

TRANSPORTATION INFRASTRUCTURE CLIMATE ADAPTATION PLANNING

Caltrans Division of Transportation Planning

California Adaptation Forum

August 2023

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CONTENTS OF THIS PRESENTATION

WHO WE ARE

**POLICY &
PLANNING
ACTION**

**BEST PRACTICES
& EXAMPLES**

VISION



CALTRANS ORGANIZATION

Caltrans:

Headquarters + 12 District Offices

HQ Division of Transportation Planning

HQ Division of Environmental Analysis

Office of Air Quality and Climate Change

Caltrans Coastal Program



INSTITUTIONALIZING ADAPTATION AND RESILIENCE

State direction and leadership:

- Executive Orders → guidance from Governor's Office of Planning & Research
- State Climate Change Assessments
- Regulatory direction: California Coastal Commission (sea level rise)

Caltrans Implementation: Planning for sea level rise and coastal adaptation



Critical Infrastructure at Risk

Sea Level Rise Planning Guidance for California's Coastal Zone

Final Adopted Guidance
November 17, 2021



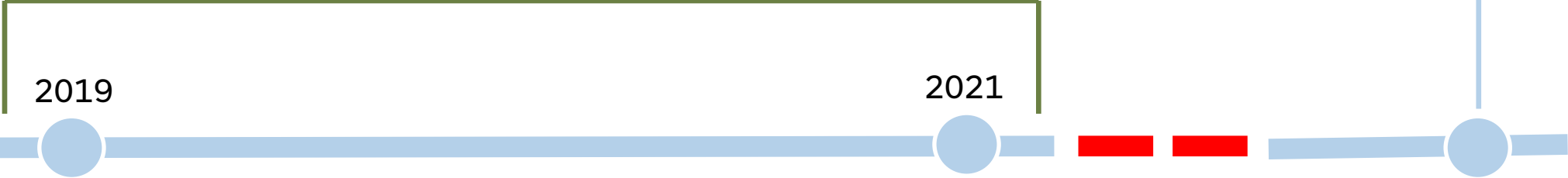
CLIMATE ADAPTATION PLANNING



WHERE WE'VE BEEN

Foundational climate
planning data needs

Project Delivery



2019

2021



Caltrans Climate Change
Vulnerability Assessments
Foundational data



Climate Change
Adaptation Priority Reports
Preliminary risk prioritization

**Project
Planning**
Gap identified between
assessments and moving into
project planning and
development
+
associated staffing needs

ADAPTATION PLANNING GUIDANCE

GUIDANCE

Ensure consideration of climate hazards and adaptation strategies are considered in all stages of planning + regulatory requirements !

OUTCOME

Key to ensure adaptation strategies and associated climate change costs are incorporated into project planning



