

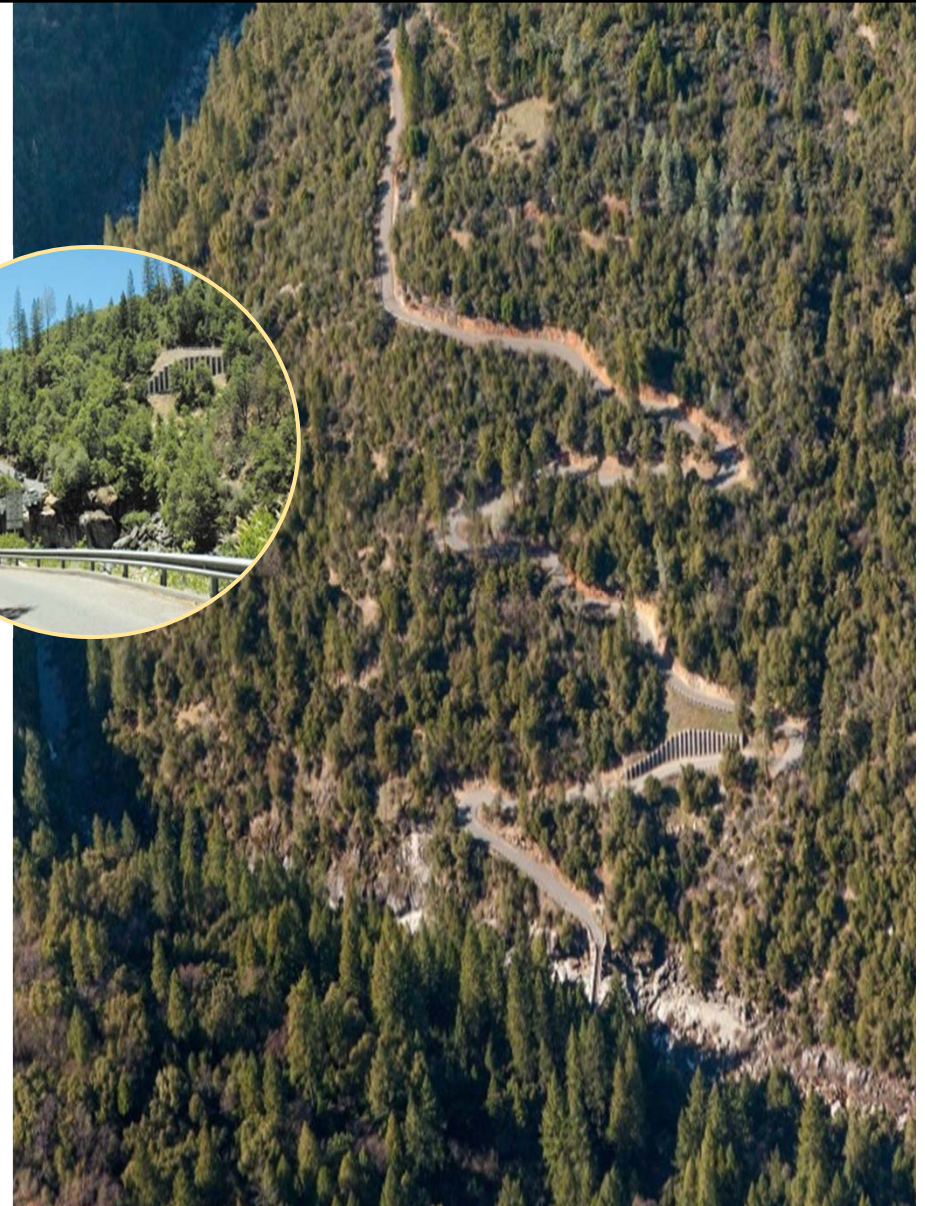


COUNTY OF EL DORADO
TRANSPORTATION DIVISION

Mosquito Road Bridge

At the South Fork of the American River

Planning Process Update



In Association With:



April 28, 2015



AGENDA

→ Project Description

WHERE WE'VE BEEN

→ Work To Date / Nature of Project

→ Project Process

WHERE WE ARE

→ Overview of Alternatives

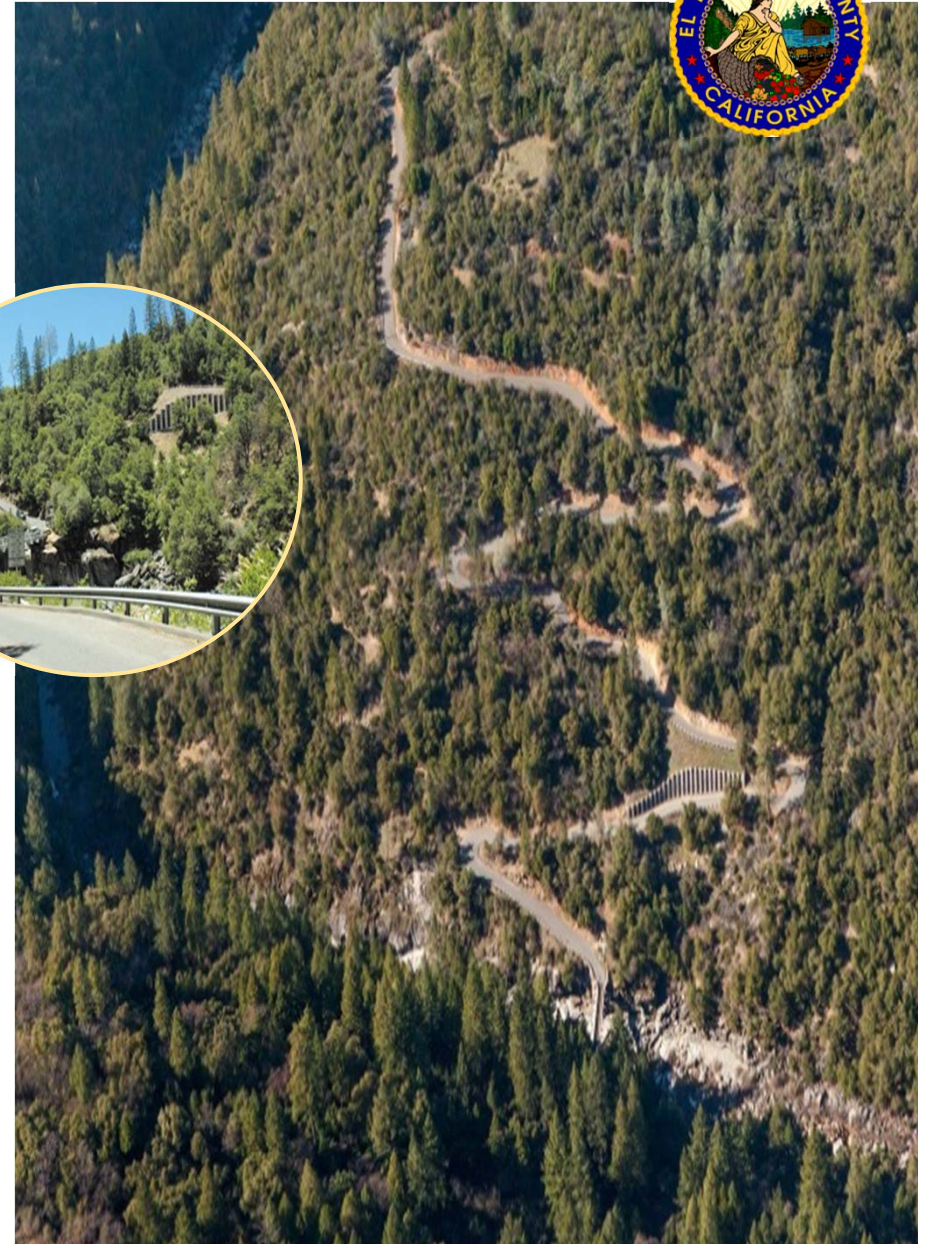
→ Screening Criteria / Screening Process

