

A photograph of a rocky shoreline, likely a salt marsh restoration site. In the center, a black pipe is partially buried in the rocks, with a small stream of water flowing from it into a shallow pool. The ground is covered with various sized rocks, seaweed, and driftwood. In the background, several large, rectangular concrete blocks are arranged in a line, some with chains attached. The background also shows a dense forest of evergreen trees under a hazy sky.

Mud Bay, Sucia Island Salt Marsh Restoration Preliminary Design Project

Sucia Marsh & Beach Restoration

Partners:

Friends of the San Juans

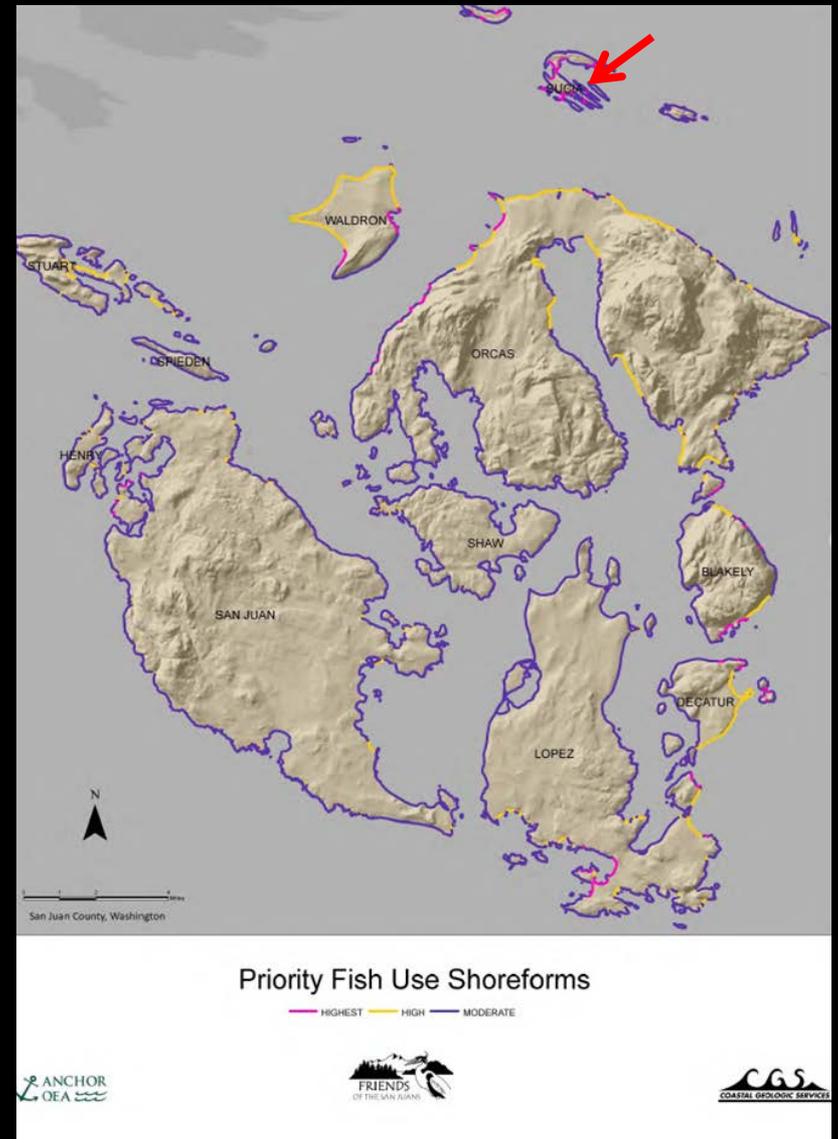
WA State Parks

Coastal Geologic Services



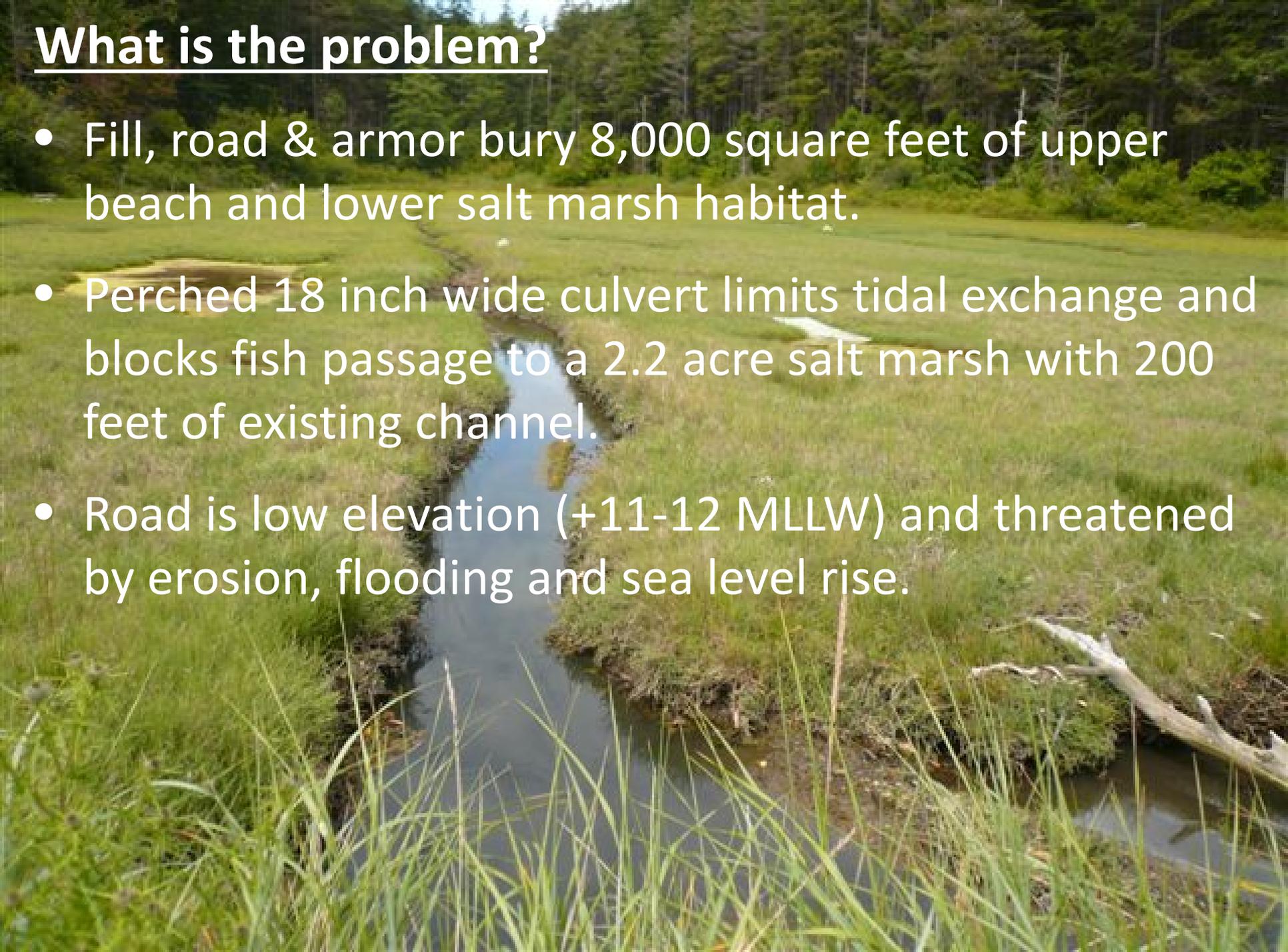
Sucia Marsh & Beach Restoration

Location



What is the problem?

- Fill, road & armor bury 8,000 square feet of upper beach and lower salt marsh habitat.
- Perched 18 inch wide culvert limits tidal exchange and blocks fish passage to a 2.2 acre salt marsh with 200 feet of existing channel.
- Road is low elevation (+11-12 MLLW) and threatened by erosion, flooding and sea level rise.



Why Spend \$\$ Here?

- Connected coastal wetlands are very rare habitat type in the San Juans
- Site is located in the top priority landscape region & among the highest priority shoreforms (3% of county shores).
- WA State Parks as owner offers opportunity for full restoration (road, fill, armor & culvert removal), as well as long-term conservation mgt. of the site.
- Initial assessment, feasibility, archaeological & landowner engagement work has been completed.



Shoreform



