Adaptation Pathways

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Resilient SR 37 Policy Committee Meeting
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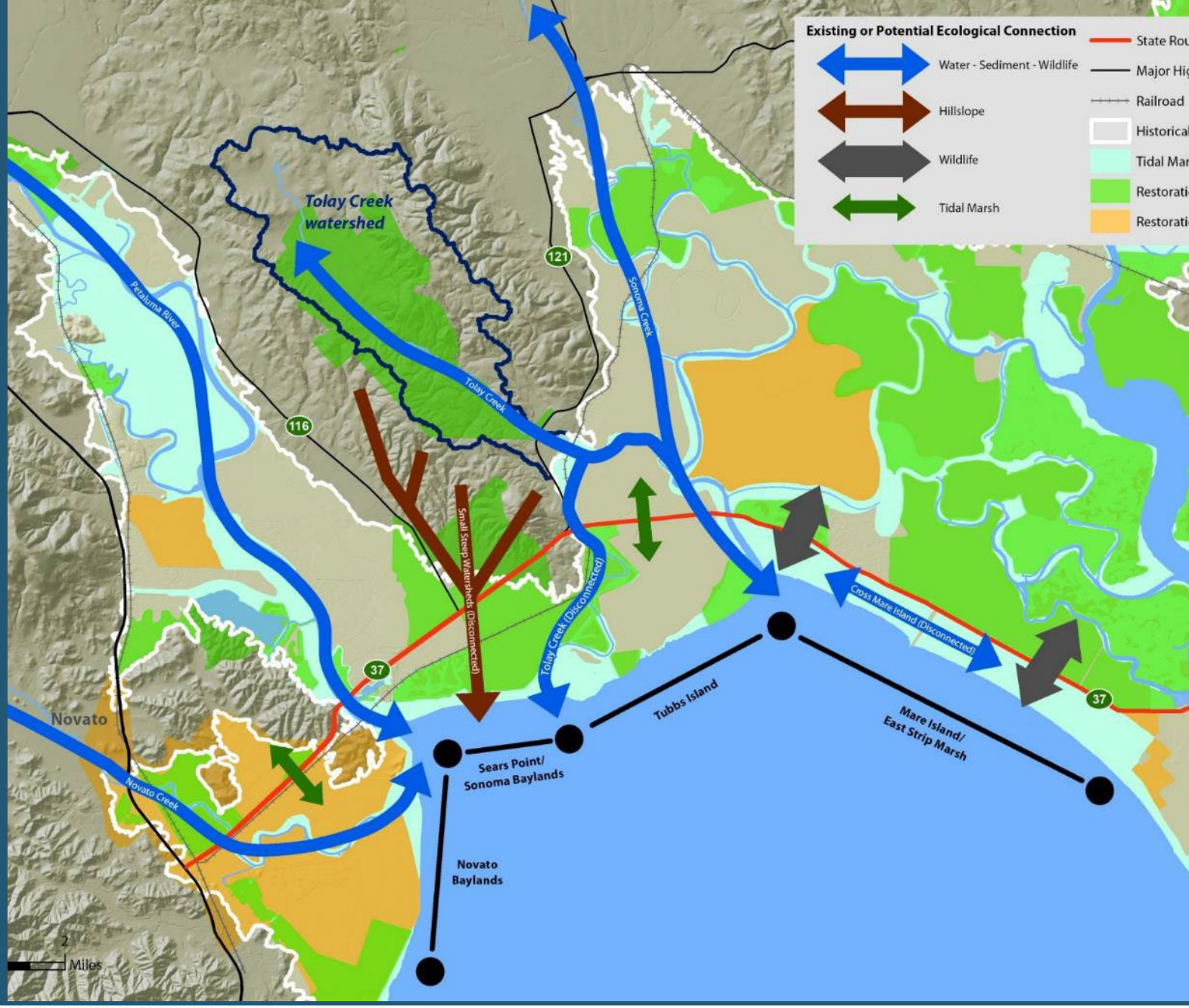
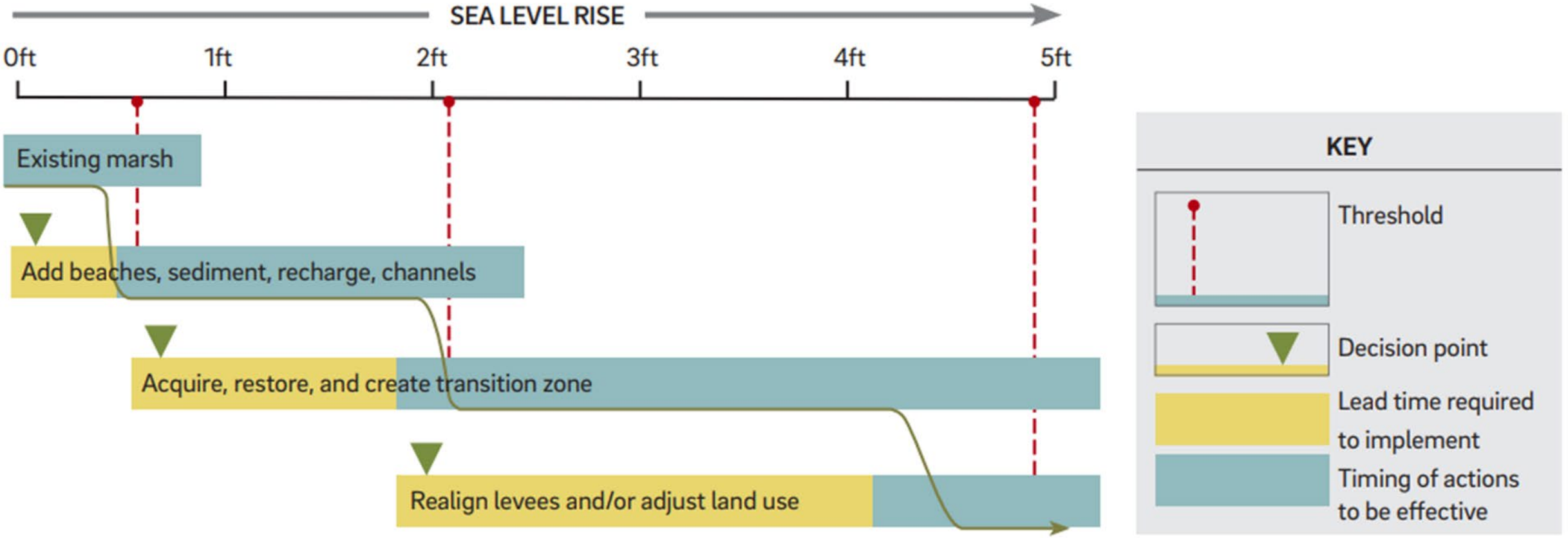
Photo: Justin Lewis, courtesy of Sonoma Land Trust

