

# ENVIRONMENTAL AND PUBLIC INTEREST BASIS FOR THE BAY INSTITUTE'S

- 1) PROTEST OF THE JANUARY 23, 2015, PETITION TO  
THE SWRCB FOR TEMPORARY URGENCY CHANGES  
&
- 2) OBJECTIONS TO THE FEBRUARY 3, 2015, SWRCB  
EXECUTIVE DIRECTOR'S ORDER



## TUC petition

- Increases the risk of extinction for several endangered species
- Clearly has unreasonable effects on fish and wildlife

## Executive Order

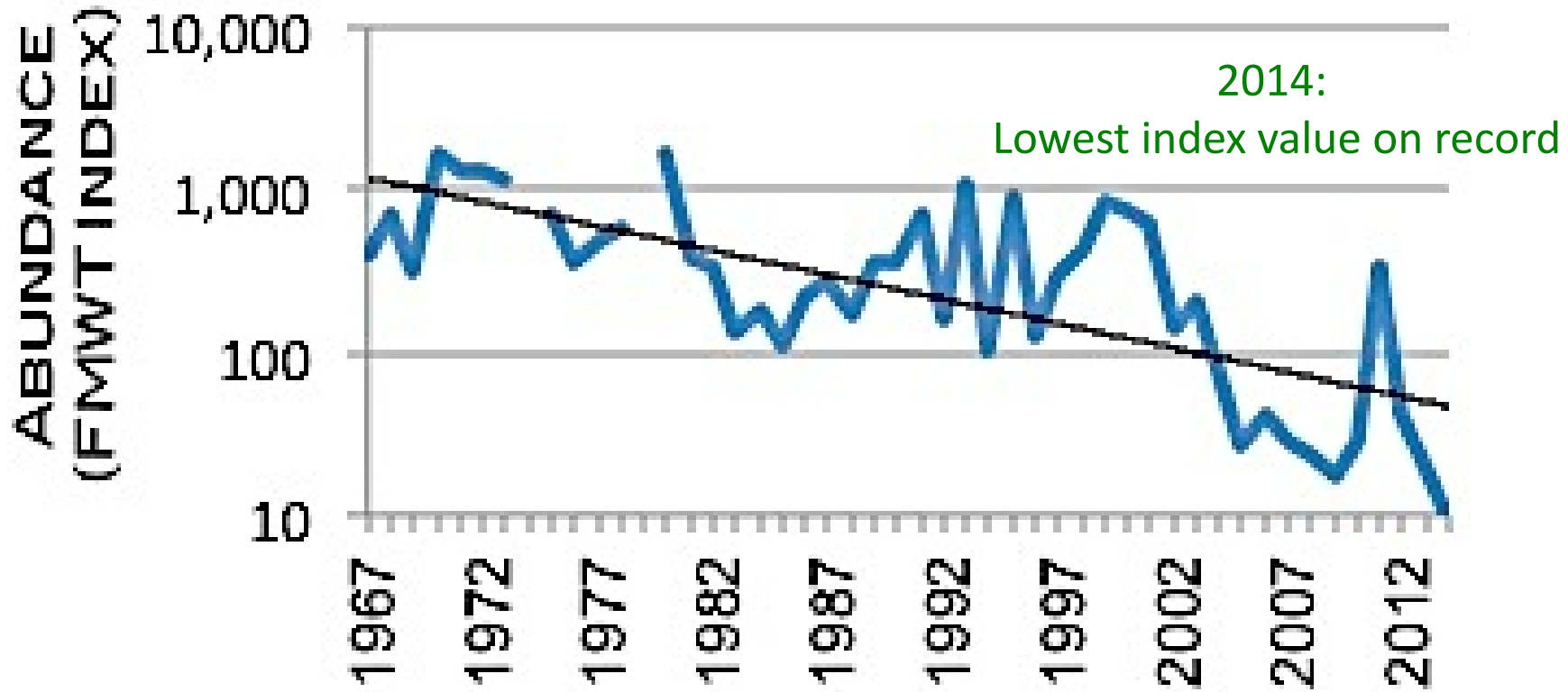
- Correctly rejects increased exports during low outflow periods
- **BUT**, allows outflows much lower than called for by current hydrology → high risk of extinction and unreasonable impacts to fish and wildlife

## Opportunity

- Current hydrology would trigger greater outflows under D-1641 throughout March
- Providing D-1641 flow levels for February & March = last chance to:
  - reduce risk of extinction
  - support fisheries that have been disproportionately harmed in the drought

