



Bolinas Lagoon North End Sea Level Rise Adaptation Project

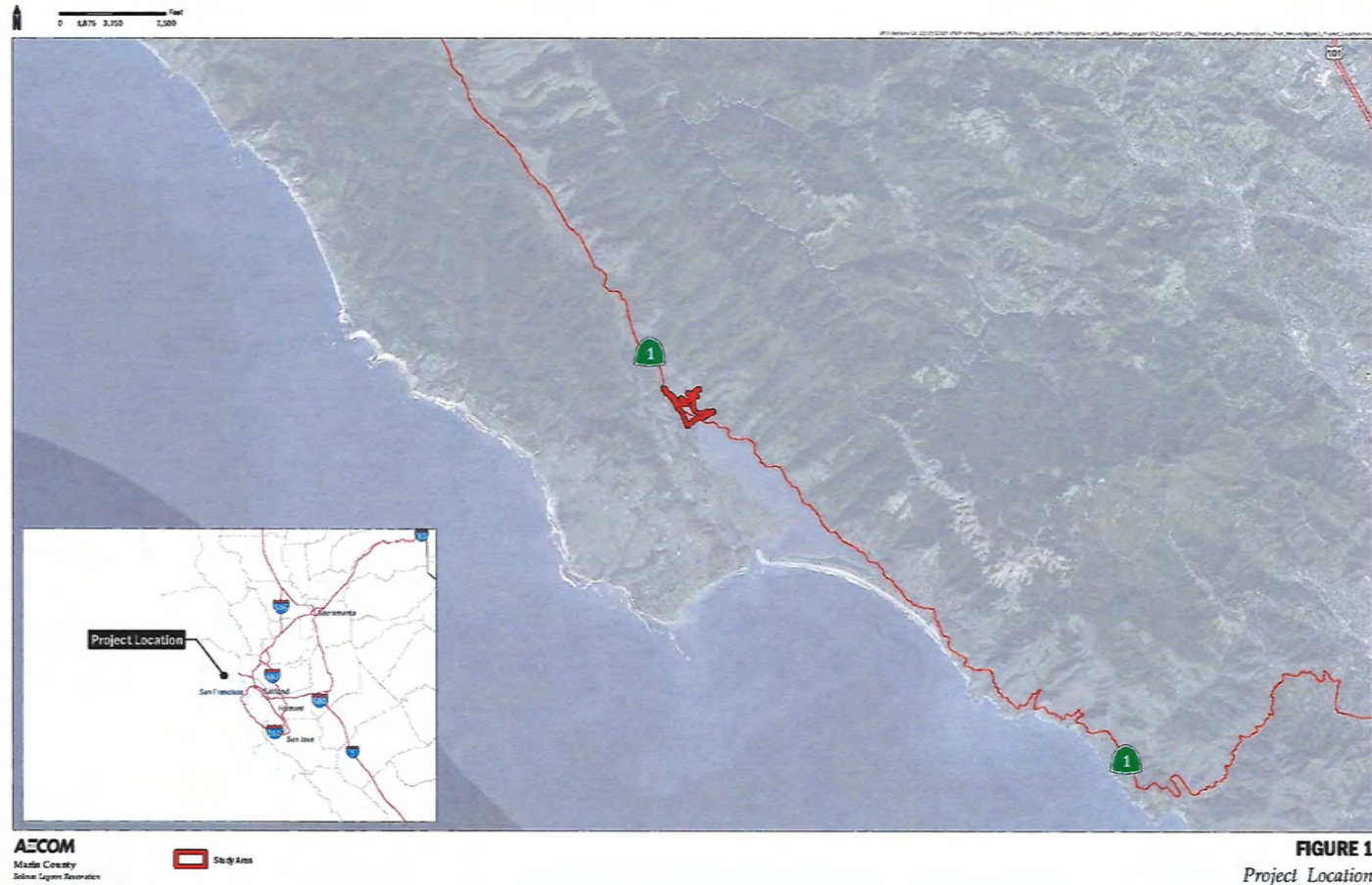
Conceptual Design Report



MARIN COUNTY BOARD OF DIRECTORS
FEBRUARY 27, 2018

LOCATION

2.



