

PURPOSE / AGENDA

Discuss the Corps' regional Systems-Based IWRM approach to addressing the challenges in the California Bay-Delta.

- **Bay-Delta Context**
- **IWRM System Program Development**
- **Corps Projects, Activities & Outputs**
- **Strategic Priorities**



CALIFORNIA BAY-DELTA

BOTTOM LINE UP FRONT

A unified vision must encompass a fully resourced and integrated systems approach to Flood Risk Management, Water Supply & Ecosystem Restoration



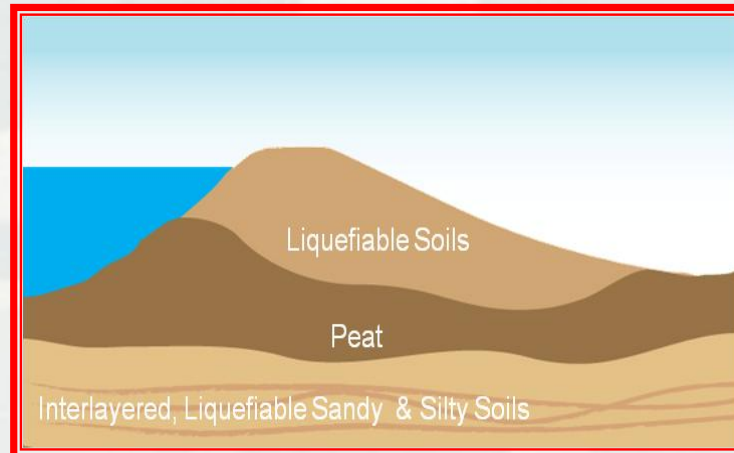
- Delta is California's hydraulic heart; deteriorating & at risk
- Inextricably linked to the Central Valley
- Navigation supports regional economic engine
- History has created unique & difficult challenges
- Bay Delta Conservation Plan (BDCP) "*... necessary but not sufficient*"
- Key Stakeholders must align
- Authorities are available, but internal interpretations limit use
- Unique USACE opportunity: *Corps can decisively impact CA Water Challenges*
- Key USACE Infrastructure building blocks exist (Coord. Acct., CVIFMS & DILFS)
- Bay-Delta IRWM Systems budget submitted 28 June 2010
- USACE CW appropriations must reflect Bay-Delta as a funding priority



