



Delta Conservation Framework

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



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

- 1:00/35 Welcome, Overview & Update to the Framework
- 1:35/20 Q&A
- 1:55/5 Prepare for Chapter-specific discussions in Small Groups
- 2:00/75 Chapter Specific Discussions
- 3:15/10 Break
- 3:25/30 Small Group Report Outs
- 3:50/5 Wrap up and Close

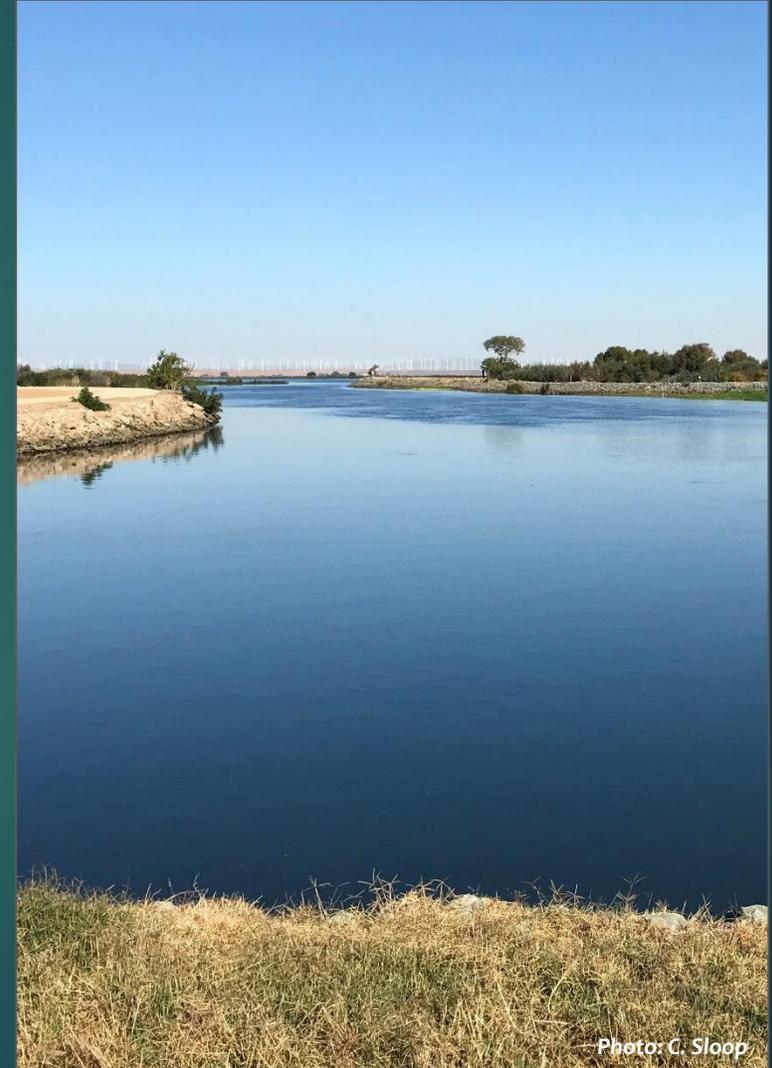


Photo: C. Sloop

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.



