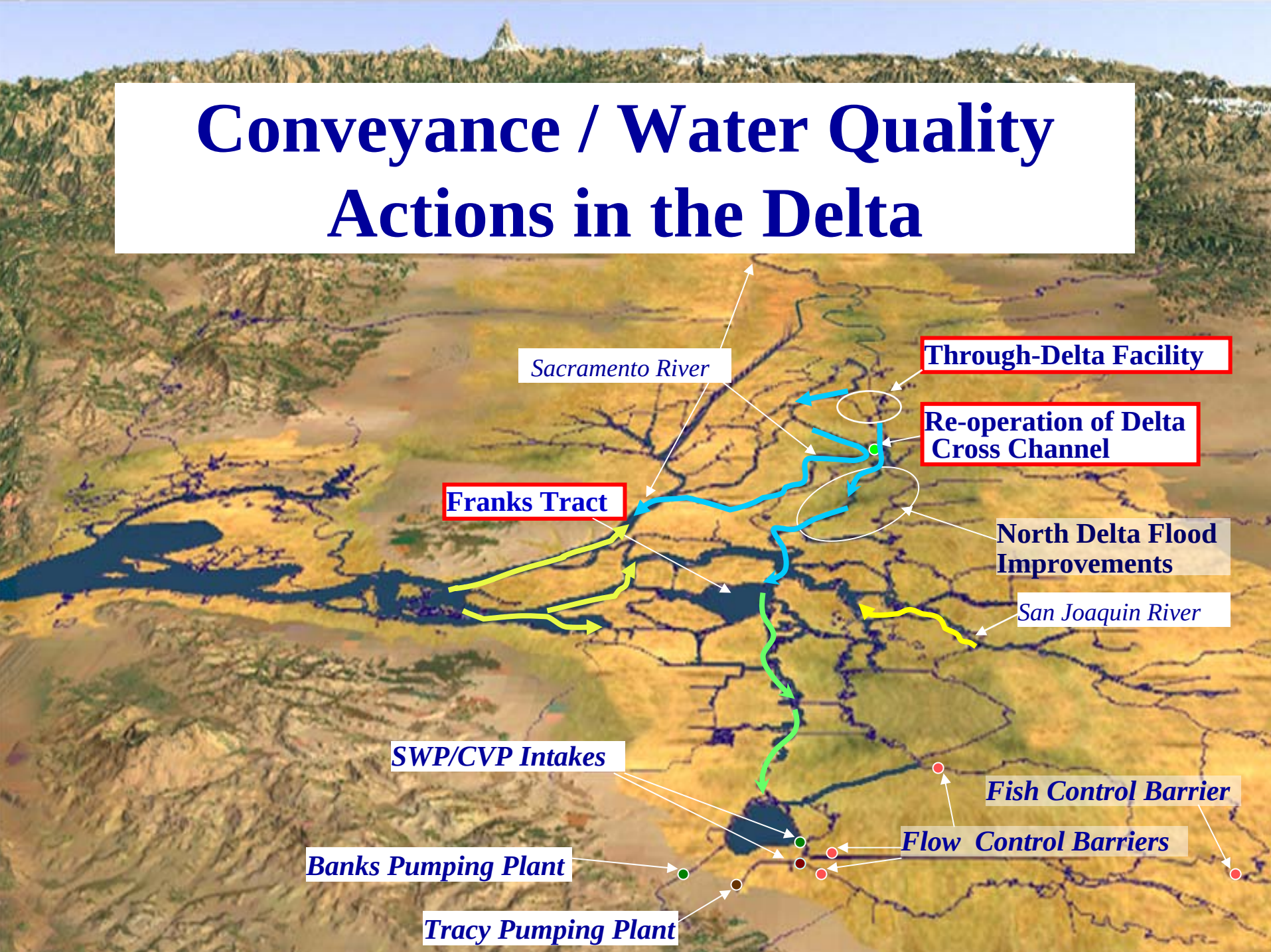
Franks Tract, Delta Cross Channel Reoperation, & Through Delta Facility

BDPAC Water Quality Subcommittee Presentation

Department of Water Resources
March 16, 2007

Conveyance / Water Quality Actions in the Delta



Project Objectives

Franks Tract Project

To improve the water quality of export water

Delta Cross Channel / Through Delta Facility

To improve the water quality of export water and resolve fishery concerns

Flooded Island Prefeasibility Study
(Franks Tract Project)

- Evaluated several alternatives to improve:
  - Water Quality
  - Ecosystem
  - Recreation
- Recommendations:
  - Refine alternatives and project operations
  - Consider a pilot project to confirm benefits

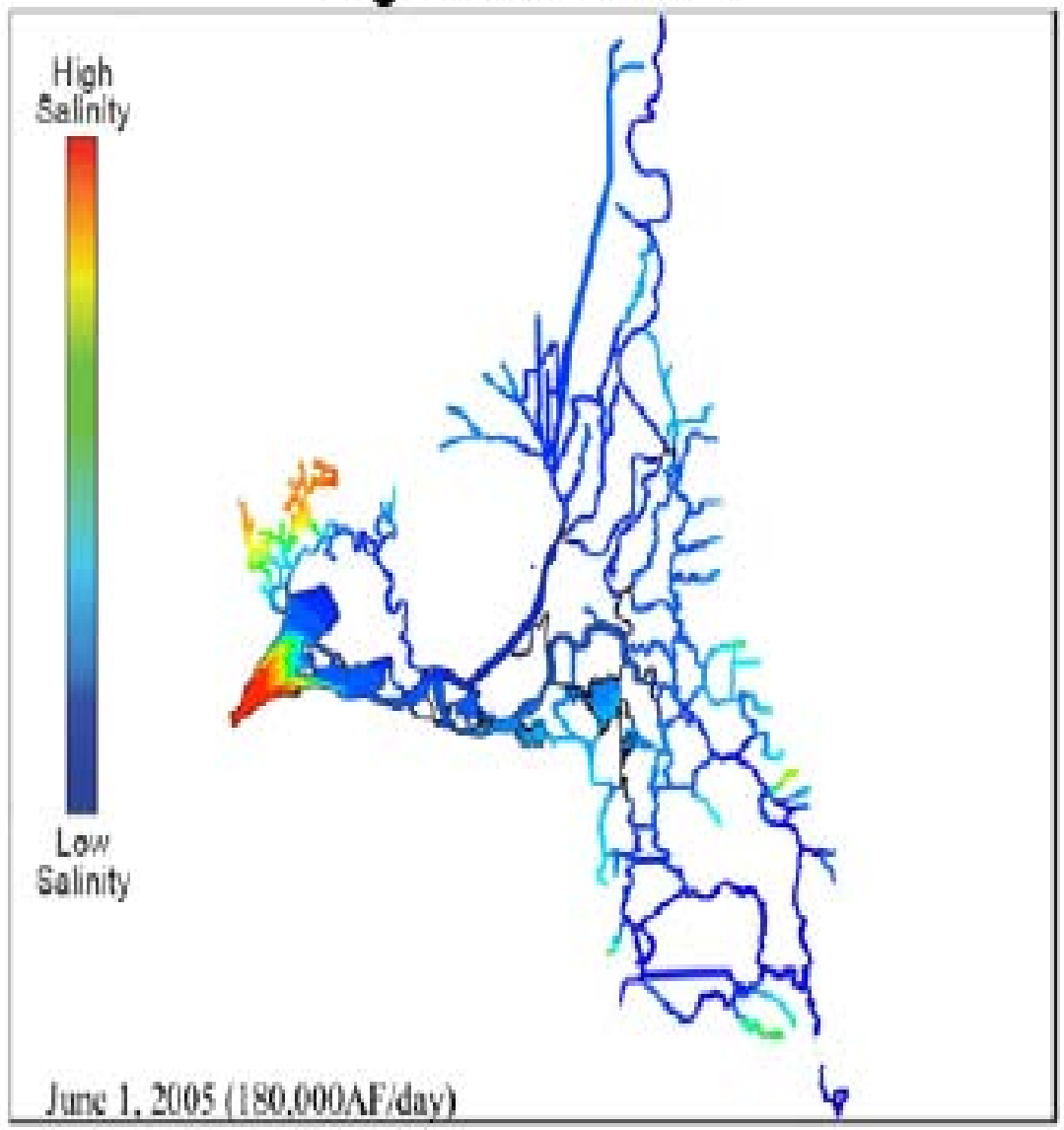
Franks Tract Project

- DWR is proceeding ahead with a Pilot Project
  - Obtain beneficiary commitment ($$$)
  - Initiate an EIR/EIS
- USBR is proceeding ahead with a Plan of Study (FS/EIR/EIS) for the full-scale project
  - Currently in progress