Native pelagic fishes are ***not*** being maintained

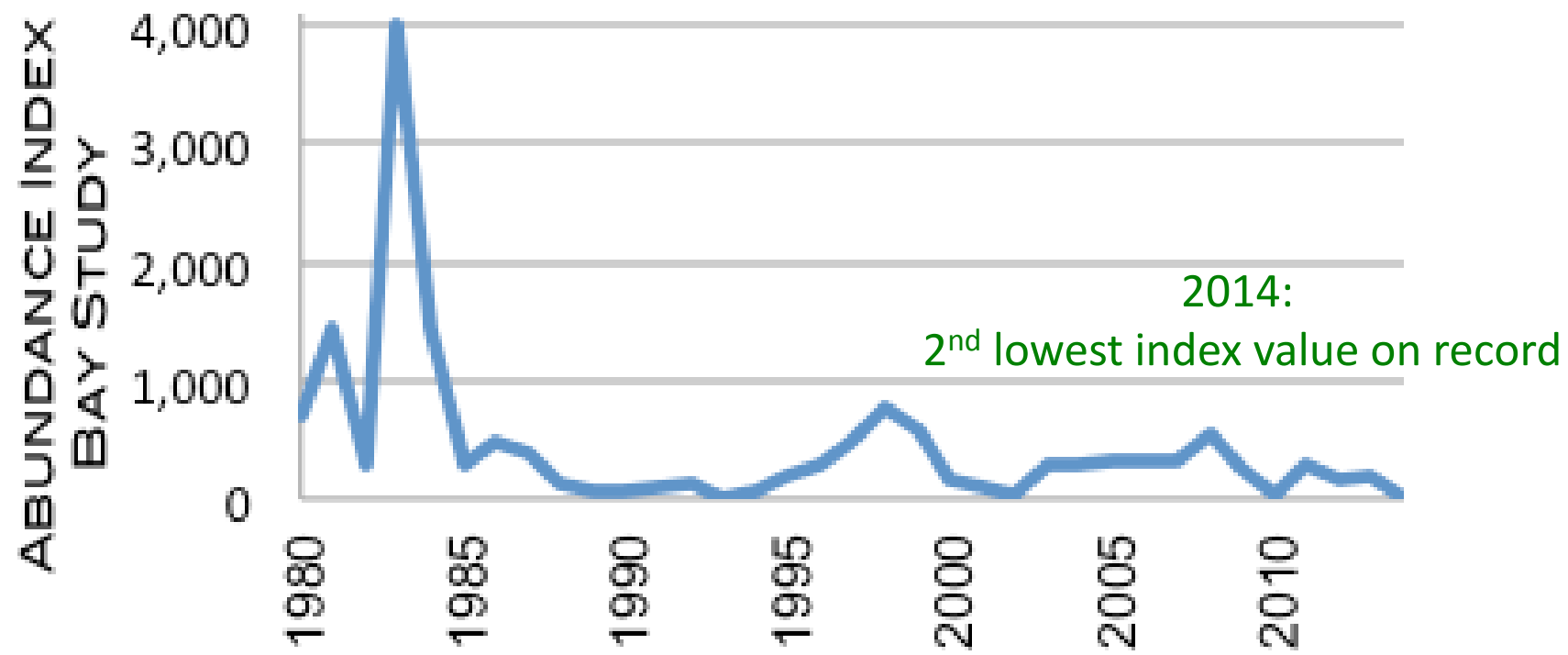
## DELTA SMELT 1967-2014



Decline from 1980-2014 maximum: ~99.5%

# Native pelagic fishes are ***not*** being maintained

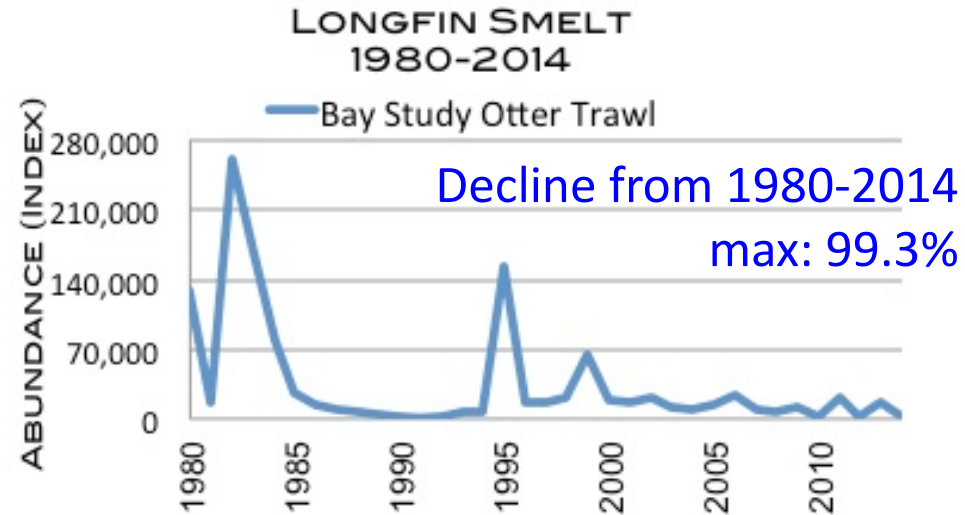
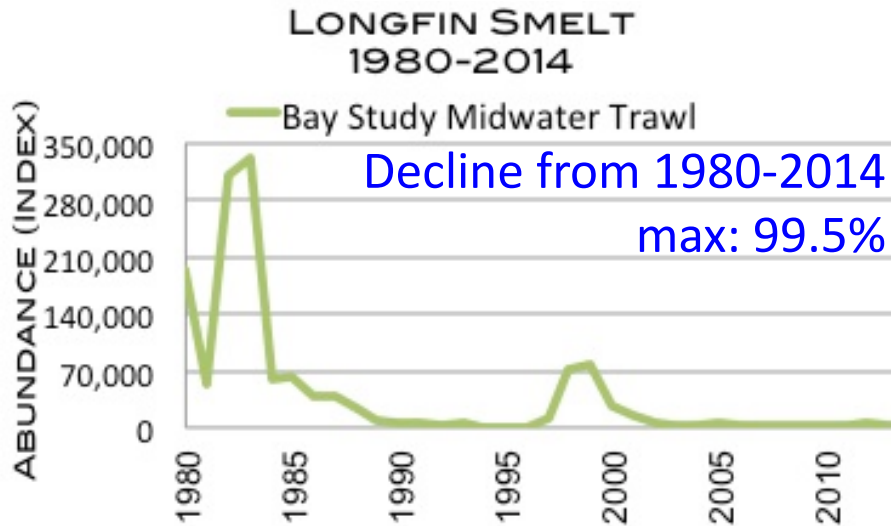
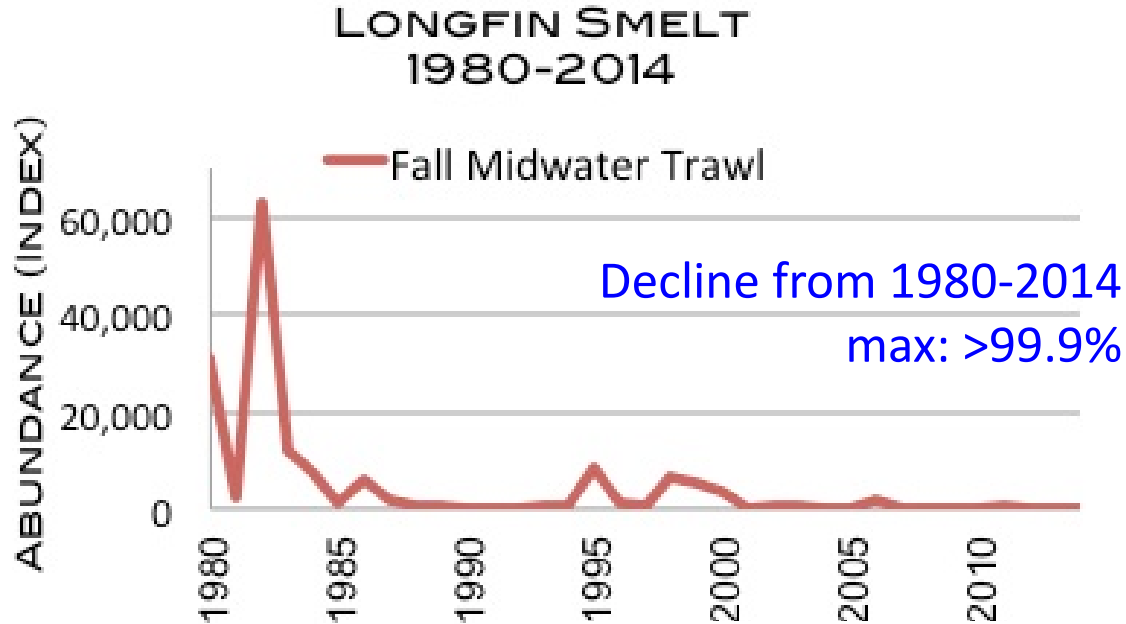
## STARRY FLOUNDER 1980-2014



