

# Paradise Cut Bypass Expansion Project

Presentation to San Joaquin Area Flood Control Agency

September 19, 2019



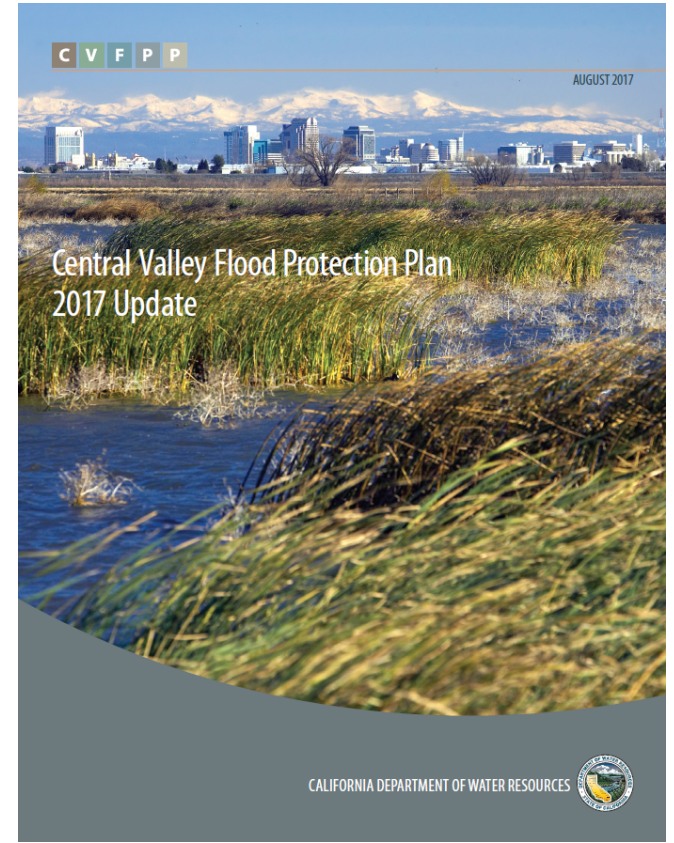
Looking South up the San Joaquin River.  
Photo by Daniel Nysten, American Rivers.

# The Lower San Joaquin/South Delta is very vulnerable to flooding ...



1997 Manteca flood. Photo by Dale Kolke / California Department of Water Resources

# Brief History of Paradise Cut Expansion idea



After the 1997 flood, the Paradise Cut Expansion was proposed by local farmer Alex Hildebrand.