Franks Tract Pilot Project
Project Objectives

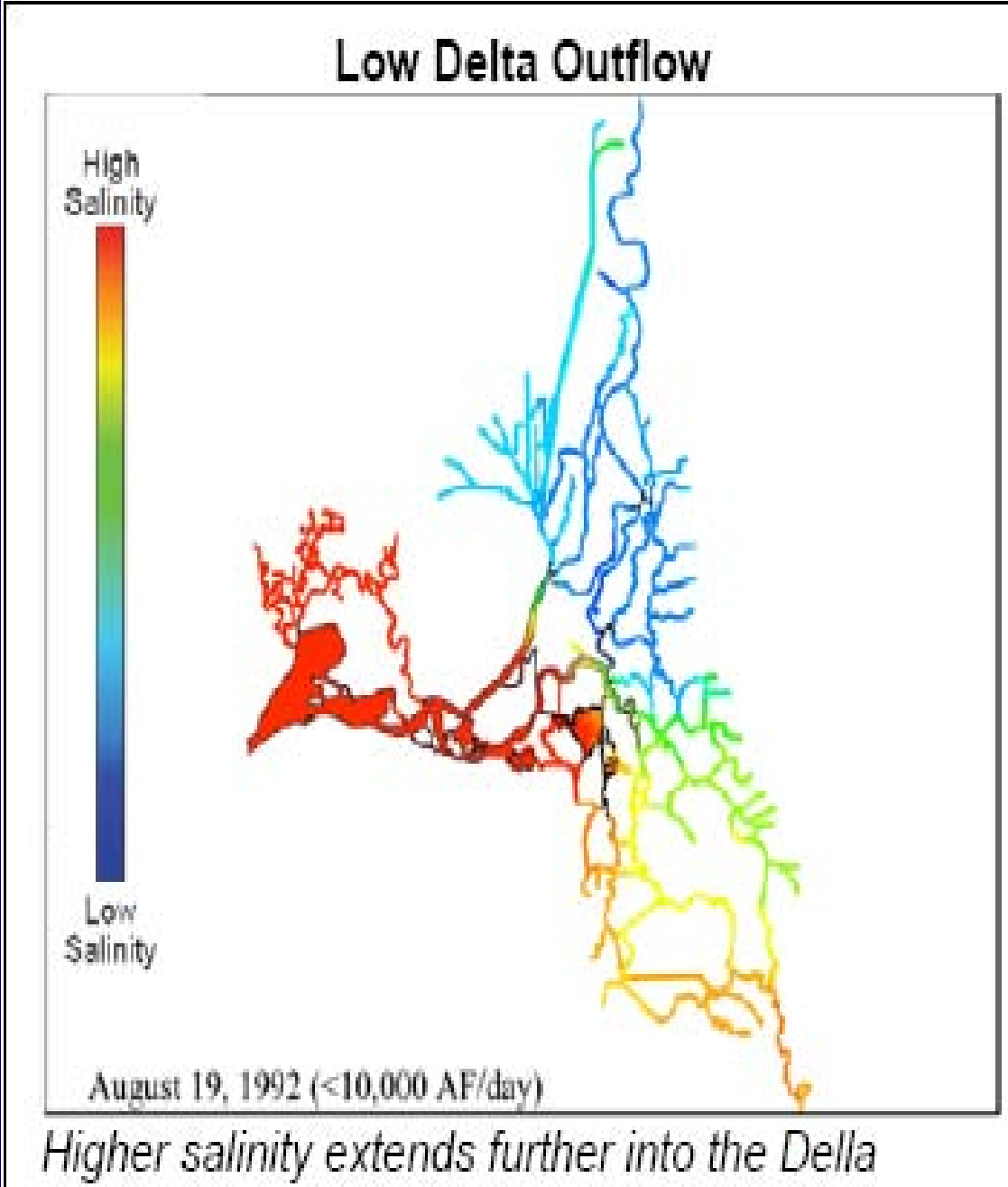
- Demonstrate the water quality and possibly benefits
- Monitor and evaluate impacts
- Modify project operations to improve benefits and minimize impacts

Wet Years – Better Water Quality



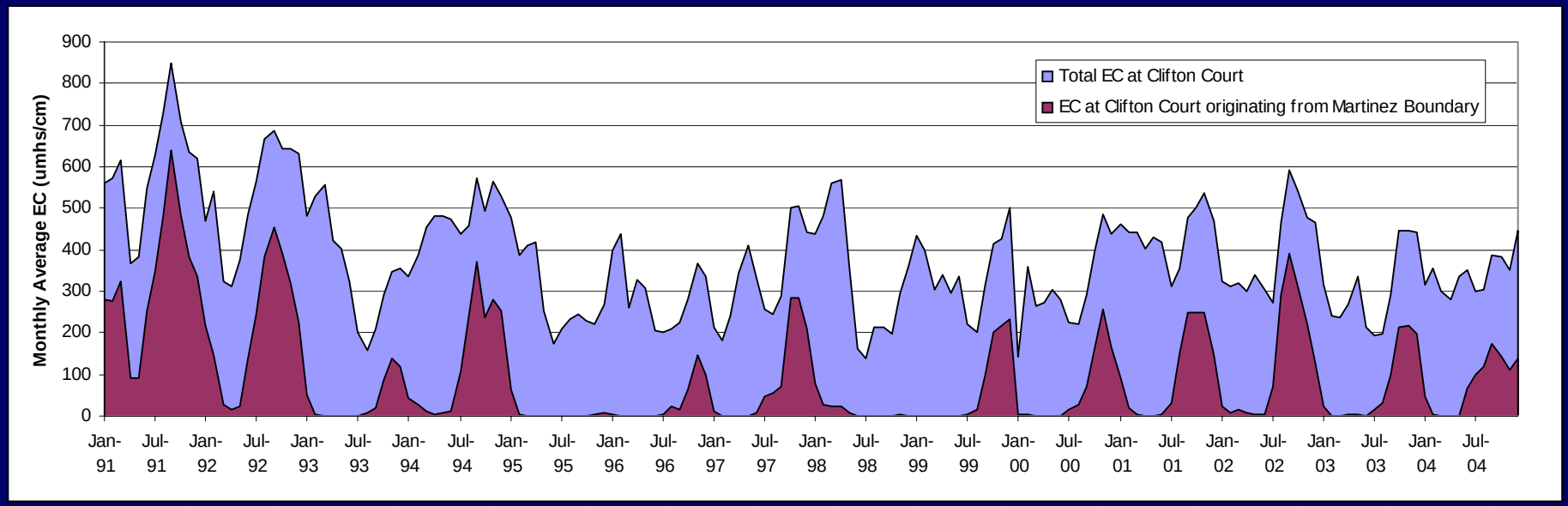
Low salinity through most of the Delta

Dry Years – reduced water quality



Higher salinity extends further into the Della

Years for Model Runs



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SELECTED YEARS

C C D D

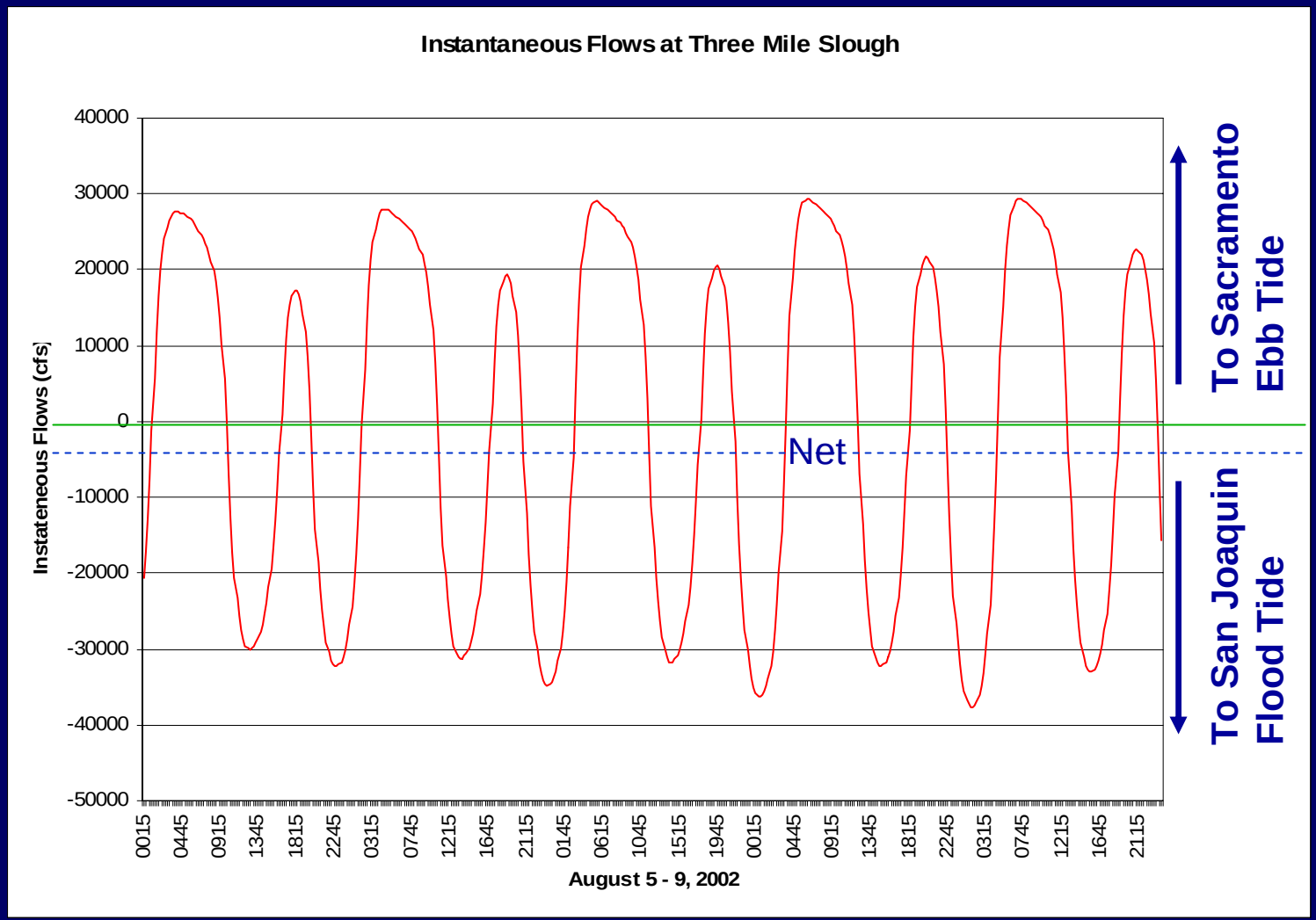
1992 1994 2001 2002

Past 100 years (1906 thru 2005)

