

A graphic featuring a green mountain silhouette in the background. The foreground is filled with horizontal wavy bands of blue, representing water. The text 'Marin County' is in the upper left, and 'Sea Level Rise' is written in a large, blue, hand-drawn font across the middle.

**Marin County**

**Sea Level Rise**

## **CCWG Meeting**

**Adaptation Planning Updates**

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# Tomales Bay Living Shoreline Project



# **Project Goal**

**Assess the feasibility of living shorelines in Tomales Bay to:**

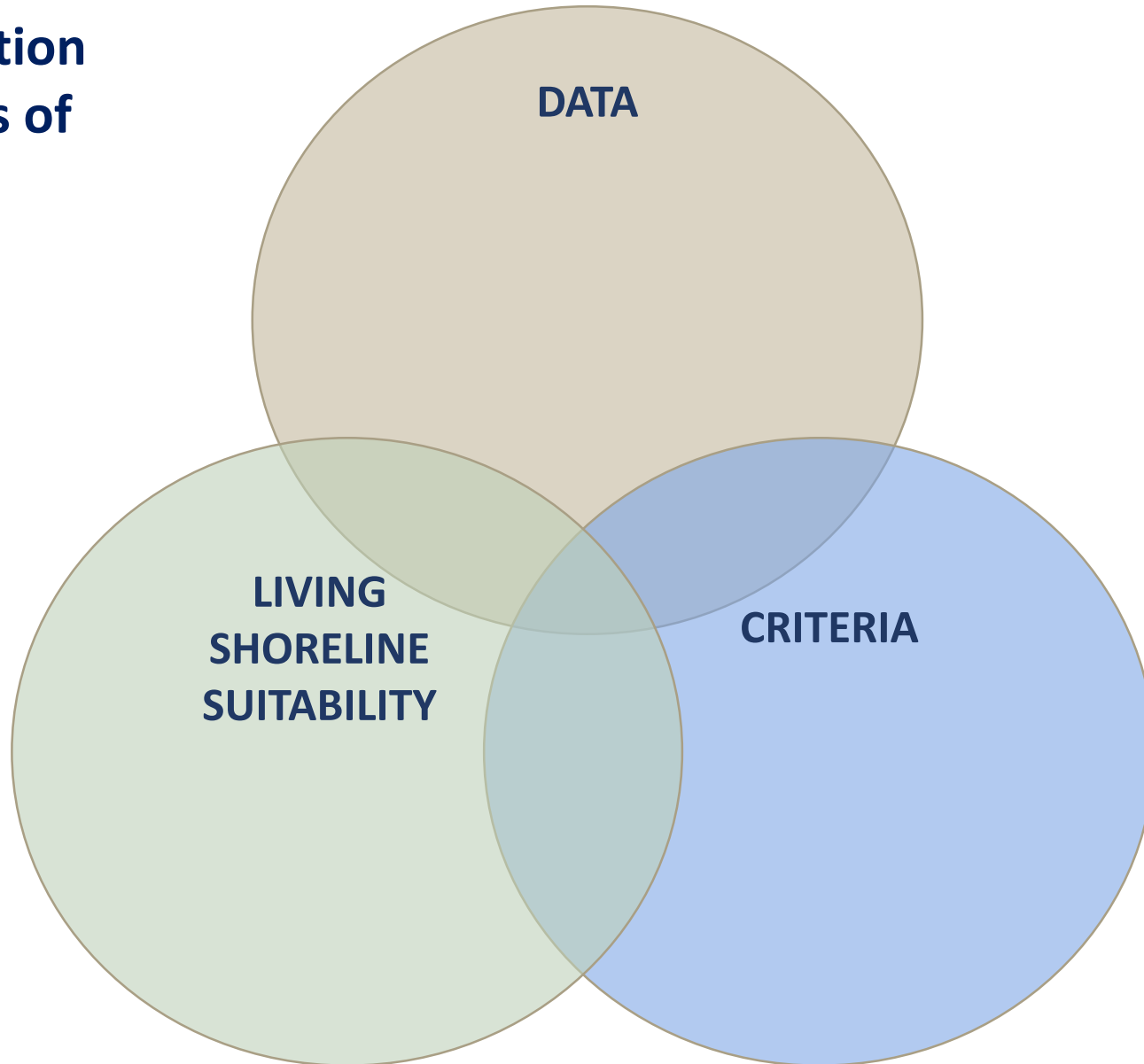
- **Provide flood and erosion protection for the natural and built environment,**
- **Maintain public access,**
- **Support vibrant recreational opportunities for users of all socioeconomic circumstances,**
- **Develop preliminary designs for pilot projects,**
- **Extend living shoreline applicability**