Adaptation and Connectivity

- Opportunities to remove barriers to water, sediment, and wildlife
- Collaboration to maximise opportunities
- Phasing and timing is critical



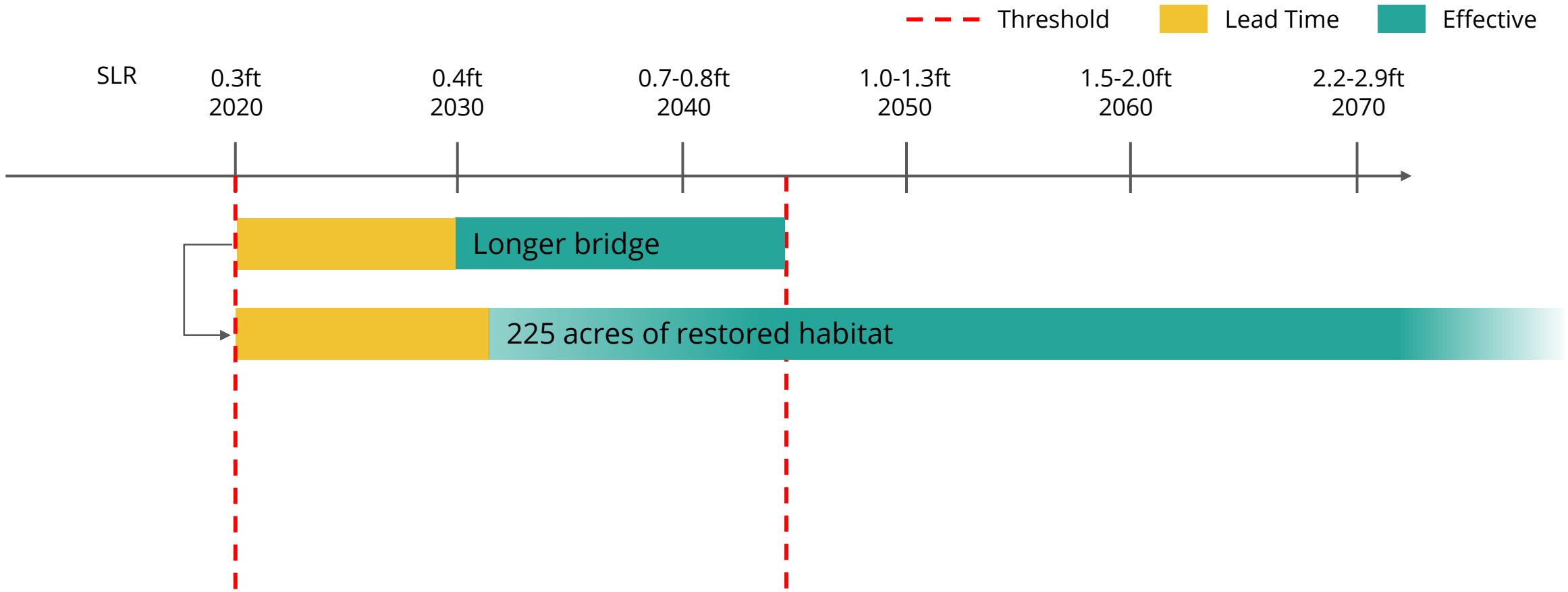
Adaptation Pathways



Conceptual phasing of measures triggered by sea-level rise, rather than a chronological timeline (adapted from Goals Project 2015).

