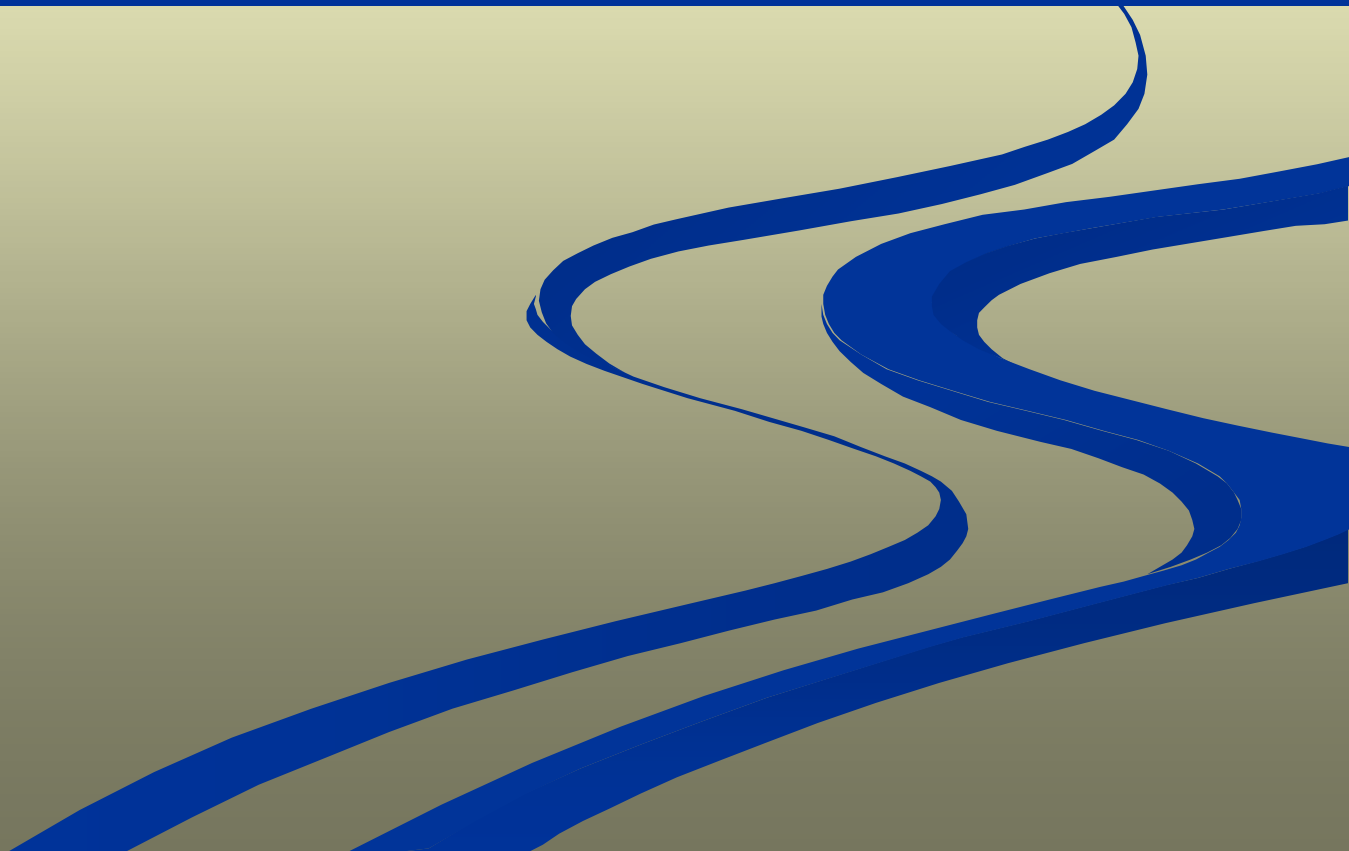


Comparison of Planned Salmonid Tracking Studies

January 19, 2006



Objectives

North and Central Delta Regional Hydrodynamics and Fish Study

USGS, Jon Burau et al.

- Describe survival and migration rates within **Delta** relationship to hydrodynamics