# **We need YOU**

**to weigh in on the preliminary living shoreline candidate sites.**

- **WHO USES THE SITES AND FOR WHAT PURPOSES?**
- **DO THEY GET HEAVY PUBLIC USE?**
- **IS USE ONLY BY PERMISSION?**

**Site Selection**  
**Three sets of**  
**factors to**  
**match.**



# **Living Shoreline for Tomales Bay**

**Beaches**

**Eelgrass**

**Tidal Marsh**

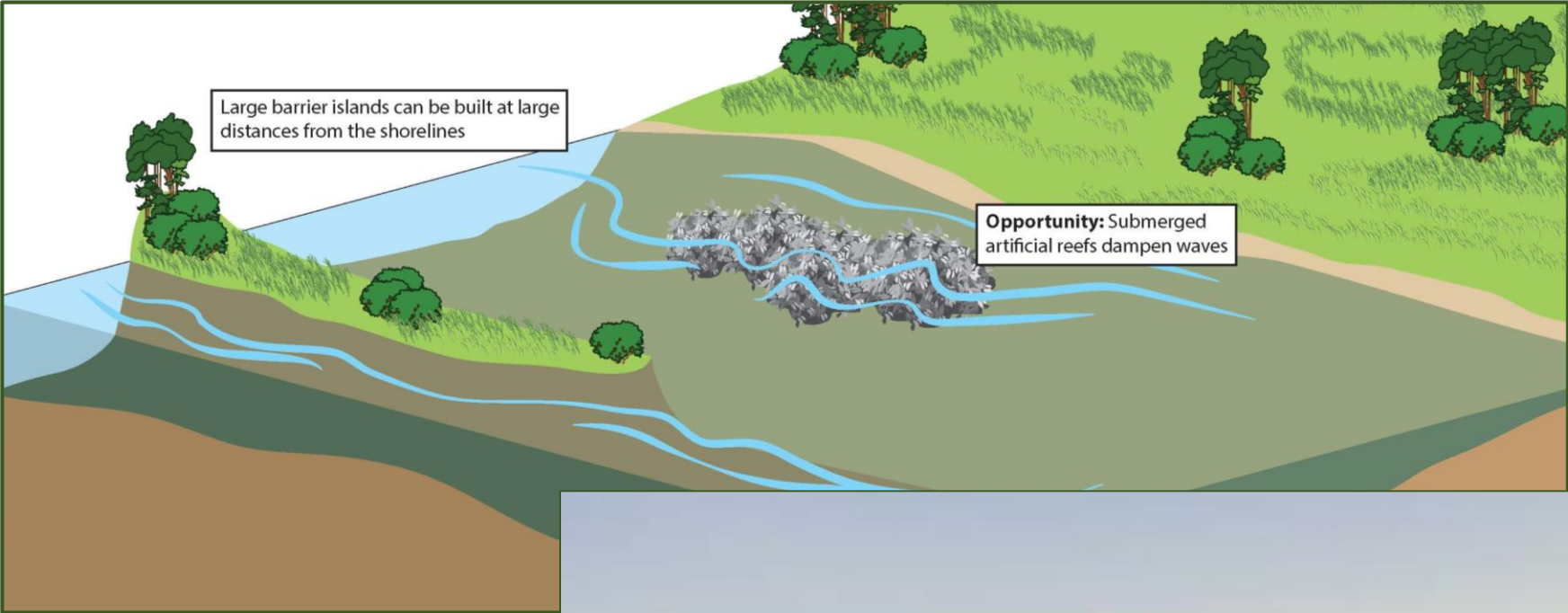
**Existing Intertidal Flats**

**Rocky Intertidal**

**Native Oysters**

**Improve Watershed Connection**





Large barrier islands can be built at large distances from the shorelines

**Opportunity:** Submerged artificial reefs dampen waves

## Offshore Reef

- Dampens waves
- Reduces erosion
- Provides habitat



## Eelgrass

- Dampens waves
- Reduces erosion
- Provides habitat

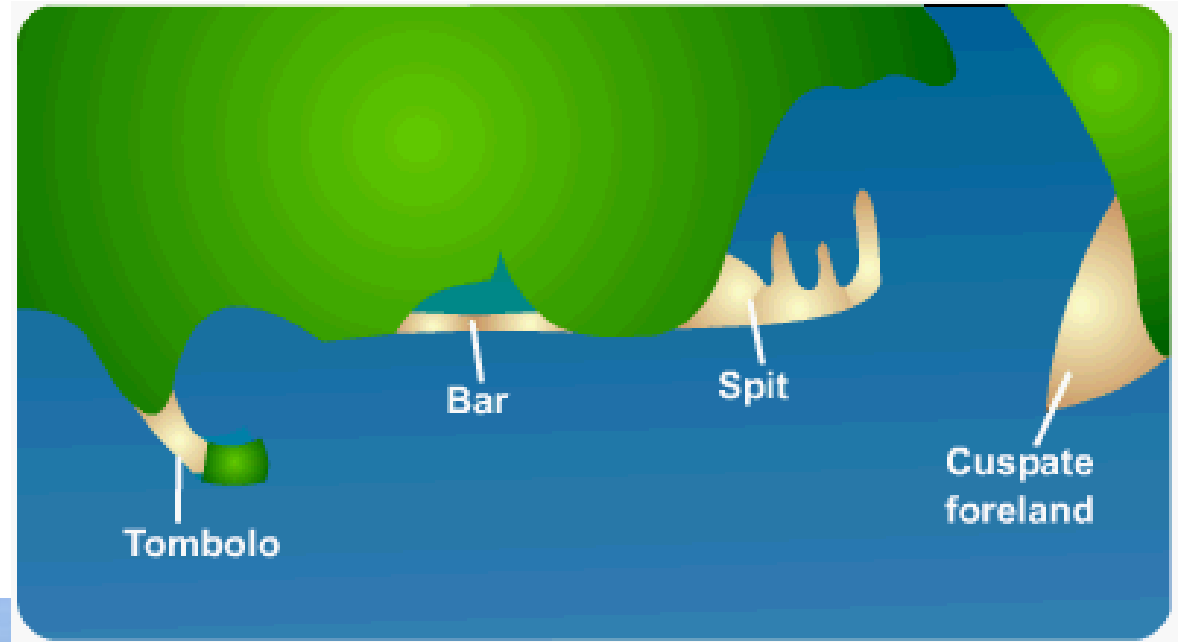




## Barrier Islands

- Dampens waves
- Reduces erosion
- Provides habitat





## **Tombolo and Cuspate Beaches**

- **Intercept & absorb waves**
- **Reduce erosion**
- **Increase shoreline elevation**
- **Provide habitat**



## Preliminary site selection for LS projects - Criteria

- Assets vulnerable to SLR
- Erosion vulnerability
- Ecological benefits
- Maintain public access/provide opportunities for recreation

