

Water Planning and Stewardship Committee

Item 6a

Subject: Oral Report on Water Surplus and Drought Management

Purpose: Update on 2013 water supply, demand, and storage conditions

Water Planning and Stewardship Committee February 11, 2012

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Update on 2013 water supply, demand, and storage conditions



Oral Report on Water Surplus and Drought Management

Water Planning and Stewardship Committee

Item 6a

February 11, 2013

Presentation Overview

- Update of supplies & hydrologic conditions
- Overview of fisheries restrictions

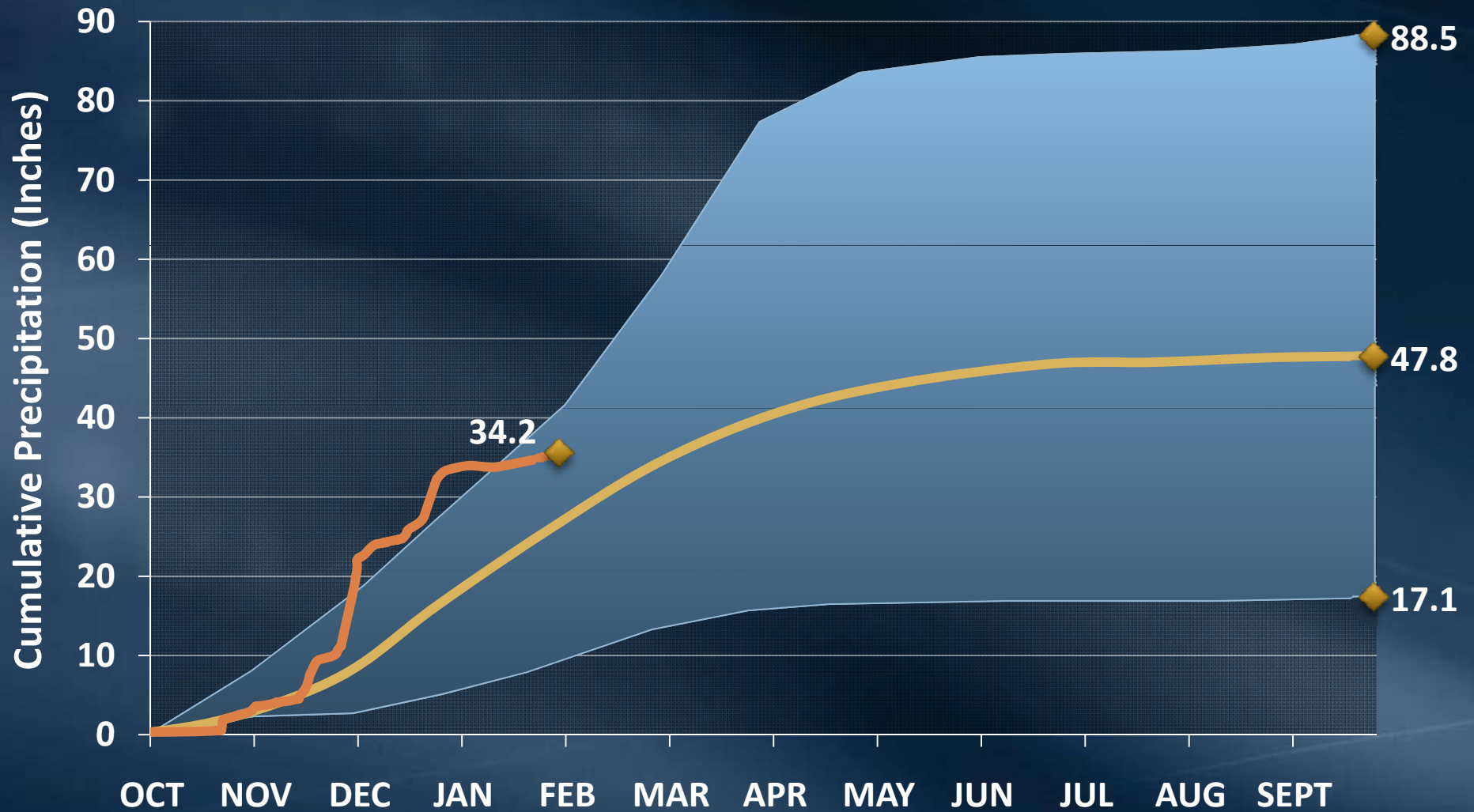
2013 State Water Project Supplies

Currently Allocated

- SWP: 786 TAF
 - 40% Table A Allocation: 765 TAF
 - SWP supply programs: 21 TAF

