
MARIN COUNTY
PARKS
PRESERVATION • RECREATION



The North End Wetlands Enhancement and Sea Level Rise Adaptation Project

May 17, 2016



GREATER
FARALLONES
ASSOCIATION



BACKGROUND

- Joint Partnership with GFNMS, PRNS, GGNRA, and the communities of Stinson Beach and Bolinas
- 2015 North End Project, Phase I and II
 - 2016 Site Conditions Report
 - 2017 Conceptual Designs and Opportunities and Constraints Report

North End Project Area

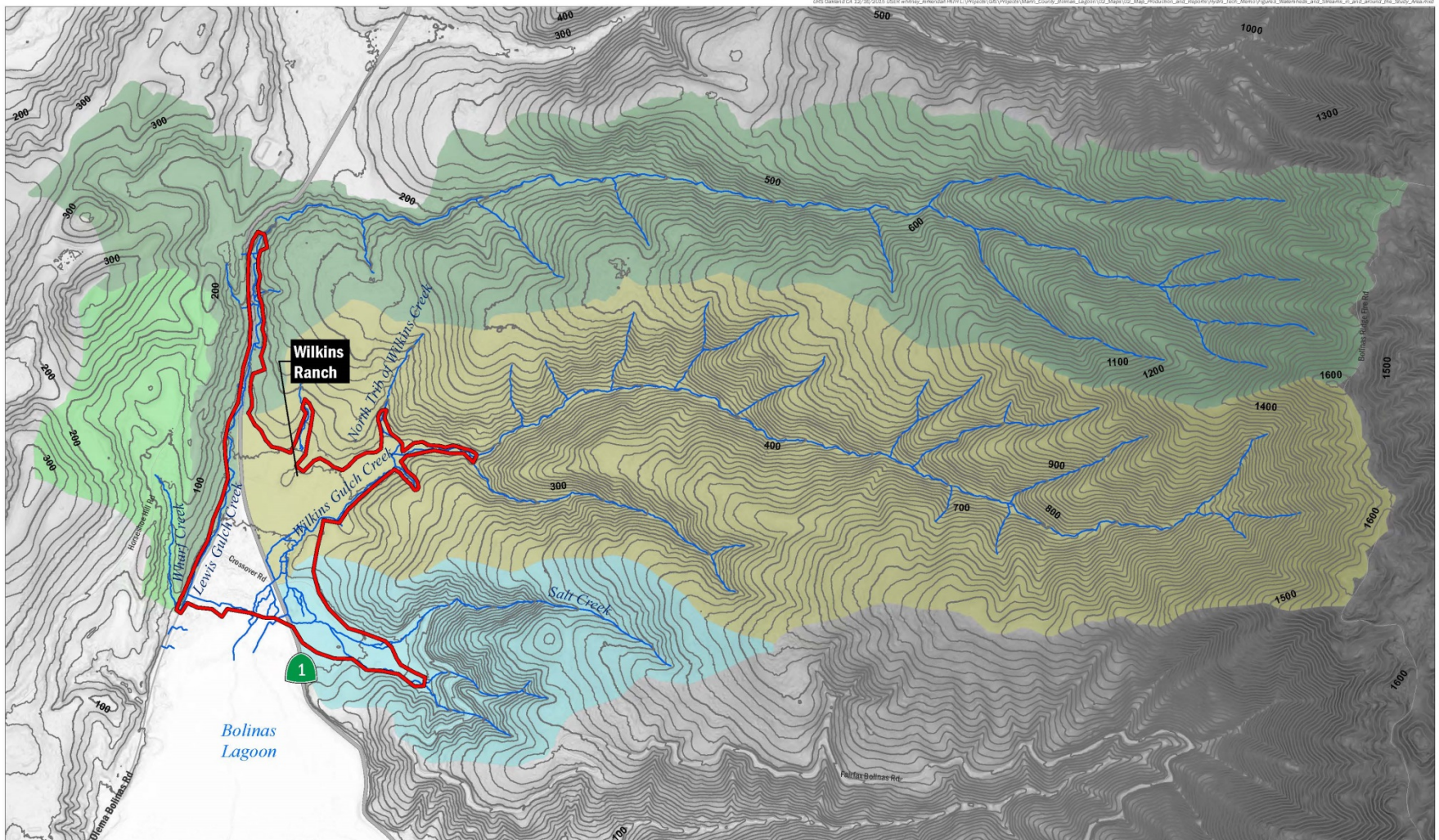
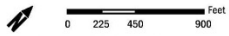


Sources: Esri, DeLorme, USGS, NPS, Sources: Esri, USGS, NOAA



Imagery Date: 3/28/2018 37°56'10.00" N 122°41'02.31" W elev. 31 ft eye alt 2373 ft