→ Aesthetics Design Process / Factors

WHERE WE'RE GOING

→ Funding Authorization

→ Next Steps





Project Description:

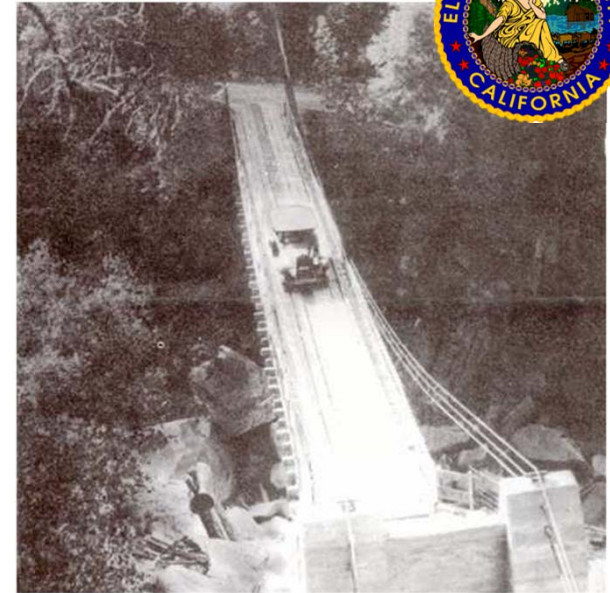
Bridge Replacement Project

**Mosquito Road /So Fork of the American River (25c0061)
BRLO-5925(098), El Dorado County**

- ➔ Sufficiency rating of 12.5
- ➔ 140 ft. span, structurally deficient
- ➔ Eligible for replacement with 100% HBP funding
- ➔ Preliminary estimate \$32M programmed
- ➔ Proposed Design 30 mph, 12 ft. lanes, 5 ft. shoulders
- ➔ Multiple alignment alternatives

Background

- ➔ Built around 1854, rebuilt 1939, '85, '90 & 2011
- ➔ 5 ton load & size restriction
- ➔ 1400 ADT, 32% higher accident rate
- ➔ Maintenance & closures highest in County
- ➔ Emergency response accessibility constrained