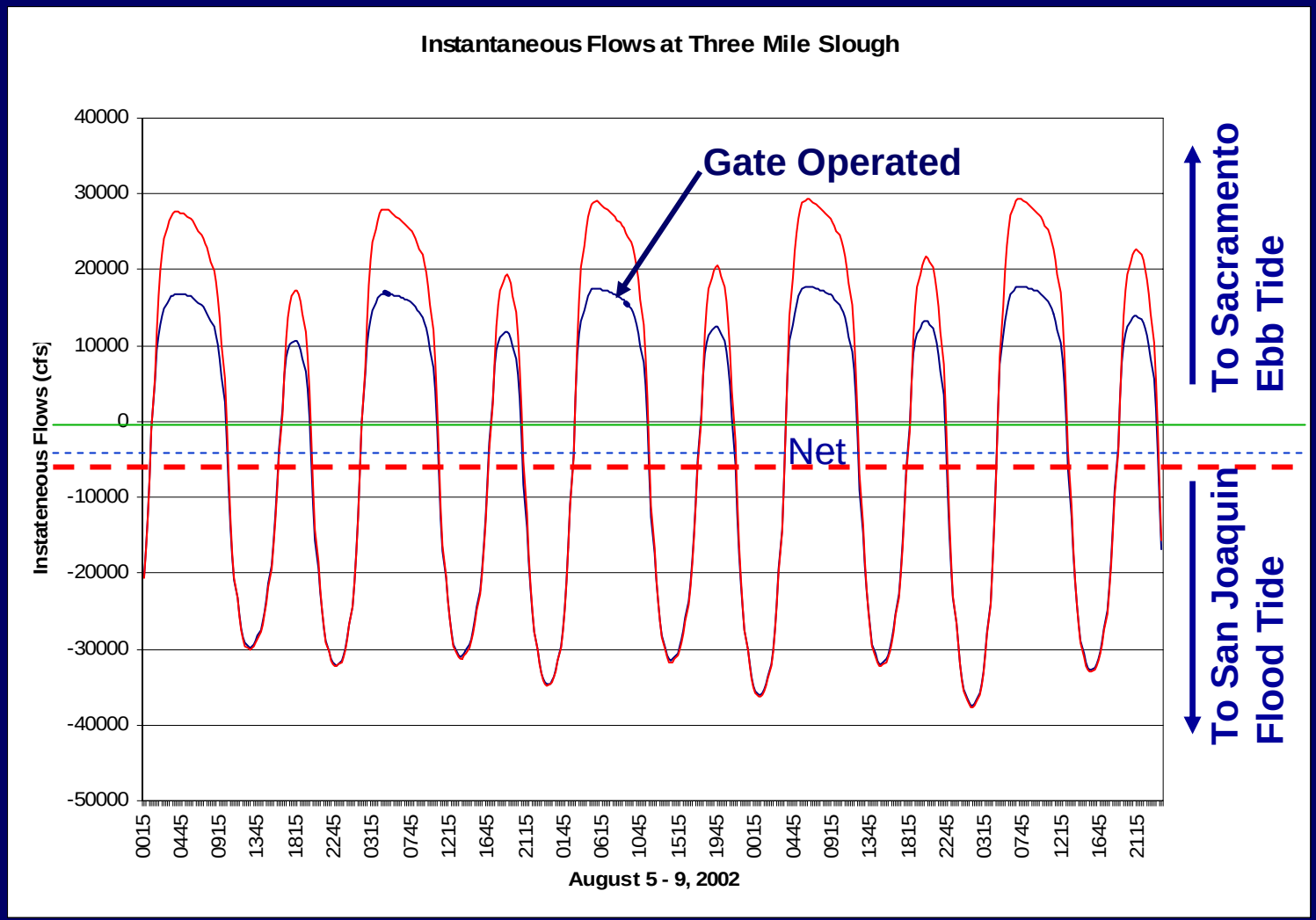
Year Type	No. of Years
Wet	34
Above Normal	15
Below Normal	17
Dry	20
Critical	12


Pilot Project Alternatives
Operable Gates in Three Mile Slough Alt #4
Sacramento River
Three Mile Sl.
San Joaquin River
Operable Gates in False River Alt #2
Operable Gates in False River Alt #1
Old River
False River
San Joaquin River
FRANKS TRACT
Operable Gates in Old River Alt #3
Operable Gates in Sand Mound Slough Alt #2
Operable Gates in Holland Cut Alt #3

Adaptive Management of 3 Mile Slough
Effect on Instantaneous Flows



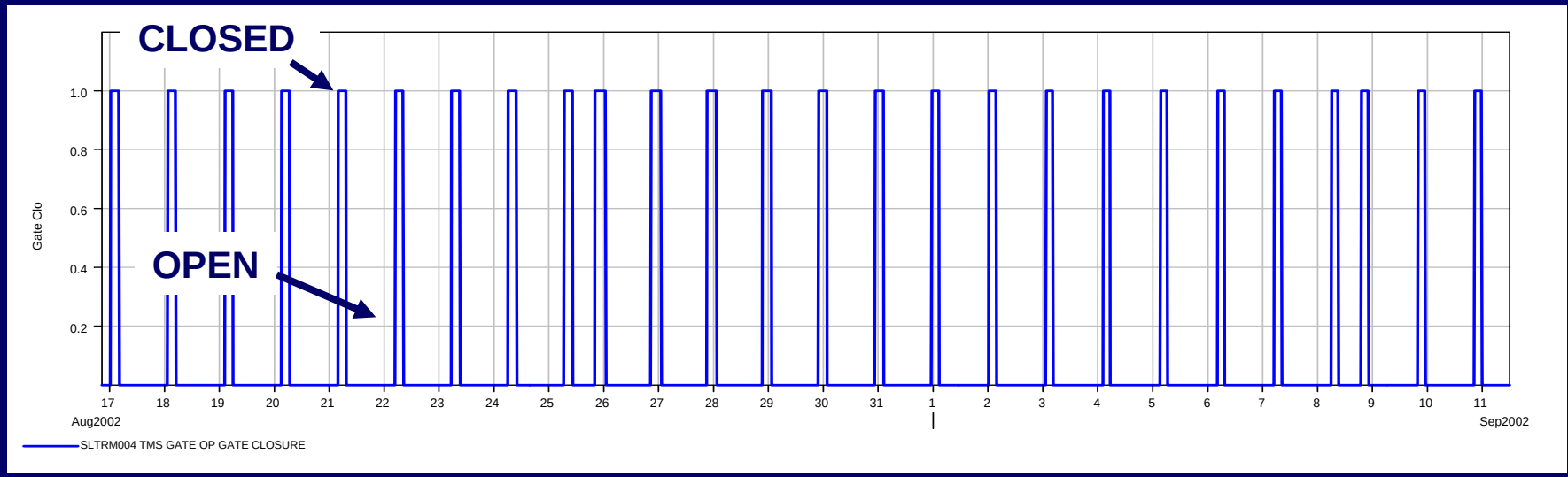
Adaptive Management of 3 Mile Slough
Effect on Instantaneous Flows

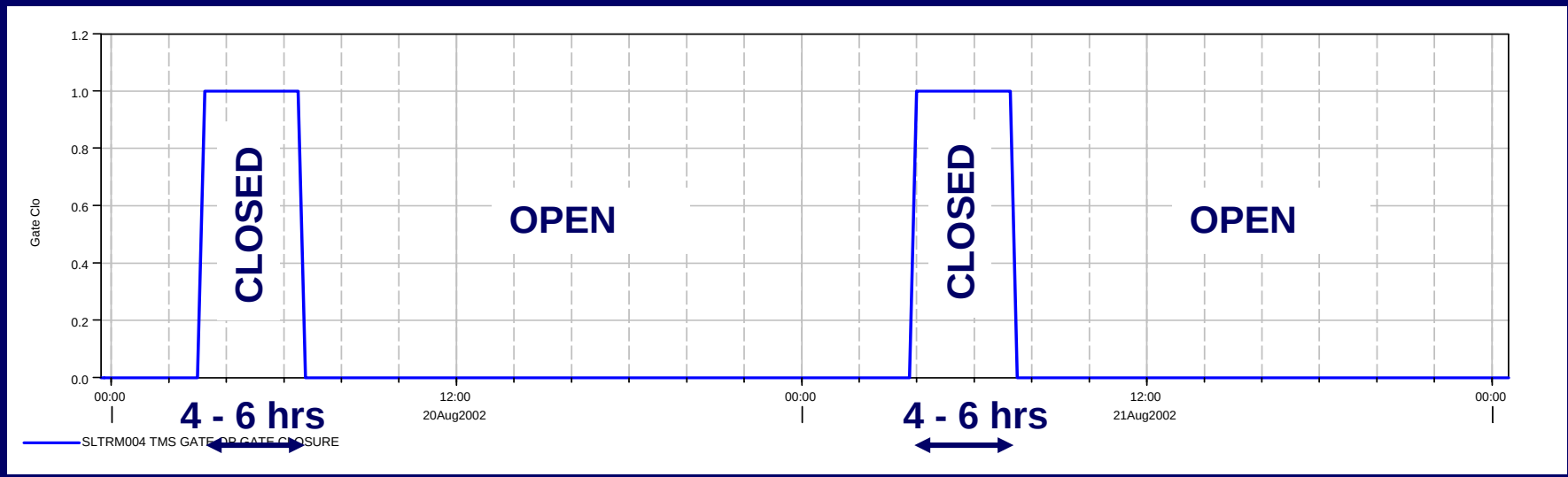



Three Miles Slough Alternative
Sacramento River
Three Mile Sl.
San Joaquin River
Old River
False River
San Joaquin River
FRANKS TRACT