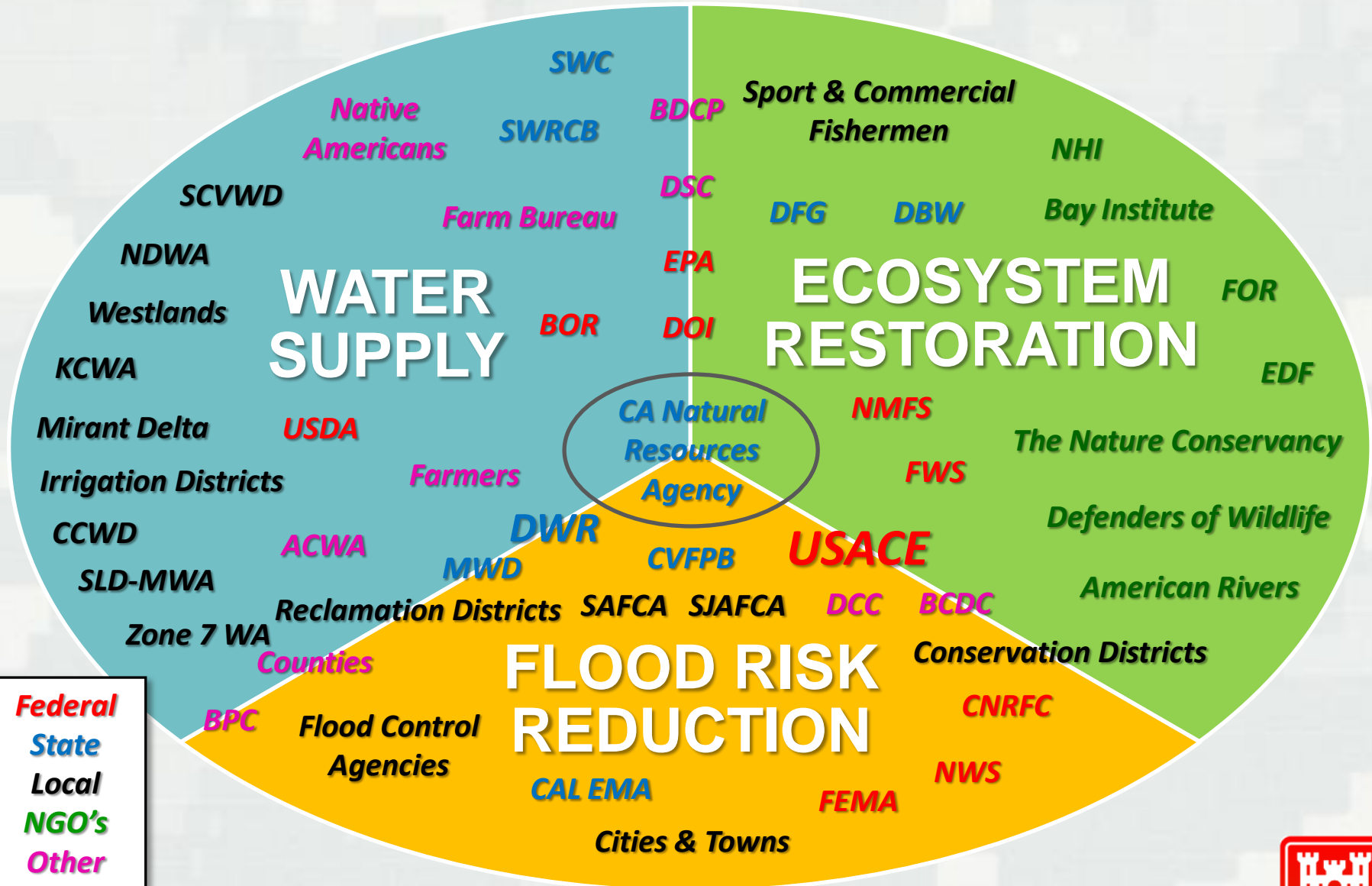
CALIFORNIA BAY-DELTA

KEY TAKE-AWAYS

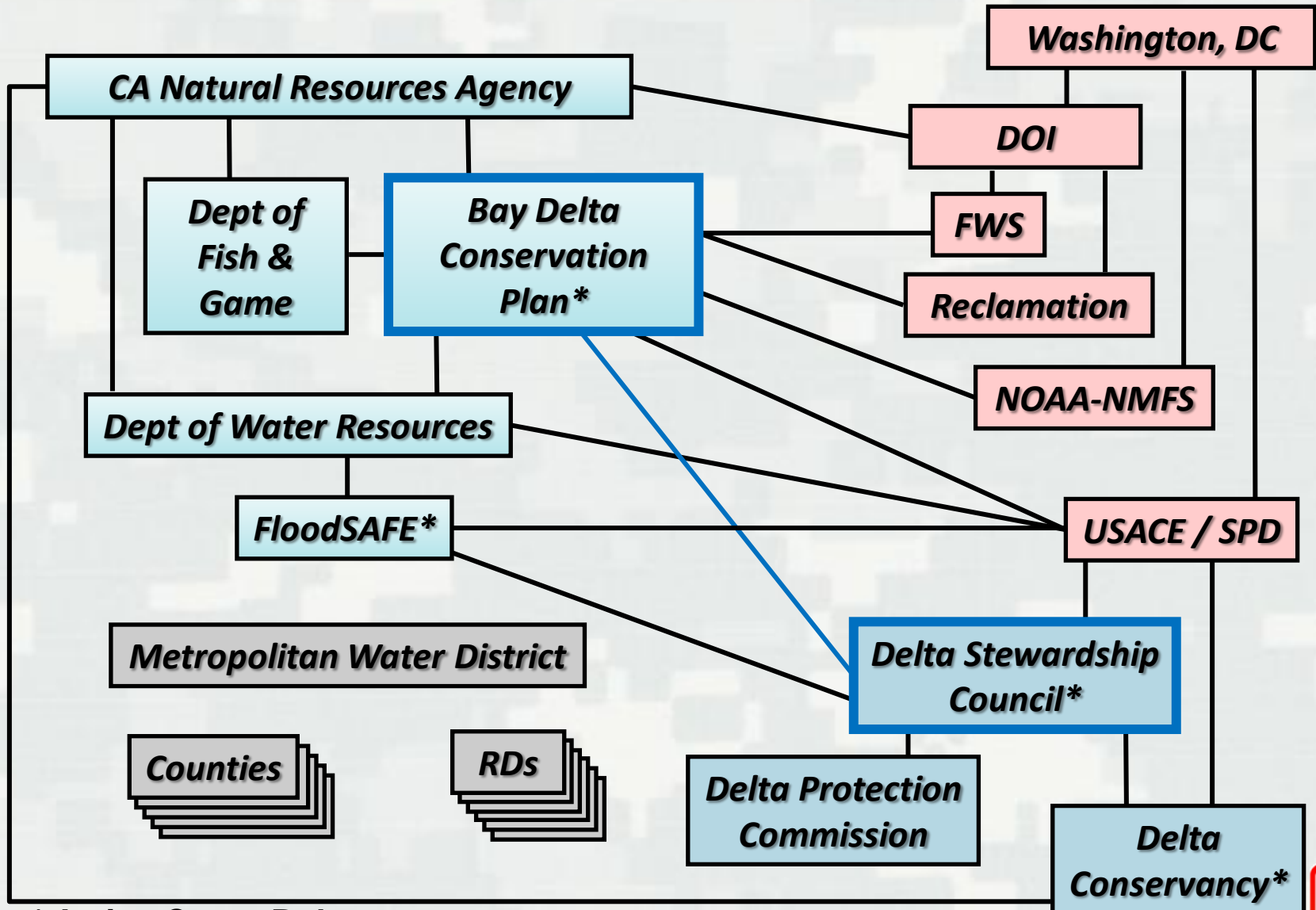
- Department of the Interior is the Federal lead agency
- Efforts focused around water supply reliability
- No historical unifying Federal legislation
- Impacts and influences extend beyond Legal Delta
- “The 7 vulnerabilities”
 - Subsidence
 - Flood Risk
 - Drought Risk
 - Sea Level Rise
 - ESA Actions
 - Non-native Species Intrusion
 - Seismic Events