121
375 ft
Levee
Right of Way line
Private Property
Existing
Scenario 1
Scenario 2
Long-Term
Scenario 3
Scenario 4
Near-Term
Scenario 5

Scenario 5: Near-Term Lengthen Bridge (375ft)



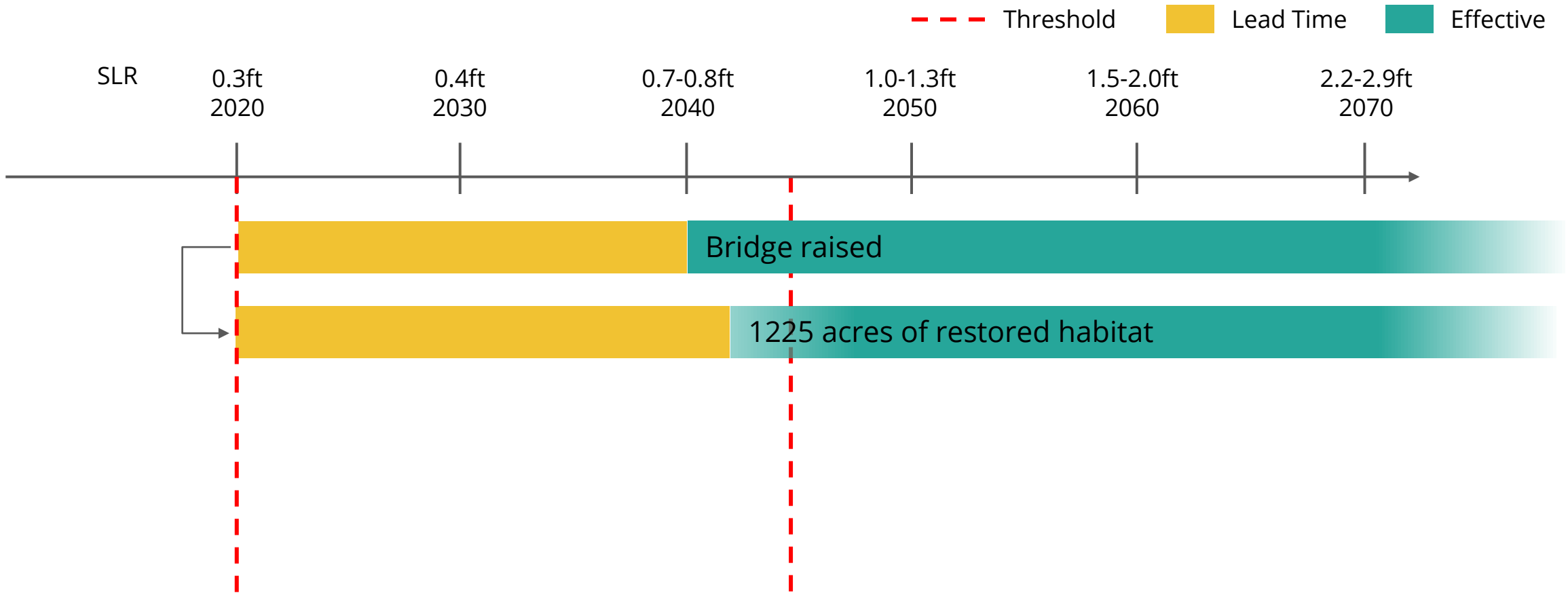
Relative risk of flooding		Total area of restored habitat	
before 2040	**after 2040**	**2030s**	**2040s**
Low	**High**	**225 acres**	**225 acres**