PLANNING BEST PRACTICES

ENGAGEMENT

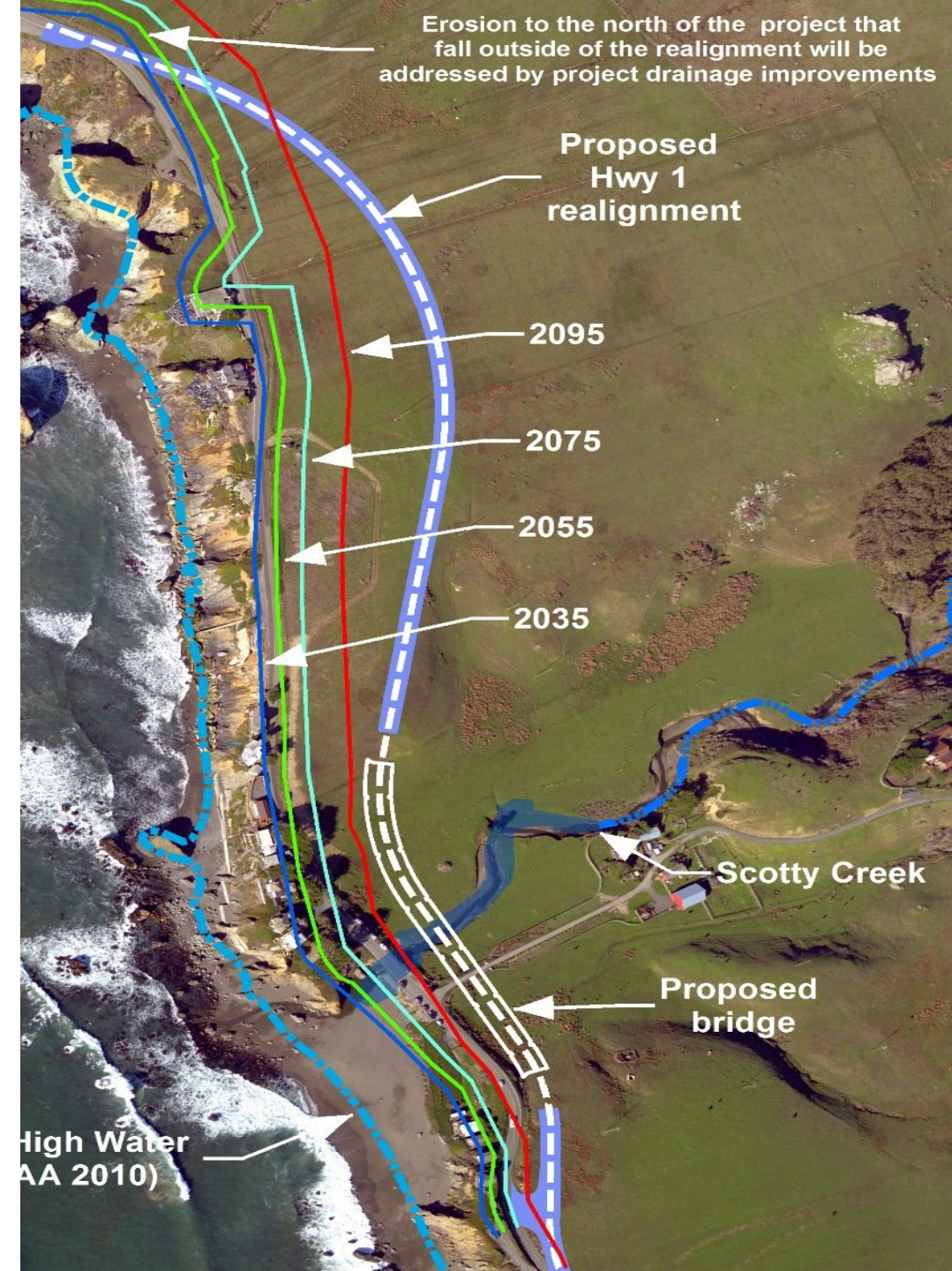
Agencies, users/public

NATURAL RESOURCES

Coastal squeeze (ex: Gleason Beach)

PHASED APPROACHES

Short-term need vs. long-term
solution (ex: Piedras Blancas)



CASE STUDY: EUREKA-ARCATA CORRIDOR

EUREKA ARCATA CORRIDOR

Comprehensive Adaptation and Implementation Plan (CAIP)



EUREKA - ARCATA
CORRIDOR



Adaptation Strategies

- — Protect (Earthen Berm Highway)
- — Accommodate (Structural Causeway)
- — Retreat (Re-Alignment)
- — Hybrid (Protect, Accommodate, Minor Re-alignment)



Caltrans

Eureka

255

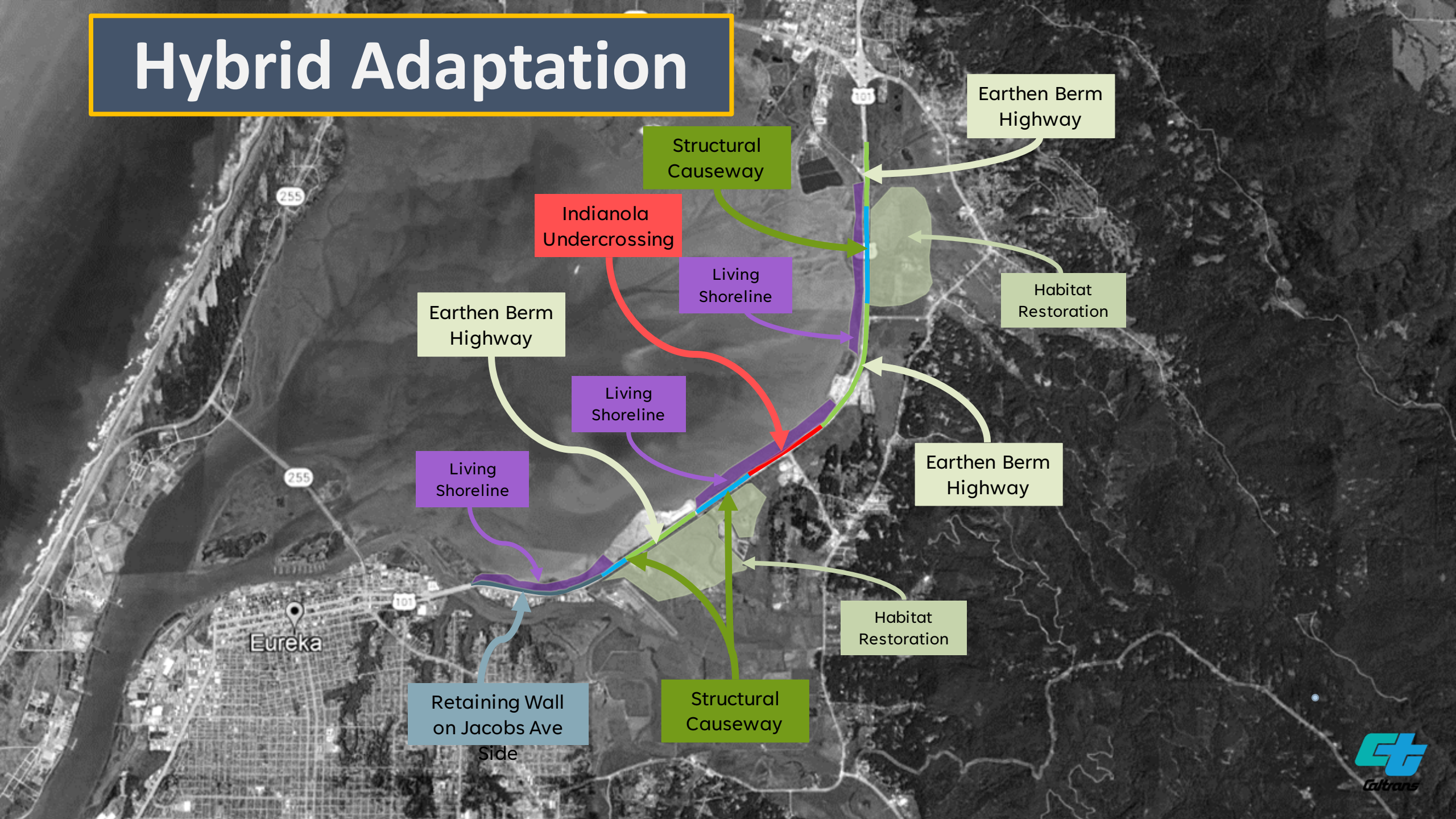
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Hybrid Adaptation