Mt. Democrat 4/2/98 article by Peg Presba

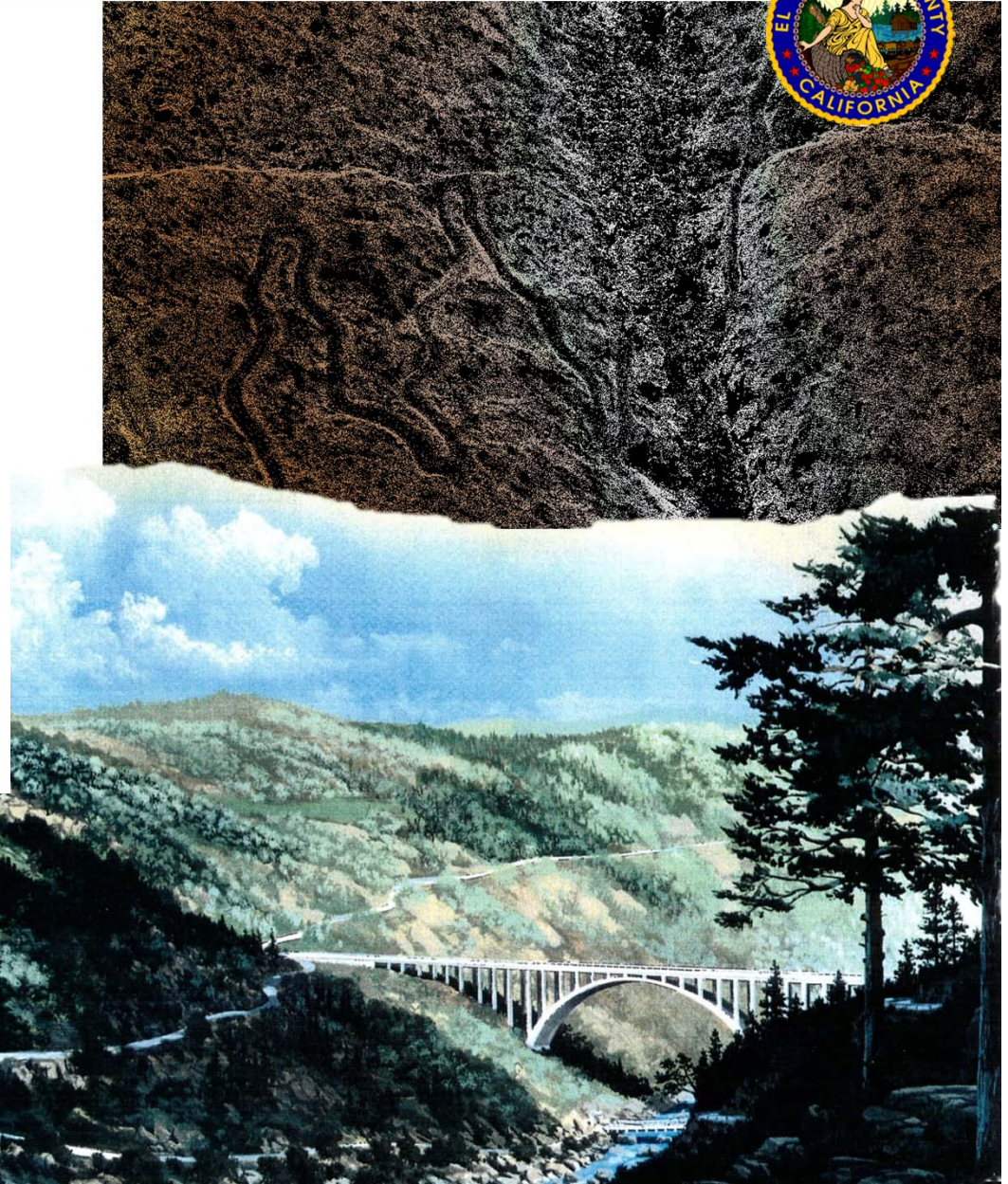


"Swinging Bridge" – History Museum



Work to Date

- ↳ 1993 Study
- ↳ Public Workshop No. 1 – Jan. 26, 2013
- ↳ Public Workshop No. 2– Nov. 15, 2014
 - ↳ Public comments addressed
 - ↳ Established criterion
 - ↳ Established website
- ↳ Mapping & Geotechnical reports
- ↳ Concept Alternatives
- ↳ Caltrans Workshop – March 12, 2015