PROJECT AREA

3.

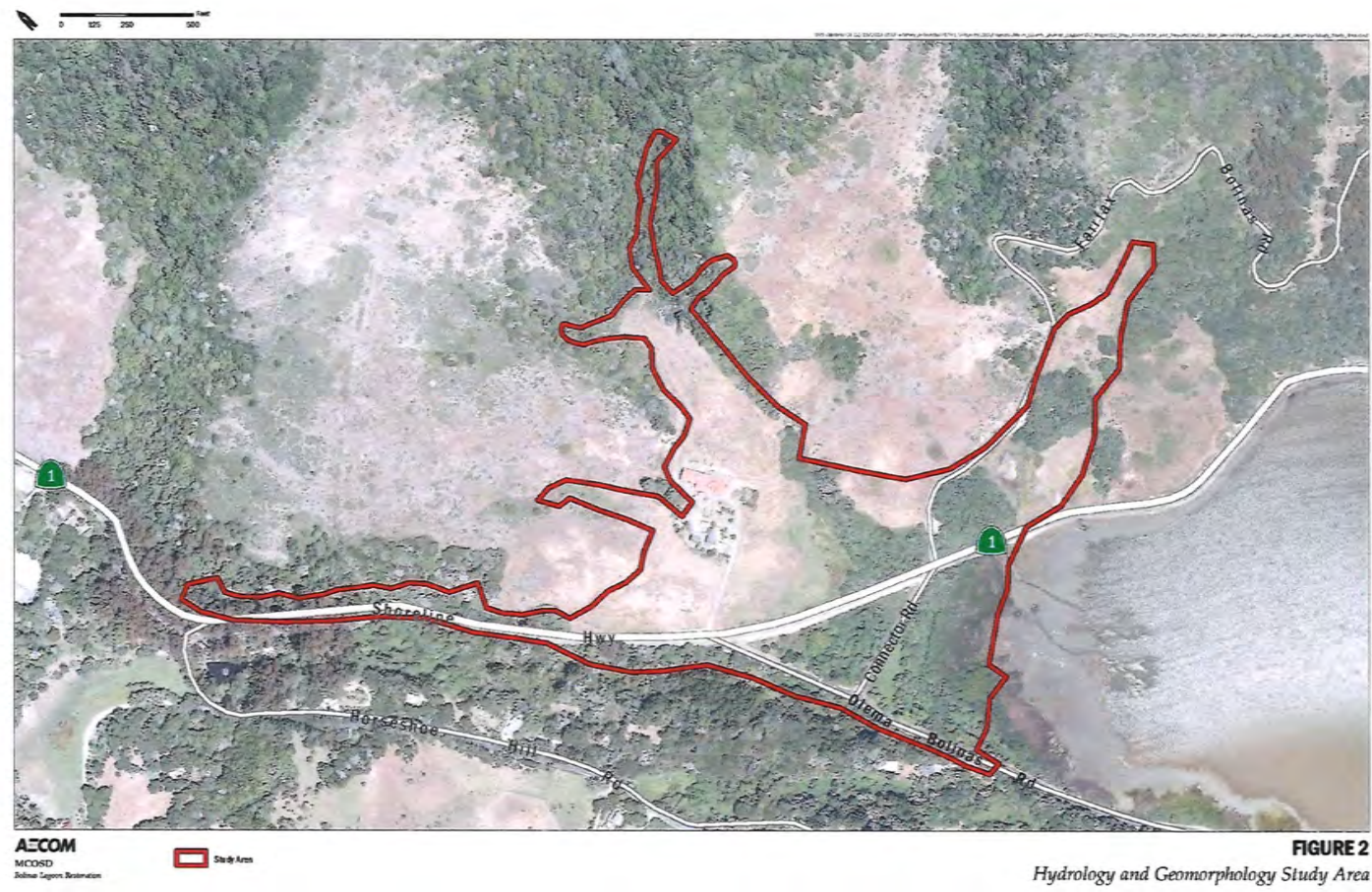


FIGURE 2
Hydrology and Geomorphology Study Area

PROJECT GOALS

4.