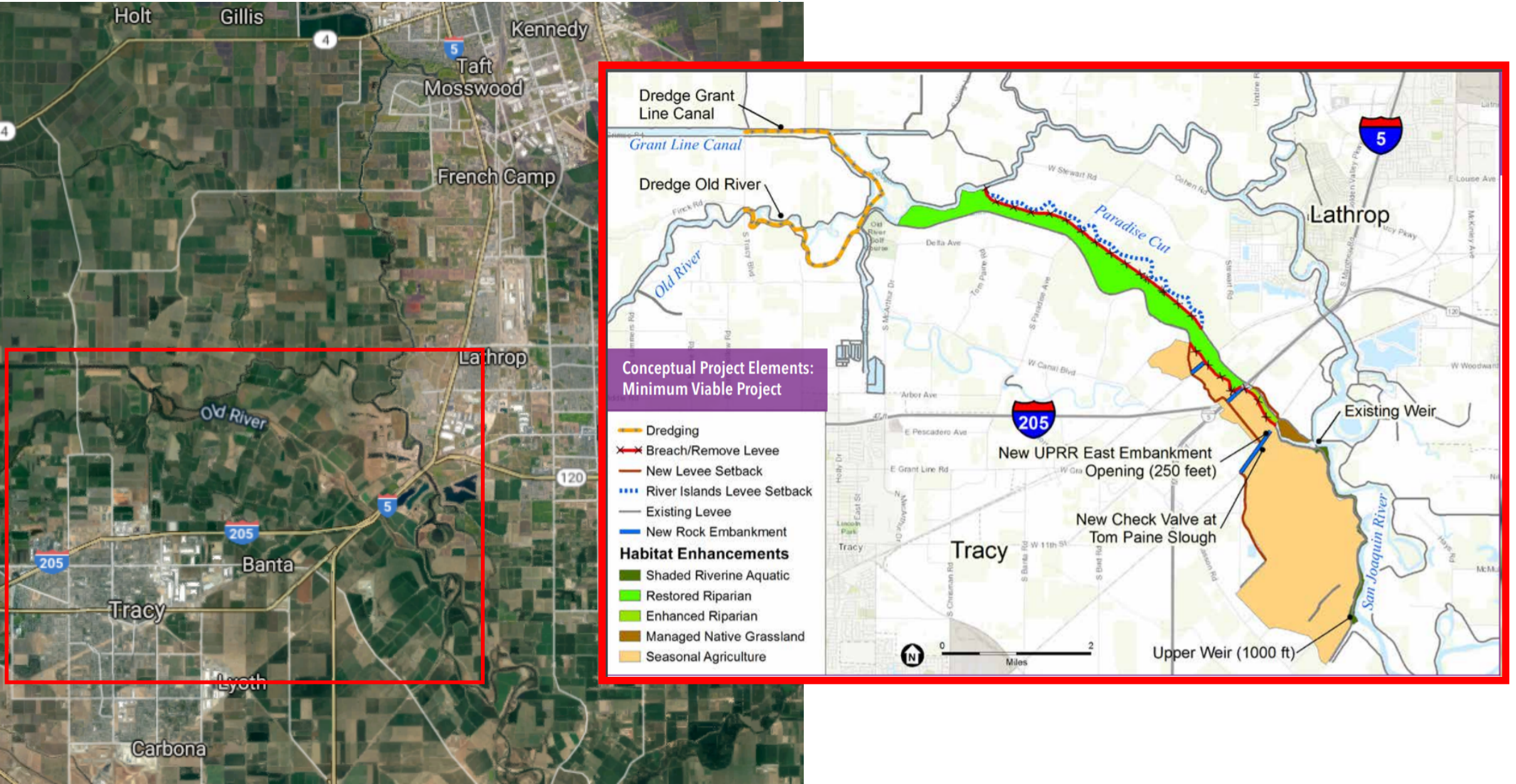
In 2008, the CA legislature directed DWR to evaluate the project.

In 2012, the project was recommended in the CVFPP.

In 2013, the Delta Plan identified Paradise Cut as a priority.

In 2017, the Paradise Cut Expansion became a cornerstone of the CVFPP.

# Project Location and Conceptual Design





New weir

Expanded  
inundation  
area

Existing  
weir

Existing  
Paradise Cut  
area

Looking South up the San Joaquin River. Photo by Daniel Nylén, American Rivers.

# Continued Agriculture in the Expansion Area: Infrequent, planned flooding better than...



Comparison:

Yolo Bypass  
inundation occurs in  
2/3 of all years (~67%  
probability)

Paradise Cut  
expansion would  
occur 1/12 of all years  
(<10% probability)

Yolo Bypass. Planned flood bypass on agricultural fields.

Photo on Water Education Foundation website: <http://www.watereducation.org/aquapedia/flood-management>

# Continued Agriculture in the Expansion Area: Infrequent, planned flooding better than... ...less frequent, unplanned flooding