Sea-Level Rise Projections from OPC (2024) State Guidance

Tolay Creek
Bridge
SR 37
Tolay Creek
Tolay Creek
SMART rail
Highway
121

121
Existing
Scenario 1
Scenario 2
Long-Term
Scenario 3
Scenario 4
Scenario 5

Scenario 3. Bridge at Ultimate Height with Rebuilt Interchange

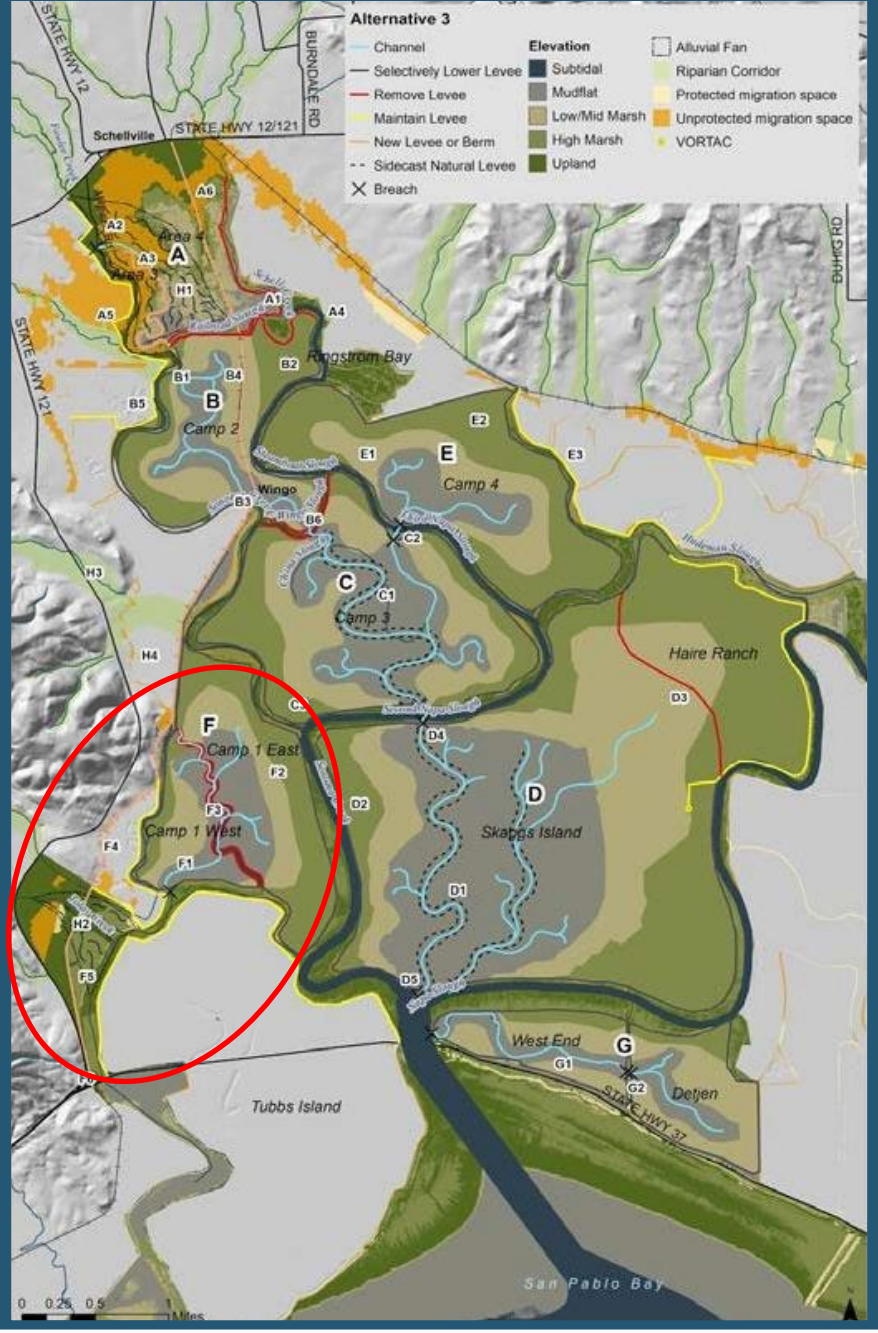


Relative risk of flooding		Total area of restored habitat	
before 2040	**after 2040**	**2030s**	**2040s**
High	**Low**	**0 acres**	**1225 acres**