WATERSHEDS



AECOM
Marin County
Bolinas Lagoon Restoration

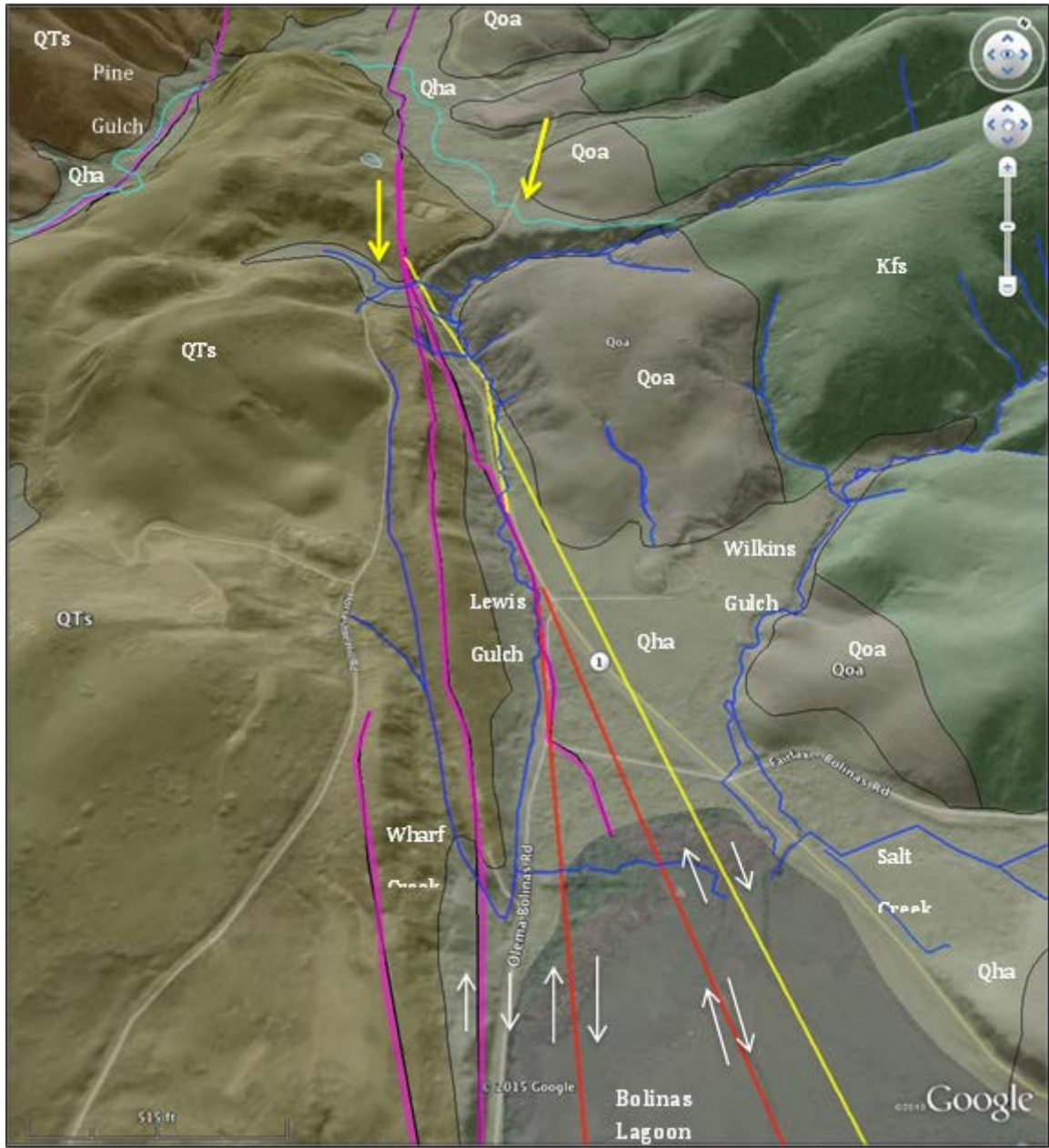


Data Sources:
1. Contours, ARRA Golden Gate LIDAR, USGS, 2010
2. Streams, Watersheds, AECOM, 2015