Three Miles Slough Alternative
Sacramento River
Three Mile Sl.
San Joaquin River
Old River
False River
San Joaquin River
FRANKS TRACT

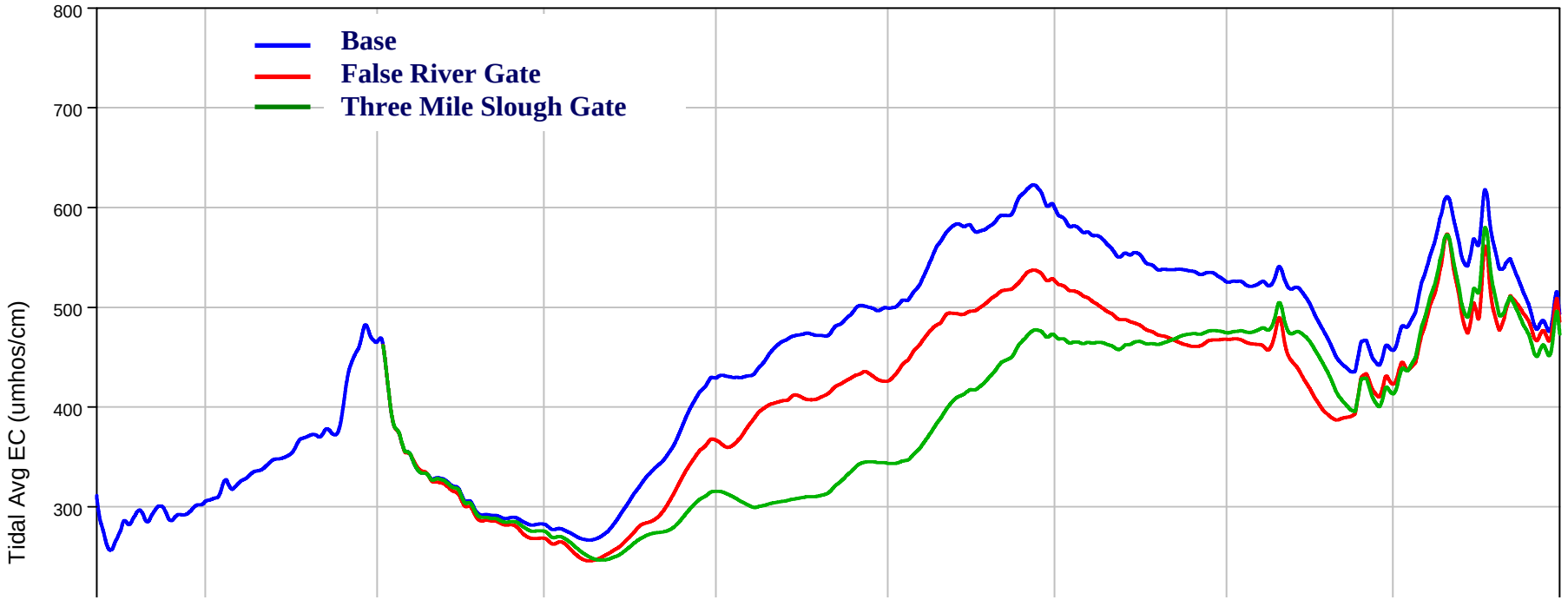
Three Mile Slough Gate Closure



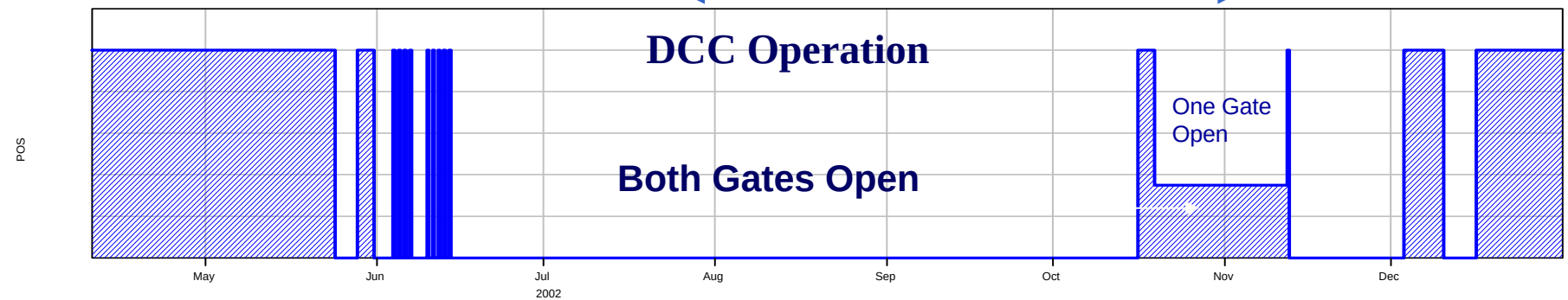


Alt #3: Three Mile Slough – SWP

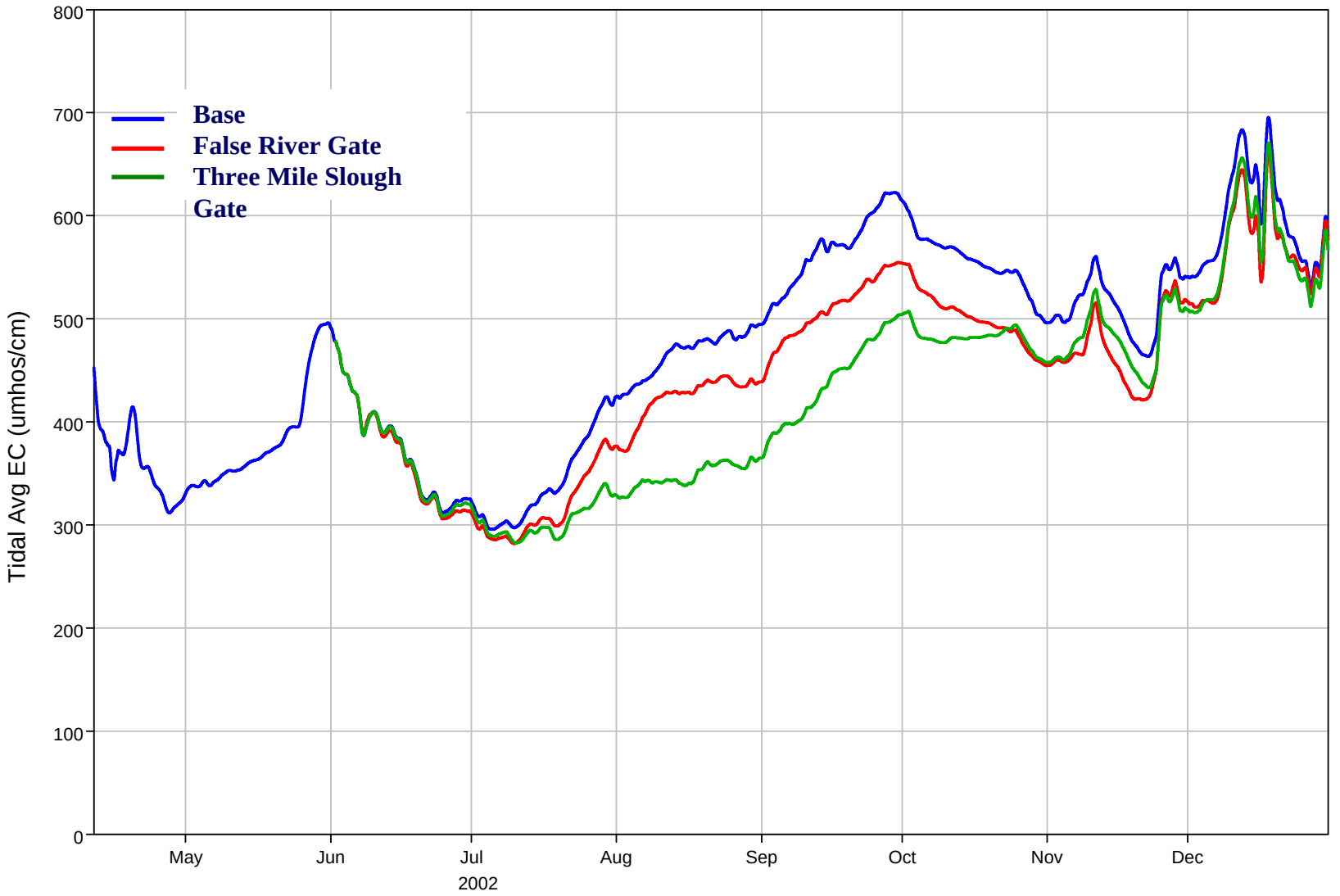
2002 Tidally Averaged EC



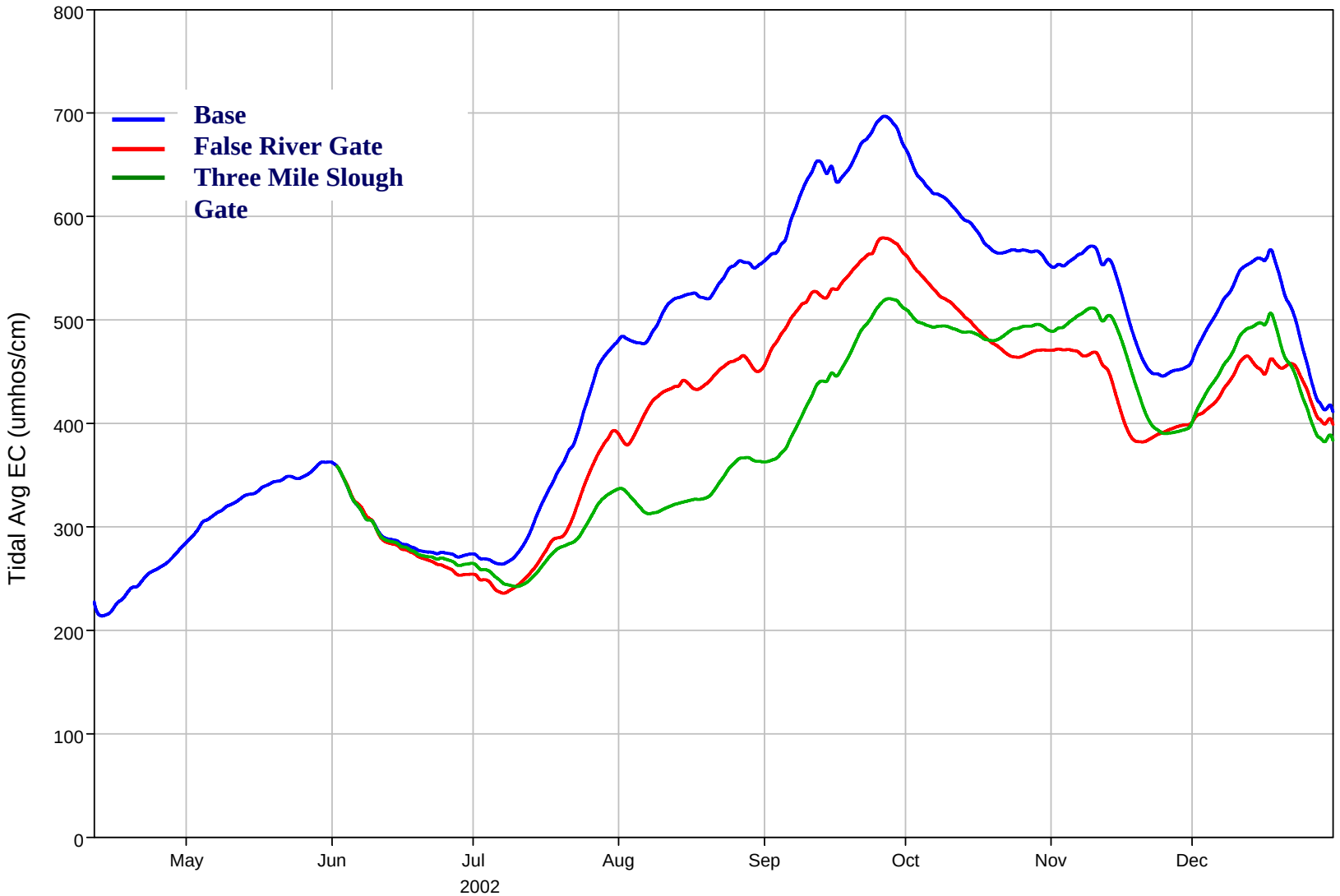
Period of Operation



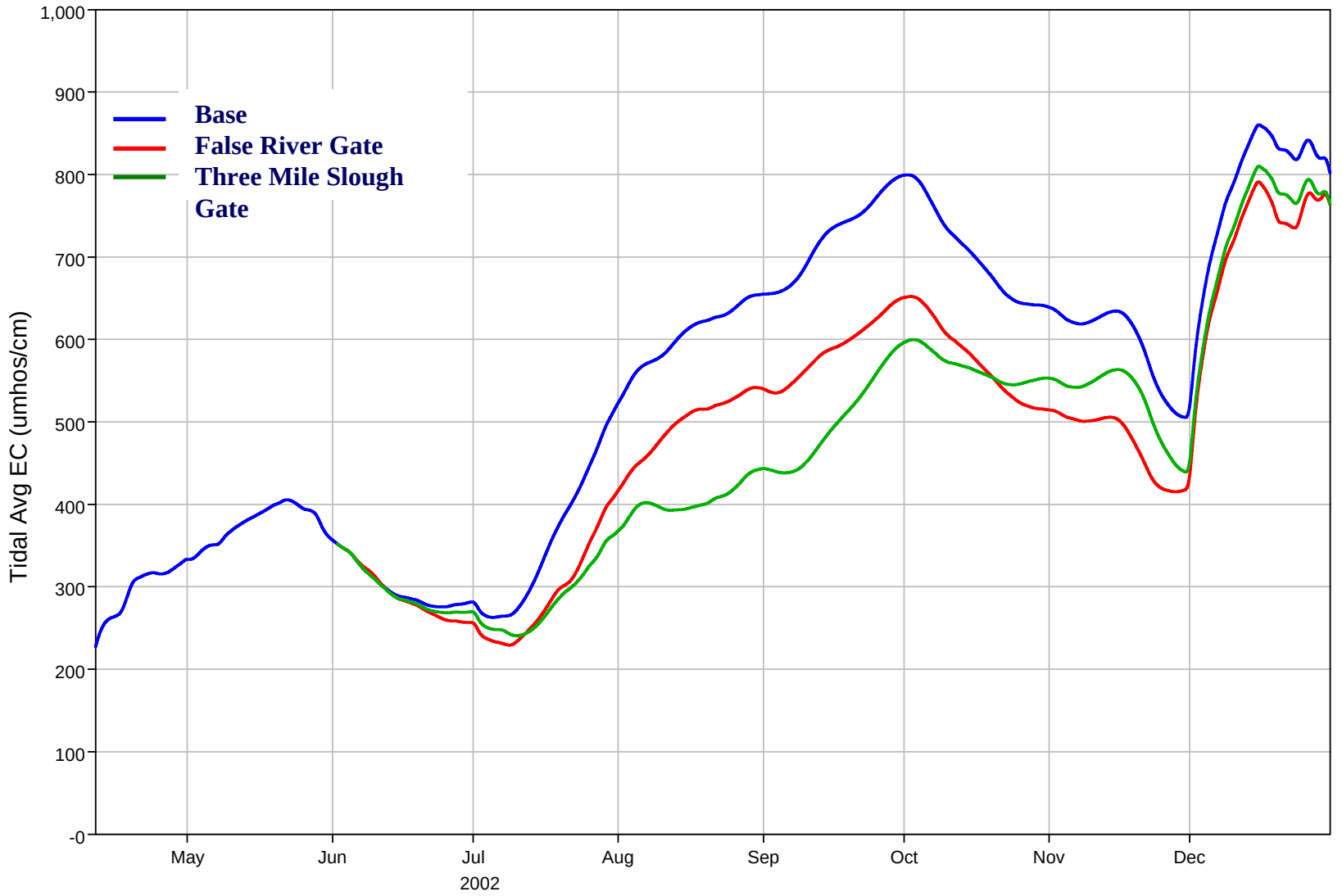
Year 2002 - Tidally Averaged EC
CVP



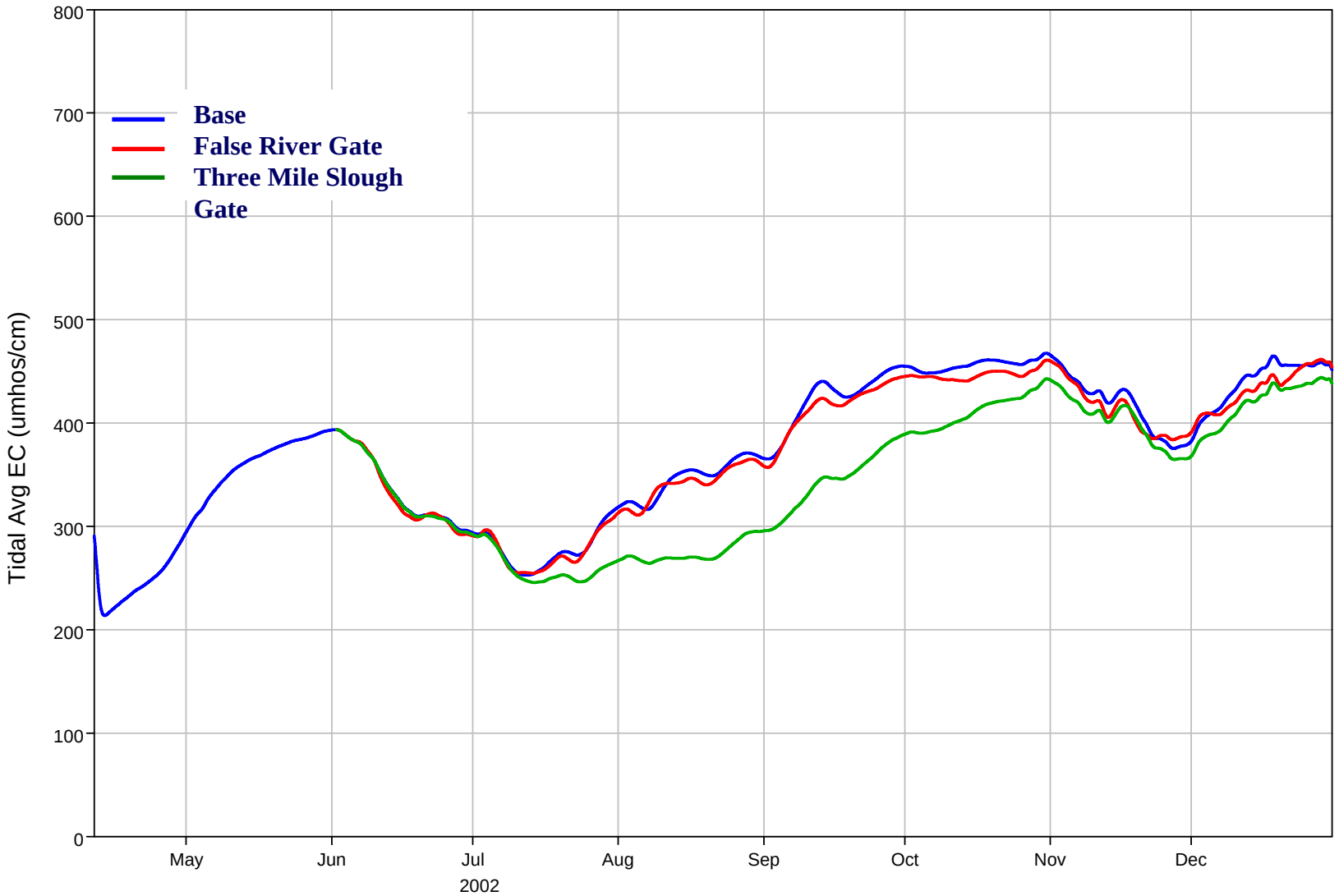
Year 2002 - Tidally Averaged EC
CCWD at Old River