Northern Sierra Hydrologic Conditions

Eight Station Index 1922-2004



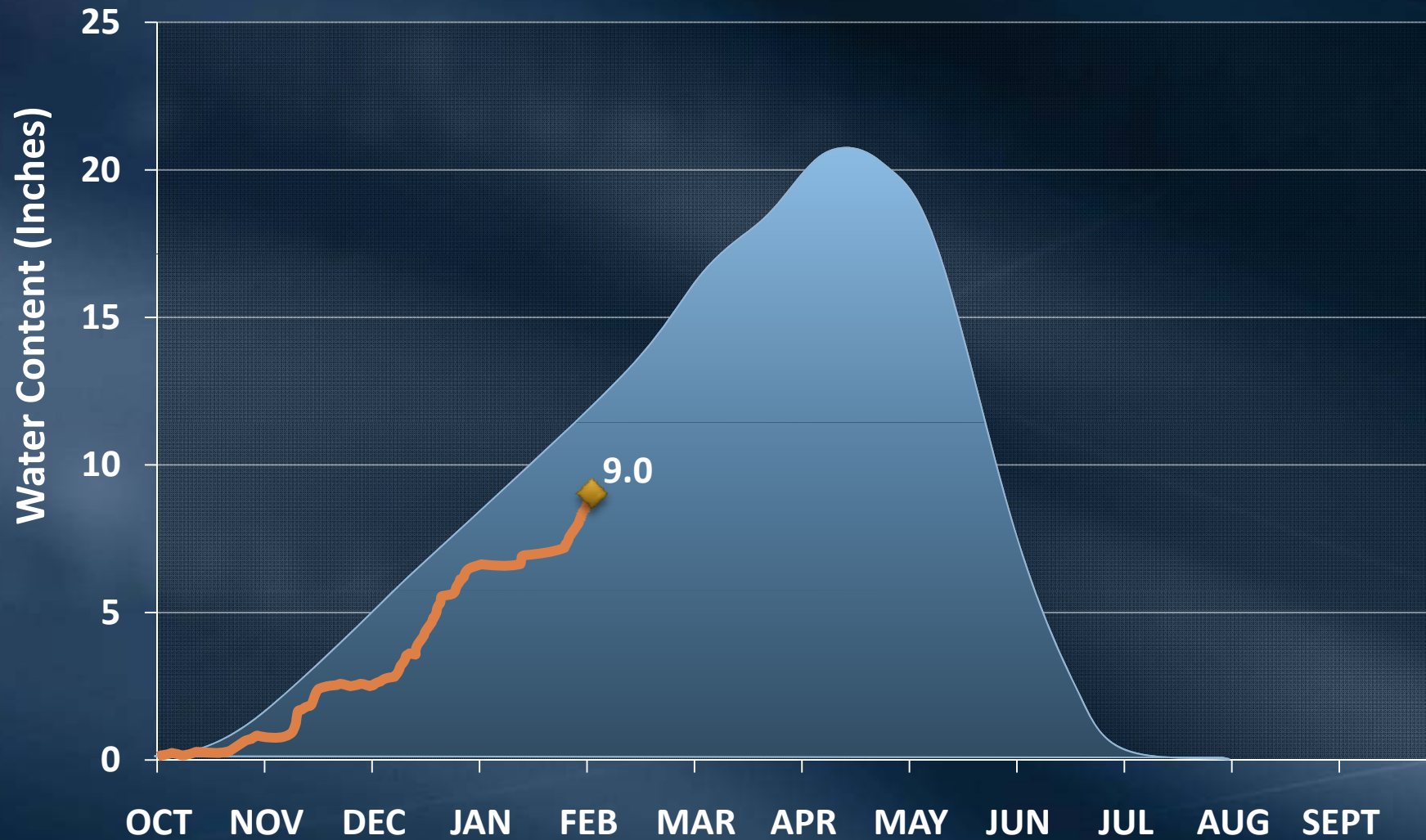
2013 Colorado River Aqueduct Supplies

Estimated Diversions

- CRA: 867 TAF
 - Priority 4: 550 TAF
 - Colorado System programs and exchanges: 317 TAF

Colorado River Hydrologic Conditions

Upper Colorado Basin Snowpack



MWD Storage Reserve Levels

Emergency Storage Dry-Year Storage



Fish Restrictions Affecting SWP

Key Fish of Concern

- Delta Smelt



- Longfin Smelt



- Sturgeon



- Salmon



- Steelhead



Fish Restriction Evolution

- 1999 Water Right Decision 1641 (Baseline)

Bay-Delta Standards

Contained in D-1641

DRAFT

CRITERIA	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
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FLOW/OPERATIONAL