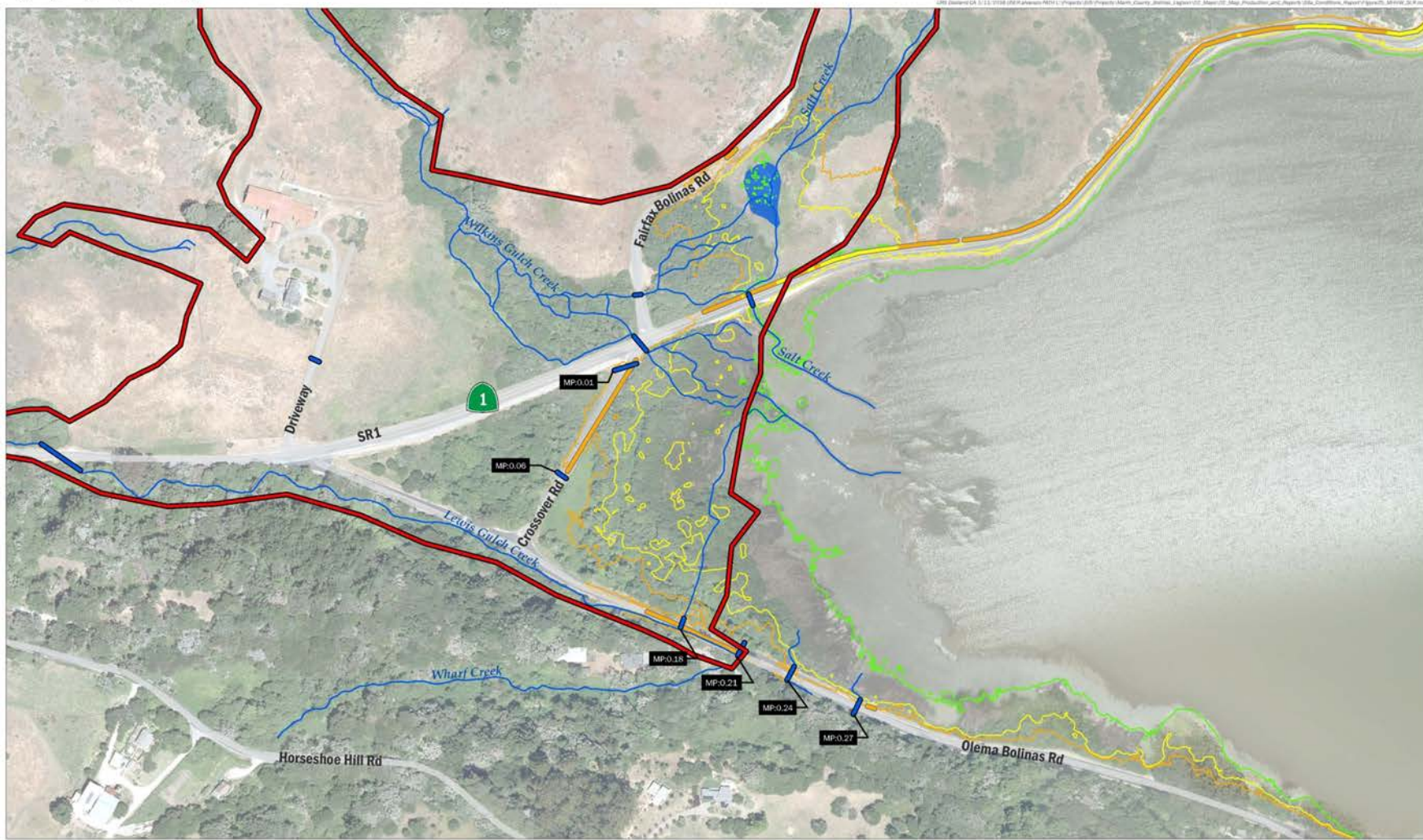
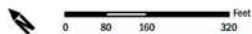
FIGURE 3
Watersheds and Streams In and Around the Study Area

The North End Wetlands Enhancement and Sea Level Rise Adaptation Project

- Restoration strategy:
 - Geomorphology
 - Biological Resources
 - Historic land use



SLR PROJECTIONS



AECOM
MCOSD
 Bolinas Lagoon Restoration

- | | | |
|---------------|--|----------------------------------|
| Study Area | Mean Higher-High Water (MHHW), 5.60 Ft | Roads Impacted by Sea Level Rise |
| Water Feature | Mid-Century Sea Level Rise (MHHW + 3 Ft), 8.60 Ft | Mid-Century Scenario |
| Culvert | End-of-Century Sea level Rise (MHHW + 5.5 Ft), 11.1 Ft | End-of-Century Scenario |

Data Sources:
 Elevation, San Francisco Bay LIDAR, USGS, 2010-2011
 Sea Level Rise Data: Projections from Our Coast; Our Future (2015)

