

NOAA's National Marine Fisheries  
Service's (NMFS)  
Update to the  
State Water Resources Control Board

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February 18, 2015



# Topics

- Status of winter-run Chinook salmon
- TUCP and mid step
- Shasta operations

# Status of winter-run Chinook salmon

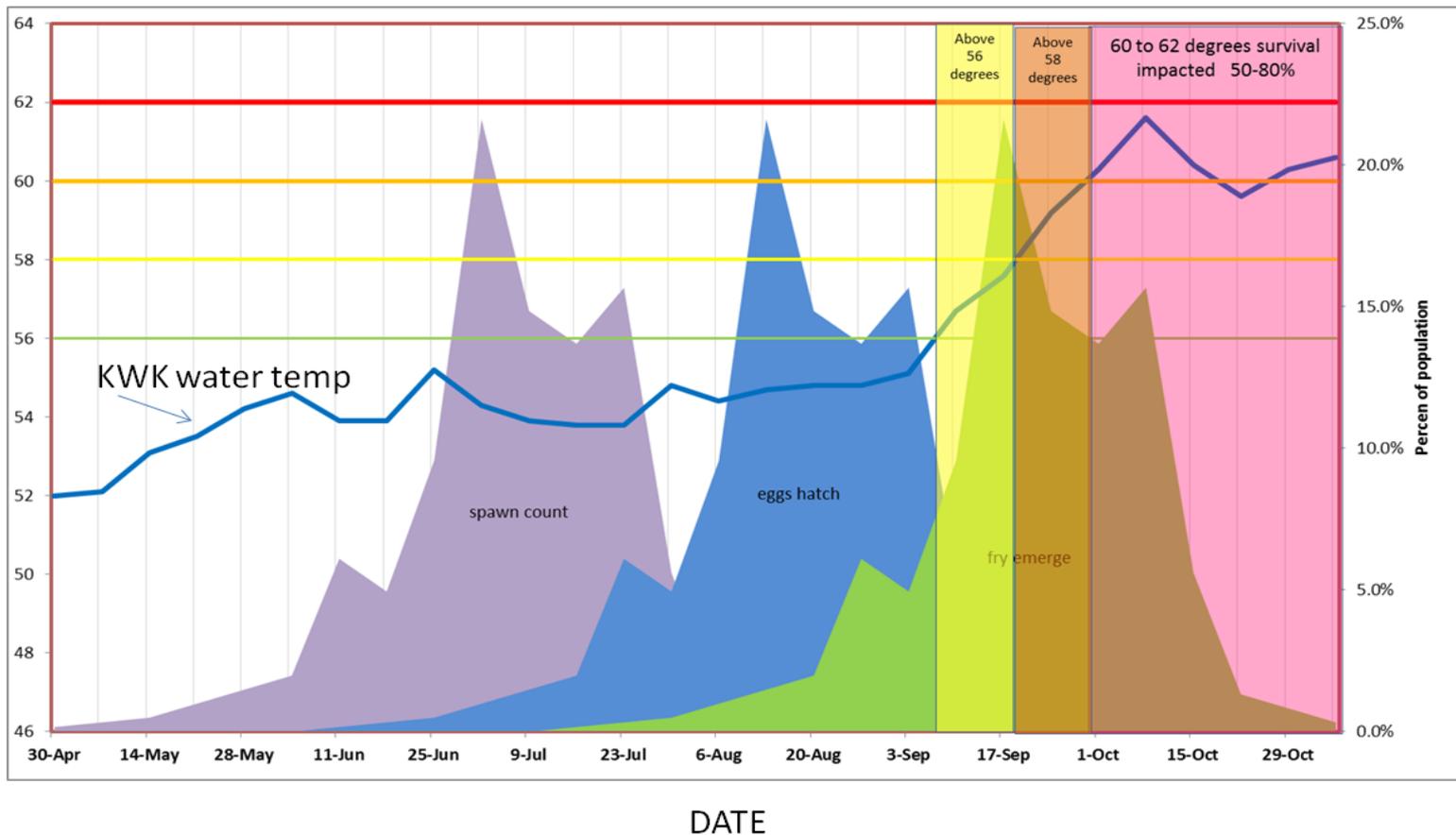
- November 18, 2014, fish agency presentation to the Water Board