Photo: J. Grossman - TNC

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

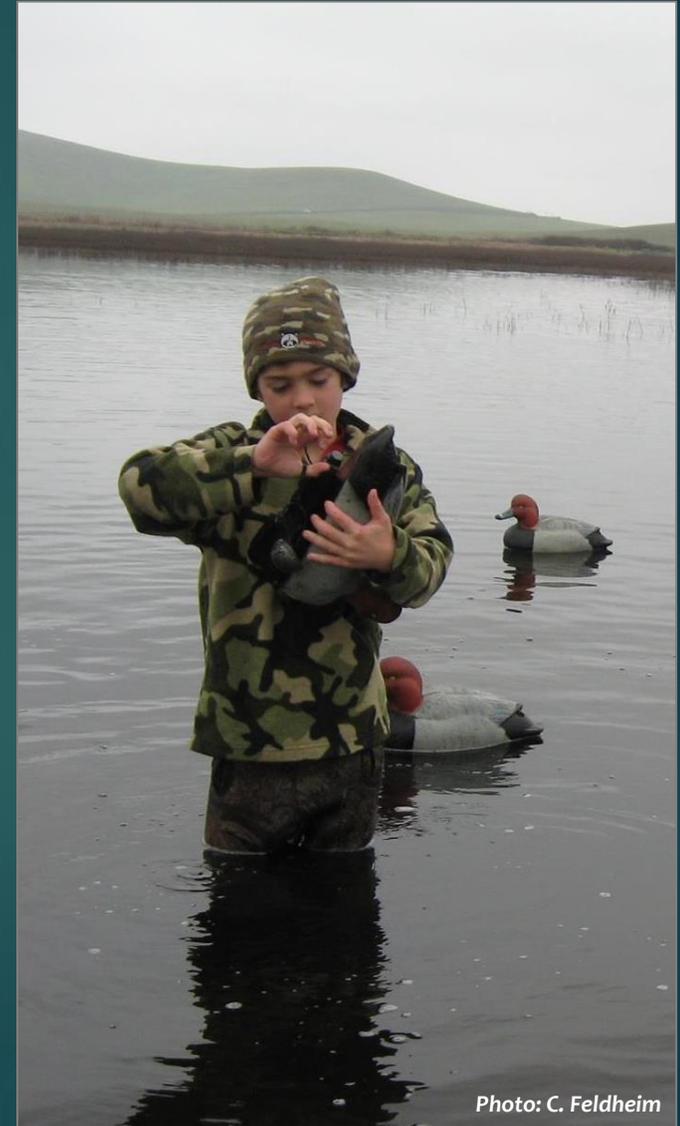


Photo: C. Feldheim

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*



Photo: C. Sloop

Delta Conservation

- ▶ **Protection, enhancement, and restoration of ecological function of Delta ecosystems and their services**
- ▶ **AIM: Achieve system-wide multi-benefits by integrating with watershed management, agricultural practices, flood protection, and recreation.**