FIGURE 25
 Sea Level Rise Projections for
 Mean Higher-High Water

2015

North
Tributary

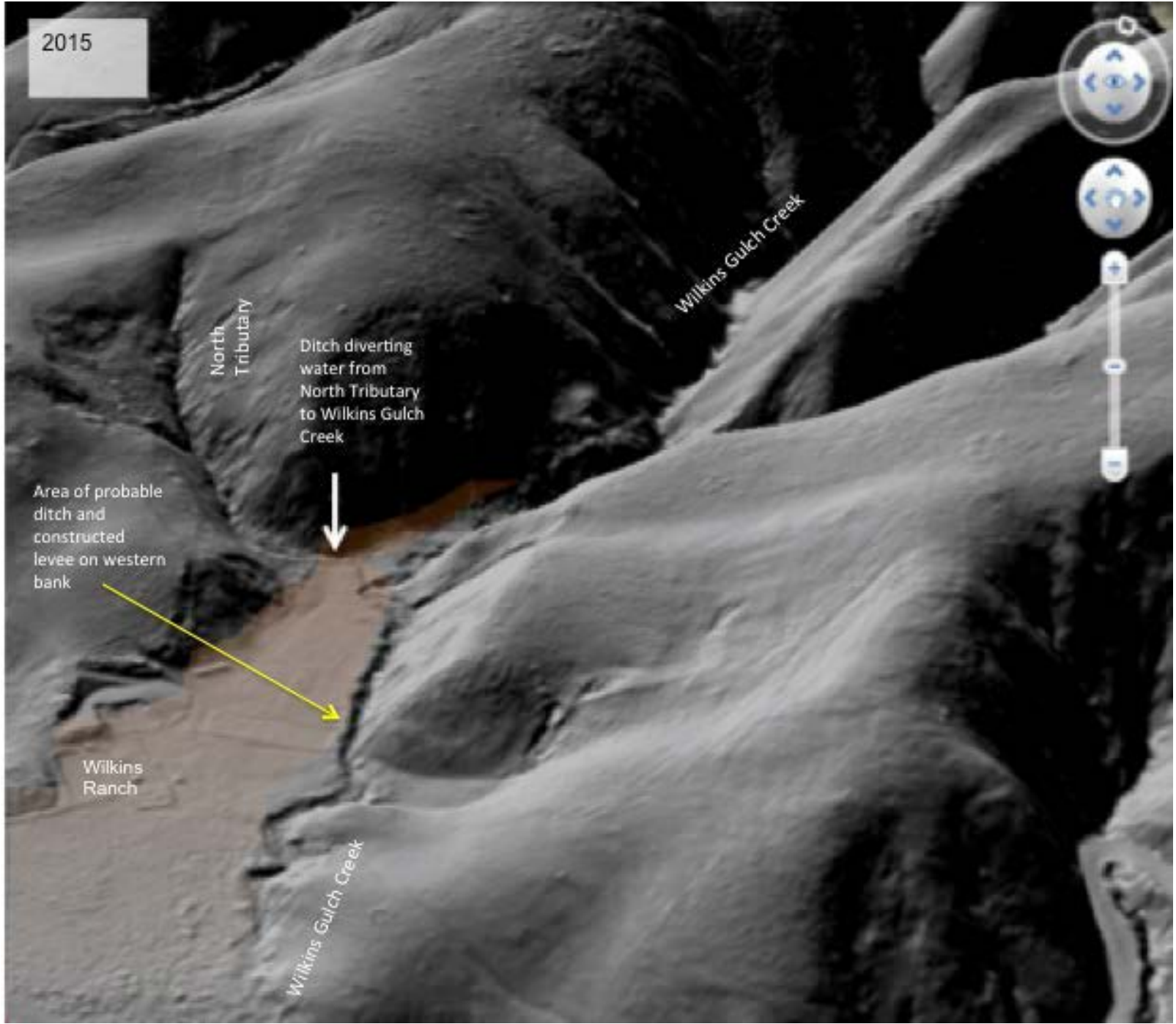
Wilkins Gulch Creek

Ditch diverting