Structural Causeway

Indianola Undercrossing

Living Shoreline

Earthen Berm Highway

Habitat Restoration

Earthen Berm Highway

Living Shoreline

Earthen Berm Highway

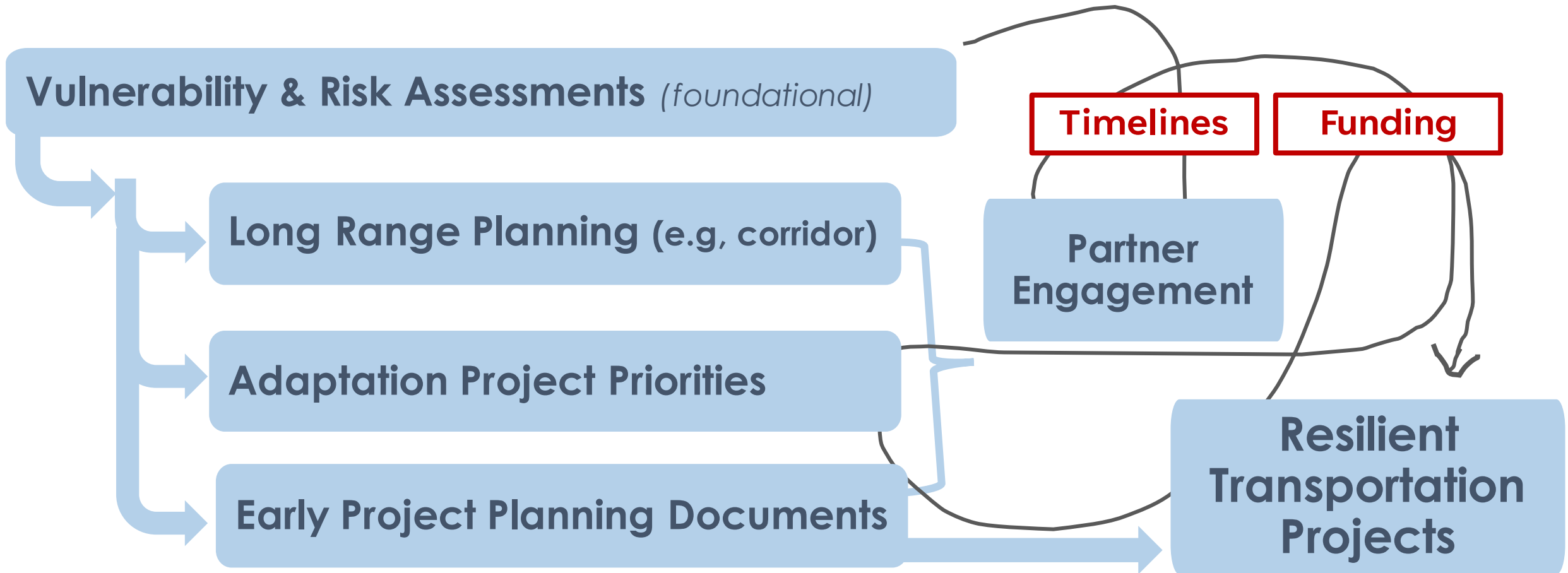
Living Shoreline

Habitat Restoration

Retaining Wall on Jacobs Ave Side

Structural Causeway

HOW IT ALL TIES TOGETHER → SYSTEM RESILIENCY





THANK YOU