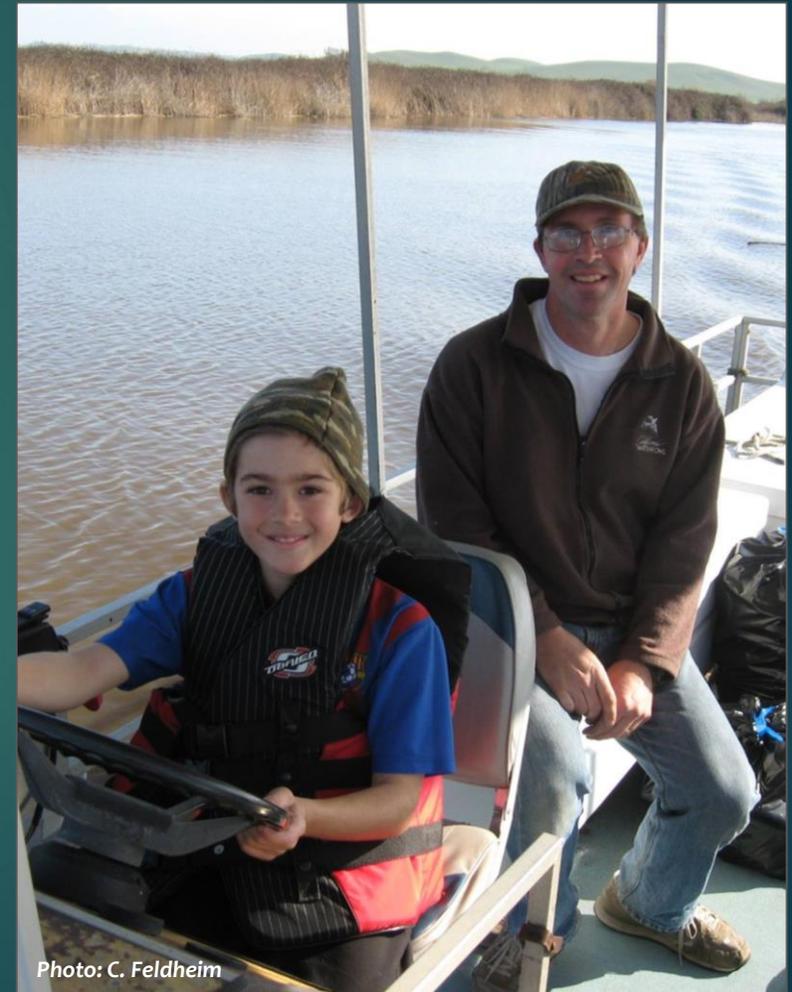


Photo: C. Sloop

Tackling Delta Challenges

▶ People and Place

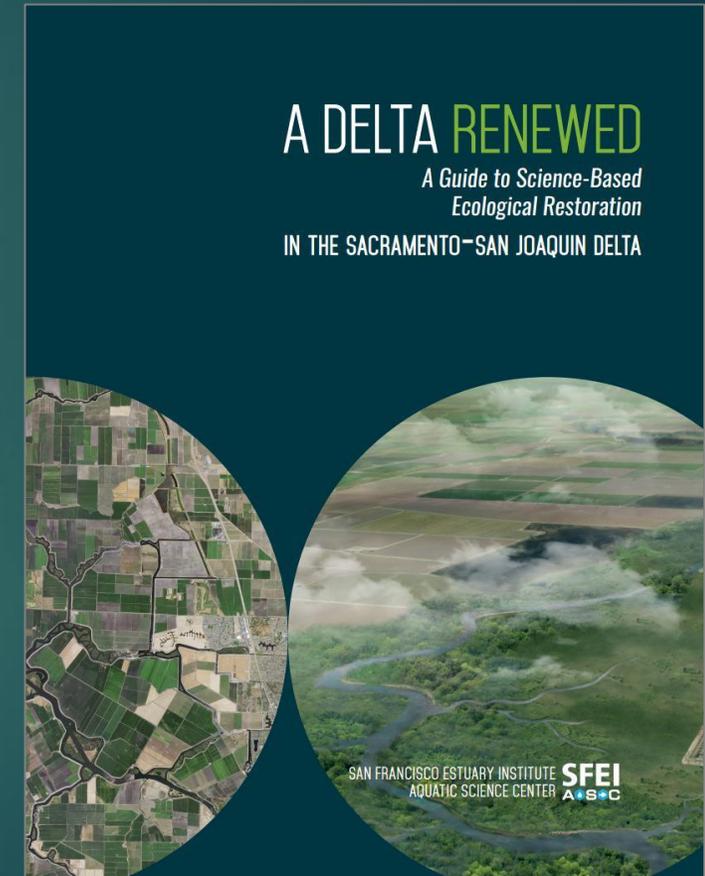
- ▶ **GOAL A:** Stakeholder communication and socio-economic considerations
- ▶ **GOAL B:** Public education and state/national outreach campaigns
- ▶ **GOAL C:** Multi-benefit conservation solutions