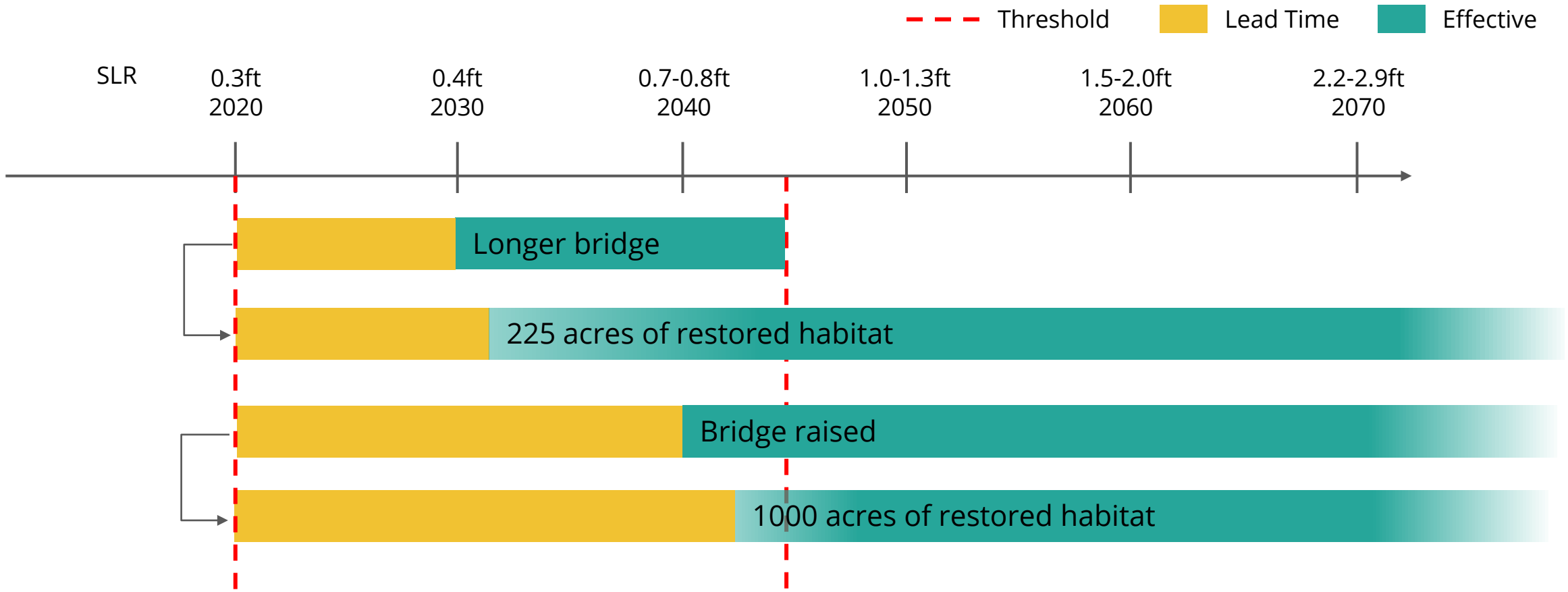
Sea-Level Rise Projections from OPC (2024) State Guidance

Sonoma Creek Baylands Strategy

- 9,000 acres of habitat restoration in design for the Sonoma Creek Baylands Restoration Project
- Many opportunities along Tolay Creek - from the Bay to the watersheds



Scenario 5+: Near-Term Lengthen Bridge (375ft) followed by Bridge at Ultimate Height



Relative risk of flooding		Total area of restored habitat	
before 2040	**after 2040**	**2030s**	**2040s**
Low	**Low**	**225 acres**	**1225 acres**