• Fish and Wildlife

SWP/CVP Export Limits

1,500cfs ^[1]

Export/Inflow Ratio ^[2]

65% 35% of Delta Inflow ^[3] 65% of Delta Inflow

Minimum Delta Outflow

^[4] 3,000 - 8,000 cfs ^[4]

Habitat Protection Outflow

7,100 - 29,200 cfs ^[5]

Salinity Starting Condition ^[6]

^[6]

River Flows:

@ Rio Vista

3,000 - 4,500 cfs ^[7]

@ Vernalis - Base

710 - 3,420 cfs ^[8]

^[8]

- Pulse

+28TAF

Delta Cross Channel Gates

^[10] Closed ^[11] Conditional ^[10]

WATER QUALITY STANDARDS

• Municipal and Industrial

All Export Locations

≤ 250 mg/l Cl

Contra Costa Canal

150 mg/l Cl for the required number of days ^[12]

• Agriculture

Western/Interior Delta

Max. 14-day average EC mmhos/cm ^[13]

Southern Delta ^[14]

1.0 mS 30 day running avg EC 0.7 mS 1.0 mS

• Fish and Wildlife

San Joaquin River Salinity ^[15]

14-day avg; 0.44 EC

Suisun Marsh Salinity ^[16]

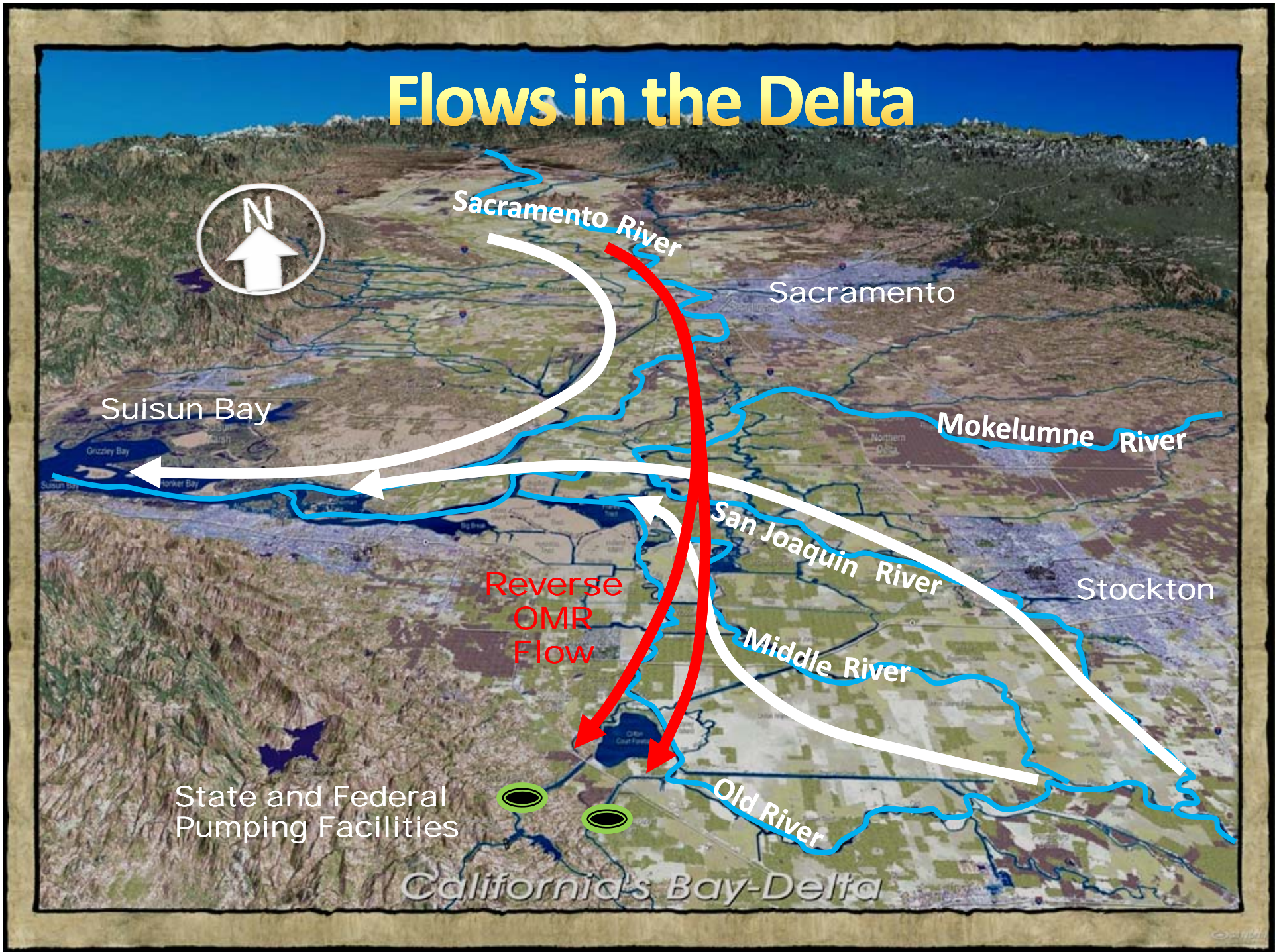
12.5 EC 8.0 EC 11.0 EC 19.0 EC ^[17] 15.5 EC