Year 2002 - Tidally Averaged EC
CCWD at Rock Slough



Year 2002 - Tidally Averaged EC
CCWD at Victoria Canal



Franks Tract
Summary of EC Reductions
September 2002 (Dry Year)

	SWP	CVP	CCWD Old River	CCWD Rock Slough
West False River	14.3%	10.6%	19.1%	21.1%
East Levee	9.1%	5.4%	16.0%	21.2%
Old River/ Holland Cut	6.8%	2.4%	15.7%	19.7%
Three Mile Slough	22.6%	18.5%	25.0%	25.1%

Assumes use of operational gates.

Franks Tract
Summary of EC Reductions

Average July 15-Nov 30

	SWP	CVP	CCWD Old River	CCWD Rock Slough	CCWD Victoria Canal
Year 2002 (Dry)					
West False River	12.7%	9.5%	16.6%	18.9%	1.6%
East Levee	4.0%	0.9%	10.9%	9.4%	-16.5%
Old River/ Holland Cut	5.2%	1.3%	12.7%	17.9%	-17.9%
Three Mile Sl.	20.9%	16.7%	23.7%	24.3%	12.7%

Franks Tract
Summary of EC Reductions

Average July 15-Nov 30

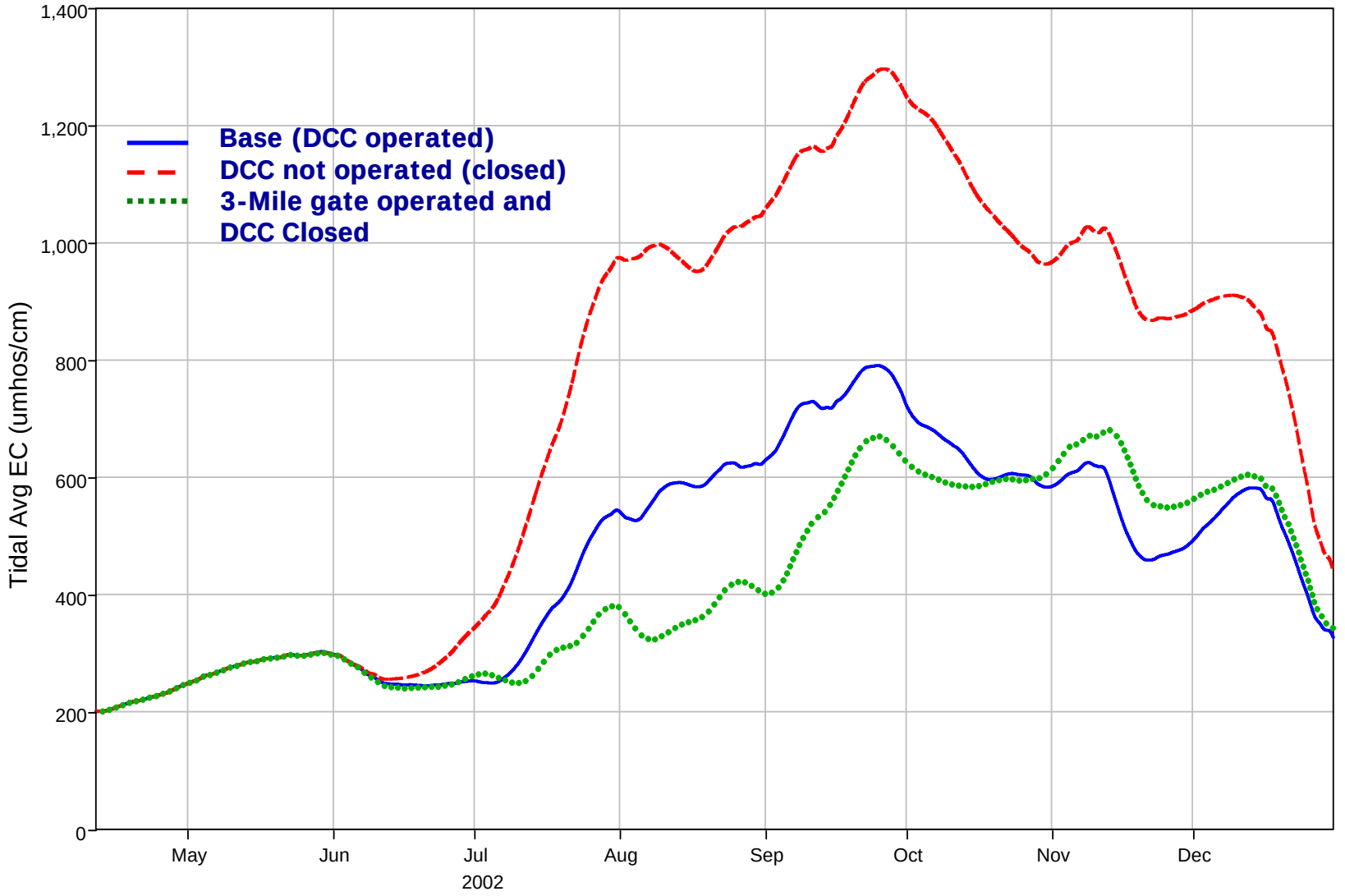
	SWP	CVP	CCWD Old River	CCWD Rock Slough	CCWD Victoria Canal
Year 1992 (Critical)					
West False River	16.2%	12.6%	21.0%	25.4%	10.5%
Year 1994 (Critical)					
West False River	13.4%	9.6%	17.8%	21.7%	2.2%
Three Mile S.	8.1%	6.5%	9.7%	10.7%	4.4%
Year 2001 (Dry)					
West False River	13.7%	10.9%	18.3%	20.1%	1.9%
Three Mile S.	12.3%	10.3%	14.3%	14.9%	6.8%