Nature of Project
→ Spot Improvement

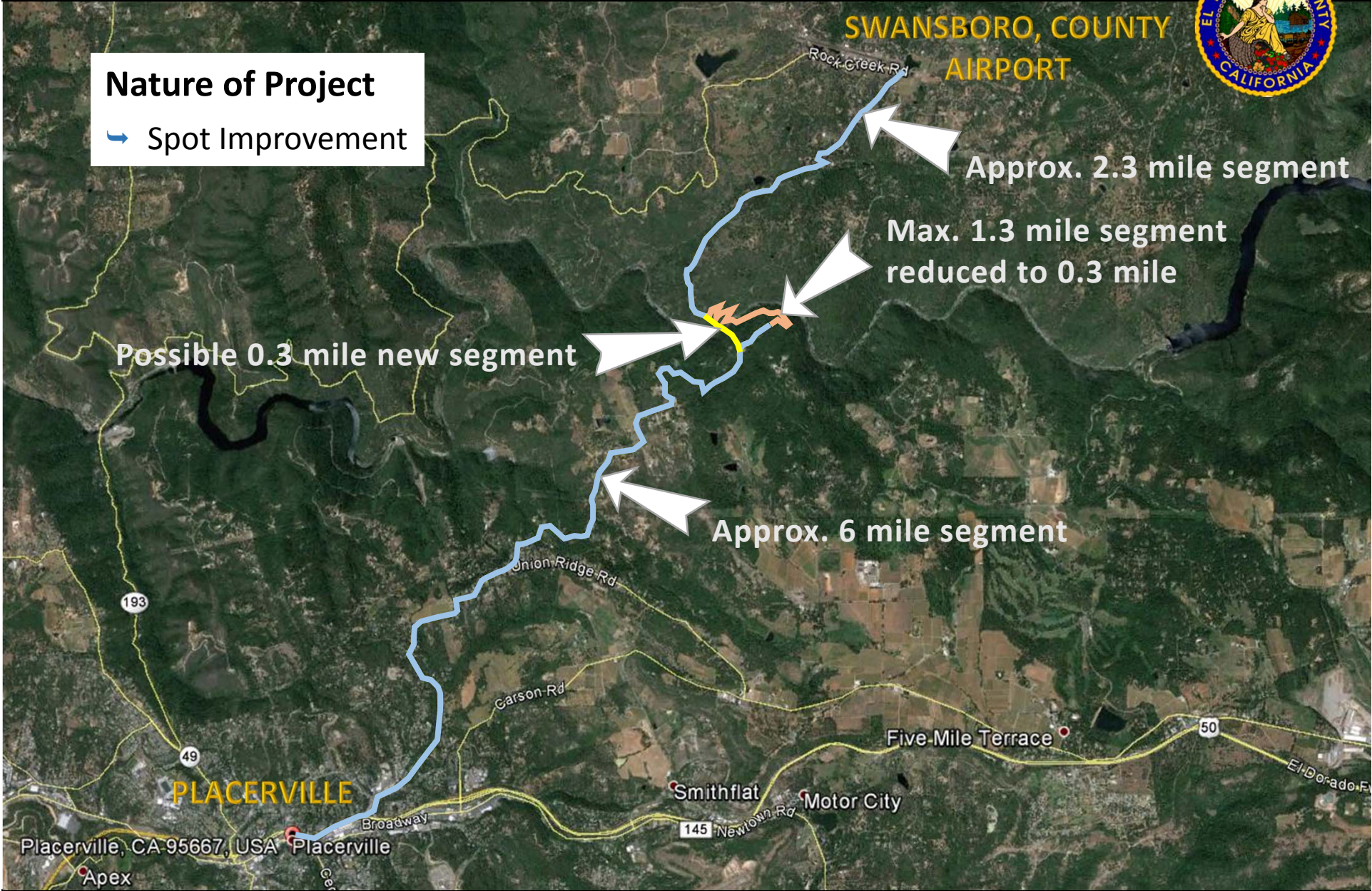
SWANSBORO, COUNTY AIRPORT

Approx. 2.3 mile segment

Max. 1.3 mile segment reduced to 0.3 mile

Possible 0.3 mile new segment

Approx. 6 mile segment





Project Process

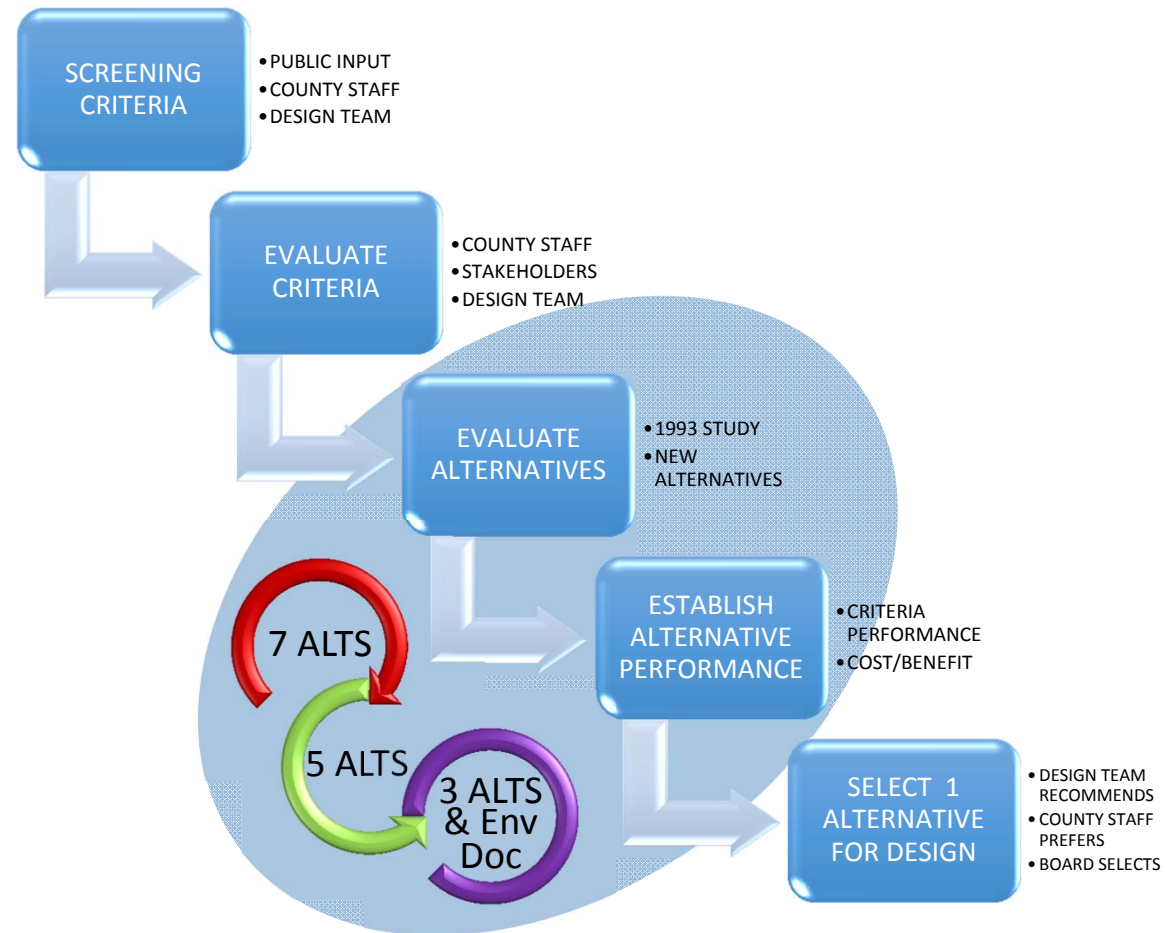
- ↳ Public input
 - ↳ Website, comment cards, emails
 - ↳ One-on-one with County staff
- ↳ Identify Concept Alternatives
 - ↳ With public involvement
- ↳ Study 7 Alts → 5 Alts → 3 Alts → 1 Alt
 - ↳ With public involvement
- ↳ Selection of final alternative
 - ↳ Consultant recommends alternative
 - ↳ County staff recommends preferred alternative to BOS
 - ↳ Board of Supervisors selects final alternative
- ↳ Caltrans acceptance required with HBP funds