### Benefits

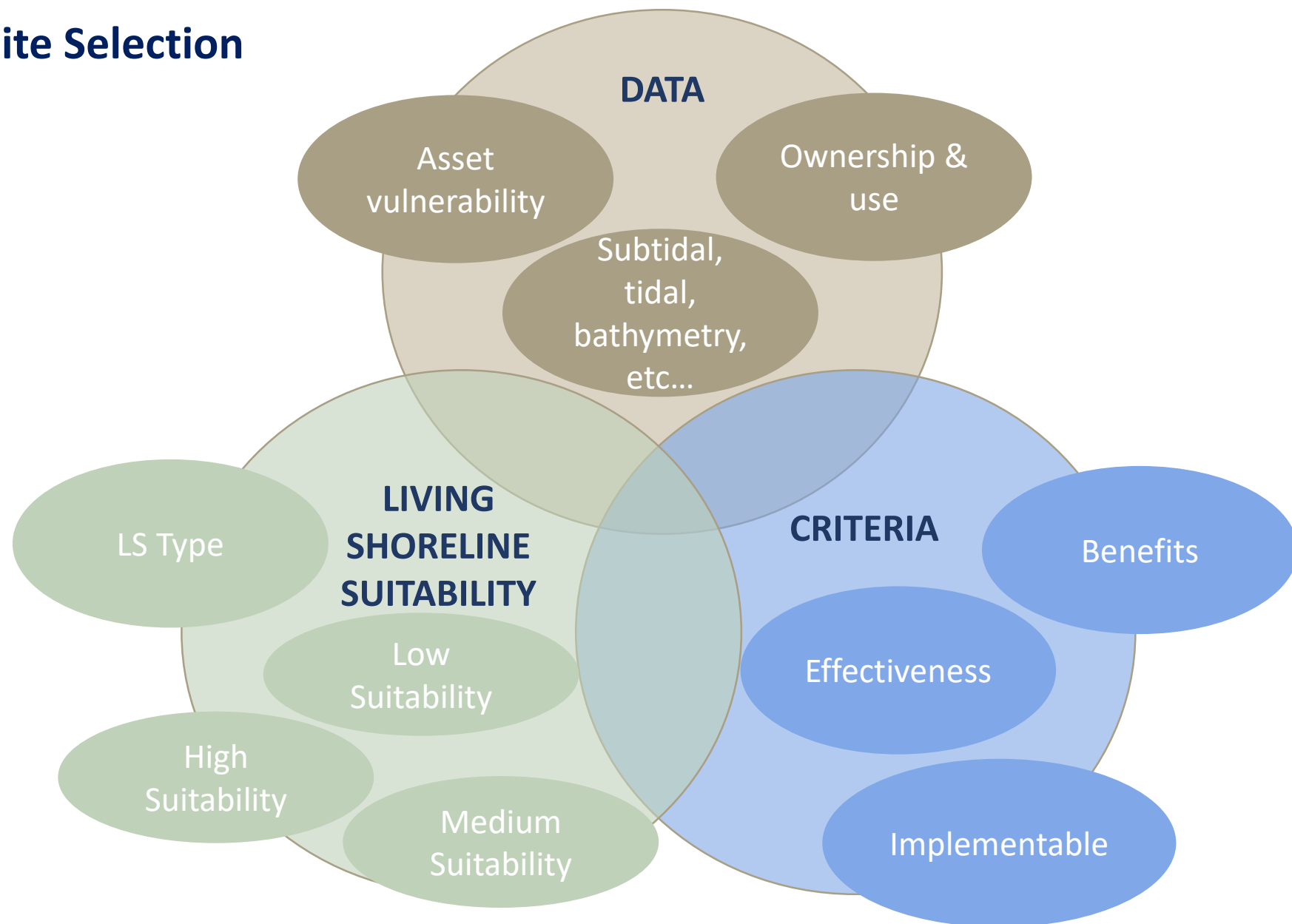
- Feasibility considerations
- Effectiveness/certainty of LS benefits
- Longevity of benefits

### Effectiveness

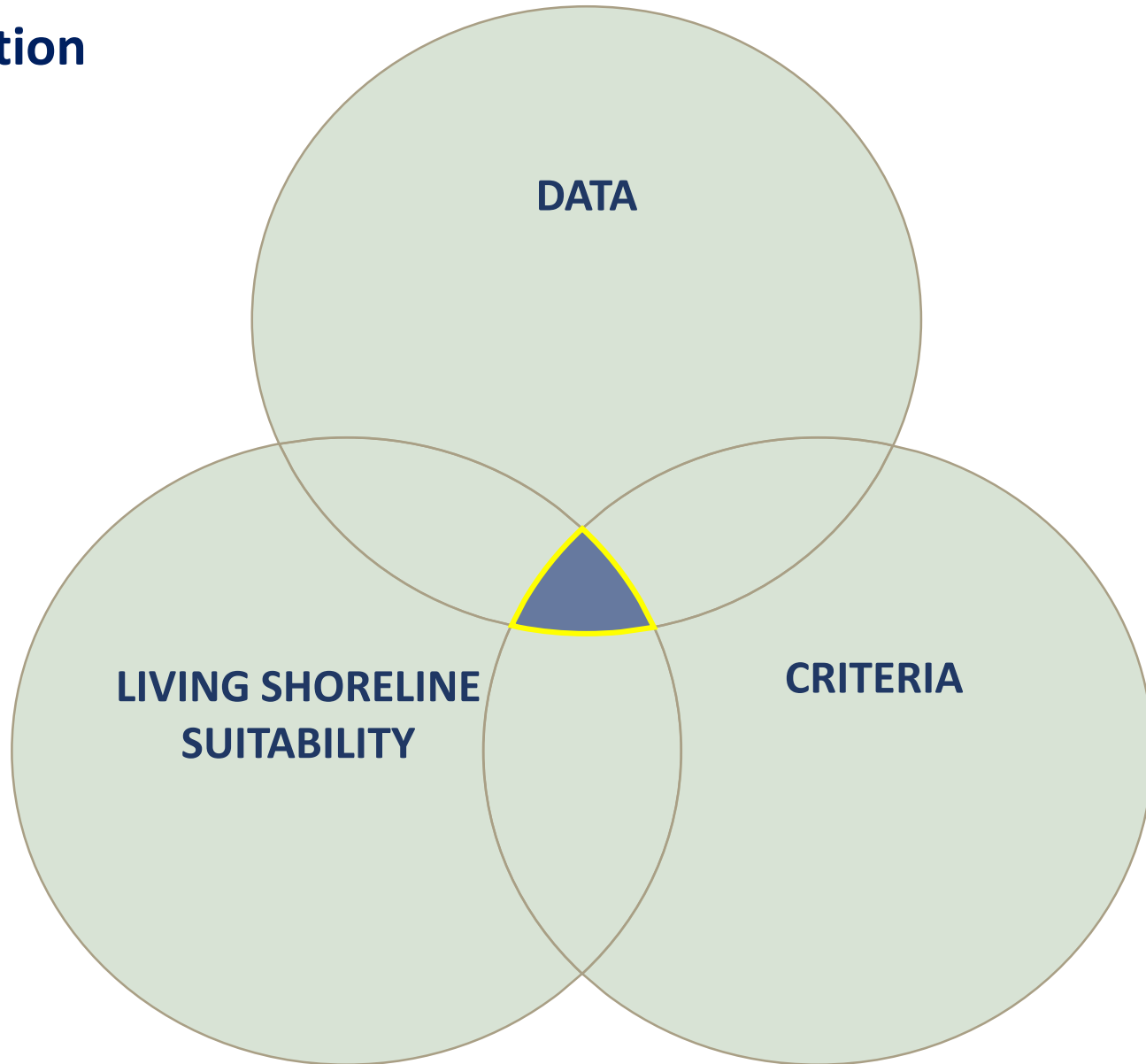
- Cost
- Project readiness
- Permit considerations