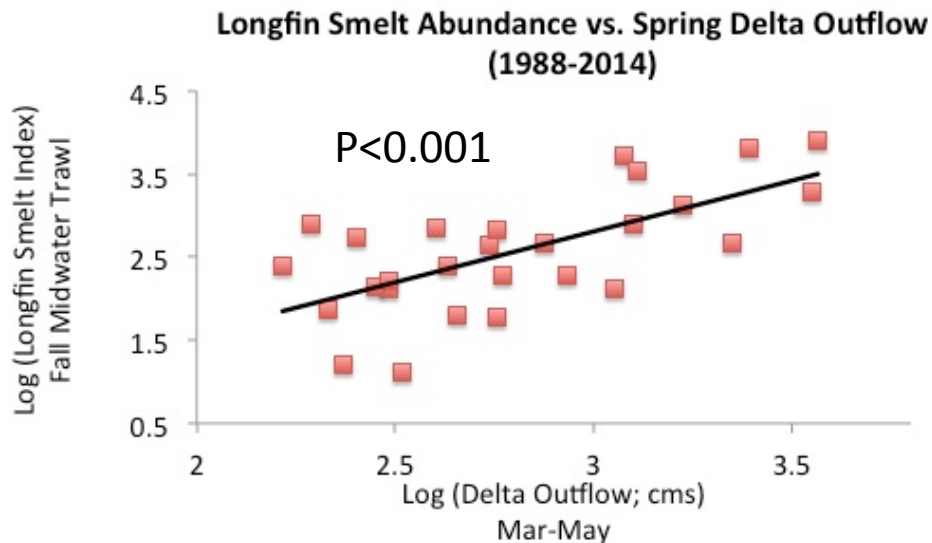
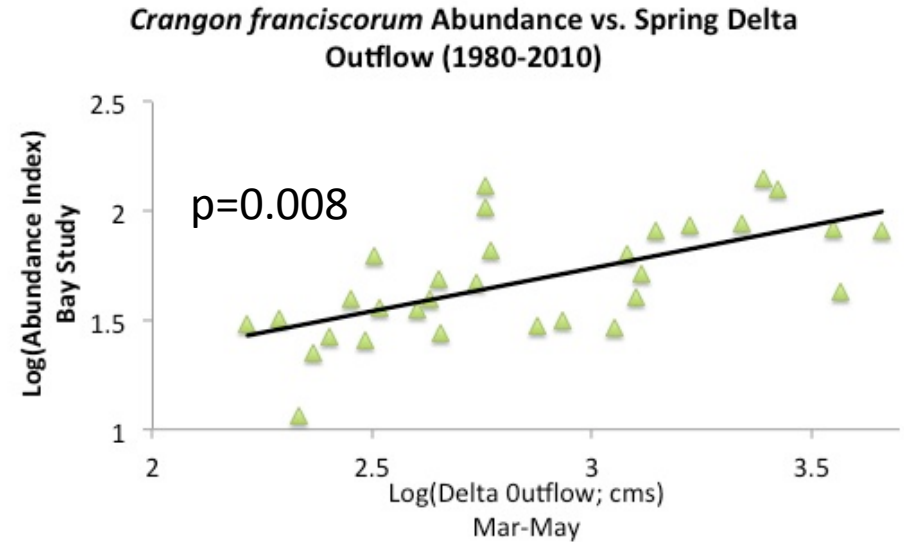
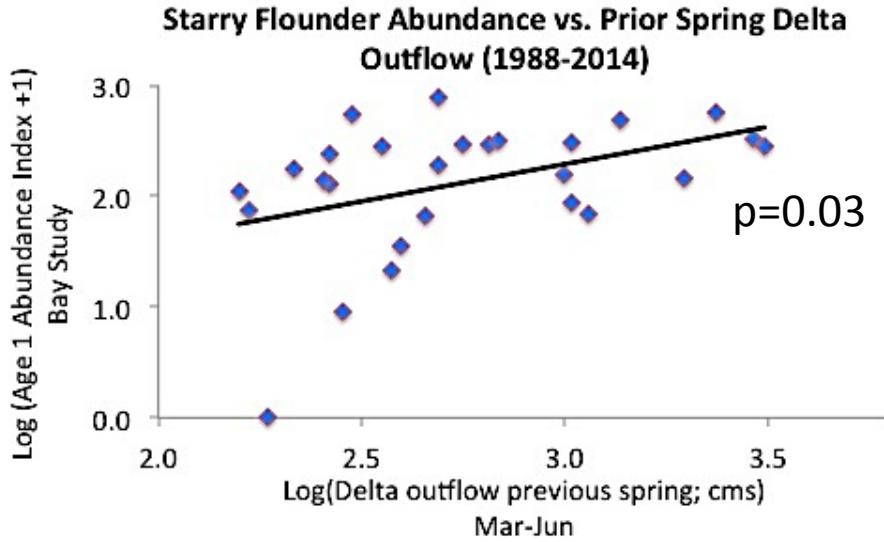
Decline from 1980-2014 maximum: ~99.8%