Public Workshops



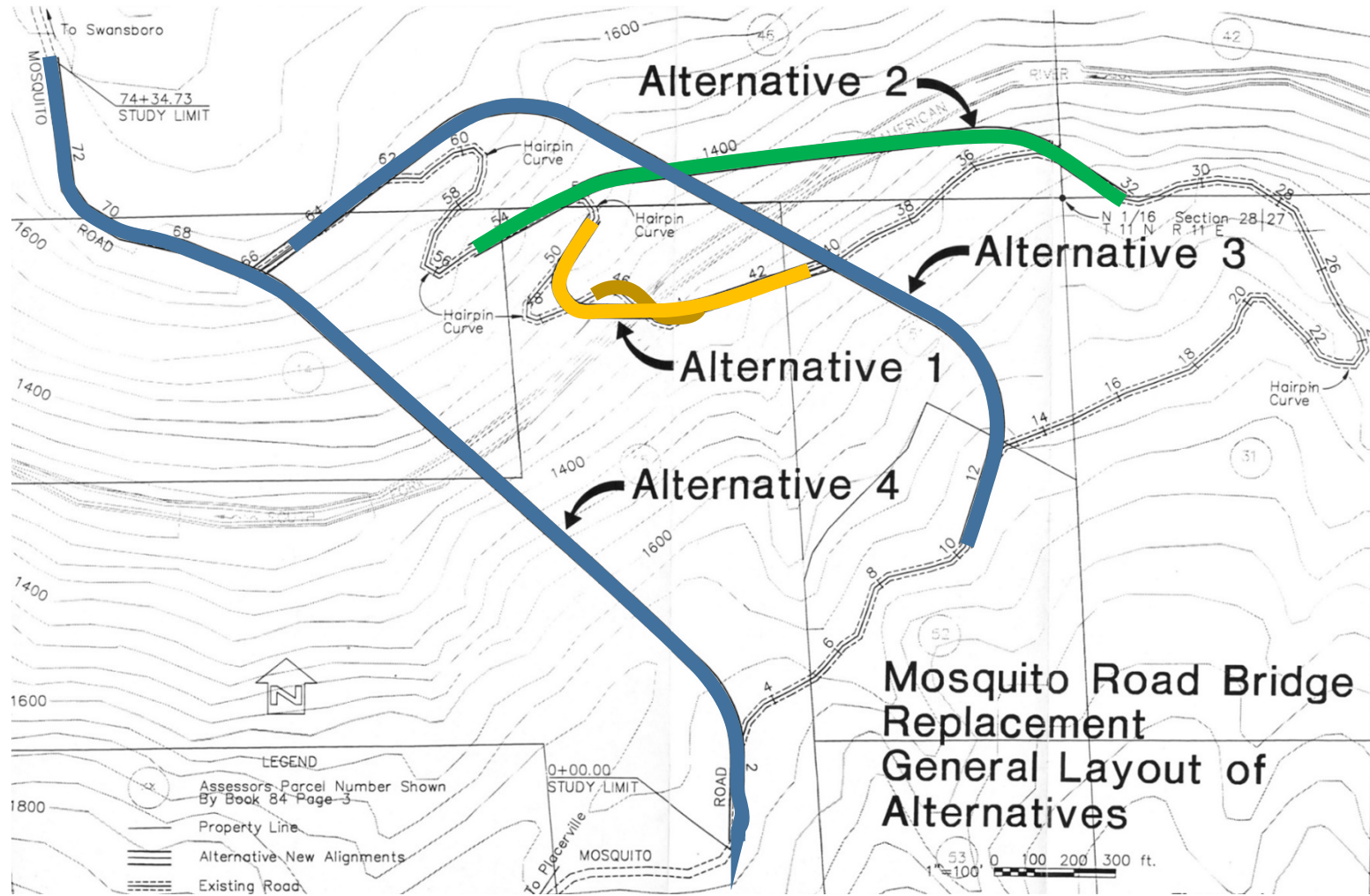
Project Process





Overview of Alternatives

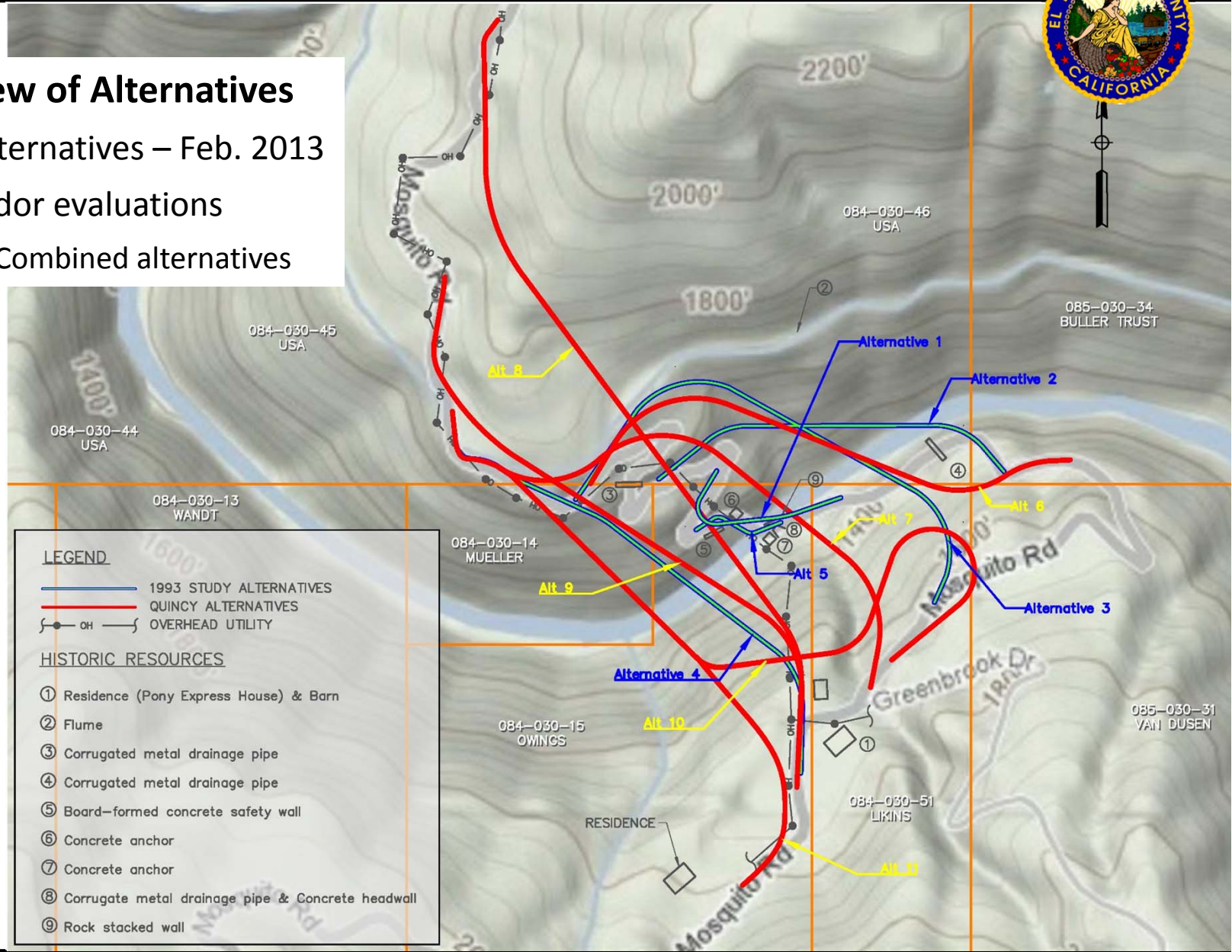
1993 Study Alternatives





Overview of Alternatives

- ➔ 11 Alternatives – Feb. 2013
- ➔ Corridor evaluations
 - ➔ Combined alternatives