## Effects of Drought and CVP/SWP Operations on Fish - A Fish Agency Overview



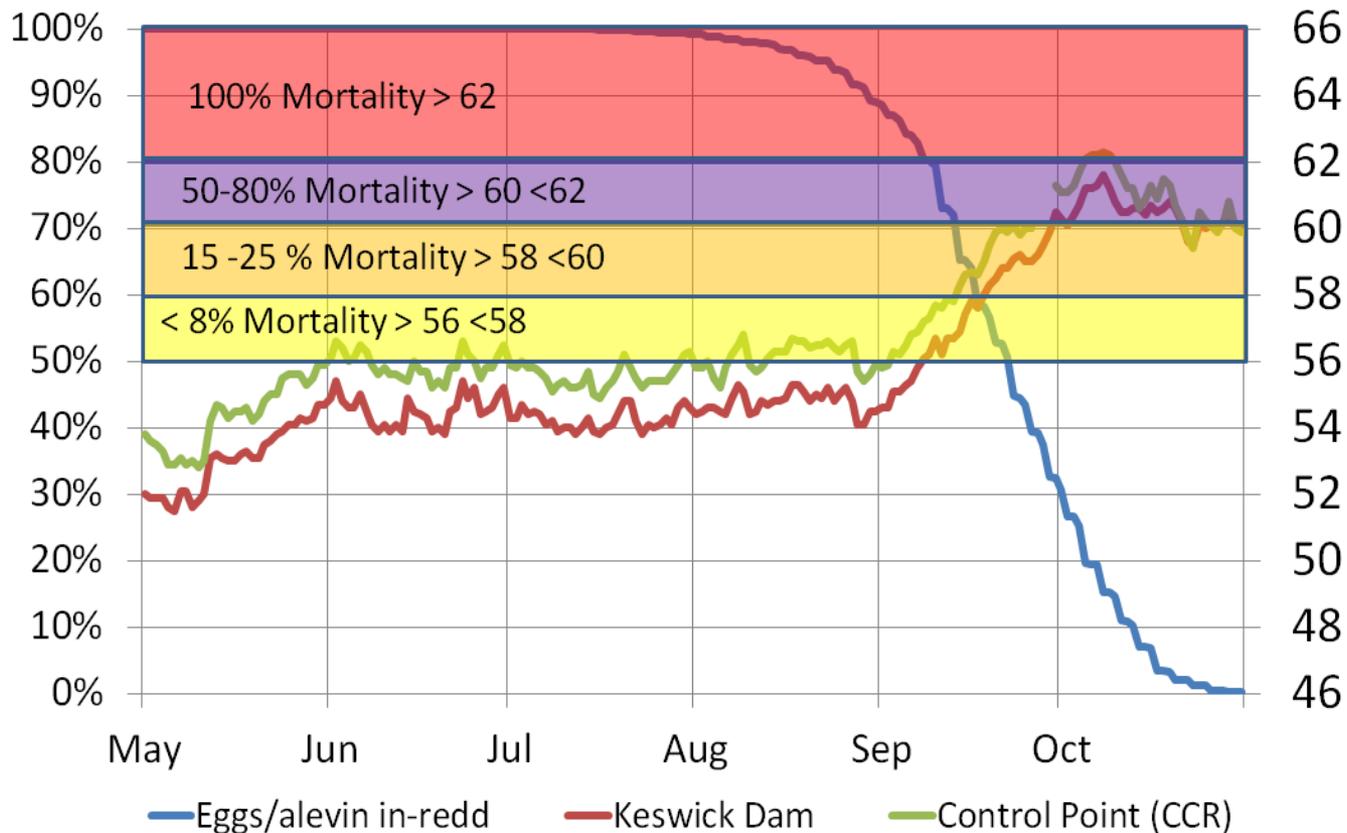
# Slide 10:

## Potential Impacts to 2014 Winter-Run Life Stages due to Water Temperatures in the Upper Sacramento River



# Slide 11:

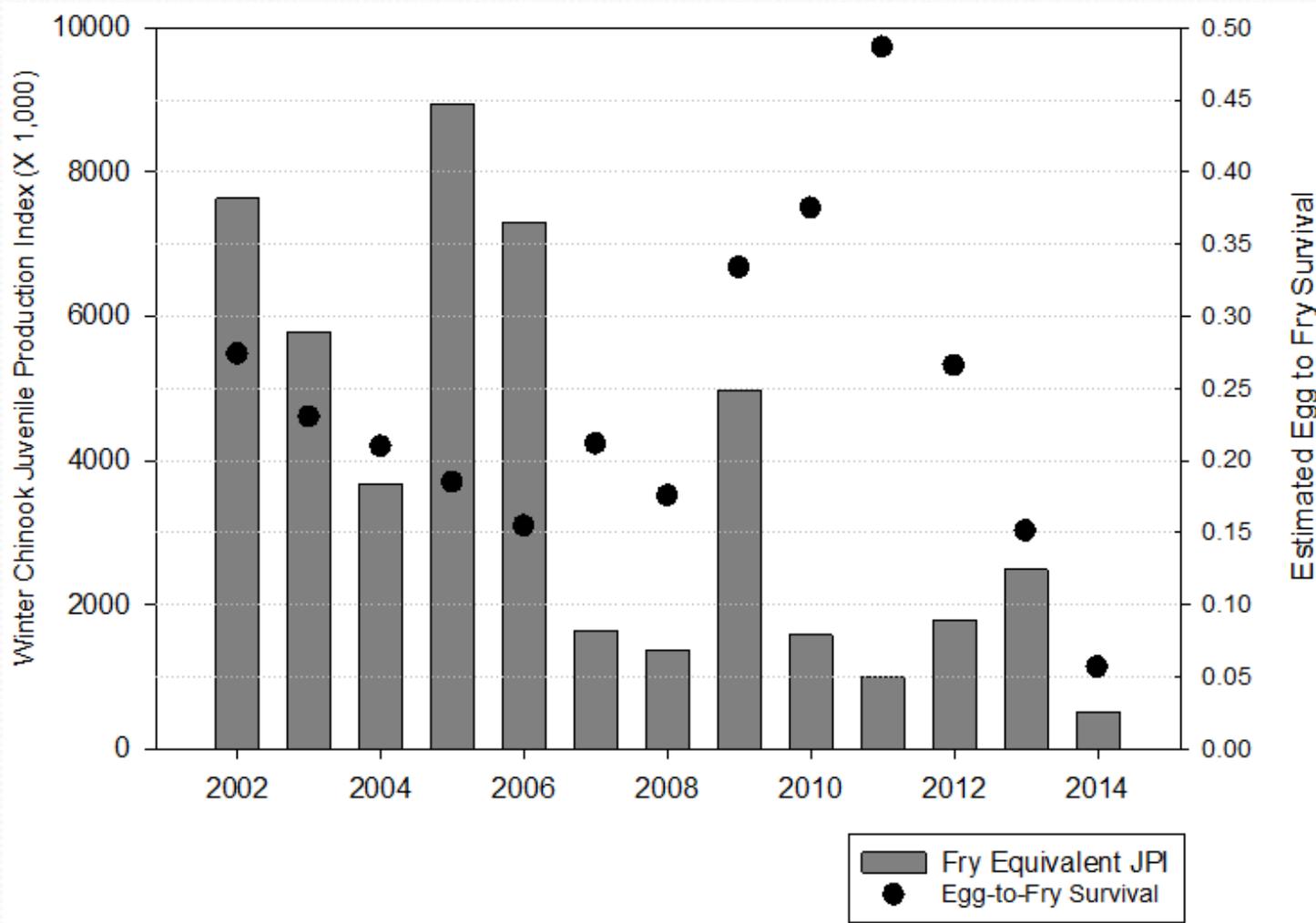
## 2014 Winter-run Egg Temperature Mortality- Sacramento River