- Restoring habitat and hydrologic connectivity
- Adapting to climate change and SLR
- Improving road safety



CONCEPTUAL DESIGN DEVELOPMENT

5.

- Collaborative process (DPW, NPS, GFNMS, GFA, One Tam)
- Community Support
- Watershed based approach
- Long-term Vision



CONCEPTUAL DESIGN REPORT

- Alternatives 1, 2, 3
- Each alternative has 3 Phases
- Phase 1 is identical in all Alternatives

6.

EXISTING CONDITIONS
BOLINAS LAGOON NORTH END



PHASE 1

7.

- Remove fish passage barriers for anadromous fish
- Improve hydrologic processes for Lewis Gulch Creek
- Improve hydrologic connectivity
- Enhance wetland and riparian habitat
- Reduce the risk of flooding













PHASE 1

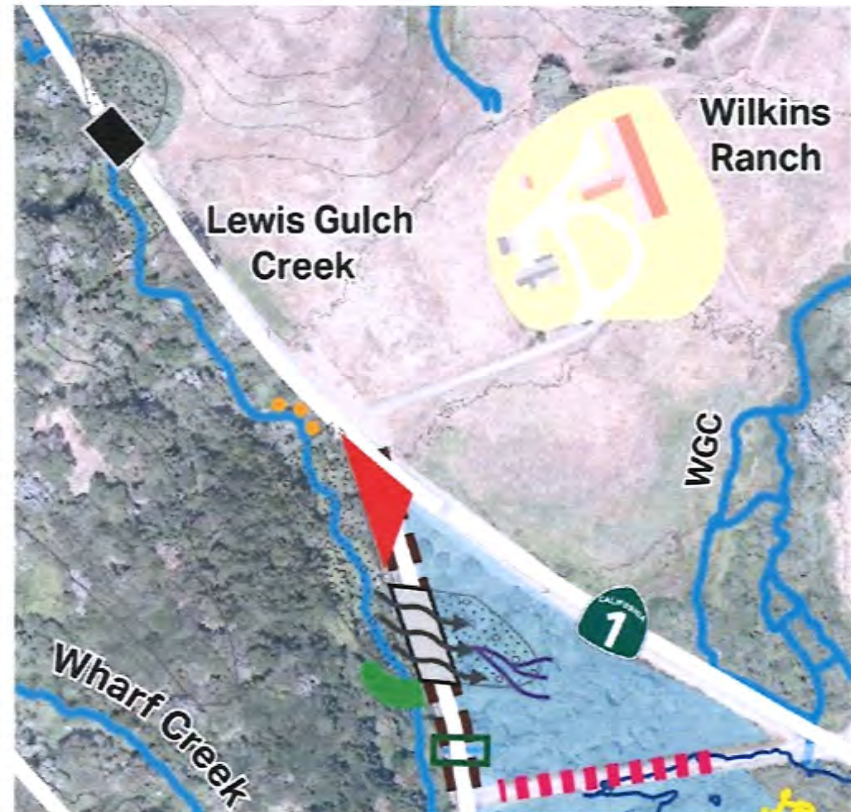
8.

**Draft Conceptual
Not to Scale**



Phase 1

-  Crossover Road Removed
-  Reconfigure Intersection
-  Streambank Stabilization
-  Add Bridge
-  Upgrade Culvert
-  Add Culvert
-  Surface Water Flow
-  Reactivate LGC Alluvial Fan
-  Floodplain Grading (LGC)
-  Vegetated Berm (Lewis Gulch Creek)
-  Stream Braid
-  Raise Roadway



- Culvert replacement and new bridge
- Reconfigure intersection of SR 1 and Olema-Bolinas Road
- Remove cross-over road
- Rehabilitate Lewis Gulch Creek

PHASE 1 – ROAD IMPROVEMENTS

9.