### Implementable

# Site Selection



# Site Selection





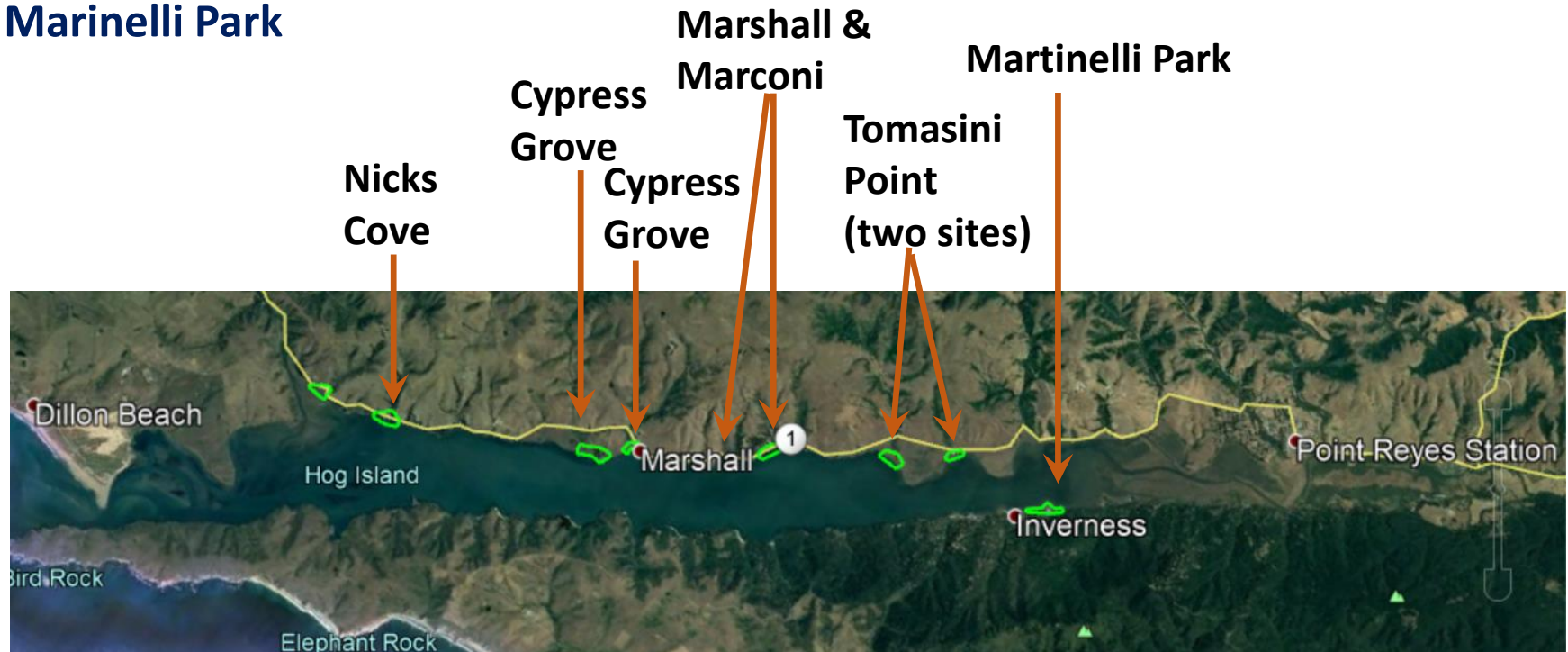
# Site Selection



**Six Sites  
Eight Projects**

# Preliminary site selection for LS projects - Sites

- Nick's Cove
- Cypress Grove
- Marshall (nr HIOC)
- Marconi (nr conference center)
- Tomasini Point (2)
- Marinelli Park