water from
North Tributary
to Wilkins Gulch
Creek

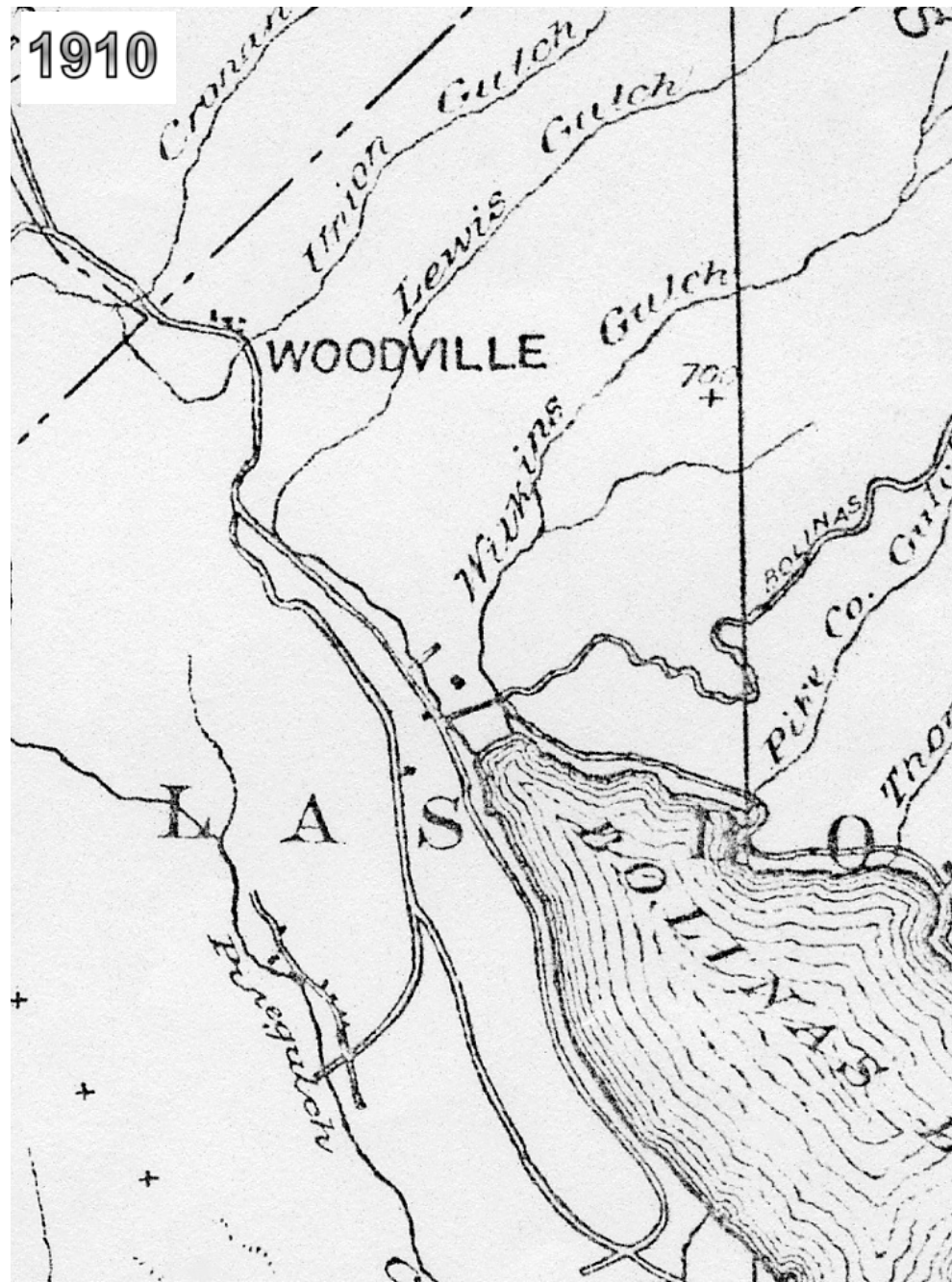
Area of probable
ditch and
constructed
levee on western
bank