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

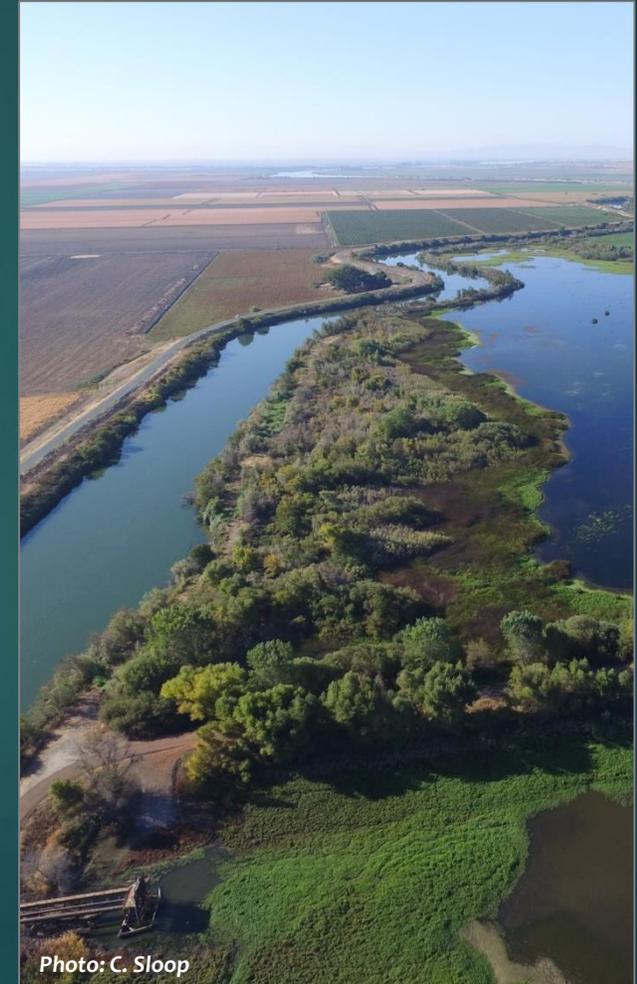


Photo: C. Sloop

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

VI. Workshop
Summaries

XI. Species Recovery
Briefs

II. COR Overviews

VII. Existing Plans

XII. Ecosystem/
Habitat Types

III. BDCP
Conservation
Measures

VIII. Current Delta
Plan Alignment

XIII. Regulatory
Compliance and
Permitting

IV. California
EcoRestore

IX. Good Neighbor
Checklist

XIV. Grants

V. Delta Plan
Amendment Nexus

X. Wildlife-friendly
Agriculture

XV. Planning Tools

Conservation Opportunity Regions

1 SUISUN MARSH

2 Conservation Opportunity Region Overview

3 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 the largest contiguous brackish marsh remaining on the Pacific United States, 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 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 infrastructure in the Marsh includes the 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 tidal elevations, location in the estuary, abundance of undeveloped existing m turbidity, high primary and secondary productivity, and use by Delta smelt 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

1 North Delta

2 Conservation Opportunity Region Overview

3 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 (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. 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: Don Coyne

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 85054, the Delta Protection Commission published Community Action Plans for three main north Delta communities: Clarksburg, Walnut Grove and Courtland.¹⁴³ 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 transportation, 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 spaces. 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. Community members also voiced concerns over the resolution of big issues such as flood insurance, California Waterfowl, and aquatic invasive species.

PUBLIC DRAFT

1 YOLO BYPASS

2 Conservation Opportunity Region Overview

3 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.



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

Fremont Weir overtopped in approximately 70 percent of flood seasons between 1994/95 and 2011/12, augmenting flows from western tributaries.¹ 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. The Yolo Bypass is a mix of rice, tomatoes, international ; the Yolo Bypass is a riparian habitat to recovering the hng industry. The Interstate 80) is includes the Fremont s. The southern a mosaic of private Wildlife Area. jusius floodplain use and ern parts of the Yolo rivers should be going forward.



Figure 2.

1 SOUTH DELTA

2 Conservation Opportunity Region Overview

3 Regional Setting

The south Delta region is predominantly 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 Refuge² 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 distributory 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.



Figure 1: Map of Cache Slough. Source: Department of Water.

pleted or currently being island, and Lindsey S' ports are under way thro effectiveness of floodpl

3 Planning History

The Paradise Cut Expansion, also called Lower San Joaquin River Bypass (LSRBE), 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.⁷ The 2013 Delta Plan also recommends implementation of the LSRBE and prohibits encroachments in the LSRBE planning area.⁸ The 2017 Central Valley Flood Protection Plan further proposes construction of the LSRBE, depending on the evaluation of potential major physical and operational elements.⁹

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

PUBLIC DRAFT

1 CACHE SLOUGH COMPLEX

2 Conservation Opportunity Region Overview

3 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 Mower 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 floodplains, 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