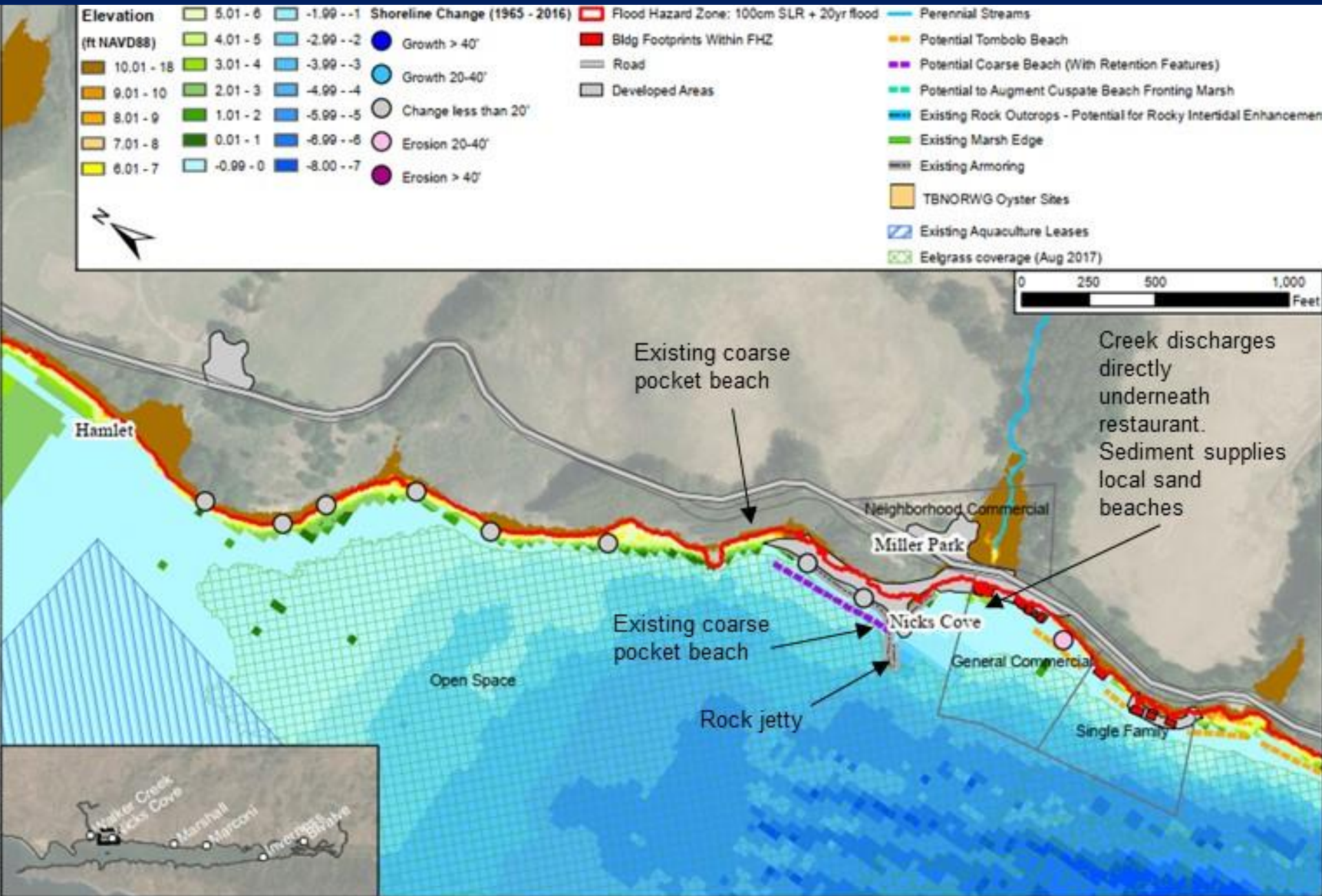


# Candidate Site 1: Nick's Cove





# Nick's Cove



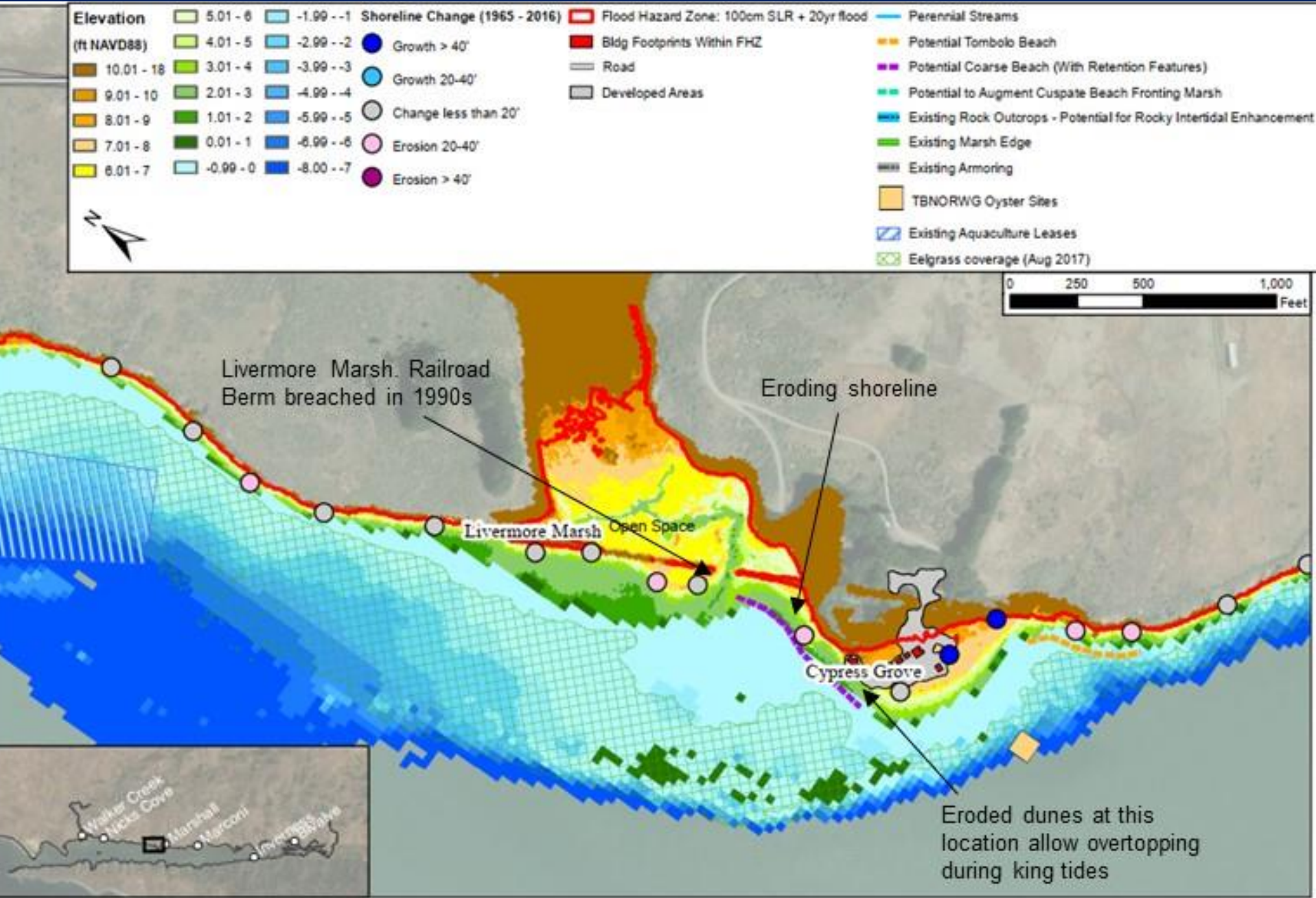


## Candidate Site 2: Cypress Grove (2 sites)





# Cypress Grove

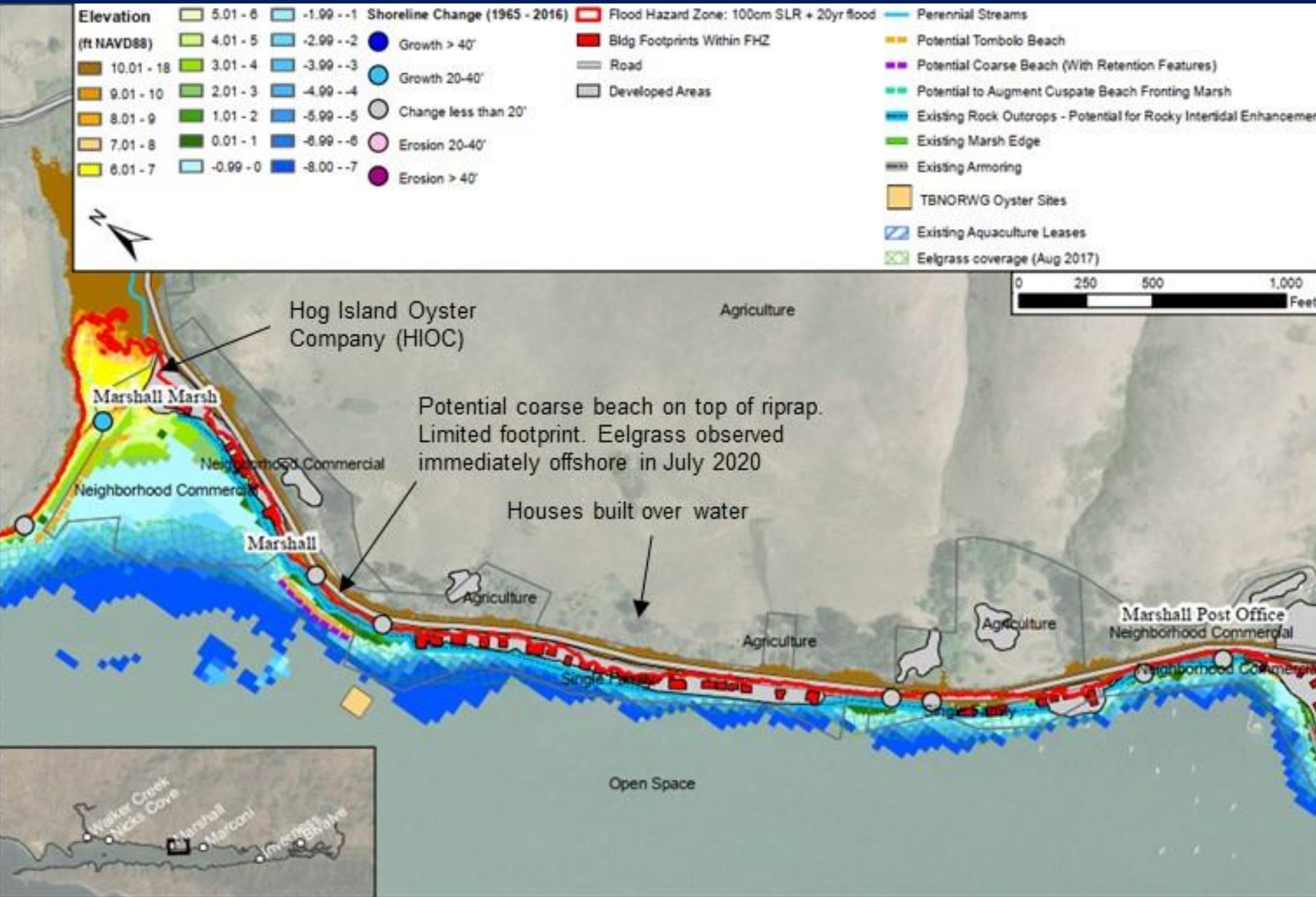


# Candidate Site 3: Marshall





# Marshall

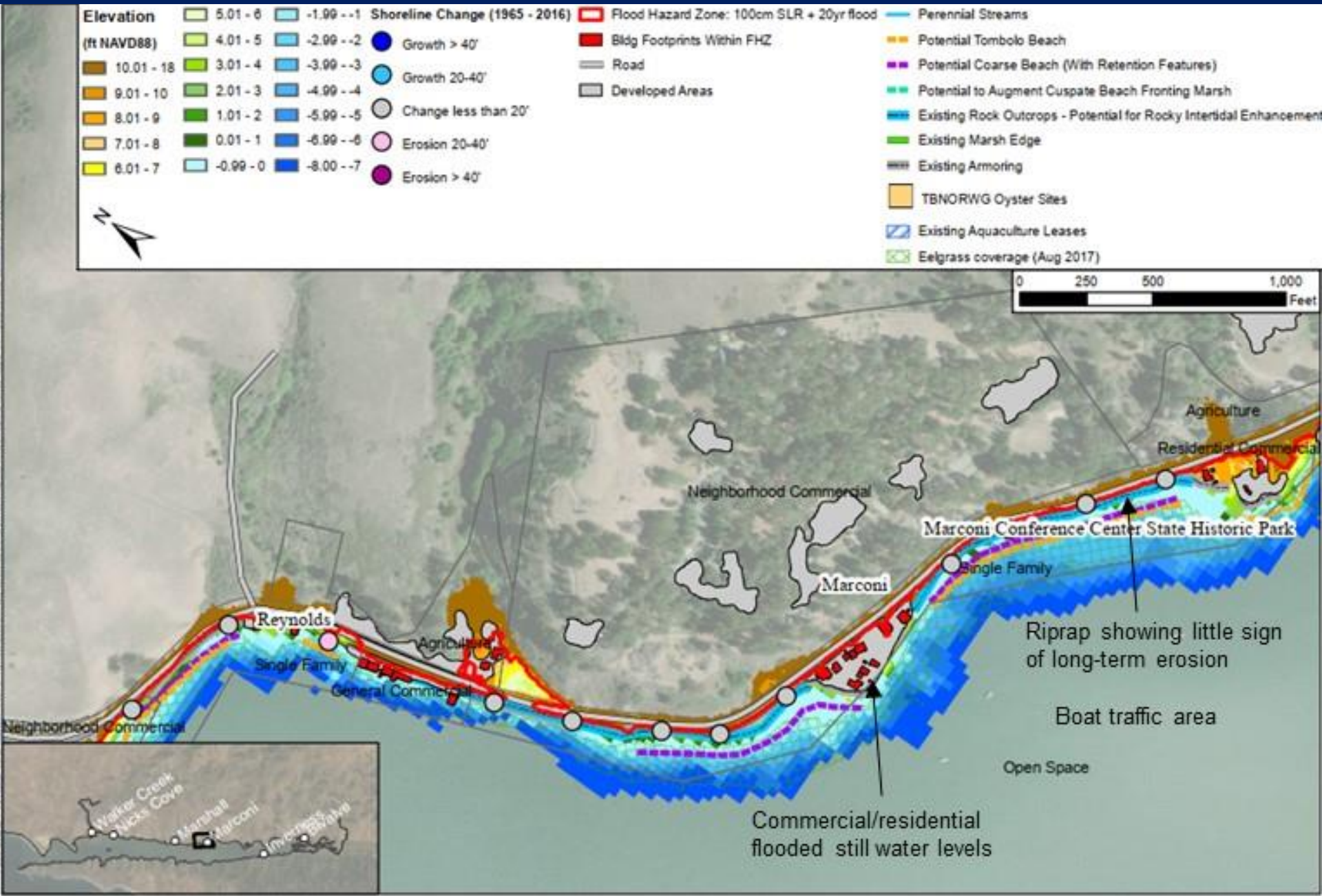