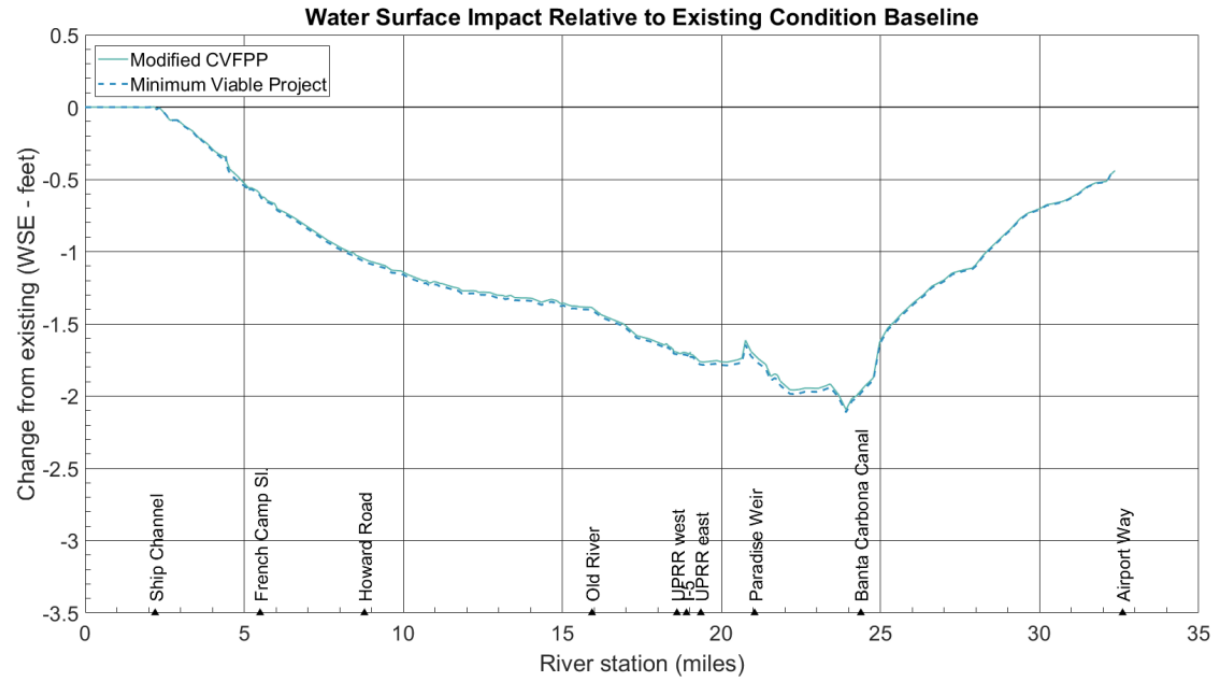
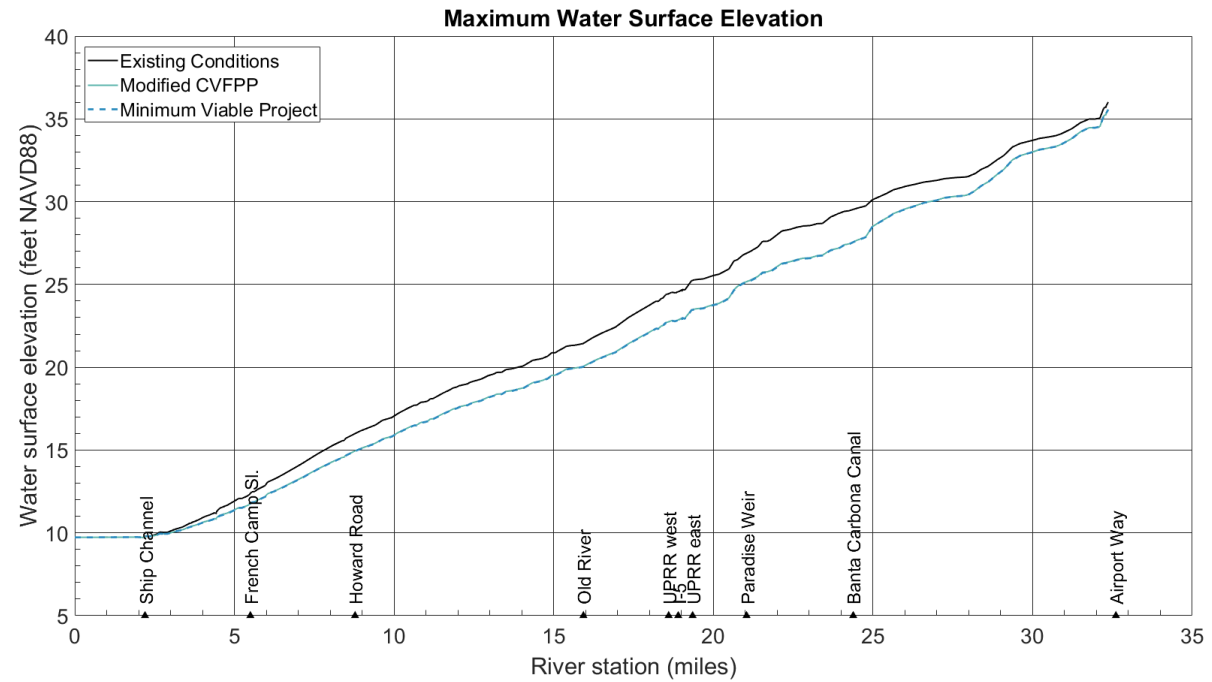