*Abundance data courtesy of CDFW's San Francisco Bay Study and the Interagency Ecological Program for the San Francisco Estuary.*

# Longfin Smelt Declines (everywhere you look)

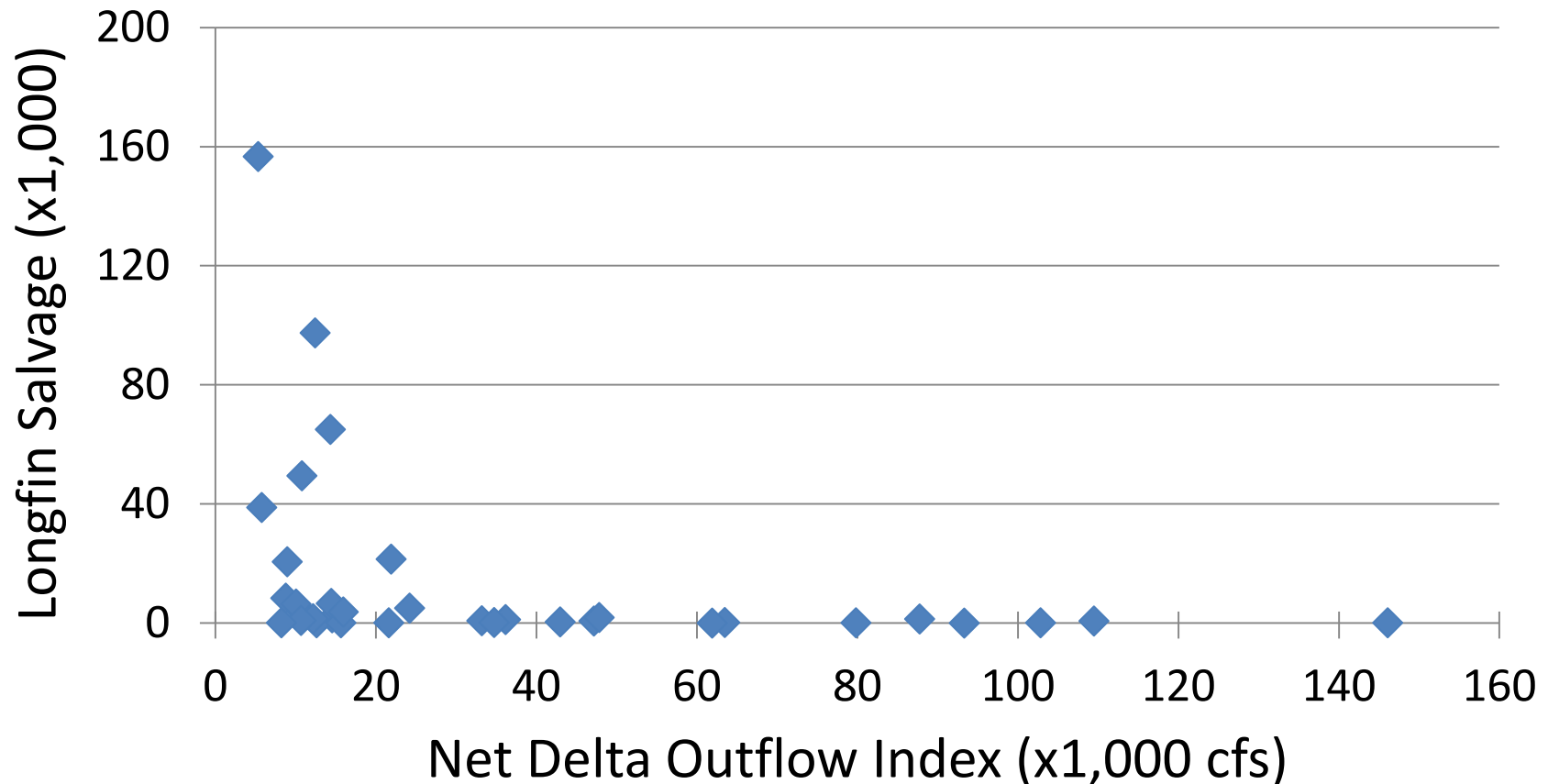


# Pelagic species respond positively to increased Delta outflow



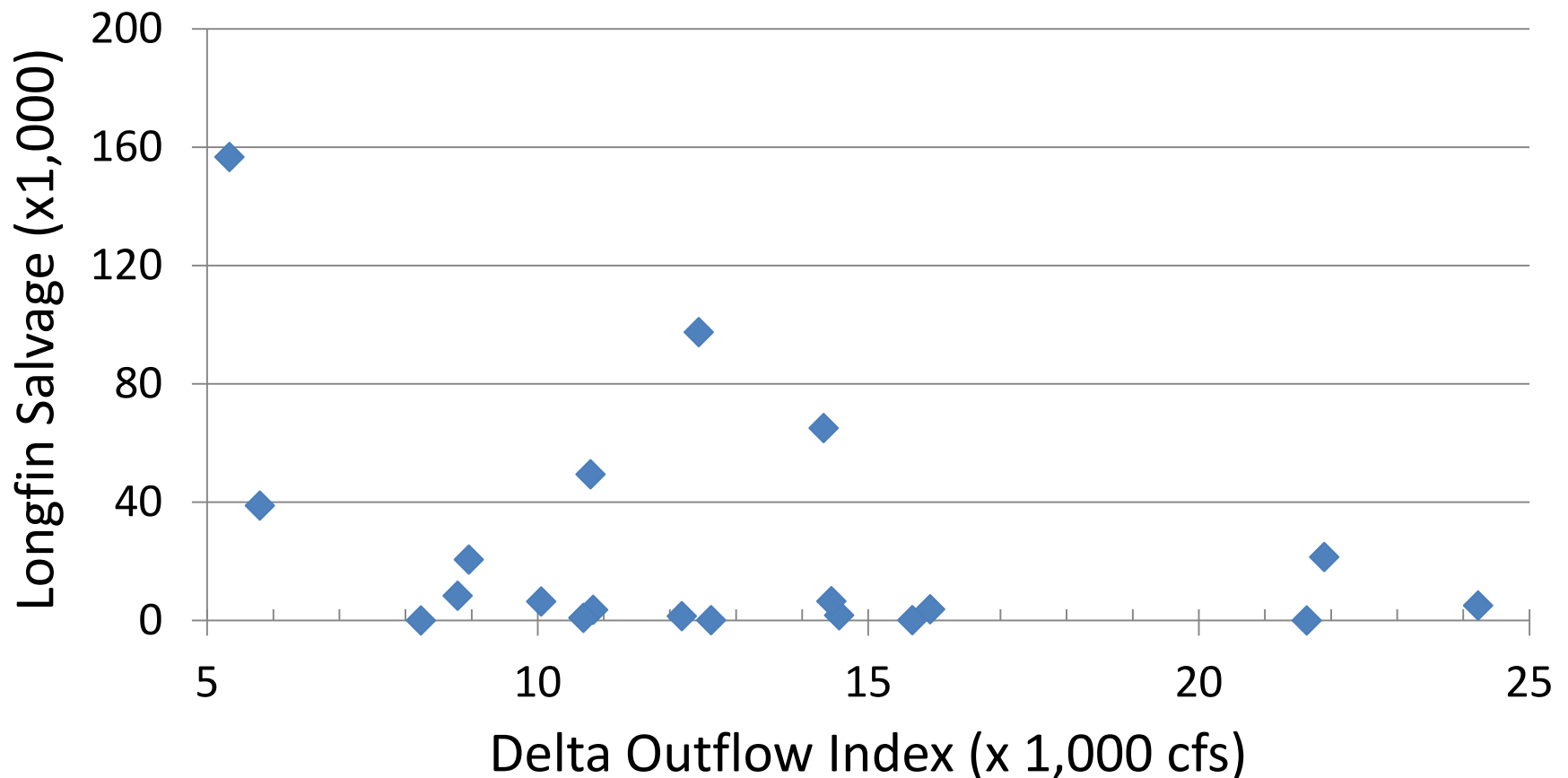
