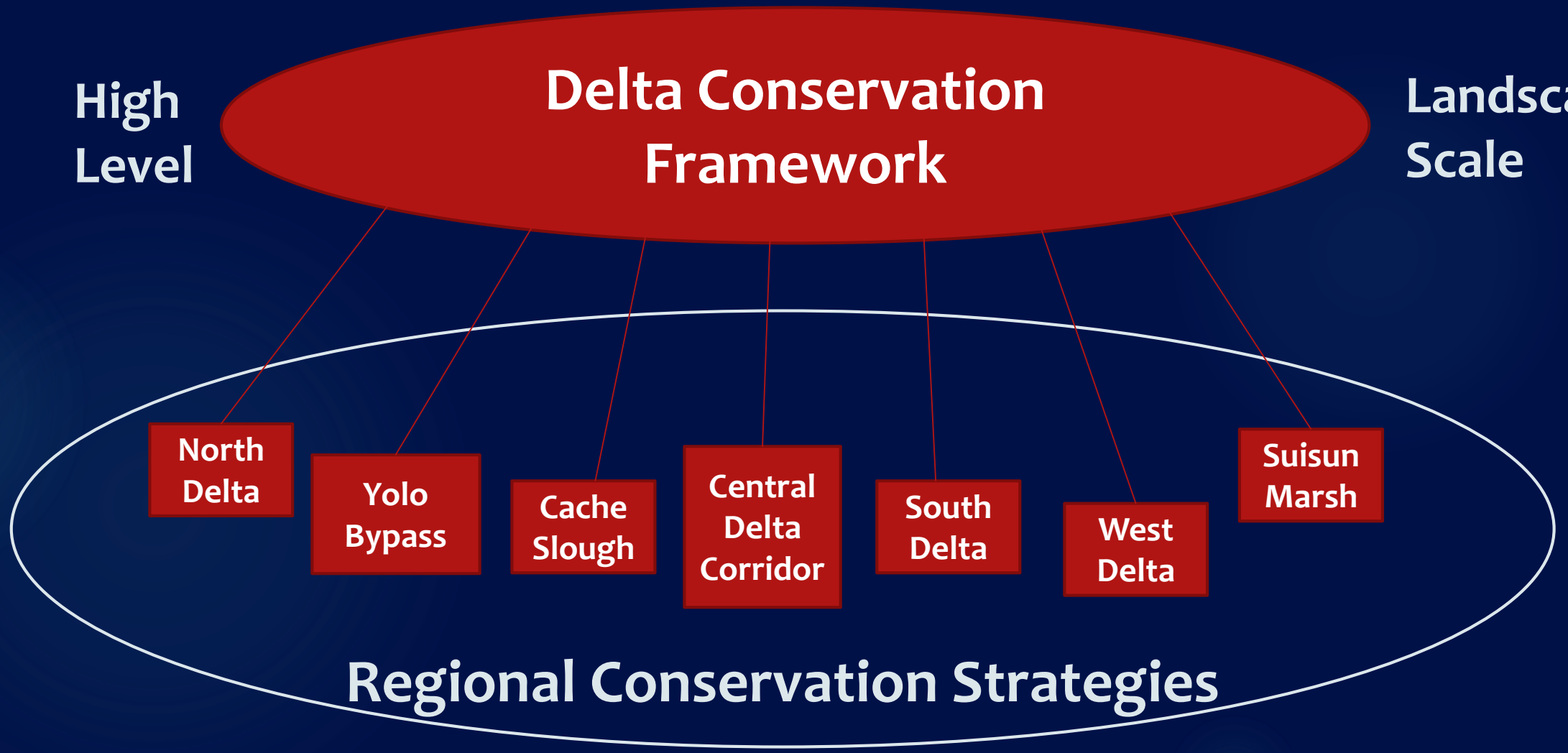
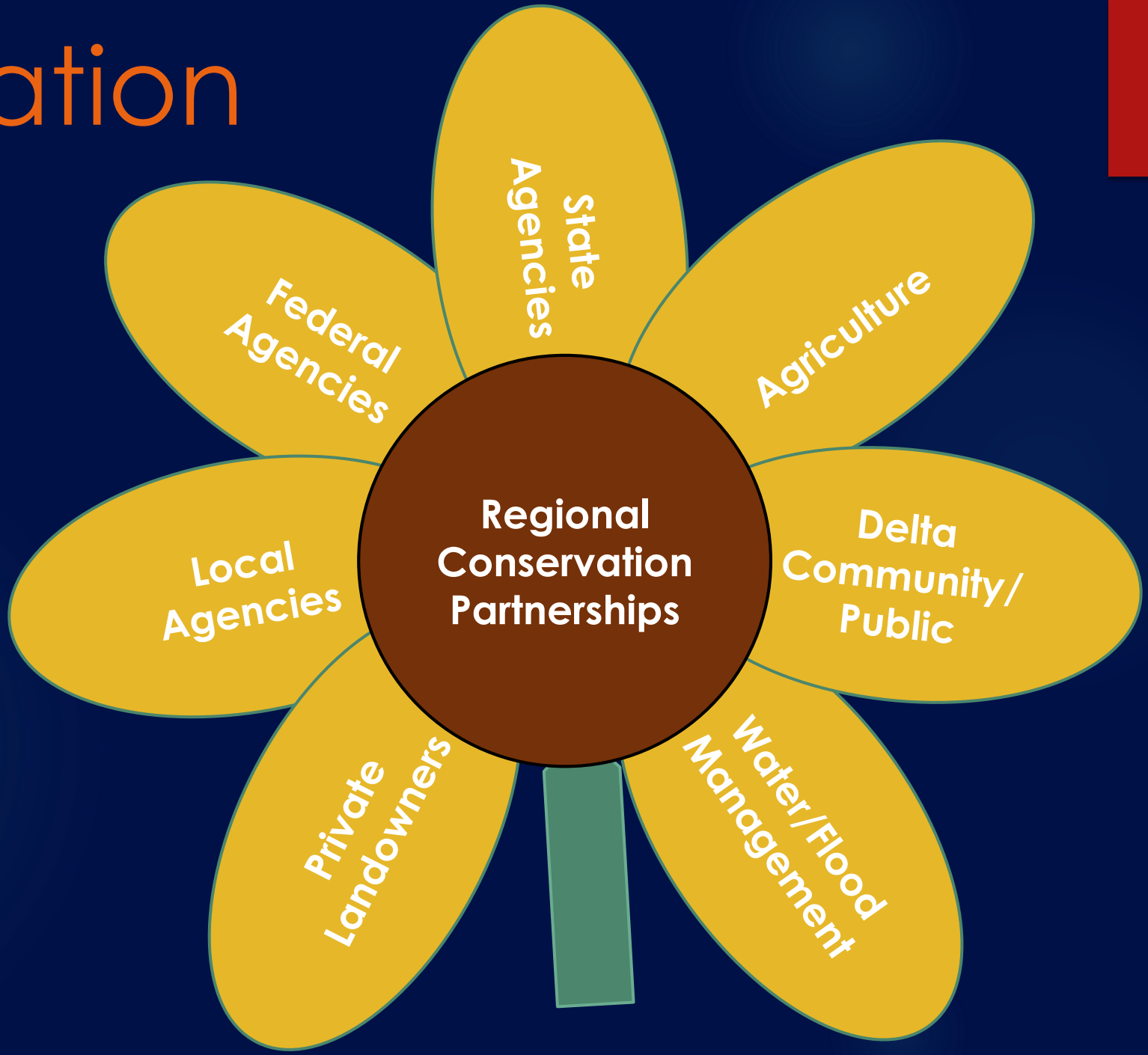
The Way Forward



Collaboration

Existing Regional Partnerships

Examples:
Suisun Marsh
Cache Slough
Central Delta Corridor



Public Review

The Public Draft of the Delta Conservation Framework is available for public review at:

https://www.wildlife.ca.gov/Conservation/Watersheds/DCF

The public review period has been extended to early December, 2017

Email written comments to CDFW staff at: DCF@wildlife.ca.gov

Mail written comments to:
CDFW Water Branch
P.O. Box 944204
Sacramento CA 94244-2090