PHASE 1 - HABITAT ENHANCEMENT

10.



PHASE 1 – HABITAT ENHANCEMENT

11.

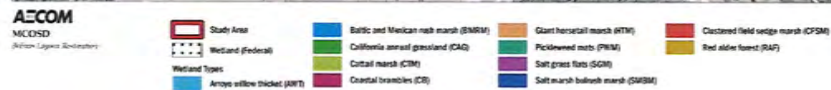
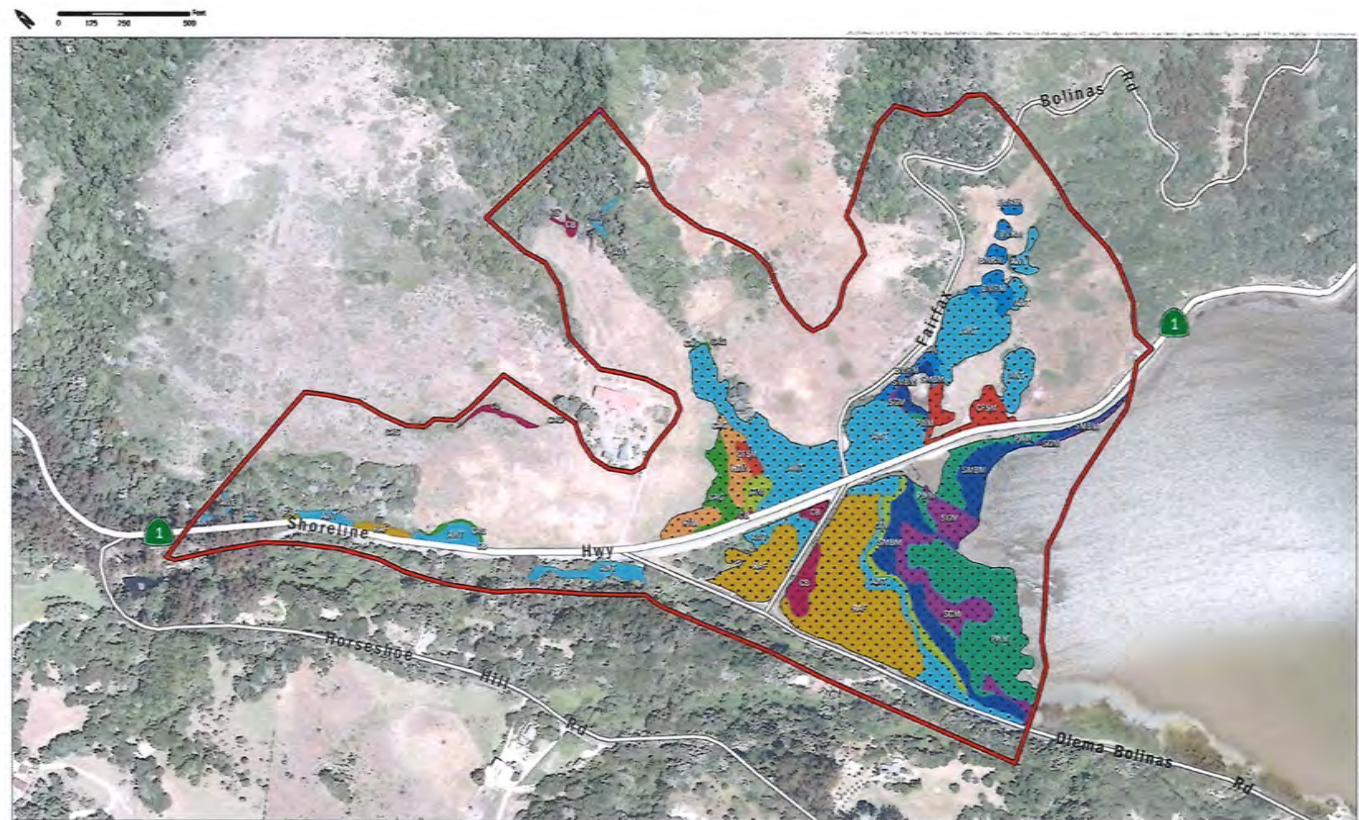