What will happen to longfin smelt if outflows are reduced while export pumping is increased?

**Net Delta Outflow Index vs. Longfin Smelt Salvage  
Feb-Jun, 1981-2014**



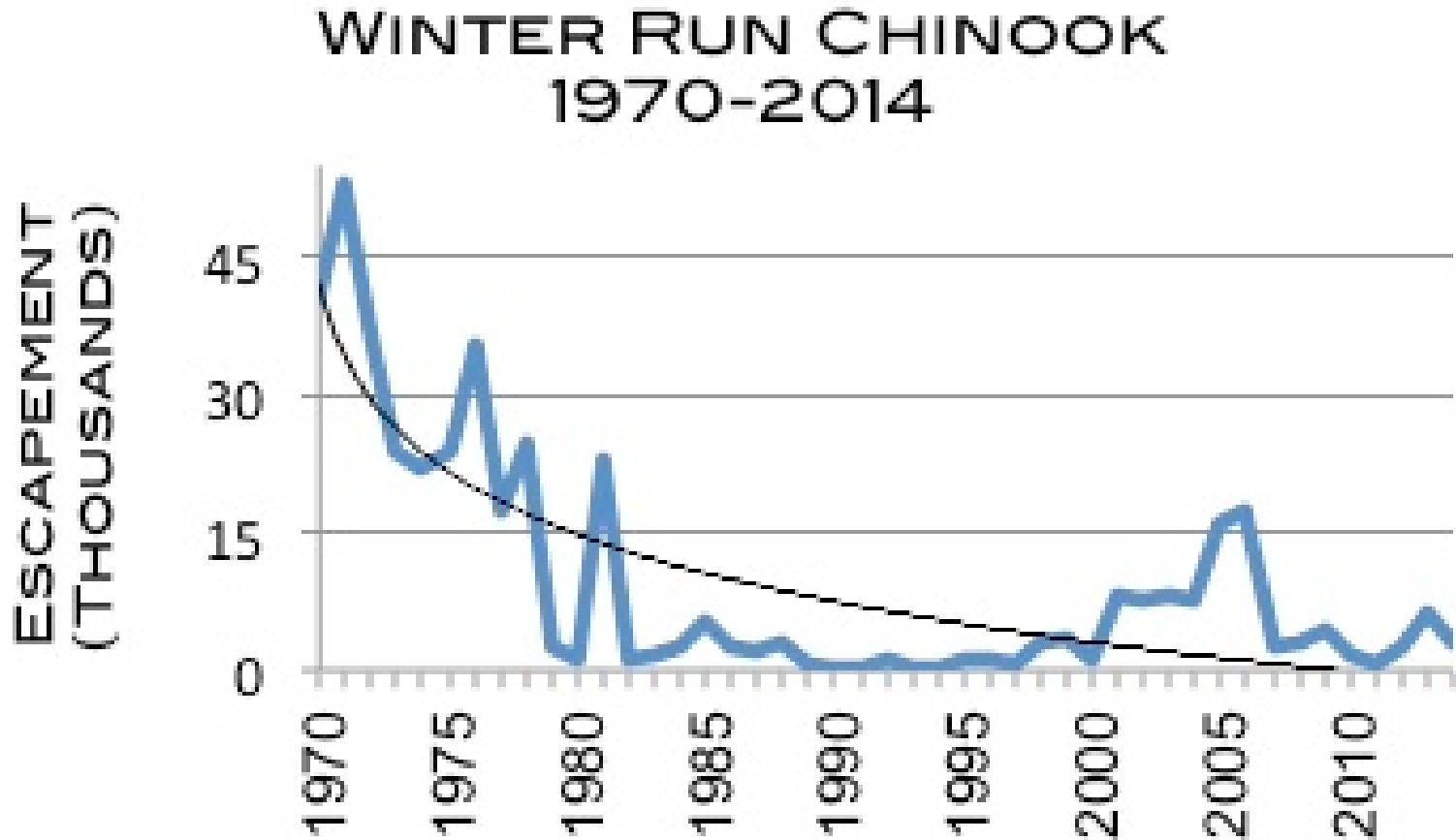
What will happen to longfin smelt if outflows are reduced while export pumping is increased?

