Regional Sediment Management Plan Development throughout California

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Coastal Sediment Management Workgroup

California Coastal Sediment Master Plan

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A "Super-Regional" Approach

MASTER PLAN GOALS

- Prioritize regional sediment management needs
- Streamline the process
- Make information widely available
- Connect areas in deficit and those with excess sediment.
- Implementation Strategy

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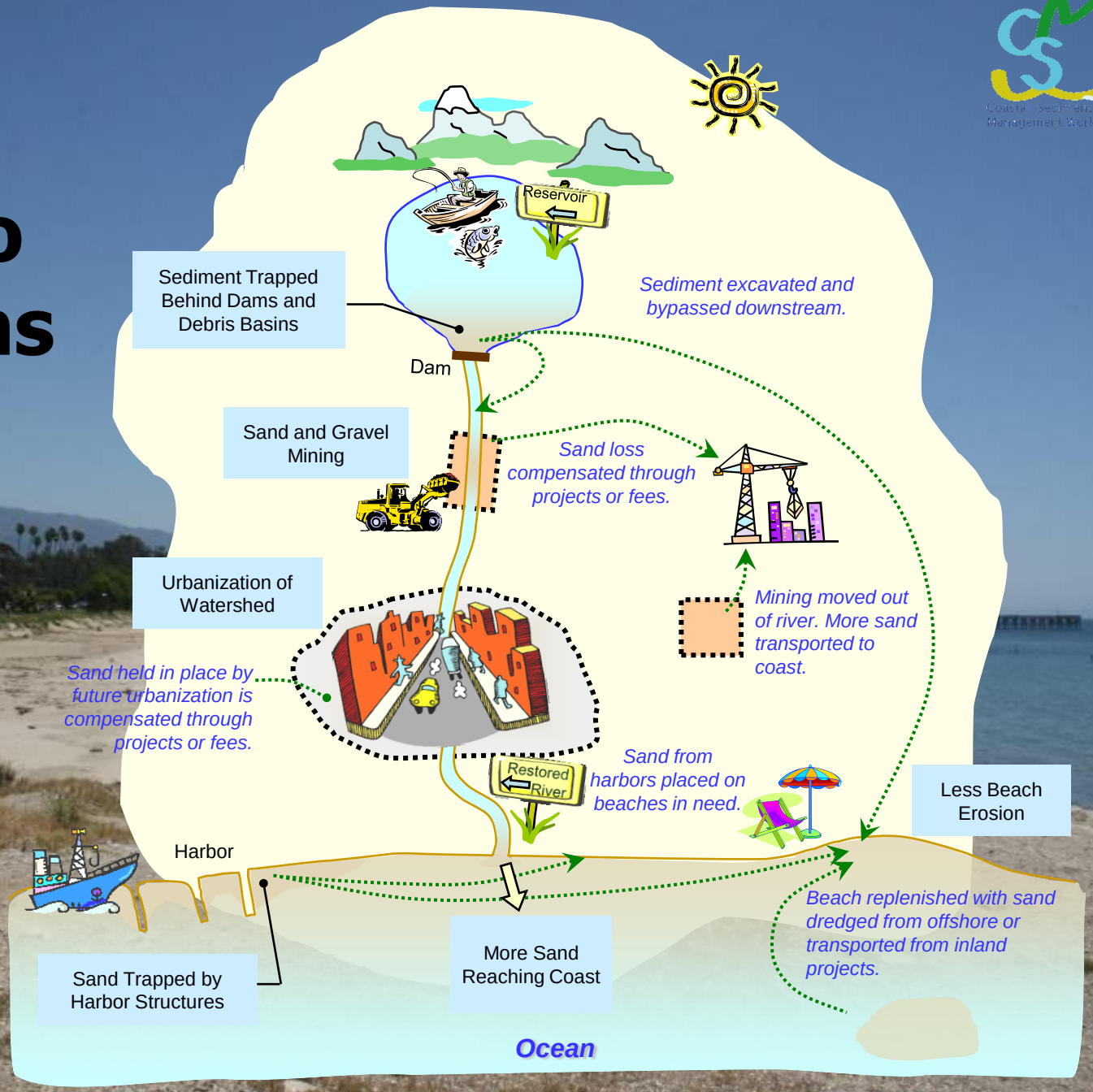
Road to Solutions