1997 unplanned levee breach on the Cosumnes River. Photo by Tom Myers.

ISSUES:  
Sand splay  
Erosion  
Poor Drainage  
Salinity  
Unpredictable

# Stage Reduction San Joaquin River

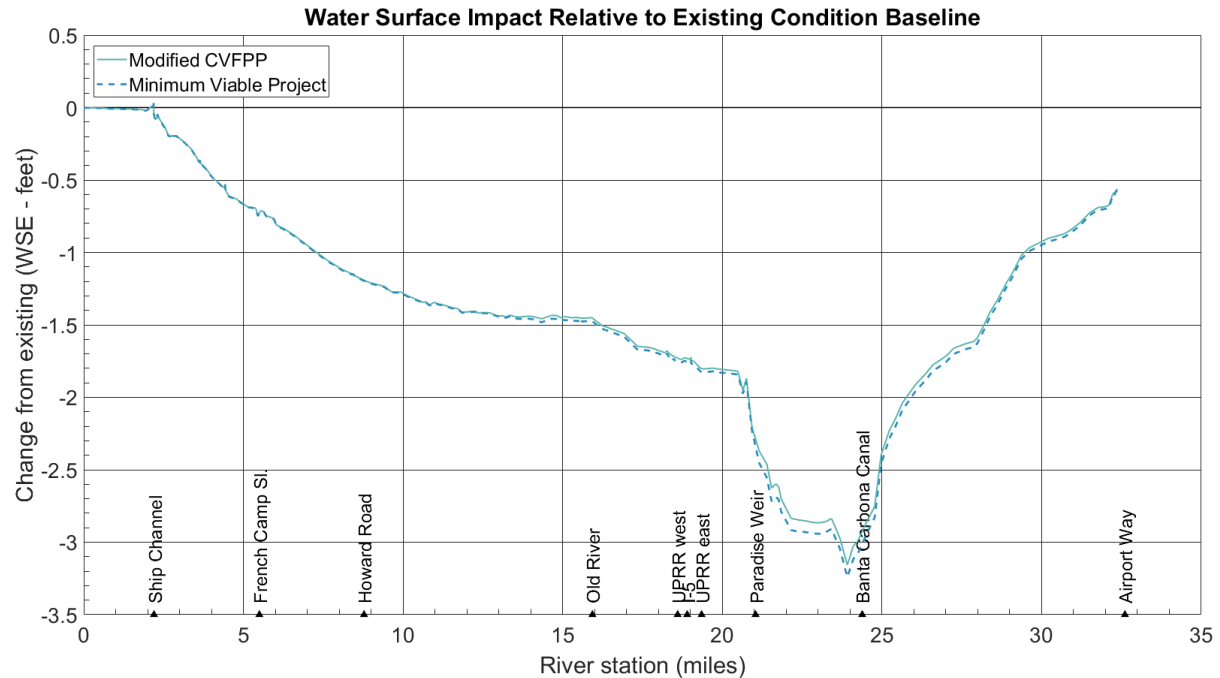
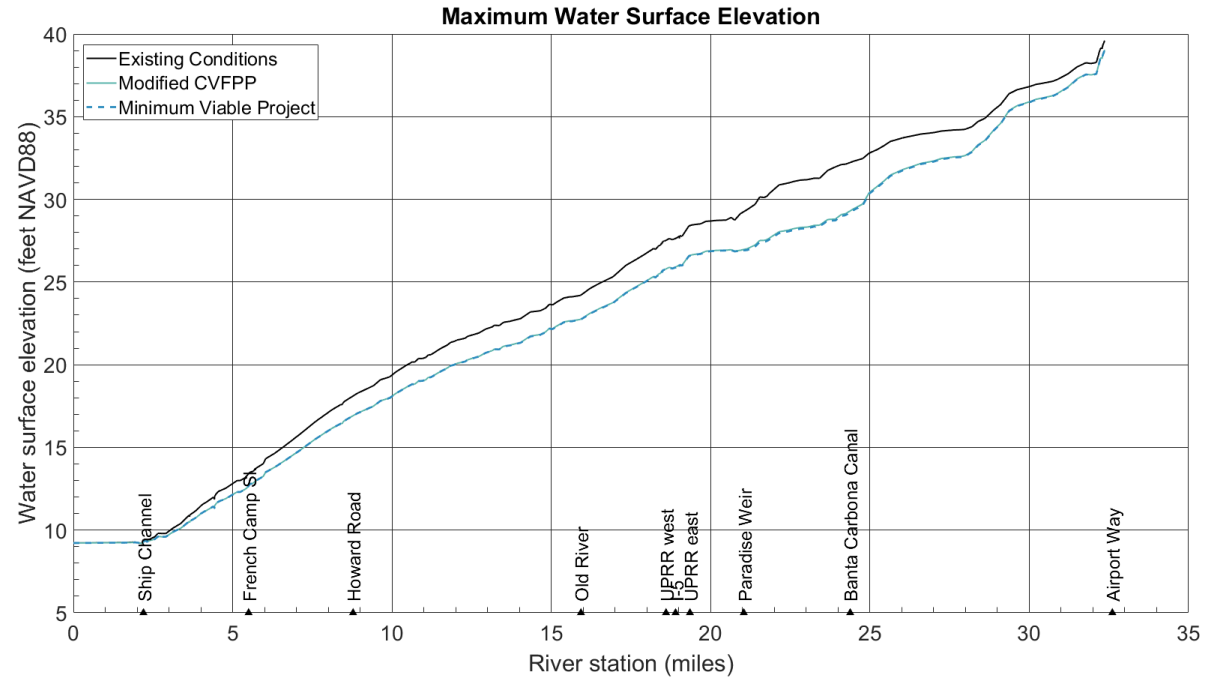
## Design Flood (~50 year event)