LEGEND

- 1993 STUDY ALTERNATIVES
- QUINCY ALTERNATIVES
- OH — OVERHEAD UTILITY

HISTORIC RESOURCES

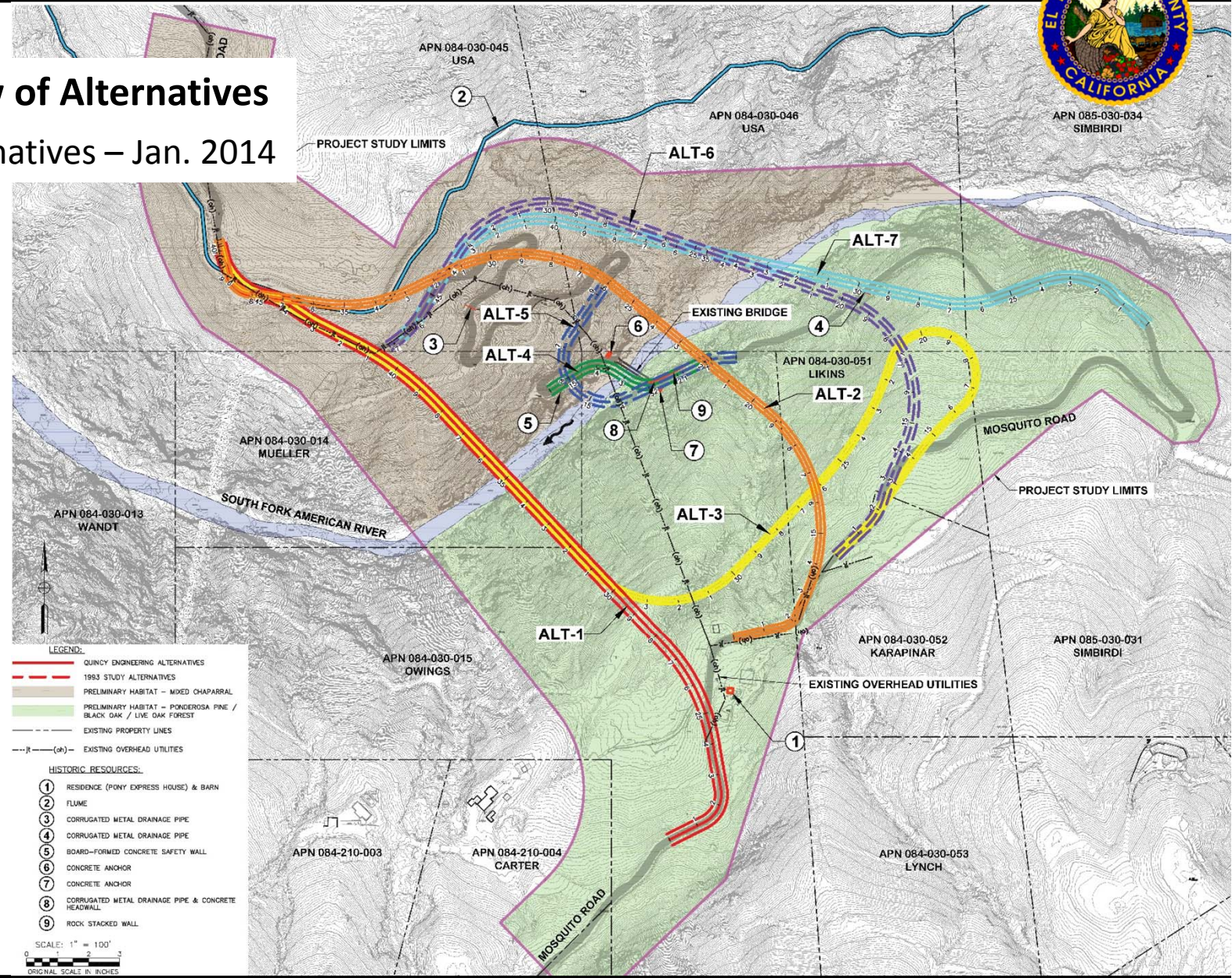
- ① Residence (Pony Express House) & Barn
- ② Flume
- ③ Corrugated metal drainage pipe
- ④ Corrugated metal drainage pipe
- ⑤ Board-formed concrete safety wall
- ⑥ Concrete anchor
- ⑦ Concrete anchor
- ⑧ Corrugate metal drainage pipe & Concrete headwall
- ⑨ Rock stacked wall





Overview of Alternatives

7 Alternatives – Jan. 2014





Rejected Alternatives

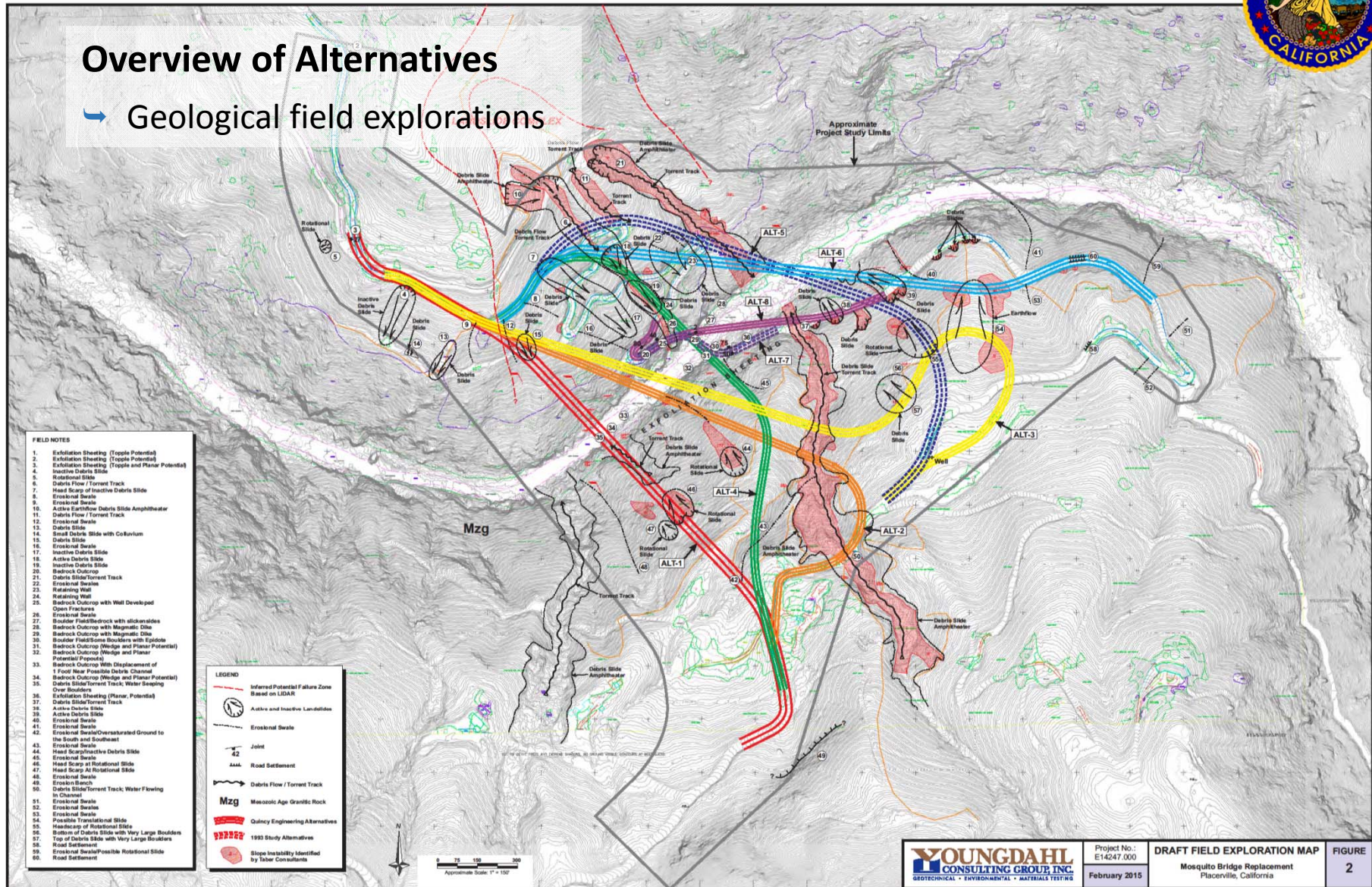
- Not applicable to current roadway standards
- Geologic conditions
- Bridge types not conducive to steep & deep canyons
- Very similar to other alternatives (corridors)