PARTNERS & STAKEHOLDERS



GOVERNANCE



* Active Corps Role



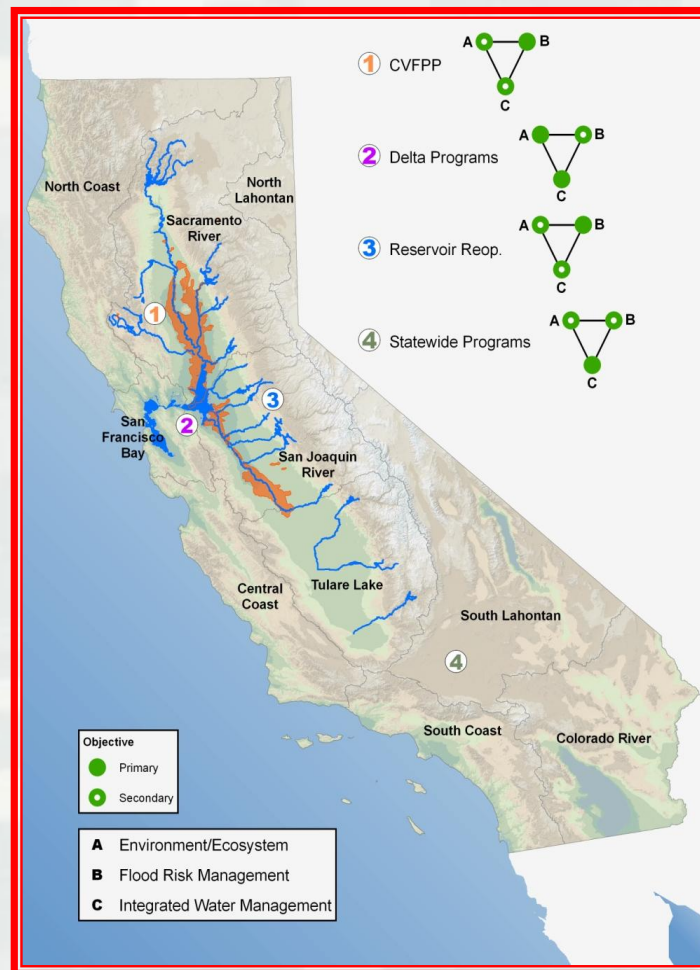
COMMON OPERATING PICTURE

UNIFIED VISION

- Must be an integrated systems approach: **Flood Risk Reduction, Water Supply & Ecosystem Restoration.**

USACE PRIORITIES

- Must align with key stakeholders and appropriately fund integrated activities.