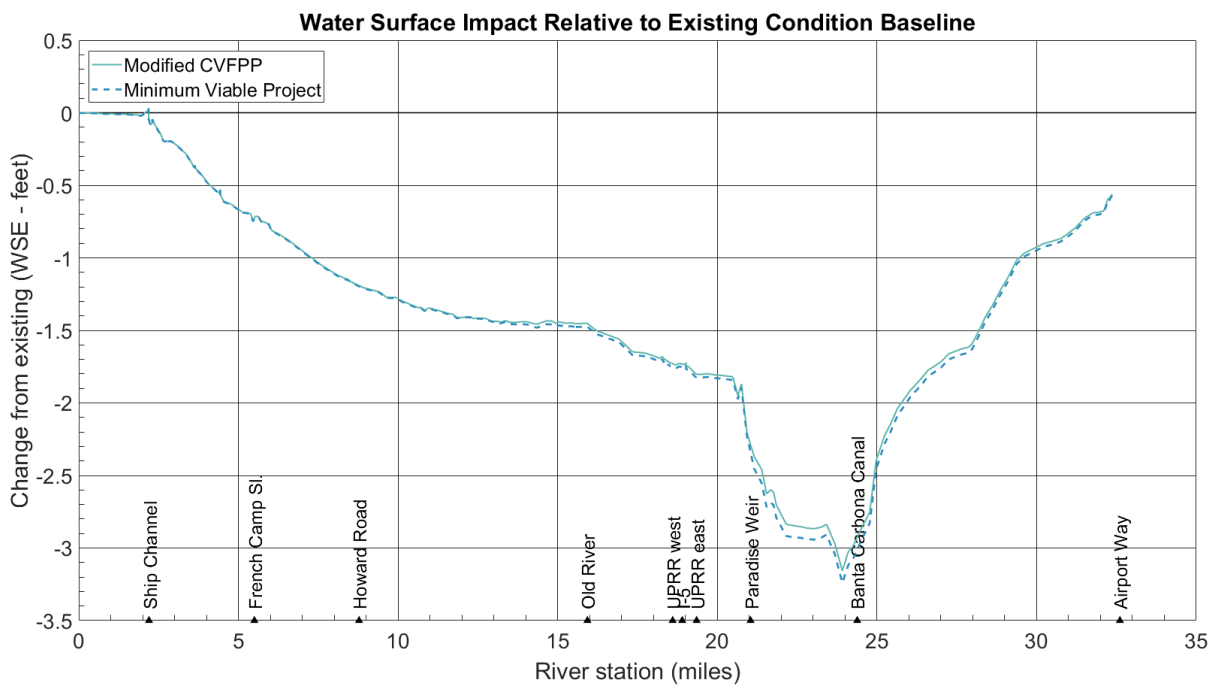
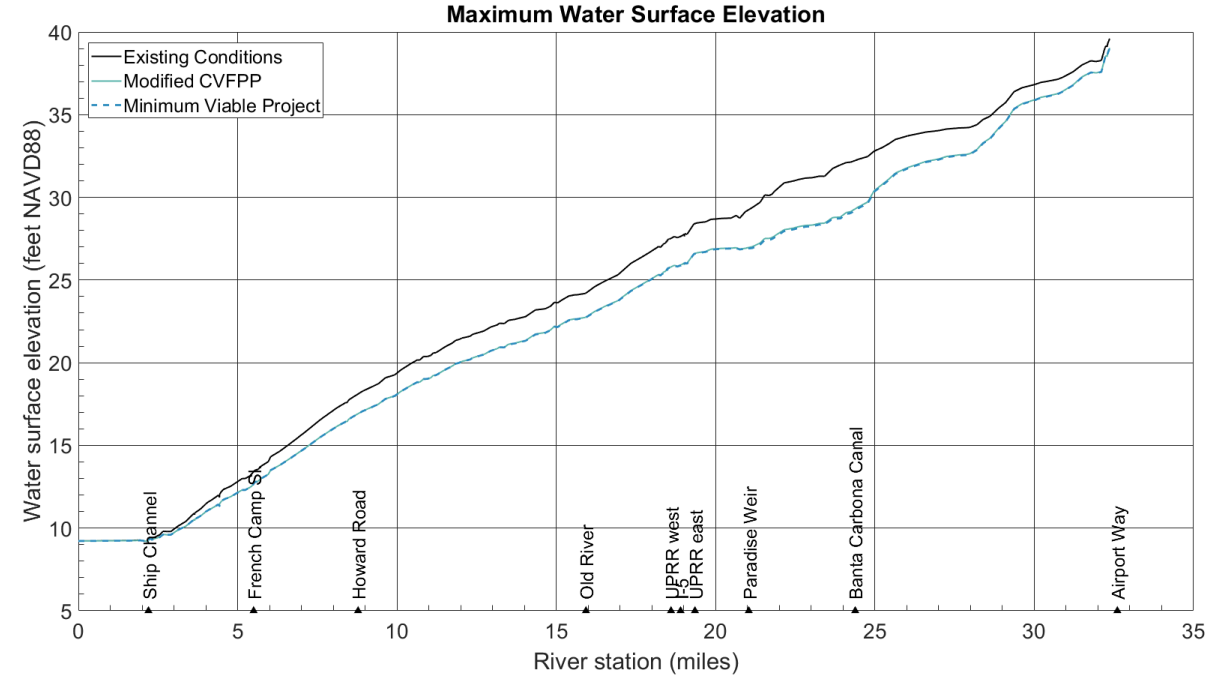
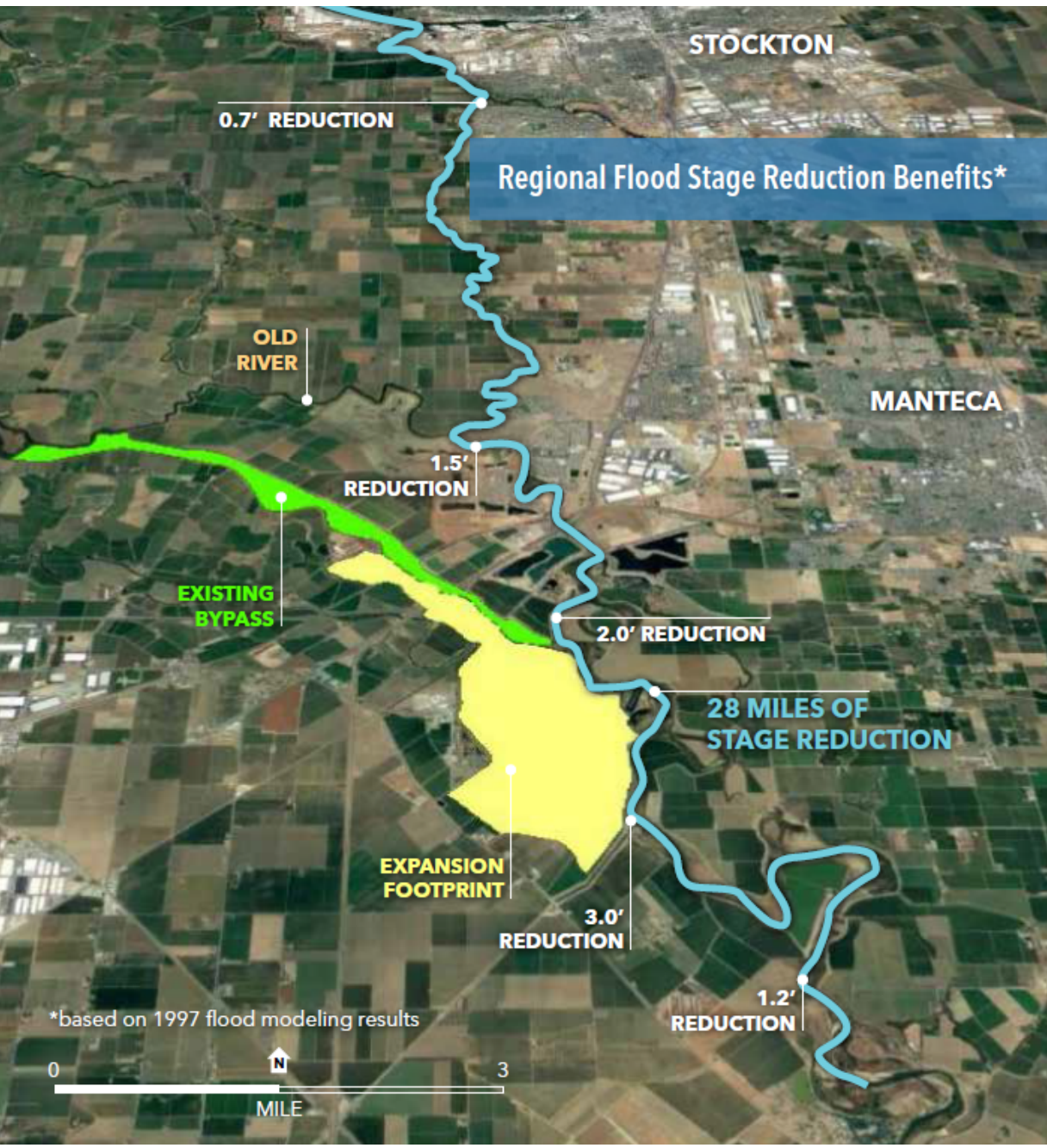




# Stage Reduction San Joaquin River

1997 event  
(~100 year event)





# Next Steps

Delta Conservancy grant awarded in May 2019

Grant term ~ 2 years starting January 2020

Focused on addressing impacts on Old River and Grant Line Canal

- Compile existing data, identify data gaps, recommend studies needed
- Develop mitigation strategy to minimize negative hydraulic impacts
- Design and implement durable local engagement structure

# Next steps

- Phase 1 – conceptual planning - COMPLETE
- **Phase 2 – address downstream impacts - current**
- Phase 3 – easement acquisition
- Phase 4 – design, permitting, compliance
- Phase 5 – construction, monitoring



# Thank You!



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