Overview of Alternatives

→ Geological field explorations

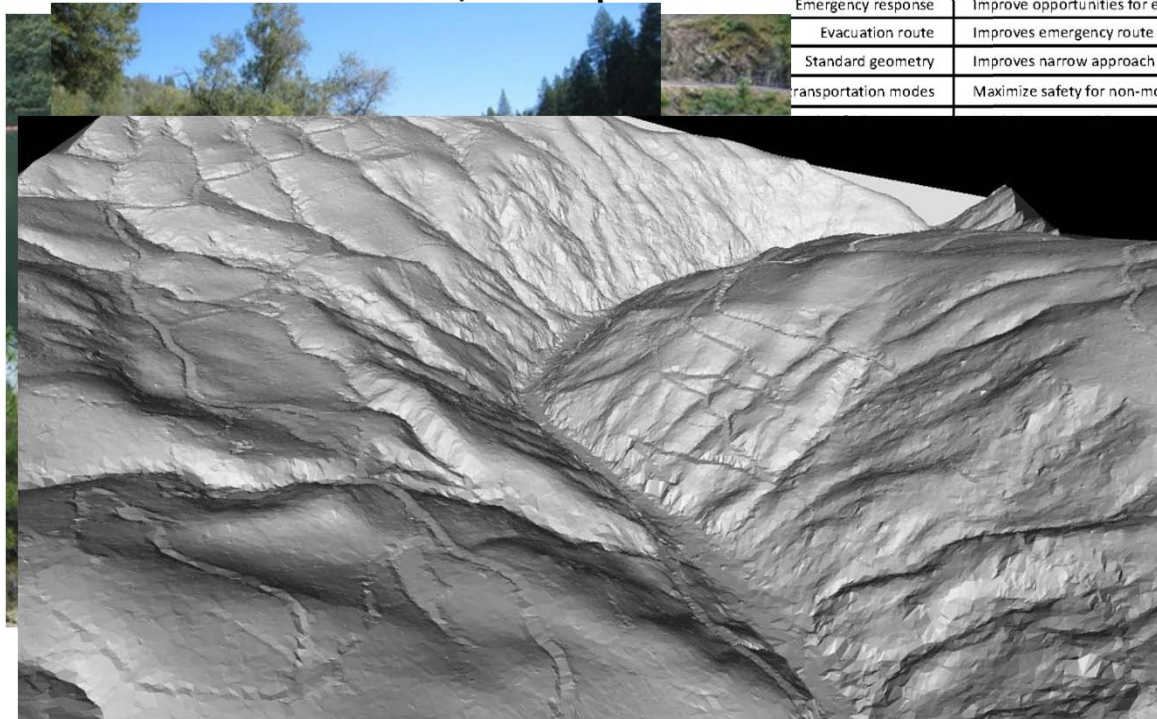




Screening Criteria

- ➔ Criterion
- ➔ Criteria Categories
- ➔ Criterion Descriptions

EVALUATION CRITERION by CATEGORY	
CATEGORY / CRITERION	CRITERION DESCRIPTION
VIABILITY OF ALTERNATIVES	
Fundable	Fundable project
General Plan	Consistent with General Plan
Purpose and Need	Satisfies Purpose and Need
Geology	Avoid geological sensitive areas such as critical slide zones
SAFETY and OPERATIONS	
Accidents	Improve safety for motorized transportation crossing the river (bridge and approaches).
Emergency response	Improve opportunities for emergency response access and time.
Evacuation route	Improves emergency route in case of evacuation
Standard geometry	Improves narrow approach roads with switchbacks/hairpin turns/steep grade
transportation modes	Maximize safety for non-motorized transportation (bridge and approaches)
	and river access
	ak
	ong-term maintenance
	ur during construction
	our around construction especially with single lane traffic control
	ing bridge open during construction
	placement into existing rural setting
	design into existing rural setting
	abitat (turtle, eagle, river corridor wildlife)
	as such as slide zones
	d from the bridge (focus on location and not bridge type)
	d of the bridge (focus on location and not bridge type)
	cultural/historic resources
	and owners
	ivate properties
	ate property owners
Mineral rights	Avoids properties with underlying mineral rights
COST	
Cost/Benefit	Minimize cost of project to ensure full funding through the HBP program. Maximize project cost benefit