^[#] See Footnotes

Fish Restriction Evolution

- 1999 Water Right Decision 1641 (Baseline)
- 2007 Federal Court Decision

Flows in the Delta

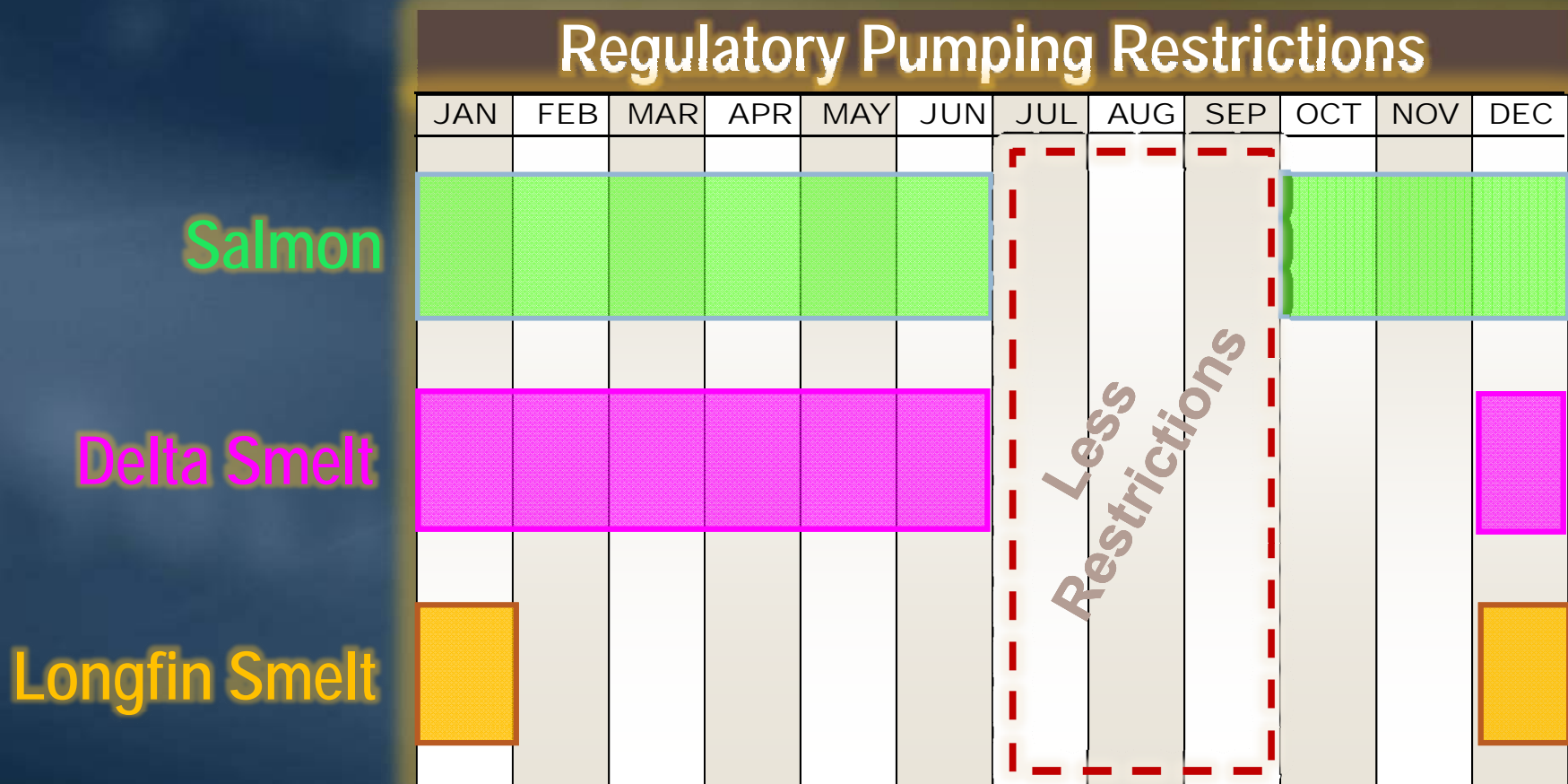