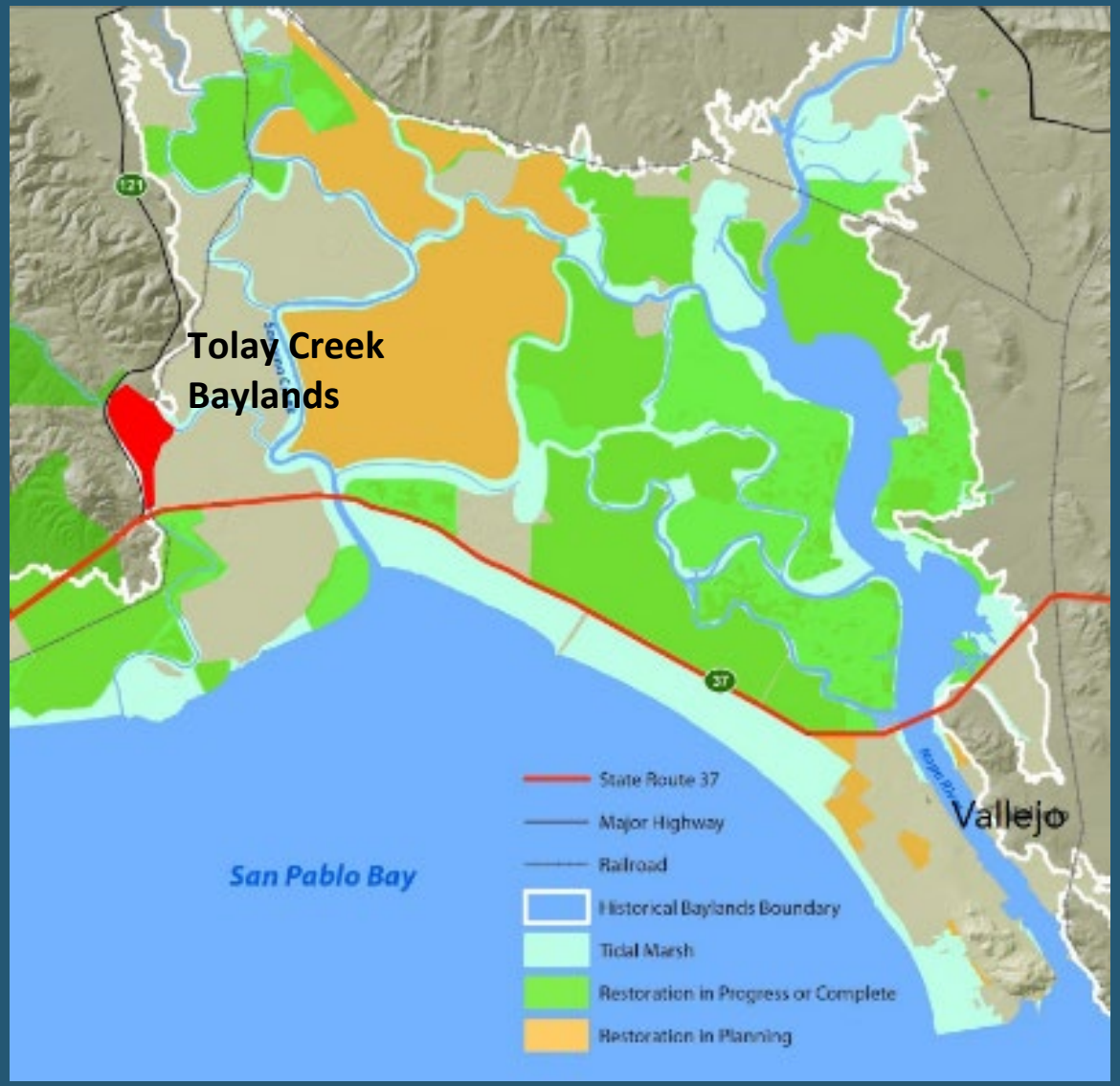
Sea-Level Rise Projections from OPC (2024) State Guidance

Summary

	Lengthen bridge	Raise bridge	Relative risk of flooding before 2040	Relative risk of flooding after 2040	Total area of restored habitat 2030s	Total area of restored habitat 2040s
Near-Term 5	✓		Low	High	225 ac	225 ac
Long-Term 3		✓	High	Low	0 ac	1225 ac
5+	✓	✓	Low	Low	225 ac	1225 ac

Tolay Creek Baylands Restoration

- Advancing environmental studies to inform the restoration design
- Collaboration with the bridge design to ensure opportunities are maximized



Strip Marsh East

- Advancing environmental studies to inform the restoration design
- Draft supplement environmental document targeted for November 2024 and the Final for April 2025

Questions