Operate Three Mile Slough Gate

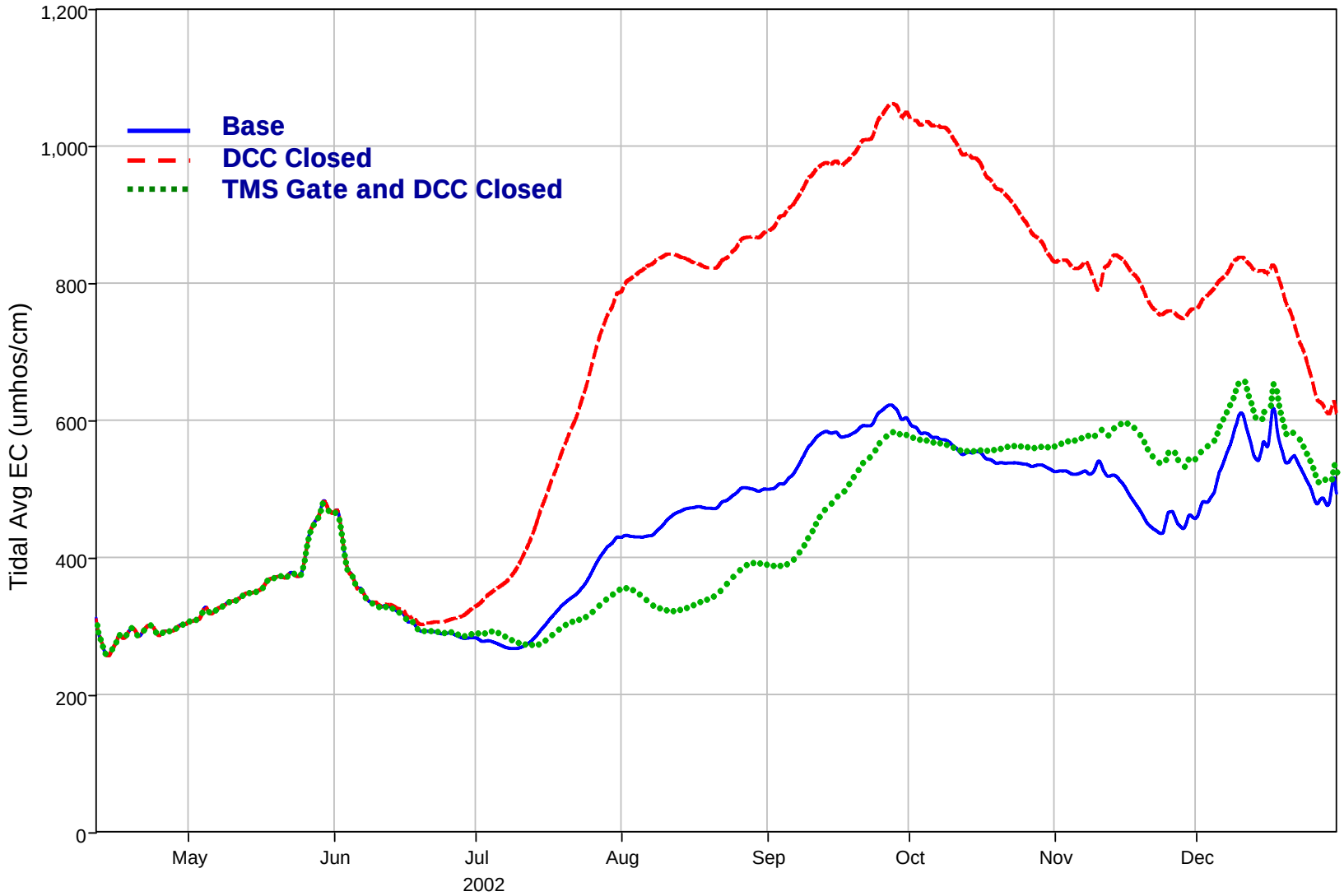
in Lieu of

Delta Cross Channel Gates

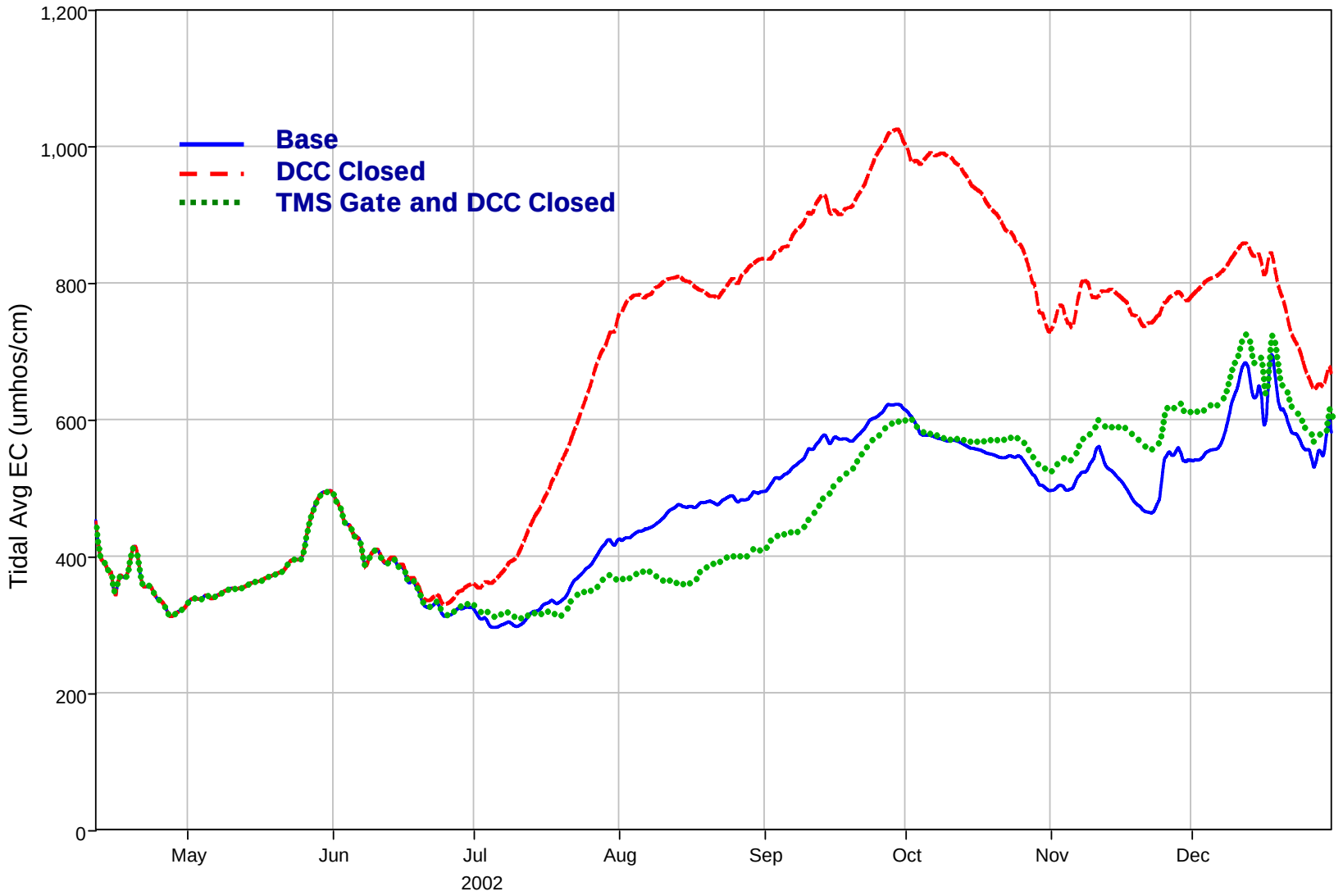
Year 2002 - Tidally Averaged EC
Old River at Bacon Island