Unstable Steep
Canyon Walls
Substandard Geometry

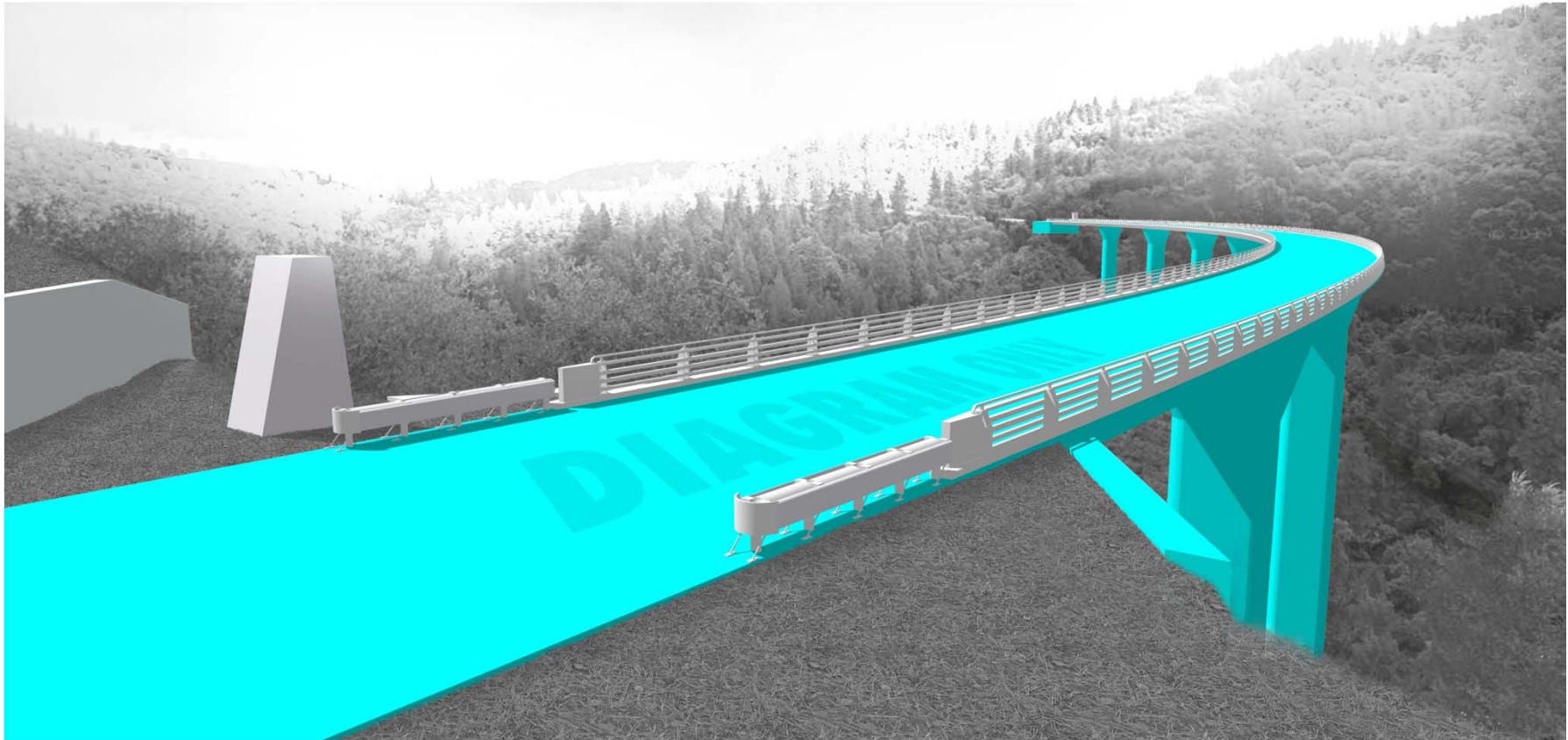


LOW, MEDIUM, HIGH CROSSINGS (\$25M - \$94M)





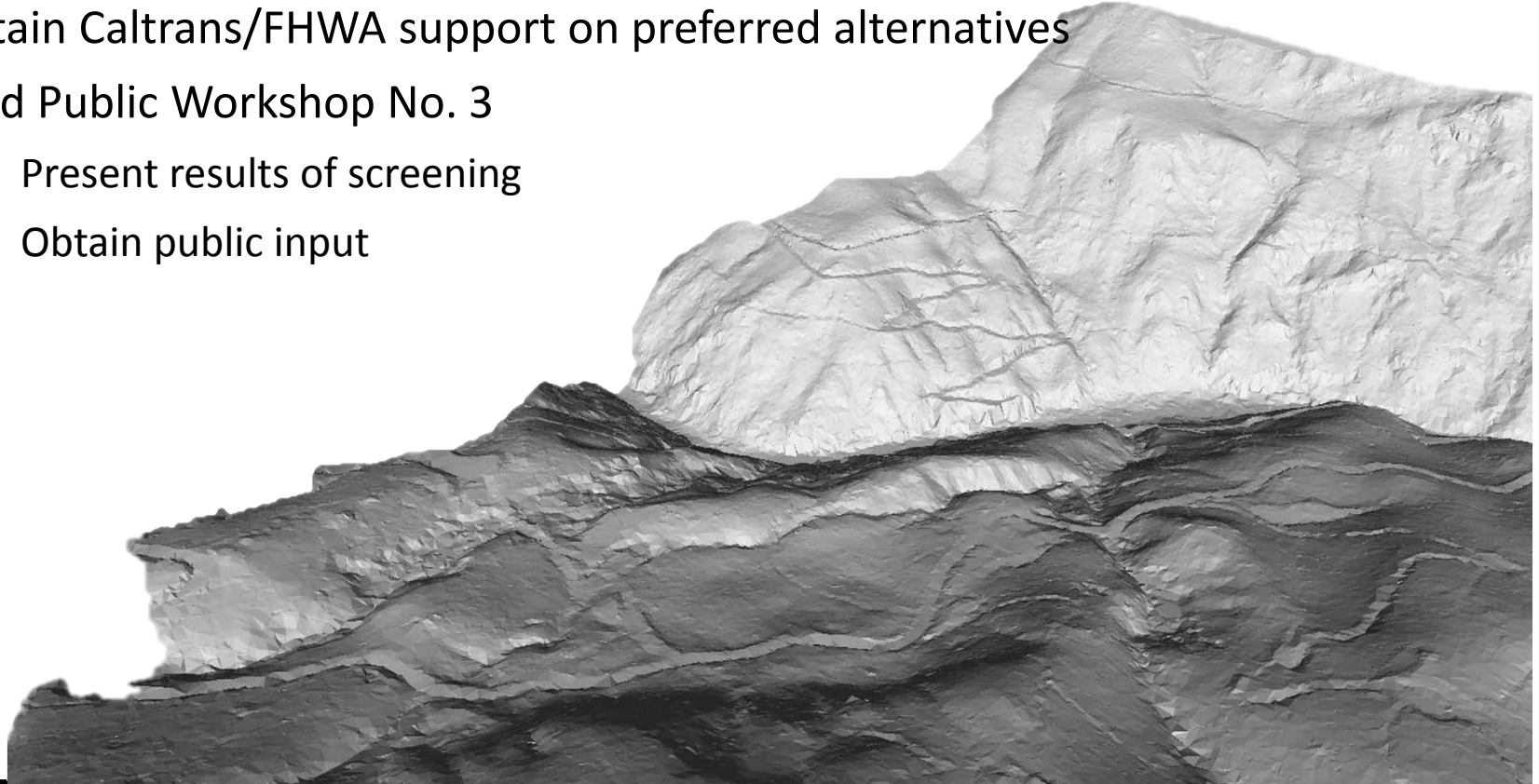
Primary & Secondary Aesthetic Design Elements





Next Steps

- ↳ Adjust Concept Alternative Alignments
- ↳ Screen from 7 Alternatives to 5 Alternatives
- ↳ Prepare Justification Memorandum to Caltrans
- ↳ Obtain Caltrans/FHWA support on preferred alternatives
- ↳ Hold Public Workshop No. 3
 - ↳ Present results of screening
 - ↳ Obtain public input





Overall Schedule

WHERE WE'RE GOING

- Project Development
- Key Bridge Facts