Fish Restriction Evolution

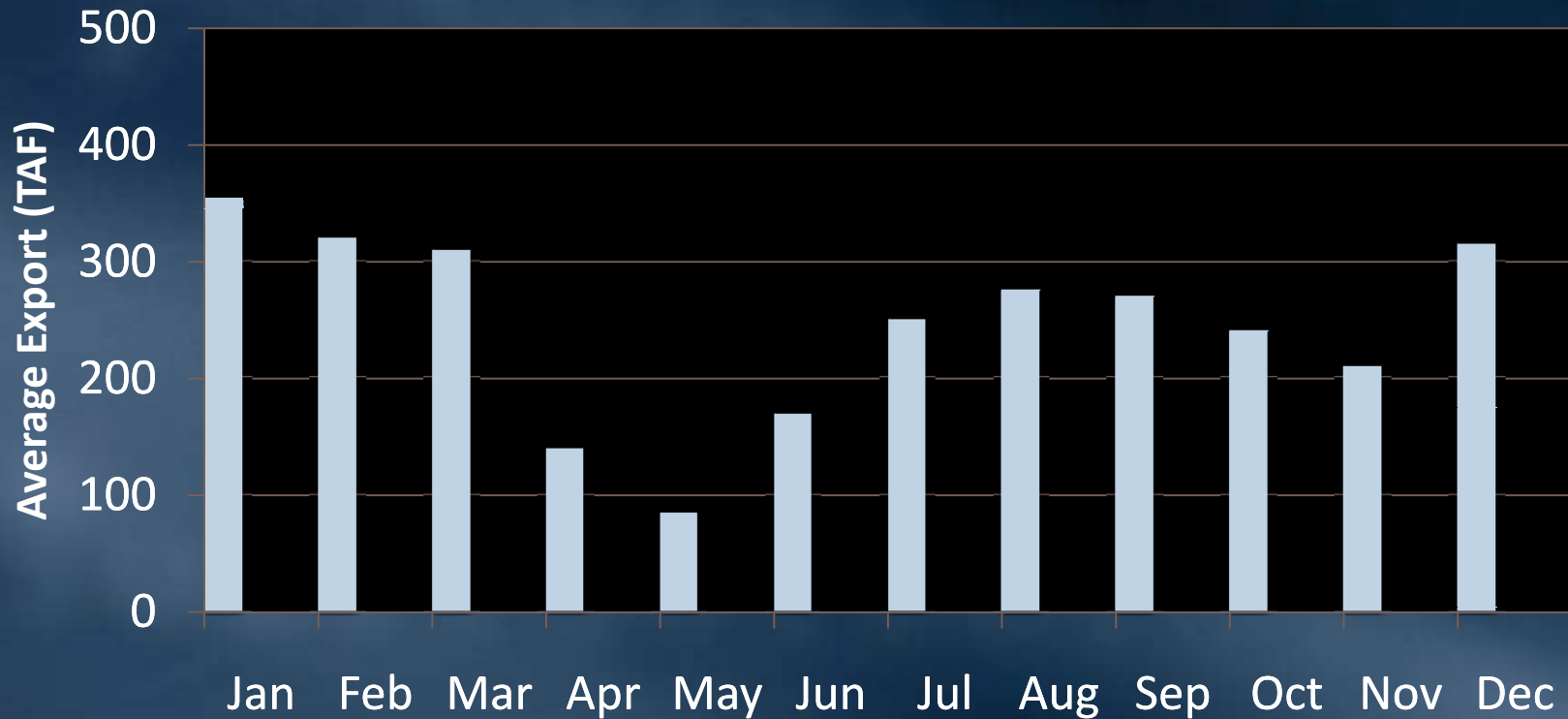
- 1999 Water Right Decision 1641 (Baseline)
- 2007 Federal Court Decision
- 2008 USFWS and 2009 NMFS Biological Opinions