Regional Sediment (Sand) Management

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CSMW

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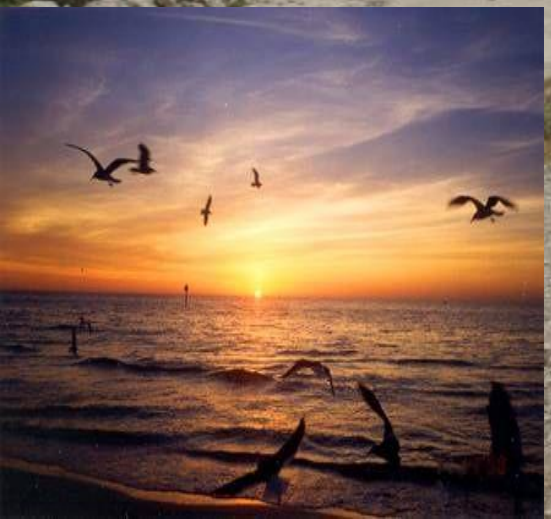
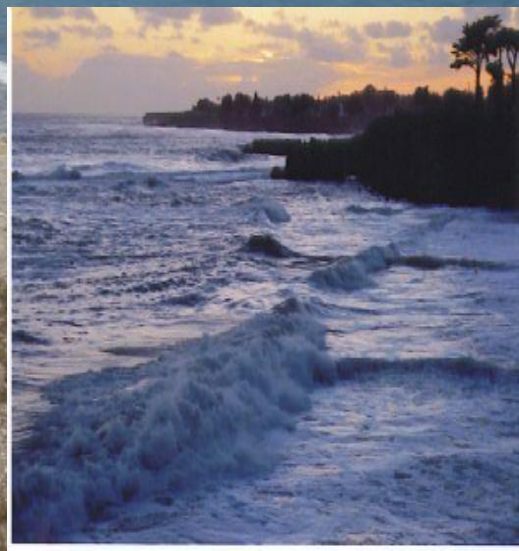
Mission

Conserve, restore, and protect California's coastal resources by developing and facilitating regional approaches to managing sediment.

Goals

To: reduce shoreline erosion and coastal storm damages; restore and protect beaches and other coastal environments by restoring natural sediment supply from rivers, impoundments and other sources to the coast, and; optimizing the use of sediment from ports, harbors, and other opportunistic sources.