Wilkins
Ranch

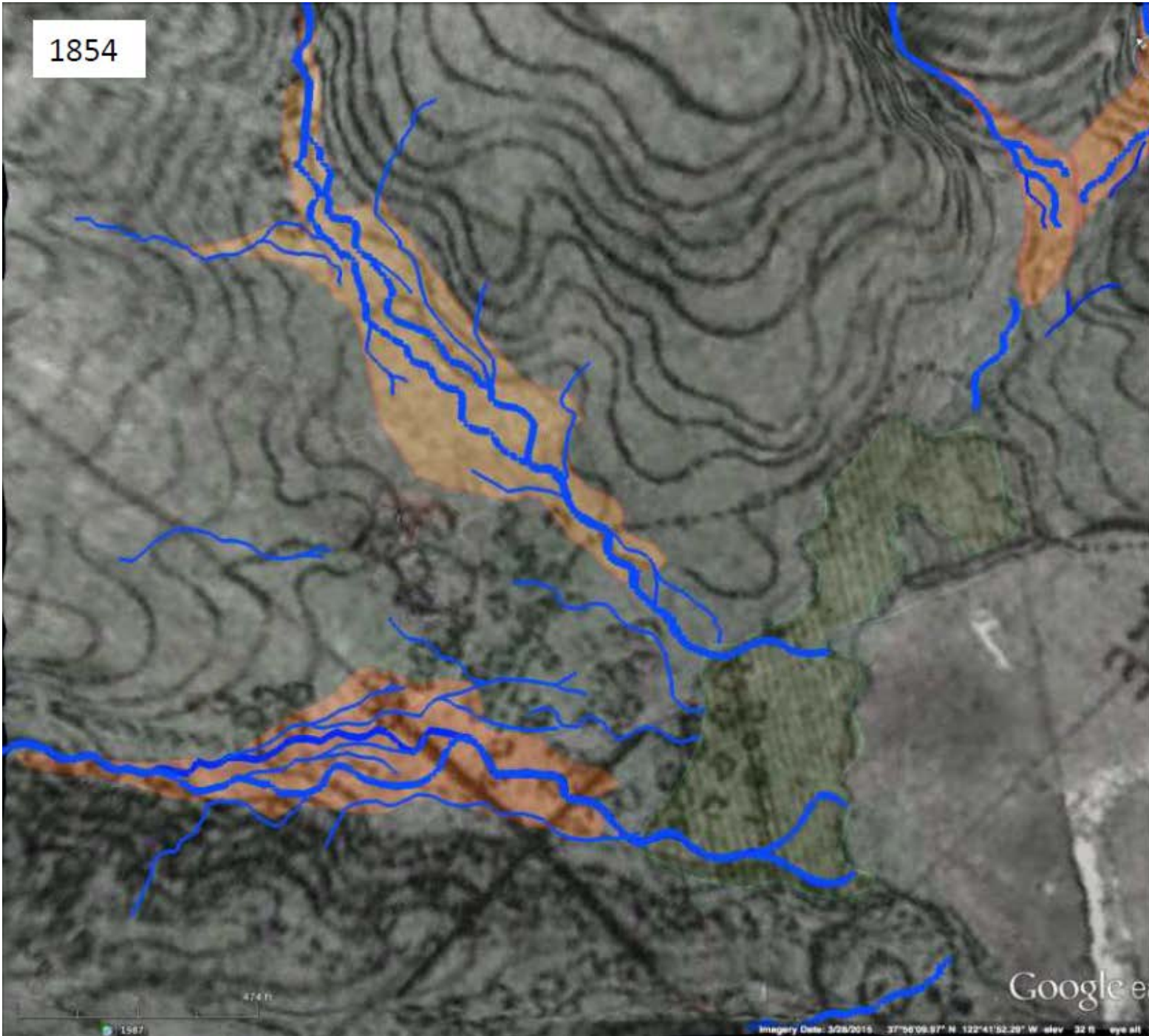
Wilkins Gulch Creek



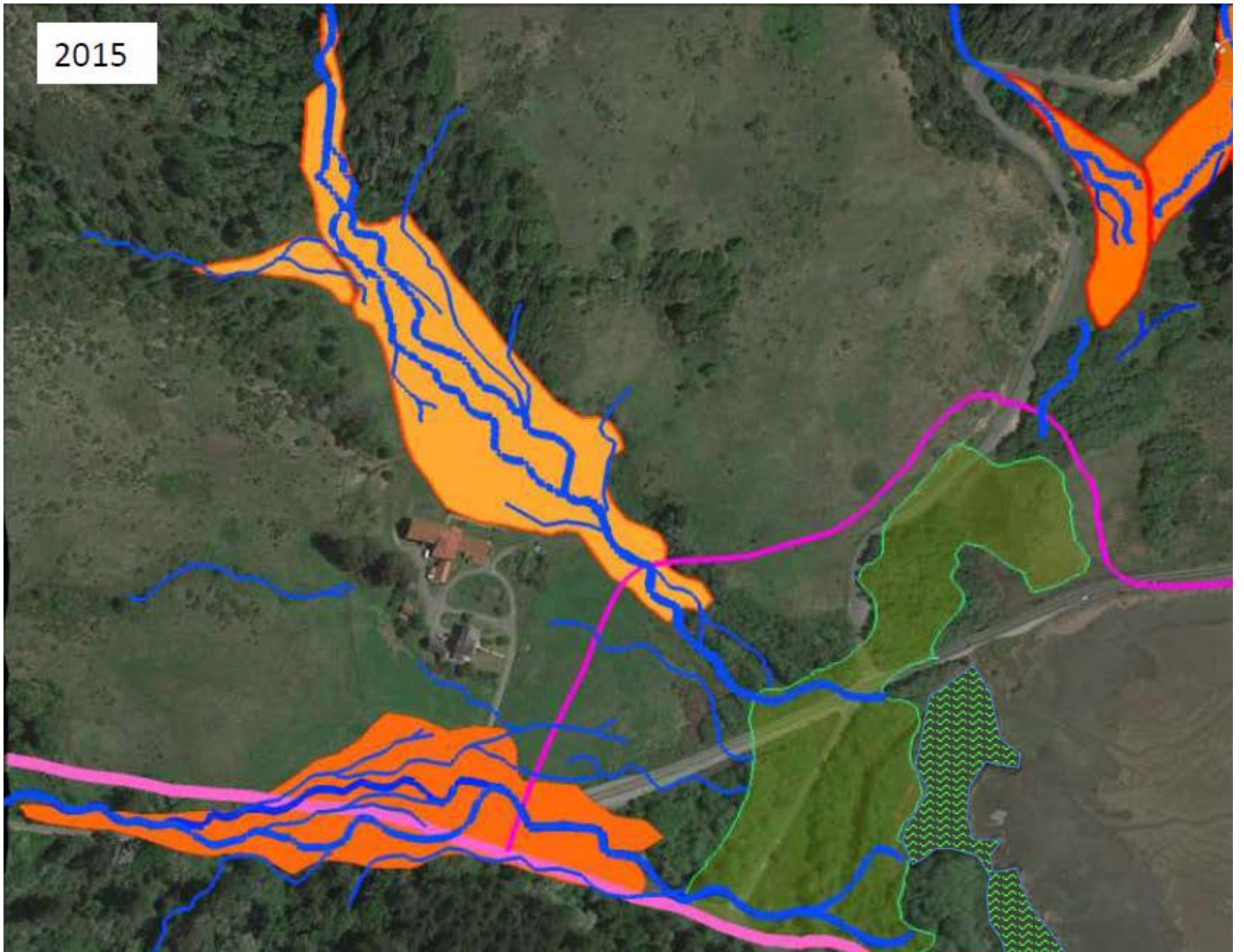
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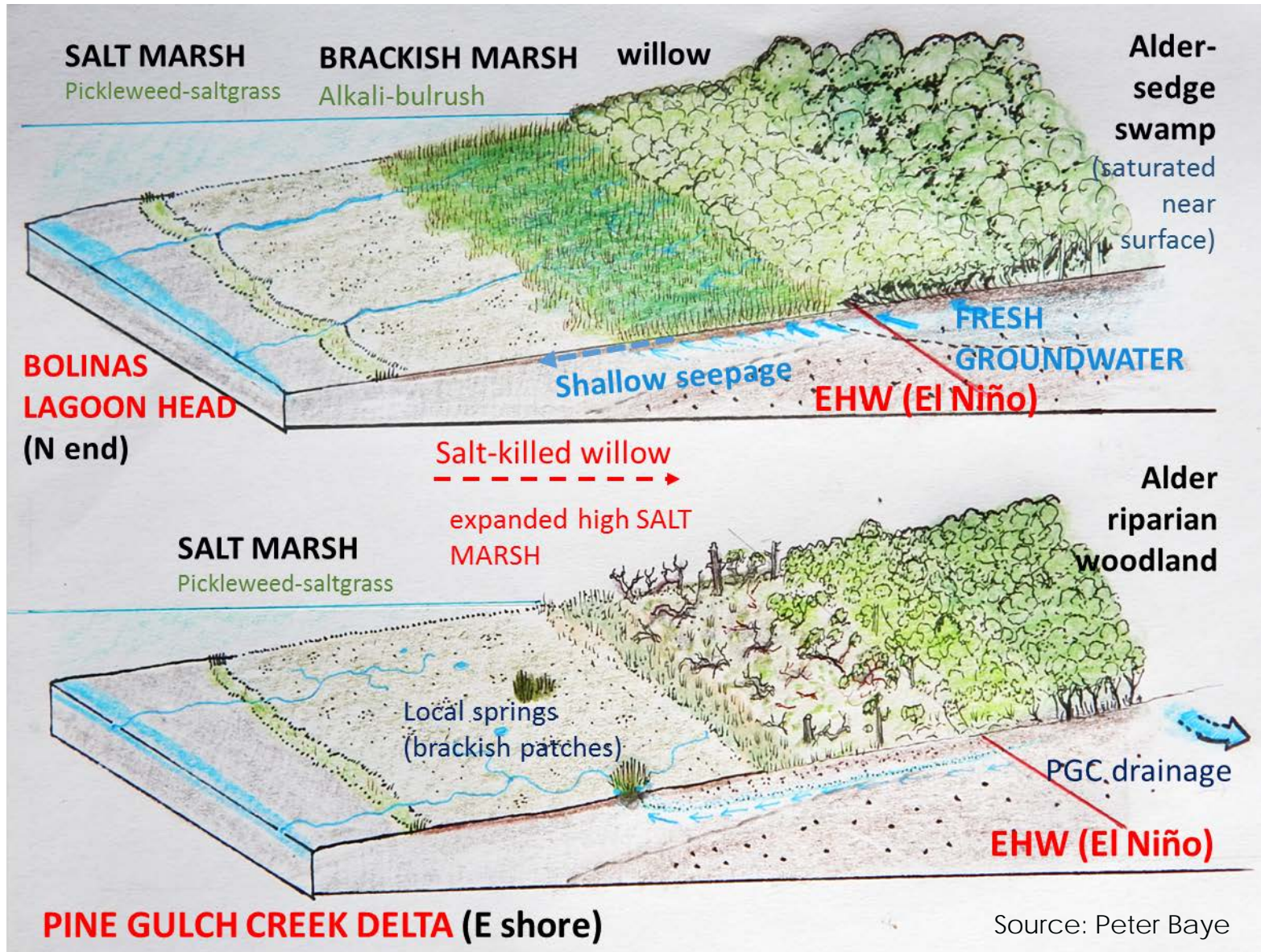
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