Pumping Flexibility Reduced

Window restricted even during wet years



Impacts On Monthly SWP Pumping

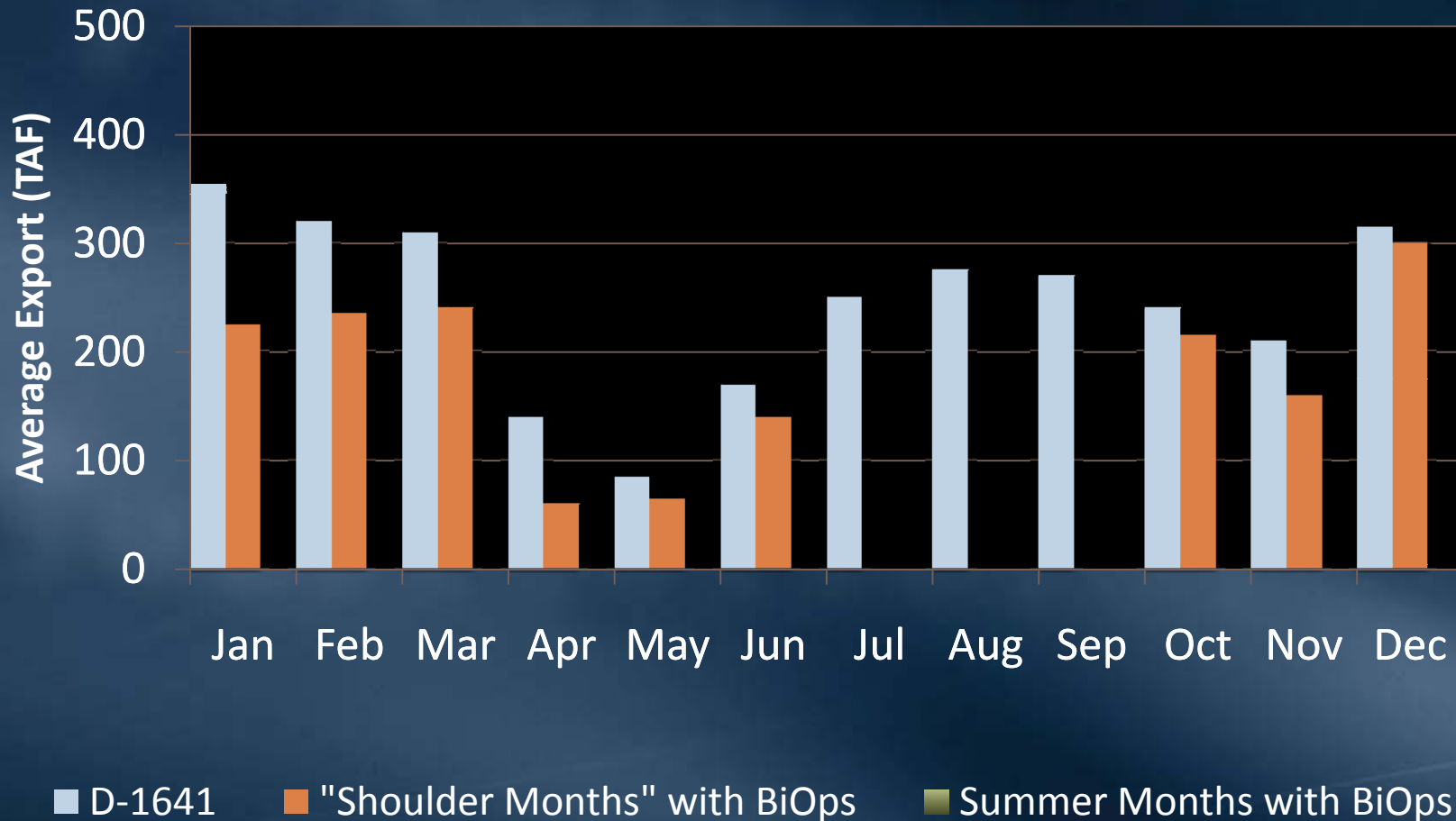


■ D-1641

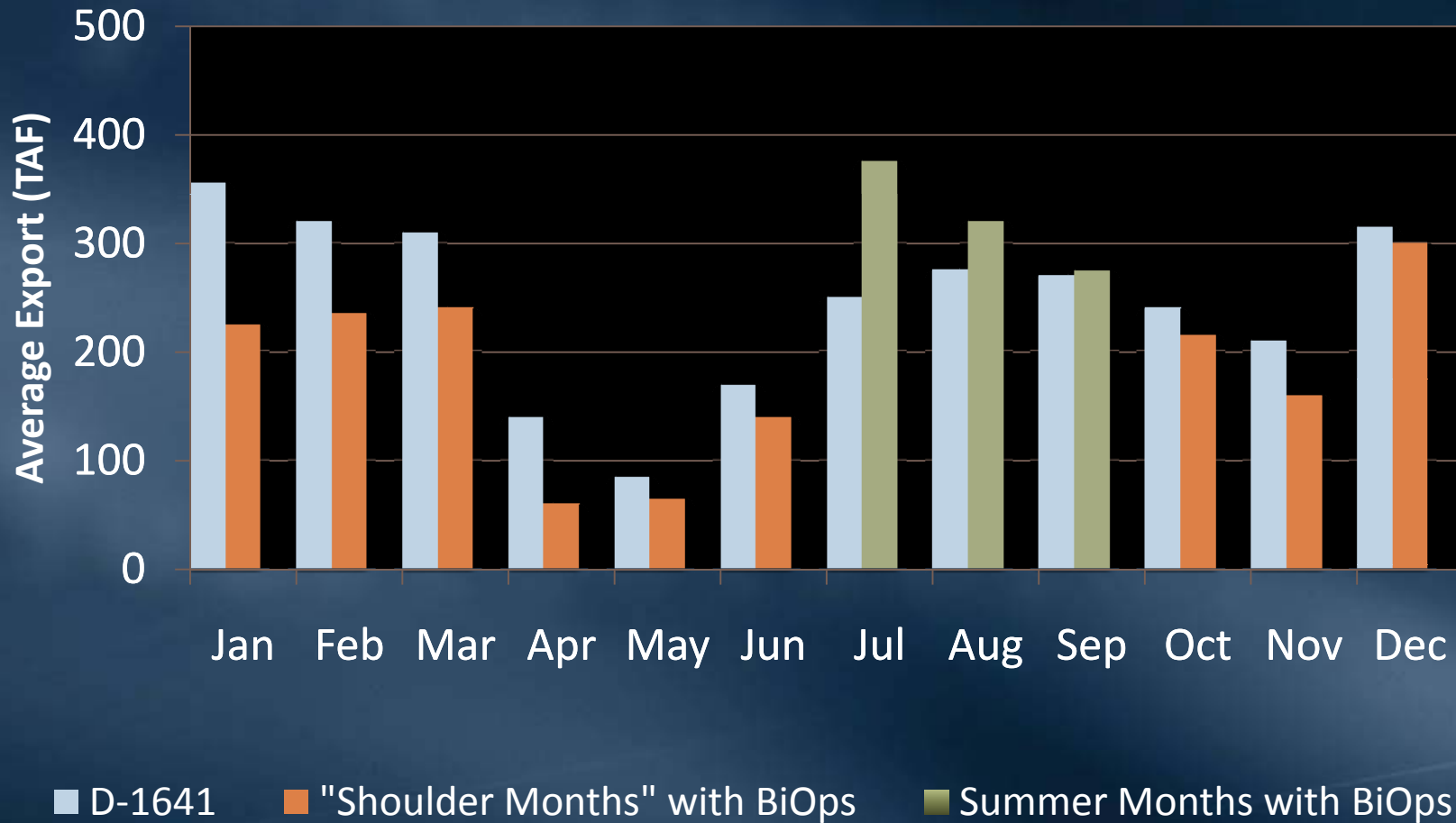
■ "Shoulder Months" with BiOps

■ Summer Months with BiOps


Impacts On Monthly SWP Pumping



Impacts On Monthly SWP Pumping



Impact of Restrictions on SWP Supplies

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- 2008 = 494 TAF
 - 2009 = 251 TAF
 - 2010 = 770 TAF
 - 2011 = 465 TAF
 - 2012 = 535 TAF
 - 2013 = 290 TAF and counting*

* A final accounting of losses can't be made until the end of the year.

Key Triggers and Off-Ramps

Temperature

Salvage –
Fish counts at both facilities
Concern Level: 228 fish
2013 Take Limit: 305 fish

Temporal

Biological

Turbidity



State and Federal
Pumping Facilities

California's Bay-Delta



USFWS BiOps Overview

Timeframe	Objective	Trigger	Restriction	Off-Ramp
Dec - Jan	<u>RPA 1 - Action 1</u> Protect adult migrating smelt	Turbidity or Salvage	OMR > -2000 cfs	Temperature or Biological
Jan - Mar	<u>RPA 1 – Action 2</u> Protect adult smelt prior to spawning	Following Action 1	OMR range (cfs): -1,250 to -5,000	Temperature or Biological
Mar - Jun	<u>RPA 2</u> Protect larval smelt	Temperature or Biological	OMR range (cfs): -1,250 to -5,000	Temporal or Temperature
Sep - Nov	<u>RPA 3</u> Improve fall habitat	Wet and Above Normal year type	Delta Outflow (Fall X2)	Temporal