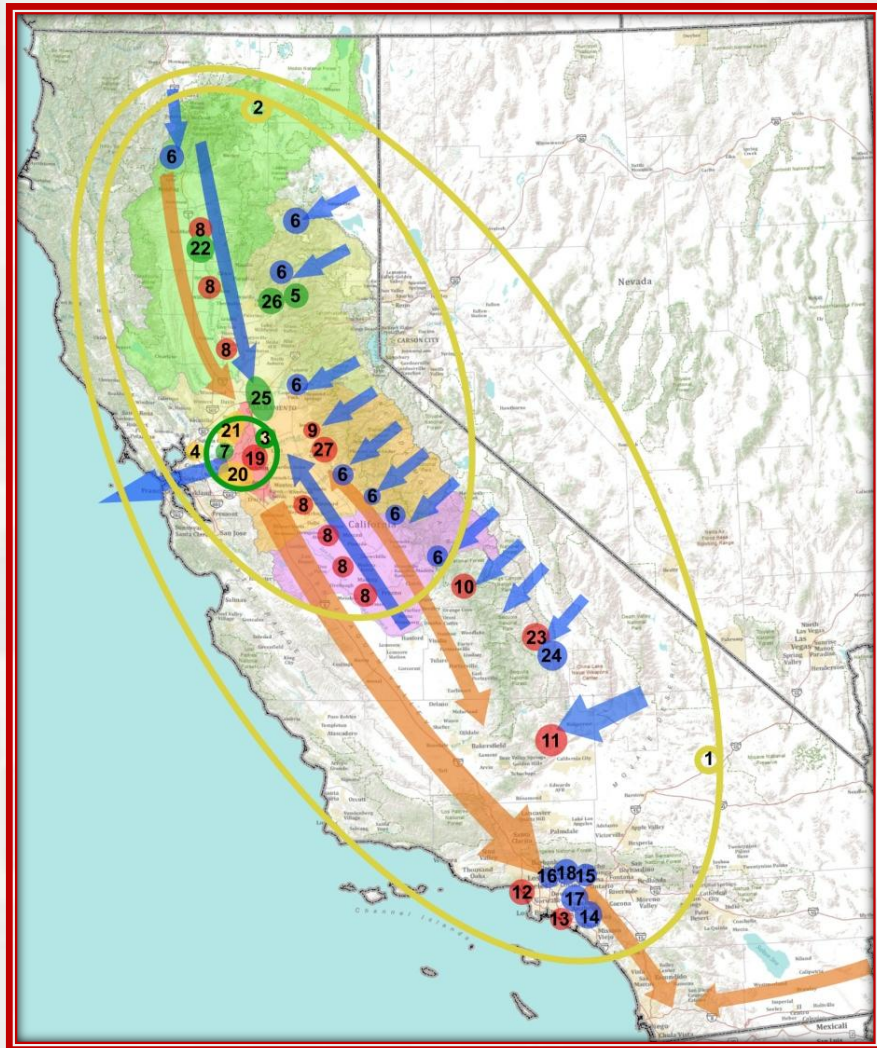
CA BAY-DELTA IWRM SYSTEM

- Published “SPD Proposed Systems Approach to California Bay-Delta Program Development”, June 28 2010
- Reviewed 400+ projects that influence the CA Bay-Delta
 - Review criteria included:
 - ✓ USACE Program Categories
 - ✓ Project Phase and Schedule for Completion
 - ✓ Systems Benefits to the Delta (Project Outputs)
 - ✓ Draft Principles and Standards Intent
 - ✓ Interagency Collaboration Values
 - ✓ IFAP, USACE Campaign Plan, & CW Strategic Plan Goals
 - Ranked top projects
- Delta Systems Program activities resulted in a revised CALFED Crosscut Budget



CA BAY-DELTA IRWM SYSTEM

Bay Delta Project Integration



Priority Initiatives that, in combination, significantly improve:

- Ecosystem
- Flood Risk Management
- Water Supply
- Reservoir Operations
- Navigation
- Water Conservation

- Key: **Blue Arrows** – Natural Flow Paths
- Orange Arrows** – Conveyance Systems
- Yellow Dots** – Navigation BL or Other
- Green Dots** – Ecosystem BL
- Red Dots** – Flood Damage Reduction BL
- Blue Dots** – Reservoir Operations/O&M



CA BAY-DELTA IRWM SYSTEM PROGRAM

IRWM Rank	Program/Project	Bus. Line.
1	CALFED Coordination Account	ENR
2	Sacramento and San Joaquin Comprehensive Basin Study (Central Valley Integrated Flood Management Study)	FRM
3	Sacramento-San Joaquin Delta, Delta Islands and Levees	FRM
4	Pinole Shoal Management Study (Delta LTMS)	NAV
5	Yuba River Fish Passage (Daguerre and Englebright Dams)	FRM
6	Scheduled Reservoir Operation*	FRM
7	CALFED Levee Stability Program - Project 1	FRM
8	Inspection of Completed Works*	FRM
9	New Hogan Lake	FRM
10	Pine Flat Lake	FRM
11	Isabella Lake	FRM
12	Los Angeles County Drainage Area (LACDA)	FRM
13	Santa Ana River Basin Orange County (SARBOC)	FRM
14	Santa Ana River Basin - Prado Basin Water Supply Study	FRM
15	LACDA Whittier Narrows Water Conservation & Supply Study	FRM
16	LACDA - Hansen Dam Water Conservation & Supply Study	FRM
17	Raymond Basin, Six Basins, Chino Basins, & San Gabriel Basin (Foothills) (Sec 219)	WTR
18	South Perris Water Supply Desalination Project (Sec 219)	WTR
19	CALFED Levee Stability Program	FRM
20	San Francisco Bay to Stockton	NAV
21	Sacramento Deep Water Ship Channel	NAV
22	Hamilton City	ENR
23	Success Dam Remediation (DSAP)	FRM
24	Tule River, Lake Success Dam Enlargement	FRM
25	Sacramento River Bank Protection Fish and Wildlife Mitigation	FRM
26	Yuba River	FRM
27	Farmington Recharge (Sec 219)	WTR