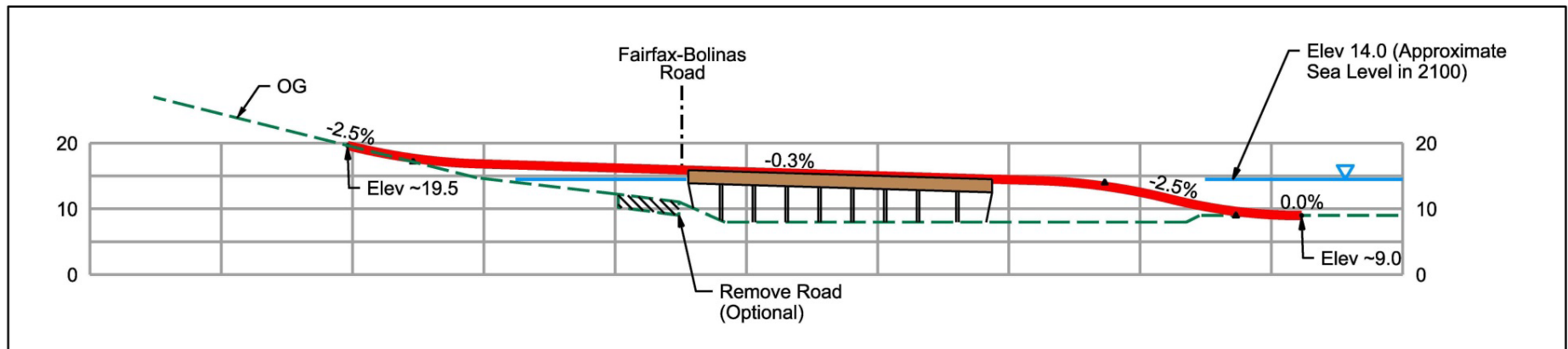
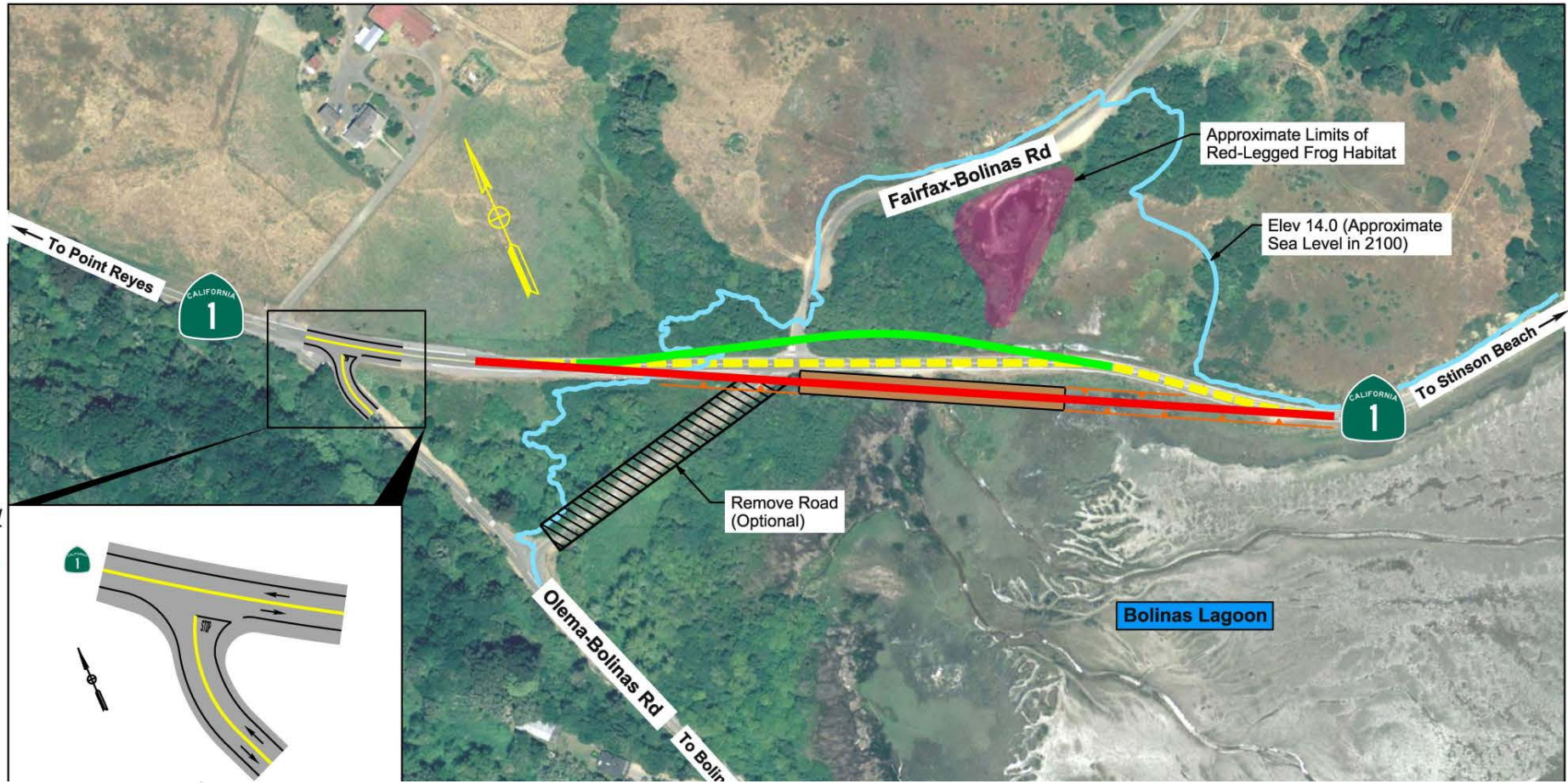


2015



NORTH END WETLAND COMPLEX





Profile

PROJECT DESIGN

- Full reconnection vs. partial reconnection
- Channel form and process
- Short term versus long term impacts, pro's and con's
- Habitat enhancement, creation, and rehabilitation
- Project phasing

WHAT NOW

- Conceptual designs
- Opportunities and Constraints
- Partner collaboration
- Research

QUESTIONS



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