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Collaboration

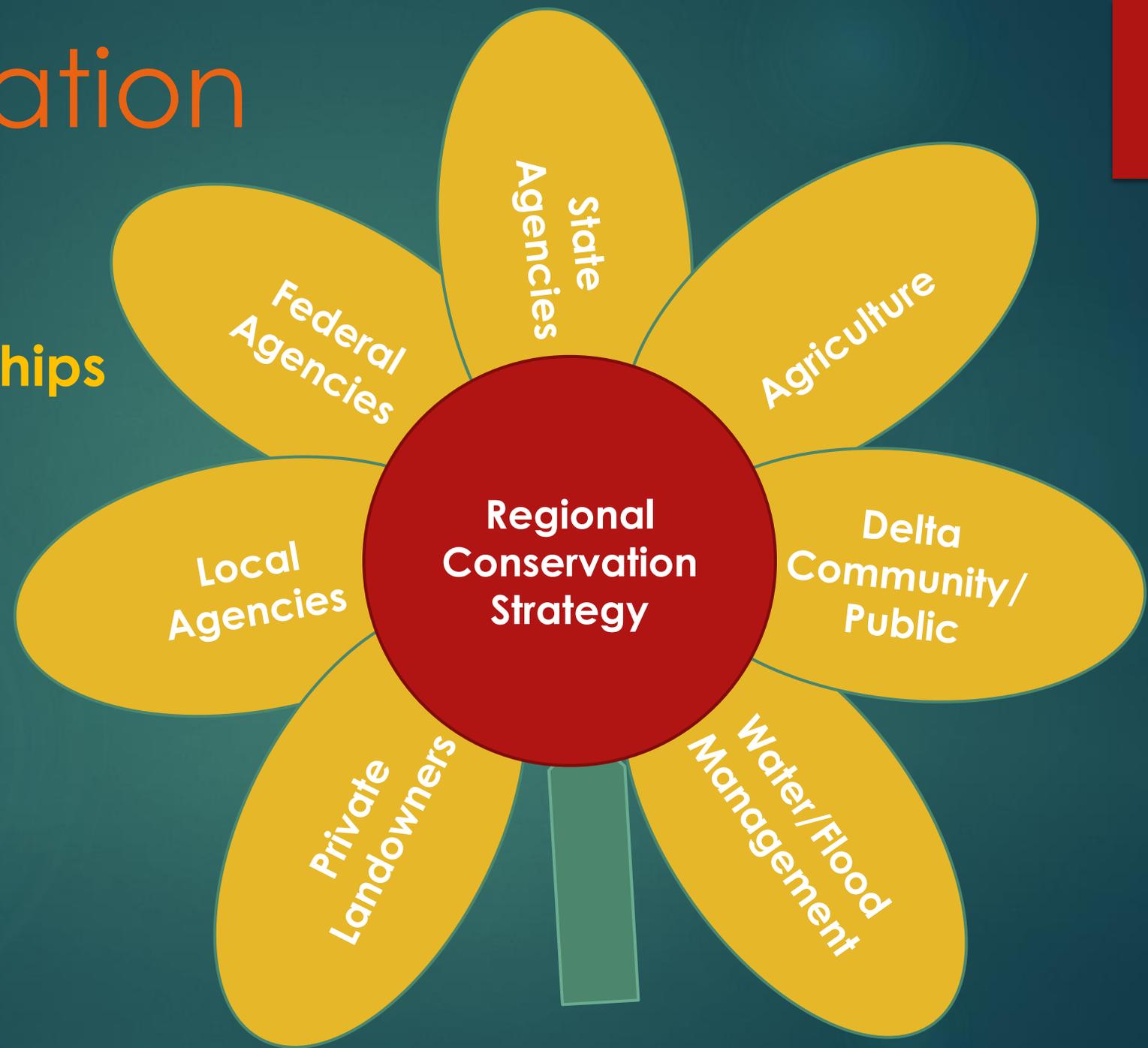
Regional Partnerships

Examples:

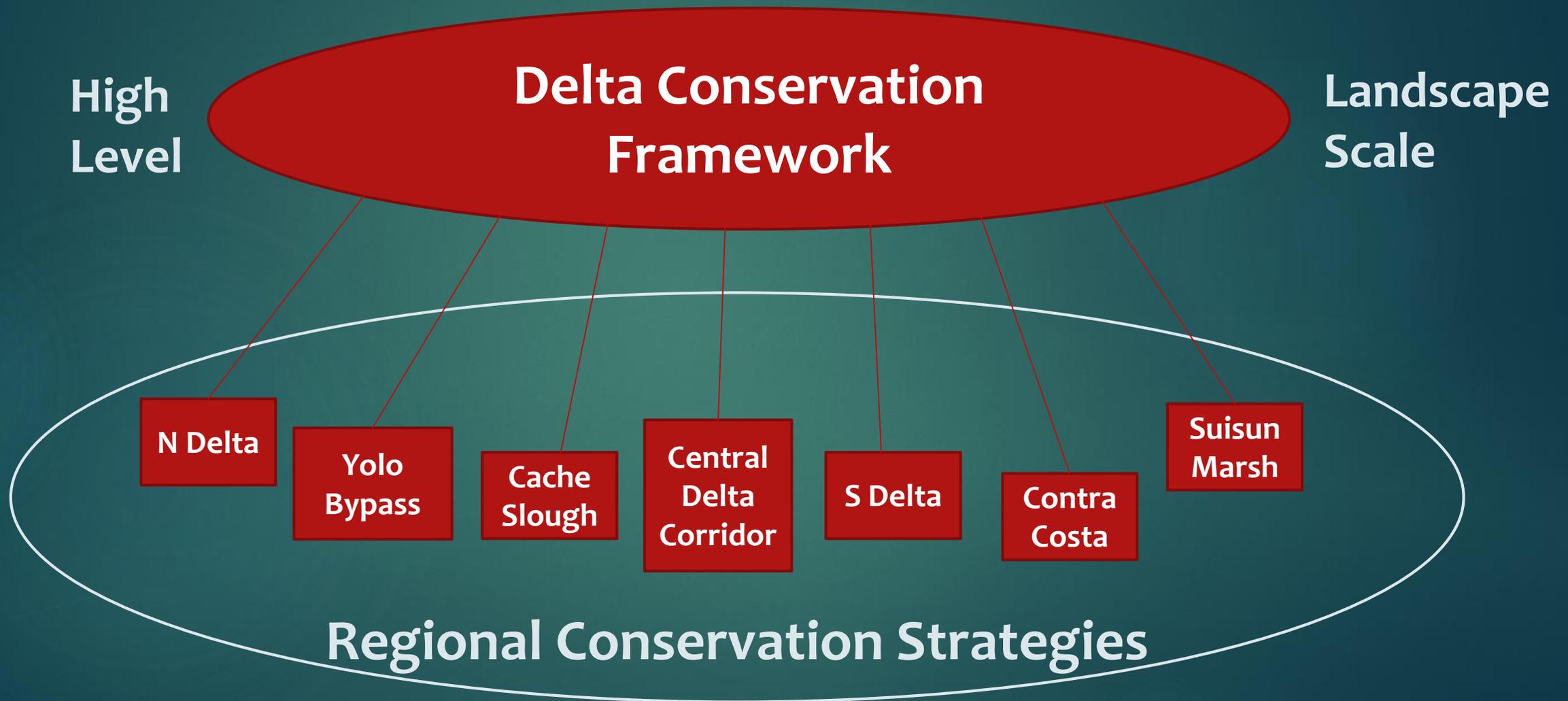
Suisun Marsh

Cache Slough

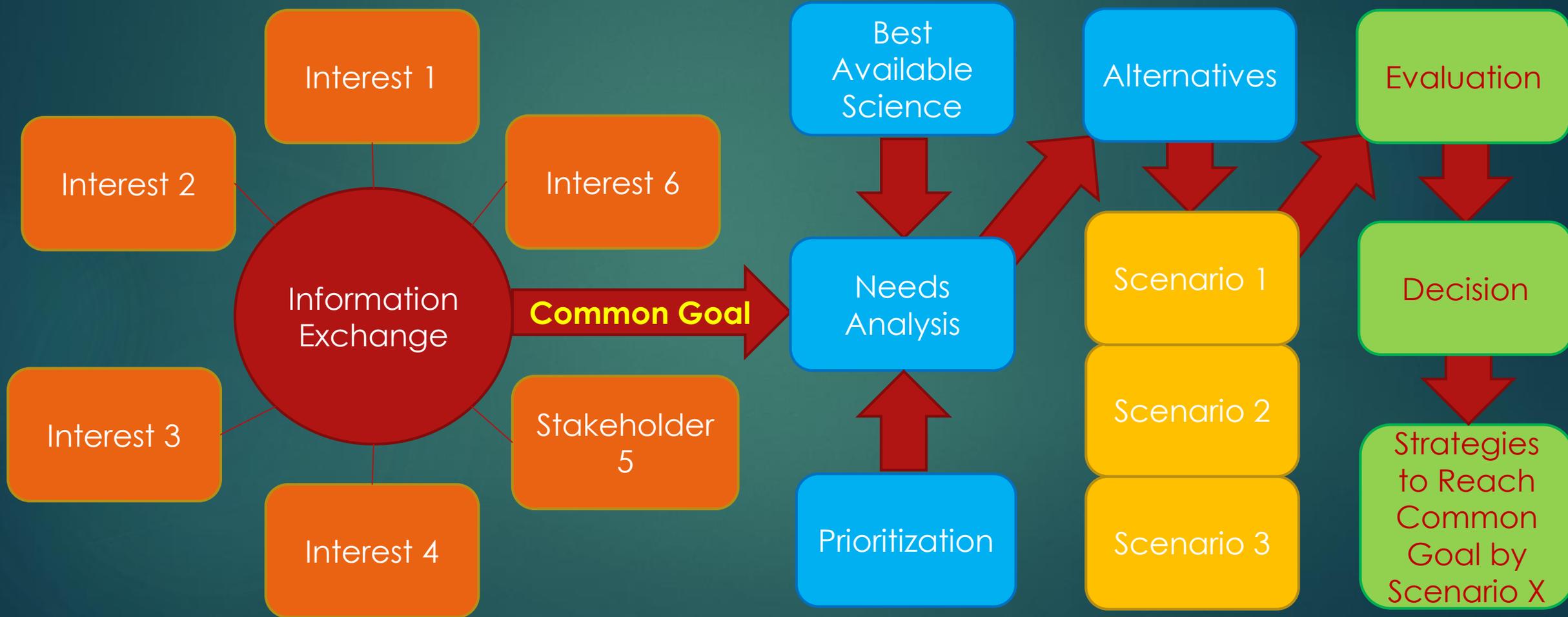
Central Delta Corridor



The Way Forward



Regional Partnership Process



Workshops

1 - WHY?

Purpose &
Principles

Vision

2 - WHAT?

Conservation
Topics

Challenges

Solutions

Goals

3 - HOW? WHEN?
WHERE?

Strategies

SMART Objectives

Conservation
Opportunity
Regions

*"A goal without
a plan is a
wish!"*

4 - WHO?

Regional
Partnerships

Opportunities
for Reaching
Goals



Workshop 1 – Why?

Section I

Purpose &
Principles

Vision

Workshop 2 – What?

Section I

Conservation
Topics

Sections II-V

Challenges

Solutions

Sections II-V
Appendix I

Goals

***“A goal without
a plan is a
wish!”***

Workshop 3 – How? When? Where?

Sections II-V
Appendix I

Appendix II

Strategies

SMART Objectives

Conservation
Opportunity
Regions

Workshop 4 – Who?

Section VI

Regional
Partnerships

Opportunities
for Reaching
Goals

Finding Common Ground

Regional Planning/Implementation Partnerships

- ▶ Integrated and collaborative approach
- ▶ Open invitation to stakeholders
- ▶ Consider new possibilities and approaches

Regional Conservation Strategies/Plans

"Perfecting the art of broad buy-in requires ego management and humility to transcend our own limitations and engage in non-traditional partnerships."

K. Tjernell – Natural Resources Agency



Photo: C. Sloop

Regional Partnerships