CA BAY-DELTA OUTPUT GOALS

IFAP Crosscut Project List (USACE)	IFAP CATEGORY	Outputs				Collaboration Value		
		Eco	Flood	WS	NAV	BOR	FWS	NMFS
CALFED Coordination Account	I	X	X	X	X	1	1	1
Pinole Shoal (Delta LTMS)	I	X	X		XXX	3	2	2
Farmington Recharge (Sec 219)	II	X	XXX	X		2	2	2
LACDA (Hansen & Lopez Dams) Water Conservation & Supply Study, CA	II	X	X	XXX		2	2	2
LACDA (Whittier Dam) Water Conservation & Supply Study, CA	II	X	X	XXX		2	2	2
Raymond Basin, Six Basins, Chino Basins, & San Gabriel Basin (Sec 219)	II	X	X	XXX		2	2	2
Santa Ana River Basin - Prado Basin Water Supply Study	II	X	X	XXX		2	2	2
South Perris Water Supply Desalination Project (Sec 219)	II	X		XXX		2	2	2
Hamilton City	III	XXX	X			3	1	1
Sacramento Deep Water Ship Channel	III	X	X		XXX	3	2	2
Sacramento River and Tributaries (Debris Control), Engelbright, CA	III	X	X	X	XXX	3	2	2
San Francisco Bay to Stockton Deep Water Ship Channel	III	X	X		XXX	3	2	2
San Pablo Bay Watershed and Suisun Marsh Ecosystem Restoration, CA	III	XXX	X	X		3	2	2
Yuba River (Daguerre Point Dam), CA	III	X	X	X	XXX	3	1	1
Yuba River Fish Passage (Daguerre and Engelbright Dams)	III	XXX	X	X		3	1	1
American River Watershed (Common Features), CA	IV	X	XXX			3	3	3
Black Butte Lake	IV	X	XXX	X		2	3	3
Buchanan Dam, H.V. Eastman	IV	X	XXX	X		2	3	3
CALFED Levee Stability Program	IV	X	XXX	X		2	1	1
Farmington Dam	IV	X	XXX	X		2	3	3
Hidden Dam	IV	X	XXX	X		2	3	3
Inspection of Completed Works	IV	X	XXX	X		2	2	2
Isabella Lake	IV	X	XXX	X		2	2	2
Los Angeles County Drainage Area (LACDA)	IV	X	XXX	X		2	2	2
Lower San Joaquin River, CA	IV	X	XXX			3	2	2
Merced County Streams Group	IV	X	XXX	X		2	3	3
New Hogan Lake	IV	X	XXX	X		2	2	2
New Melones Lake (Lower Stanislaus River)	IV	X	XXX	X		2	3	3
Pine Flat Lake	IV	X	XXX	X		2	2	2
Sacramento River Bank Protection Project	IV	X	XXX			3	1	1
Sacramento-San Joaquin Comprehensive Basin Study (CVIFMS)	IV	X	XXX	X		2	1	1
Sacramento-San Joaquin Delta, Delta Islands and Levees Feasibility Study	IV	X	XXX	X		2	1	1
Santa Ana River Basin Orange County (SARBOC)	IV	X	XXX	X		2	2	2
Scheduled Reservoir Operation	IV	X	XXX	X		1	2	2
Success Dam and Reservoir, Tule River, Dam Safety Seismic Remediation, CA	IV	X	XXX	X		2	3	3
Success Lake	IV	X	XXX	X		3	3	3
Terminus Dam, Lake Kaweah	IV	X	XXX	X		2	3	3
Tule River, Lake Success Dam Enlargement	IV	X	XXX	X		3	3	3