**Net Delta Outflow Index vs. Longfin Smelt Salvage  
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# Native migratory fish are ***not*** being maintained

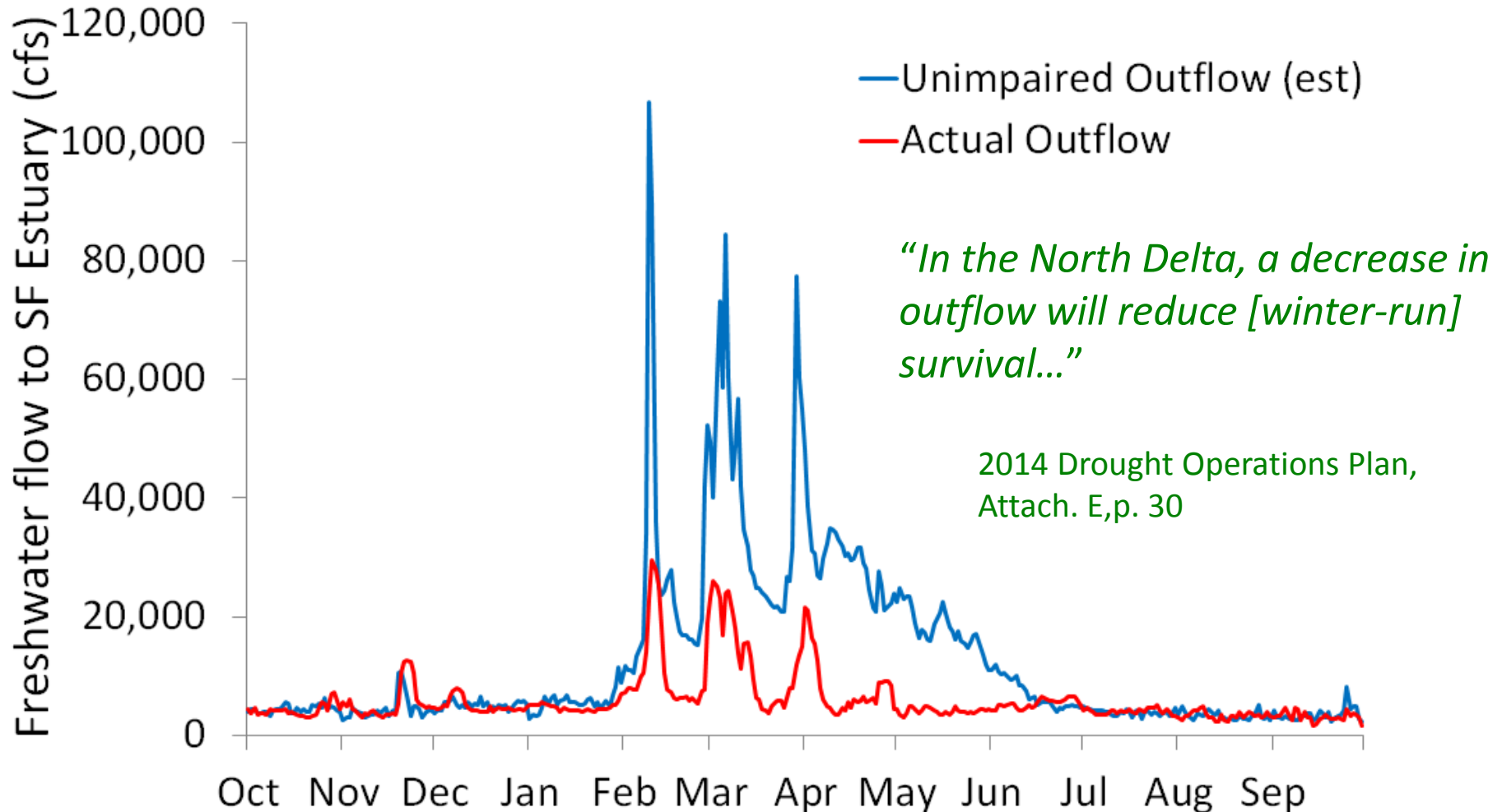


Decline from 1980-2014 maximum: ~86.8%

*Data from Grandtab – 2014 escapement is preliminary*

# Migratory species respond positively to increased flow into, through, and out of the Delta

## WY 2014 Delta Outflow



# Upstream vs. downstream for salmon? A false choice

## Winter-run Chinook Juvenile Lifecycle



# Upstream vs. downstream for salmon?

## A false choice

Conditions (temperature, DO, Flow)  
must be adequate **throughout the life cycle**

2013



2014



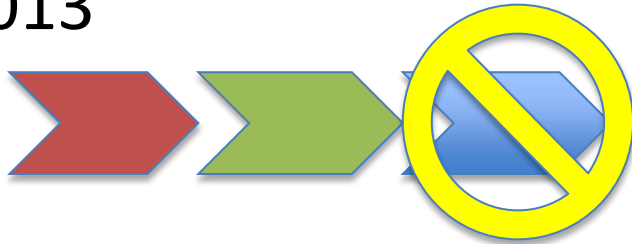
2015



# Upstream vs. downstream for salmon? A false choice

Conditions (temperature, DO, Flow)  
must be adequate **throughout the life cycle**

2013



*“In the North Delta, a decrease in outflow will reduce [winter-run] survival...”*

2014 Drought Operations Plan,  
Attach. E,p. 30

2014



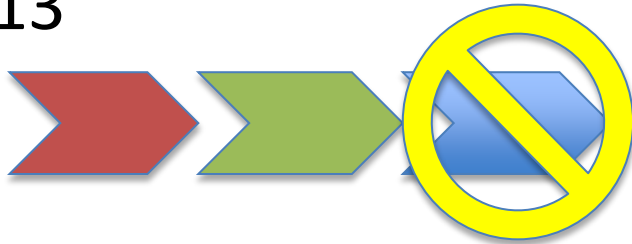
2015



# Upstream vs. downstream for salmon? A false choice

Conditions (temperature, DO, Flow)  
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2013