Mud Bay and Fossil Bay, Sucia Island: Geomorphic Shoreforms

- Artificial
- Embayment-Estuary or Lagoon
- Pocket Beach
- Transport Zone
- Barrier Beach
- Feeder Bluff (all)
- Rocky Shoreline



Habitat



Mud Bay and Fossil Bay, Sucia Island: Nearshore Marine Resources

LEGEND

- Wetlands and Streams (SJC)
- Documented Forage Fish Spawn Habitat (FSJ 2014)
- Forage Fish Potential Spawn Habitat (Whitman et al. 2012)
- Deep Water Edge of Eelgrass (FSJ, DNR, and UW 2004)



Fish Use



Mud Bay and Fossil Bay, Sucia Island: Salmon Recovery Priorities

SJC Salmon Recovery Strategic Plan Prioritization (Whitman et al. 2012)

-  Juvenile Chinook Presence Probability-High (Beamer and Fresh 2012)
-  Fish Use By Shoreform-Highest Priority (rearing salmon and forage fish and forage fish spawn habitat factors)
-  Fish Use By Shoreform-Moderate Priority (rearing salmon and forage fish and forage fish habitat factors)



Proposed Preliminary Design Work:

- Wetland delineation
- Freshwater well analysis
- Cultural resources review
- Biological evaluation
- Restoration design (70%)
- Operational adjustment planning & design (>30%)



Project Budget

| Category | Cost |
|--|----------|
| Cultural Resources | \$4,500 |
| Assessment/Inventory | \$15,400 |
| Preliminary Design (restoration & operations) | \$69,360 |
| Total preliminary design project cost: | \$89,260 |



Restored site provides habitat for rearing fish, exchange of nutrients, natural beach & expanded salt marsh.

Note: photo shopped "AFTER" image where current road is located.



QUESTIONS?



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