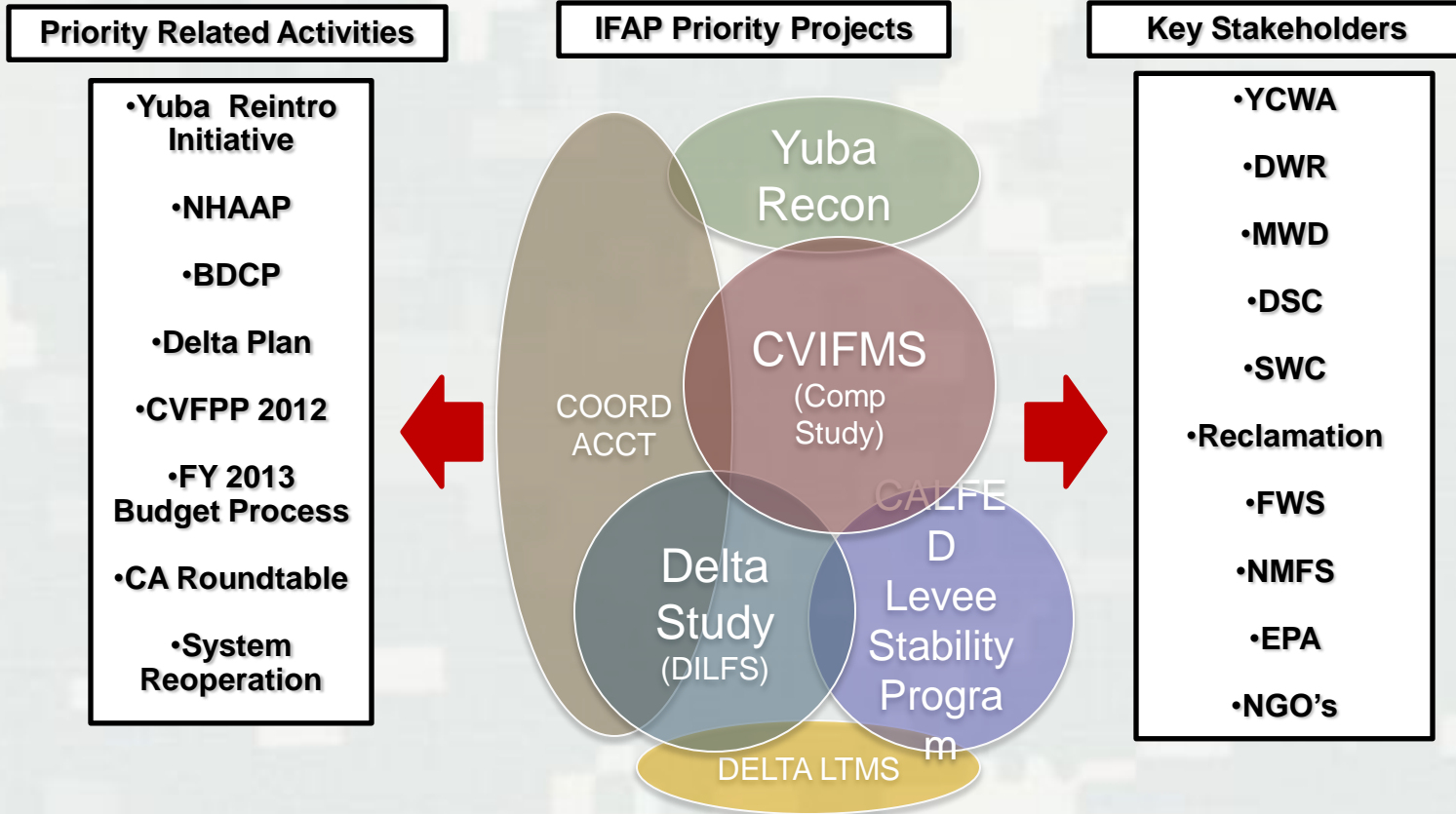
XXX = Business Line

1-3, 1 is highest



CA BAY-DELTA IRWM SYSTEM PROGRAM

Strategic Priorities & Leverage



Key Questions:

- How do we integrate project activities better with Key Stakeholders & Related Activities?
- How do we optimize multiple IWRM benefits with current Business Line budgeting?
- How do we better link ASA to HQ to SPD to SPK to PM for these key priority projects?
- How do we advance coordinated / federal interagency budgeting?



CHALLENGES & OPPORTUNITIES

CHALLENGES

1. Project-centric focus
2. Lack of unified vision
3. Need to identify “best” projects
4. Restrictive project benefits
5. Business Line budget criteria
6. Federal Coordination

OPPORTUNITIES

1. Establish system-based programmatic IWRM framework
2. Align & synchronize key stakeholders
3. Establish “sustainability” & long-term asset mgt metrics across business lines
4. Broaden interpretation of Authorities
5. Pursue programmatic funding
6. Fund Agencies for coordinated project execution



“This MOU establishes a structure for coordinating and streamlining the actions of the federal agencies... to facilitate coordination and cooperation among these agencies in advancing the federal commitment to the Bay-Delta.” – Federal MOU Sep 2009