2014



*95% of the 2014 wild  
winter-run Chinook  
died before reaching  
the Delta*

2015

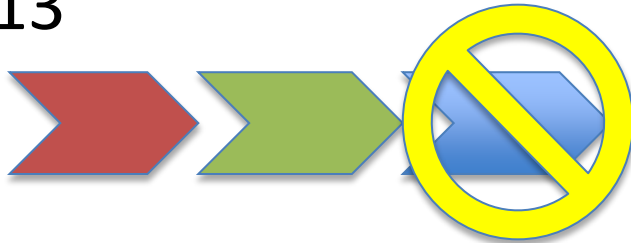


# Upstream vs. downstream for salmon?

## A false choice

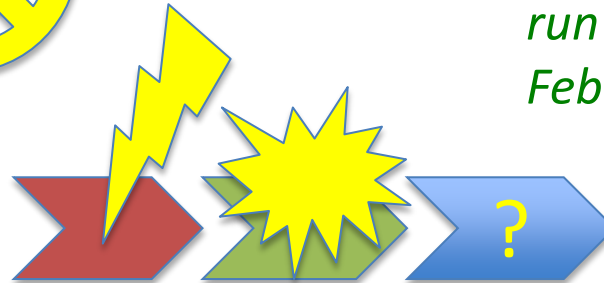
Conditions (temperature, DO, Flow)  
must be adequate **throughout the life cycle**

2013



2014

Will smolt of the 2014  
spawning class meet the  
same fate as those from  
the 2013 spawning class?



*>600K hatchery winter-  
run smolt were released  
February 4-6, 2015*

2015

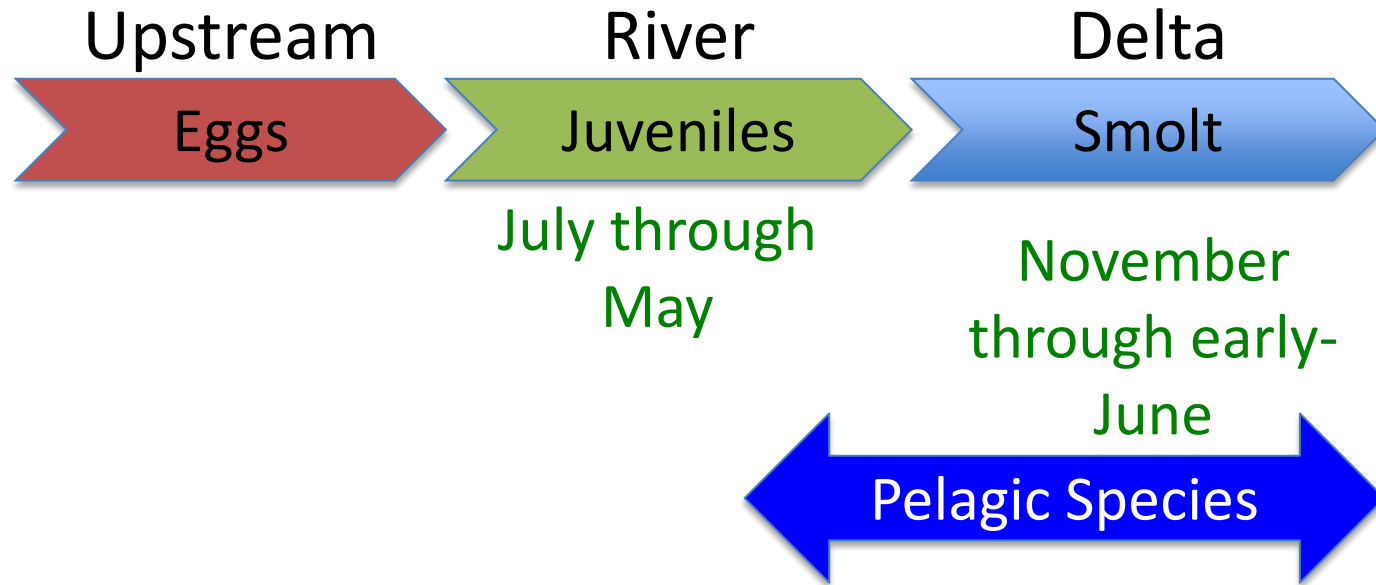


What is the plan for protecting the 2015  
spawning class throughout its life cycle?

# Salmon vs. Pelagic Species?

## Another false choice

### Chinook Juvenile Lifecycle (all runs)



Freshwater flow needs of juvenile salmonids and pelagic species are coincident during winter-spring