# Status of winter-run Chinook salmon (cont'd)

- What does this mean (putting things in context)?
  - Considerable mortality to the cohort, overall, but more so in the latter part of the run
  - Did last year's TUCP Order help?
  - Considerable mortality of eggs and fry

# Status of winter-run Chinook salmon (cont'd)



Provided by Jim Smith (USFWS) to the IEP winter-run PWT, January 26, 2015

# Status of winter-run Chinook salmon (cont'd)

## Winter-run numbers:

- Natural juvenile winter-run past Red Bluff
  - 406,840 in broodyear 2014, as of February 11, 2015 (from 3,015 adults)
  - 848,980 in broodyear 2011 (from 827 adults)
- Hatchery juvenile winter-run:
  - Approximately 609,000 released February 4-6, 2015
  - All coded wire tagged, 571 acoustically tagged

# Status of winter-run Chinook salmon (cont'd)

- Winter-run JPE: NMFS issued on January 16, 2015
- Where are the winter-run?
  - Natural winter-run: >95% currently in the Delta
  - Hatchery winter-run:
    - 20-30% currently in the Delta
    - first detected at the I-80/I-50 bridge within 4 days of release

# Current fish distribution (from DOSS, February 17, 2015)

Location	Yet to Enter Delta (Upstream of Knights Landing)	In the Delta	Exited the Delta (Past Chippis Island)
<i>Young-of-year (YOY) winter-run Chinook salmon(naturally produced)</i>	Few stragglers only (last week: Same)	> 95% (last week: same)	< 5% (last week: same)
<i>YOY winter-run Chinook salmon (hatchery-produced)</i>	~75% (last week: 95%)	~25% (last week: 5%)	0% (last week: 0%)
<i>YOY spring-run Chinook salmon</i>	5% - 20% (last week: < 25%)	80% - 95% (last week: >75%)	< 5% (last week: < 5%)
<i>Yearling spring-run Chinook salmon*</i>	Few stragglers only (last week: same)	75% - 85% (last week: same)	15% - 25% (last week: same)
<i>Hatchery Steelhead**</i>	10% - 20% (Includes all hatchery fish) (last week: 10% - 20% of CNFH steelhead)	80% - 90% (Includes all hatchery fish) (last week: 80% - 90% of CNFH steelhead)	Few to <5% (Includes all hatchery fish) (last week: ~5% of CNFH steelhead)
<i>Sacramento River Steelhead (naturally- produced)</i>	Limited catch data; will review historical data for next week		
<i>San Joaquin River Steelhead***</i>	~80% (last week: same)	~20% (last week: same)	0% (last week: same)

\* No yearling spring-run Chinook salmon have been caught in 2014 monitoring. In general, very few yearling spring-run Chinook salmon are observed because of their relatively large size and strong swimming (and associated gear avoidance) abilities.

\*\*Difficult to assess now that three hatchery releases are in the system(CNFH, Feather River Fish Hatchery, and Mokelumne Fish Hatchery).

\*\*\*Have not observed juvenile steelhead in monitoring data; Distribution estimates are based on 10 years of historical data from Mossdale Trawls, and RST data from Caswell Park on the Stanislaus River.

# TUCP and mid-step

- D-1641 as baseline
- TUCP
- Mid-step: Benefit...or not?
  - Standard of review
  - NMFS acknowledged unquantifiable adverse effects, but focused on the OMR effects of increased exports (from combined 1,500 cfs to 3,500 cfs)

# Shasta Operations in 2015

- February forecast
- Storage and snowpack
- Wilkins Slough requirements
- Coordination with Sacramento Settlement Contractors
- Winter-run contingency plan
- Temperature modeling