## Candidate Site 4: Marconi





# Marconi



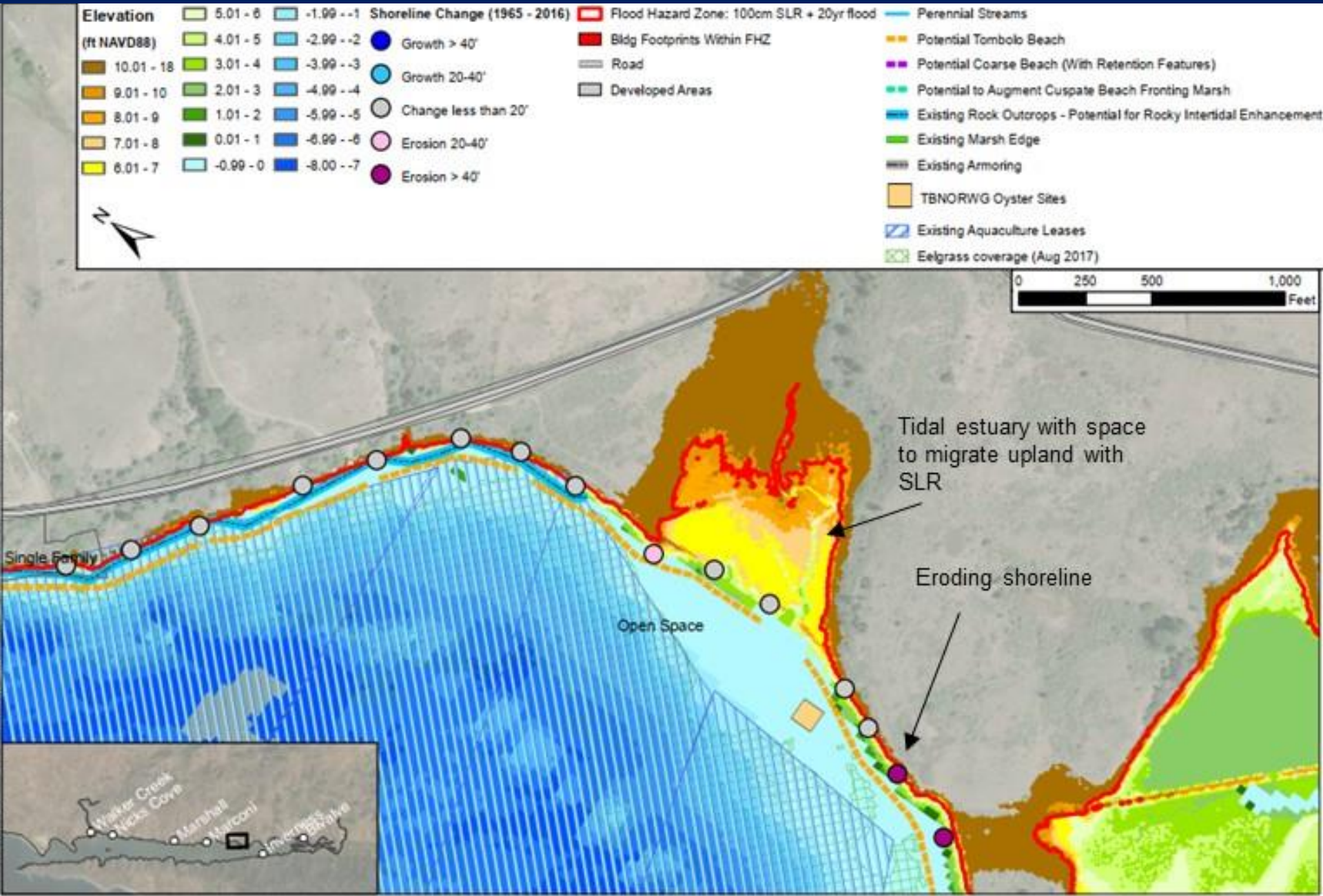


## Candidate Site 5: Tomasini Pt (2 sites)



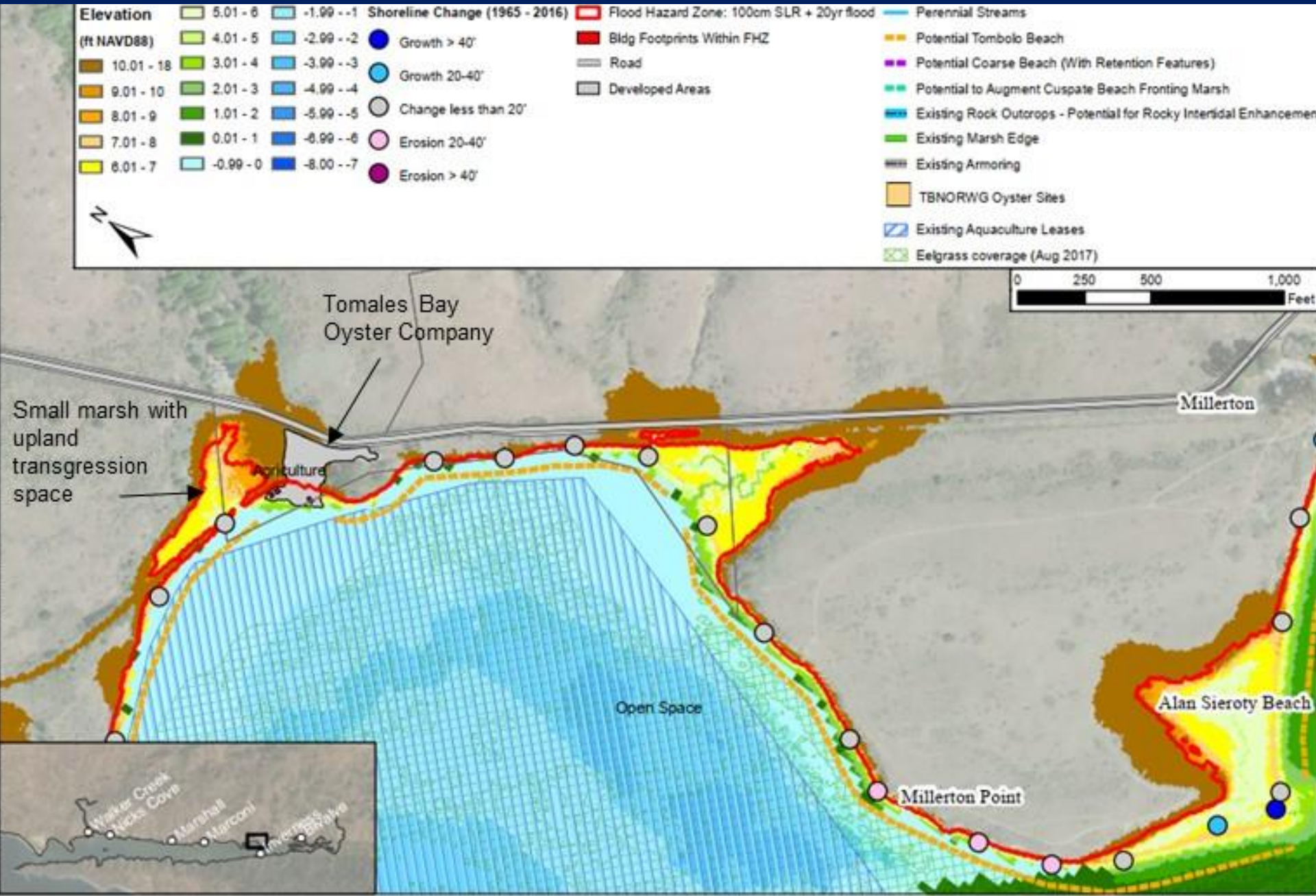


# Tomasini Pt (north)





# Tomasini Pt. (south)





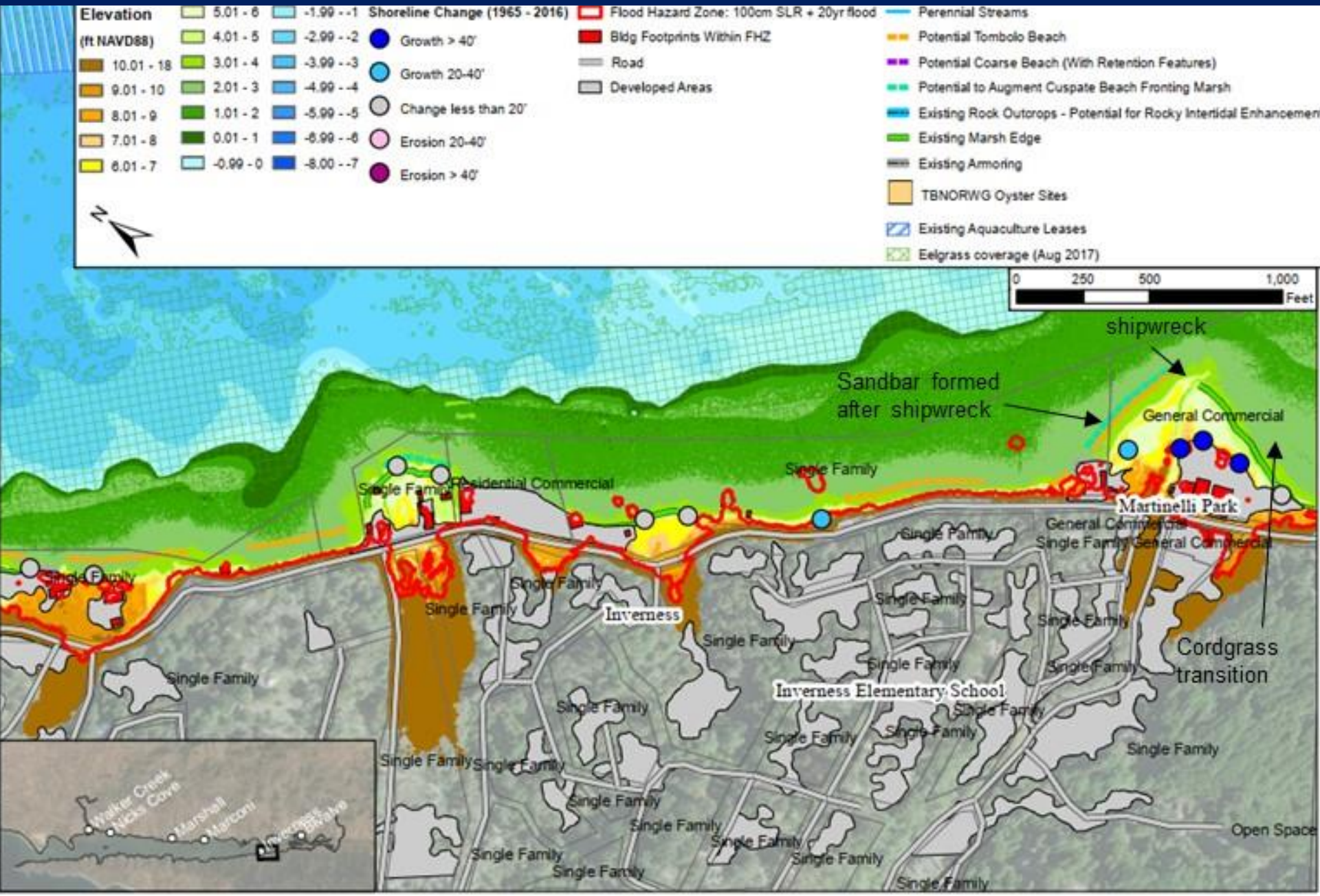
## Candidate Site 6: Martinelli Park



Photo: Rob Nuti Photography



# Martinelli Park





## **Next Steps:**

**Choose 2-5 sites to move forward in the project.**

**Permit processes for project sites**

**Perform additional analysis so that conceptual plans can be prepared:**

- **Conduct site survey**
- **Model wind wave conditions**
- **Model habitat evolution**

**Develop conceptual living shoreline project plans for each selected site  
(August 2021)**

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Marin County

Sea Level Rise

Thank You

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