Survival and Migratory Patterns of Central Valley Juvenile Salmonids

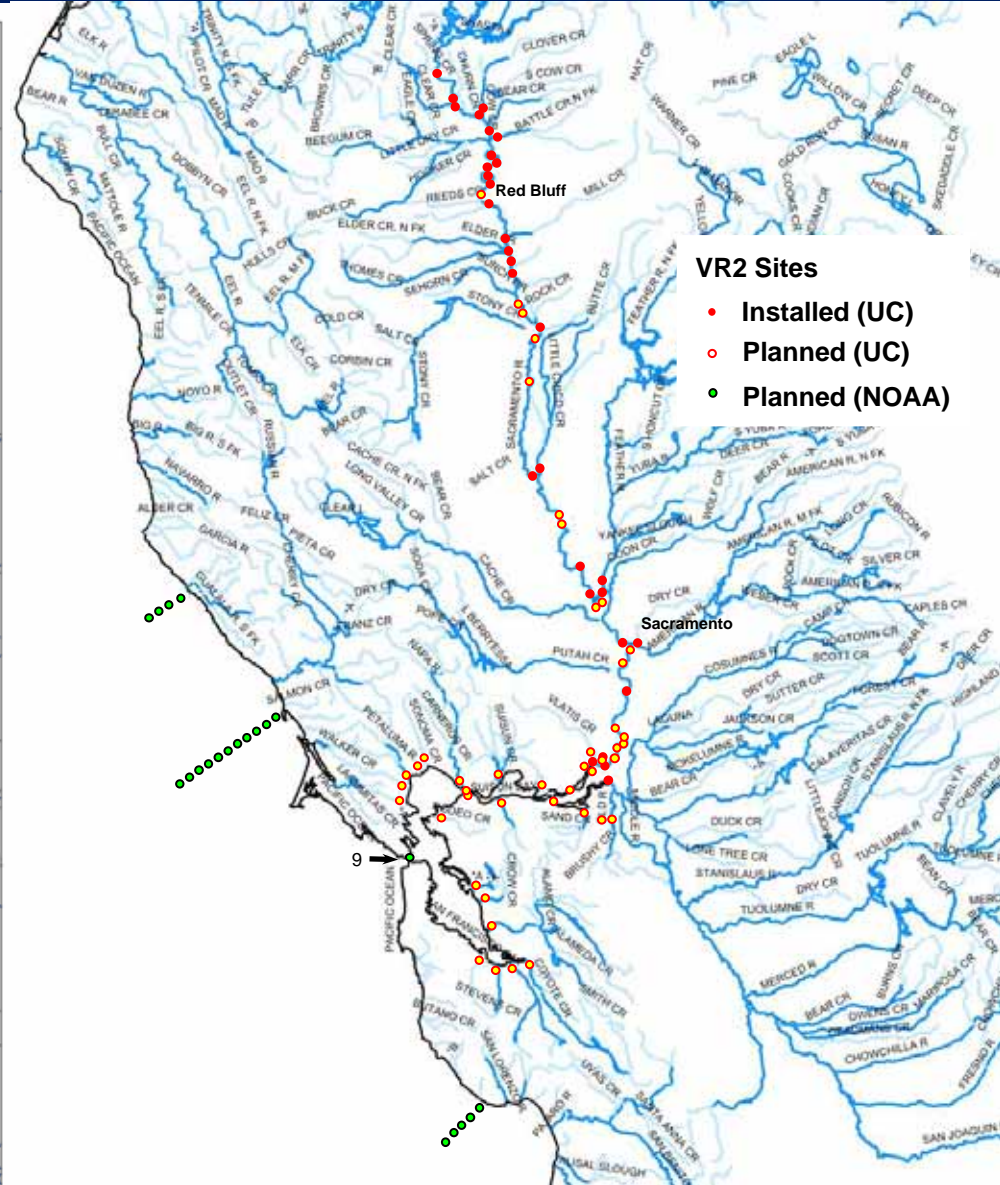
UC Davis, Peter Klimley et al.

- Describe survival and migration rates along **Sacramento R.** to the **Golden Gate**

Study Areas

North and Central Delta Regional
Hydrodynamics and Fish Study
USGS, Jon Burau et al.

Survival and Migratory Patterns of
Central Valley Juvenile Salmonids
UC Davis, Peter Klimley et al.



Tagging Systems

North and Central Delta Regional
Hydrodynamics and Fish Study
USGS, Jon Burau et al.

Survival and Migratory Patterns of
Central Valley Juvenile Salmonids
UC Davis, Peter Klimley et al.

- Hydroacoustic Technology, Inc. (HTI) Model 795m
- Tag size:
 - Length ~ 16.5 mm
 - Diameter ~ 6.8 mm
 - Weight in air 0.75g
- Battery life 10-20 + days
- Estimated tracking time
4 – 10 days
- Signal detection distance
300 – 500M

- VEMCO Model V7-1L
- Tag size:
 - Length 17.5 mm*
 - Diameter 7 mm
 - Weight in air 1.4g*
- Battery life 44-60 + days
- Estimated tracking time
20 – 30+ days
- Signal detection distance
150 – 500M

*for Salmon smolts

Tagging Systems continued

USGS, Jon Burau et al.

■ Costs

- HTI tag ~ \$280 ea.
- Receiver ~ \$5500 ea.
 - ~ 40 listening stations
- Tag #s = ?
 - n = ? salmon



Photo courtesy of HTI.

UC Davis, Peter Klimley et al.

■ Costs

- VEMCO tag ~ \$300 ea.
- Receiver ~ \$1100 ea.
 - ~ 70 stations planned
- Tag #s = 1200/3years
 - 200 salmon/yr x 3years
 - 200 steelhead/yr x 3years



Photo courtesy of VEMCO

The Fish

North and Central Delta
Regional Hydrodynamics and
Fish Study
USGS, Jon Burau et al.

Survival and Migratory Patterns
of Central Valley Juvenile
Salmonids
UC Davis, Peter Klimley et al.

- Late-fall Chinook
- Source – Coleman National Fish Hatchery
- Size
~ 100 mm FL juv. Chinook

- Late-fall Chinook and Steelhead
- Source – Coleman National Fish Hatchery
- Size
~150 mm FL juv. Chinook
~190 mm FL juv. Steelhead



Image provided by Dave Vogel

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Survival and Migratory Patterns of Central Valley Juvenile Salmonids, Klimley et al.

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Thank you