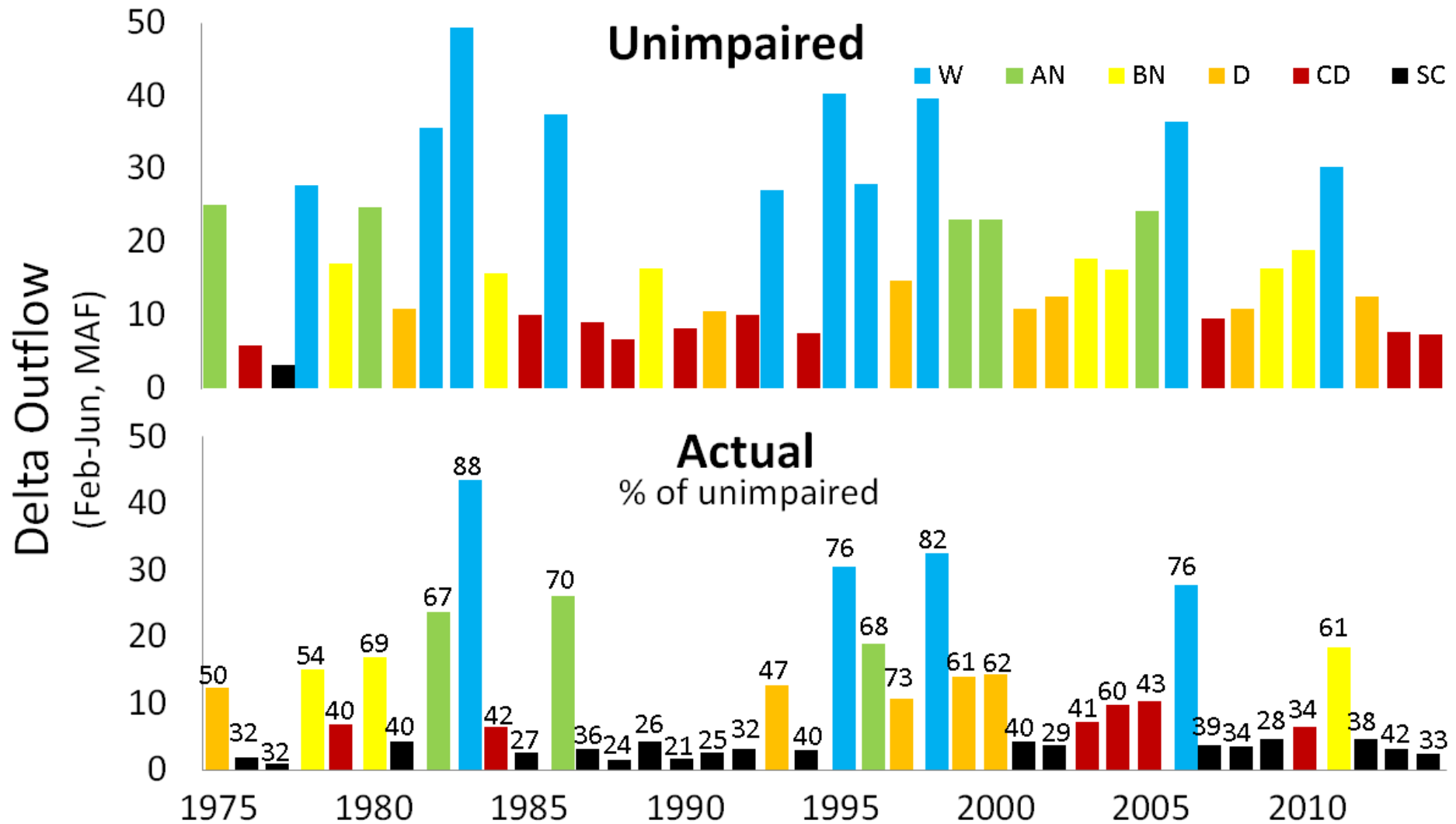
# Summary

- Several species are at risk of extinction; other have suffered severe declines
- Viability is strongly influenced by flows into, through, and/or out of the Delta
- The TUC Petition and the Executive Order:
  - Dramatically increase the risk of extinction and
  - Represent unreasonable effects on fish and wildlife
- The State Board has an opportunity:
  - Providing flows called for in D-1641 for both February and March is an opportunity to support beneficial uses that have been disproportionately harmed in the drought and to reduce risk of extinction



# California's water does *not* "waste to the sea"

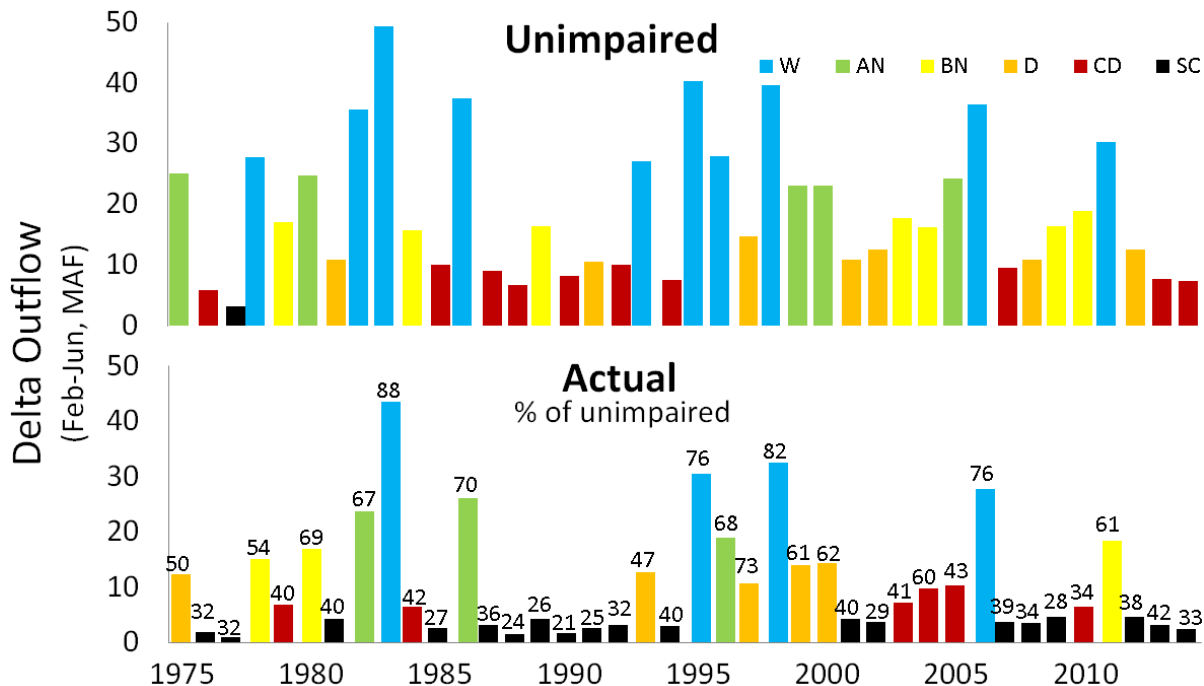
## I. Most fresh water runoff does not make it to the sea



# California's water does *not* "waste to the sea"

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Years (1975-2014)	Above Normal & Wet	Super-Critically Dry
Unimpaired	15	1
Actual	7	19



# California's water does ***not*** “waste to the sea”

## I. Most fresh water runoff does not make it to the sea

Time Period	% Unimpaired Entering Estuary	Volume of Water Retained for Human Use
2/10/2014	28%	~153,000 AF/d
3/7/2014	31%	~115,000 AF/d
3/30/2014	28%	~111,000 AF/d
February-June	34%	4,800,000 Acre Feet

WY 2014 Delta Outflow