FIGURE 4.3
 Wetland Vegetation Communities

Next Steps

PHASE 1 - DESIGN AND ENVIRONMENTAL REVIEW

13.

- \$258,000 Coastal Conservancy Prop 1 grant
- RFP for Design and Environmental Review
- CEQA and Permitting following 30% Design
- Completed by December 2020

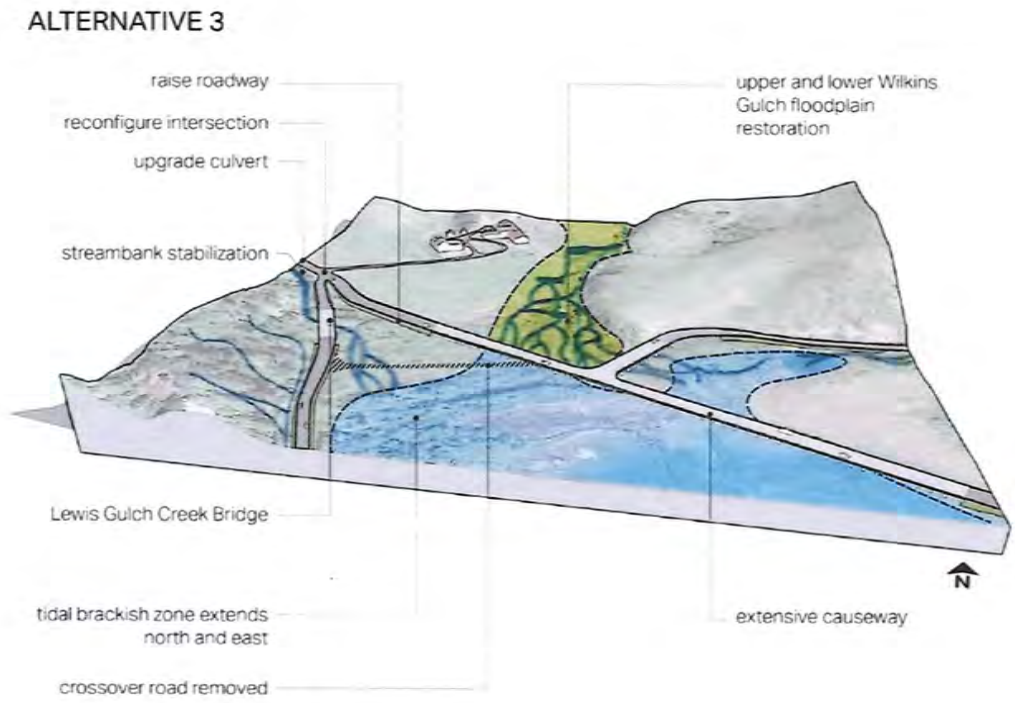
PHASE 1 - CONSTRUCTION

14.

- Preliminary estimated cost range between \$5,000,000 and \$10,000,000
 - CDFW; SCC; USFW; NOAA; NCWC
- Beginning in 2021, depending on funding permitting, and other factors
- Length of construction estimated to be between one and two years depending on permit conditions and construction windows

LONG-TERM VISION

15.



- Partner and community engagement
- Outreach and communication
- Funding strategy

STAFF RECOMMENDATION

16.

- BOD accepts the Conceptual Design Report
- Recommends staff to proceed with the design and environmental review of Phase 1

QUESTIONS

17.



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