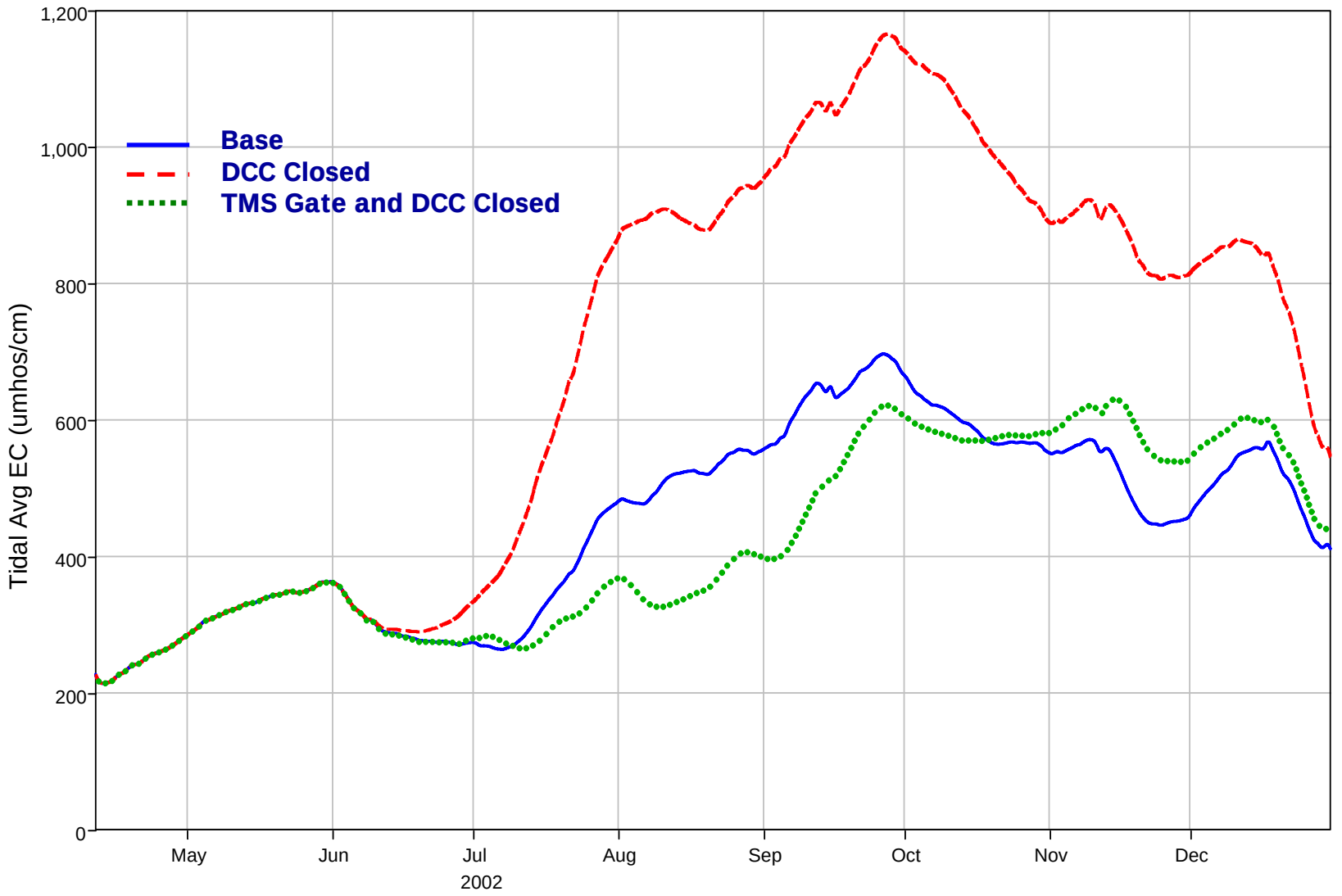
Year 2002 - Tidally Averaged EC
SWP



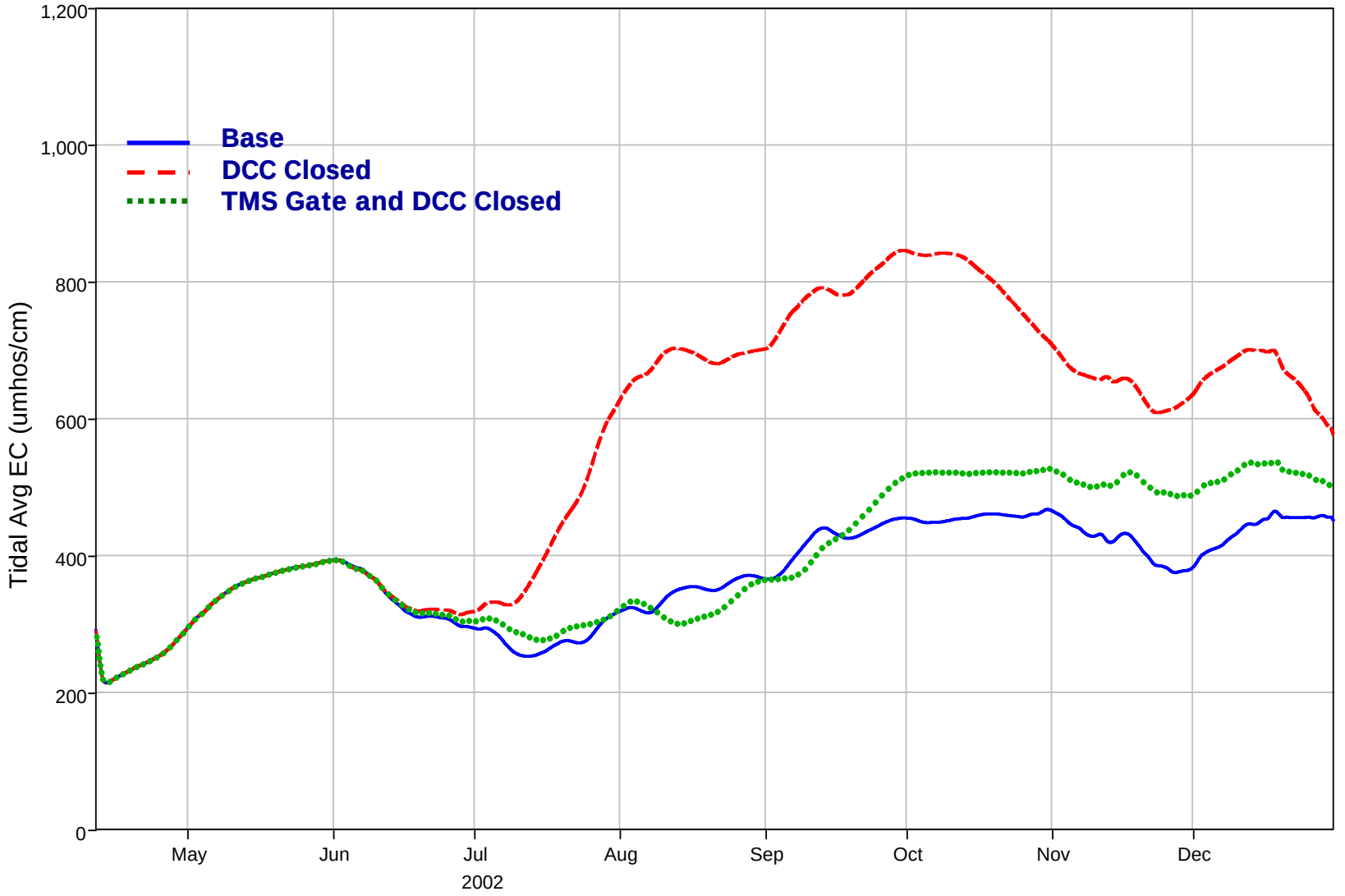
Year 2002 - Tidally Averaged EC
CVP



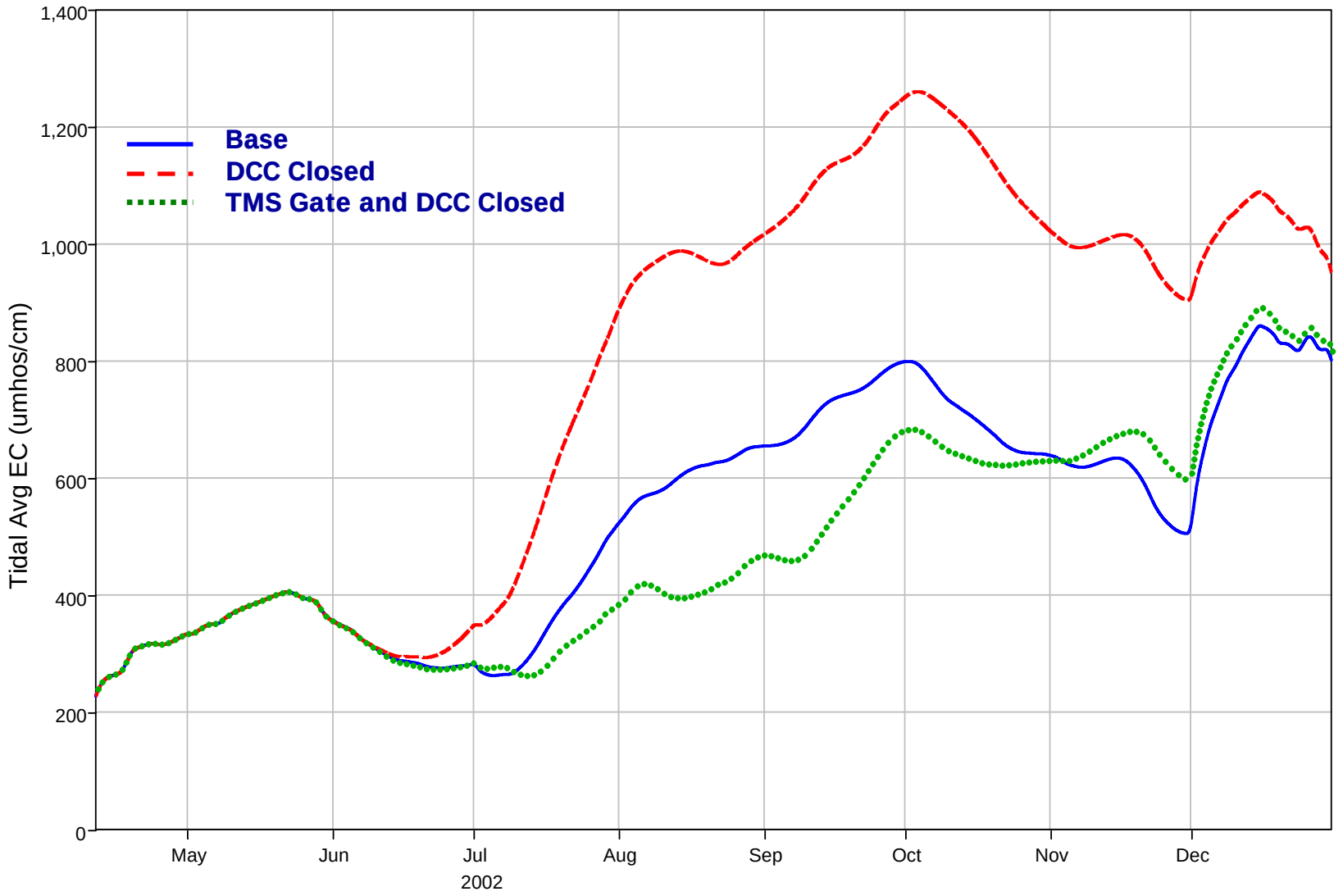
Year 2002 - Tidally Averaged EC
CCWD at Old River



Year 2002 - Tidally Averaged EC
CCWD at Victoria Canal



Year 2002 - Tidally Averaged EC
CCWD at Rock Slough



Particle Tracking Run – Potential Impact on Outmigrating Fish