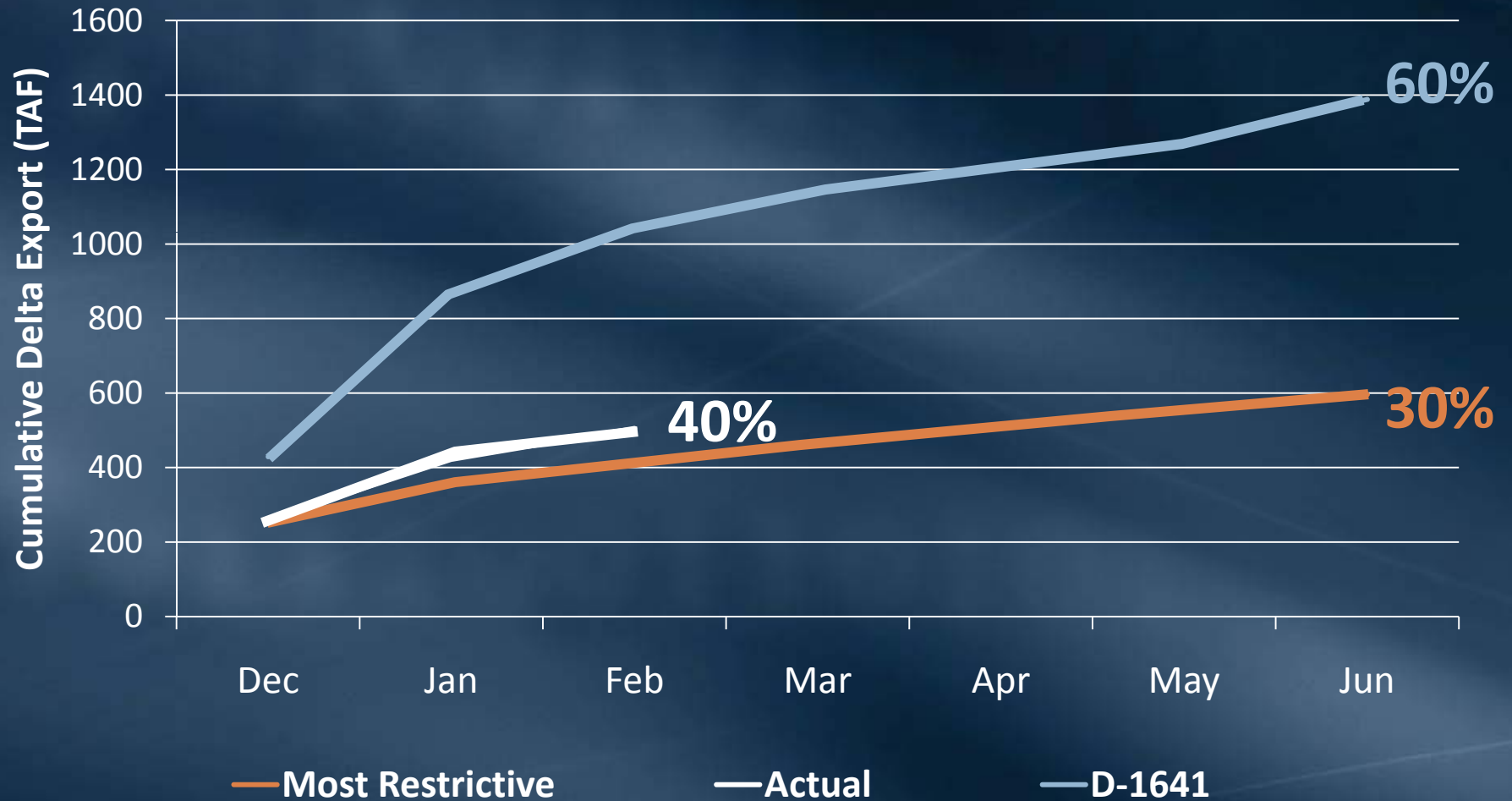
Decision Making Process

- Stakeholder Input
- Management and Technical Representatives
 - Reclamation, DWR, DFW
- Final Determination
 - USFWS
 - NMFS

Fish Restrictions Triggered

	Date	Status	Restriction	Export Impact
NMFS BiOp Action IV.3	Dec 8 to Dec 10	High salvage	Reduce exports to 6,000 cfs for 3 days	24 TAF
USFWS BiOp RPA 1 Action 1	Dec 20 to Jan 1	High turbidity and salvage rate and low population density	OMR > -2,000 cfs	136 TAF
USFWS BiOp RPA 1 Action 2	Jan 2 to Jan 27	Turbidity and salvage rates improved	OMR > -3,500 cfs	227 TAF
	Thru Jan	Salvage rates increased and cumulative salvage high	OMR > -2,500 cfs	63 TAF

Conditions Have Been More Restrictive This Year



Next Steps

- Continue to Monitor Water Supply Conditions
- Track Fish Restriction Impacts on SWP Allocation