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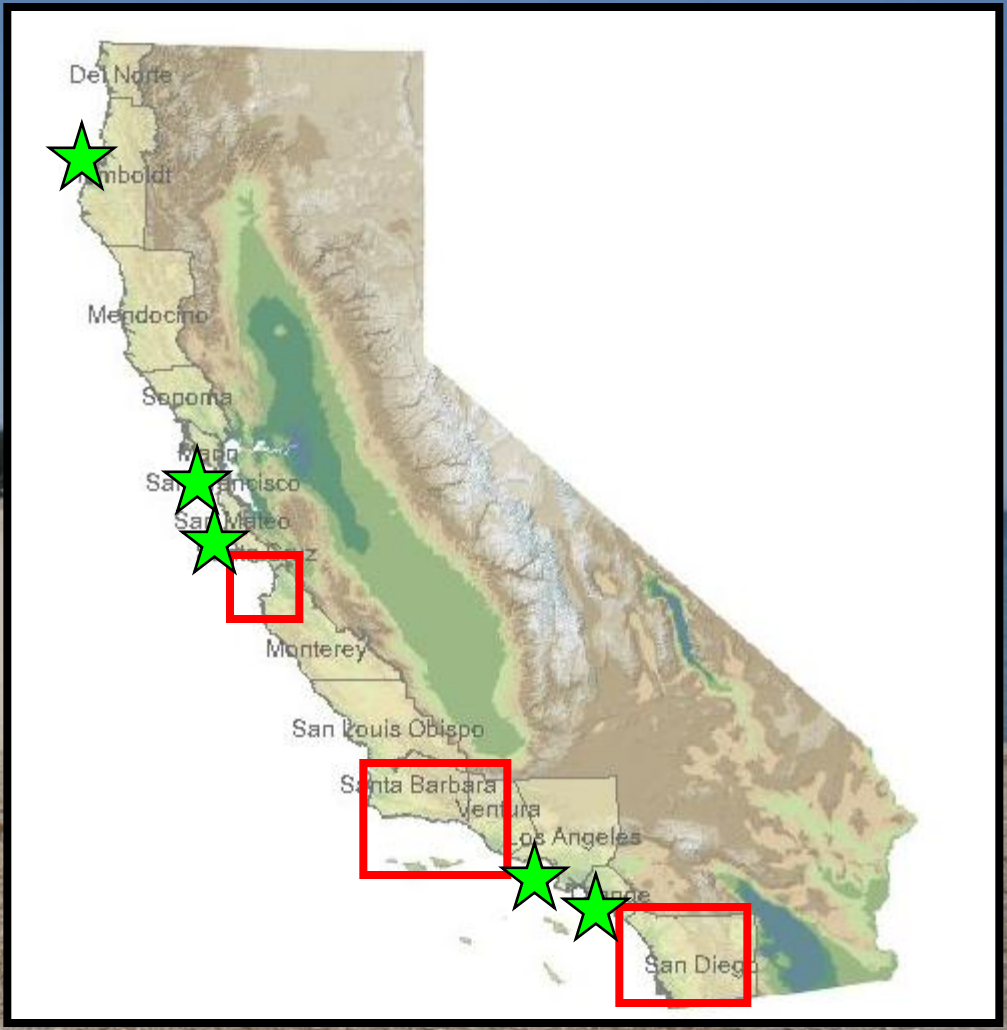
RSM Plan Development

- ✓ Formulate and seed regional consensus-driven sediment management policy and guidance
- ✓ Restore and maintain coastal beaches and other critical areas of sediment deficit; reduce the proliferation of protective shoreline structures; sustain recreation and tourism; enhance public safety and access; and, restore coastal sandy habitats.



CRSM Plan Tasks

1. Data Collection and Compilation:

- Compile relevant ***coastal references*** and sediment information
- Compile and ***map*** the existing habitats, biota and other resources into the ***GIS database***
- ***Identify potential sediment sources*** that can be used to ***holistically*** address the need for sediment within the region, including:
  - ***Areas of excess sediment***, such as harbors and wetlands, where sediment must be removed to restore function;
  - ***Flood control projects*** such as dams and debris basins where sediment may become available as a result of dredging to restore capacity;
  - ***Offshore sand sources***, and;
  - Other ***sand sources of opportunity*** including sediment removal related to any coastal developments.
- ***Collect and compile information*** of the appropriate sediment physical characteristics at the potential receiver sites and potential source areas.

CRSM Plan Tasks

2. Plan Formulation:

- Identify areas of ***critical coastal erosion/ sediment deficit*** within the region.
- Formulate an array of potential projects with ***implementation priority***
- ***physical and compatibility*** between potential sources and receiver sites.
- Evaluate the ***viability of establishing nearshore disposal sites***
- ***innovative sand retention structures*** that mimic natural features
- ***economic feasibility*** of removal, transport, temporary stockpile areas and placement of potential source materials
- Assess ***presence of critical species and habitat*** in the vicinity of and downdrift of receiver sites.
- Identify ***permitting requirements*** of potential receiver sites
- Identify potential local, regional, state and federal ***funding streams***
- Identify ***data gaps***

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CRSM Plan Tasks

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3. Outreach Facilitation and Coordination

- Formulation of ***local/regional Agency collaborative strategies*** for project development and implementation of regional projects, including governance opportunities.
- Assist in the development of ***project sustainability strategies***, including ***adoption of the RSM Plan*** by local/regional entities.
- ***Engage major stakeholders*** in the process associated with CRSMP.
- Assist local/regional agencies with ***developing funding strategies.***

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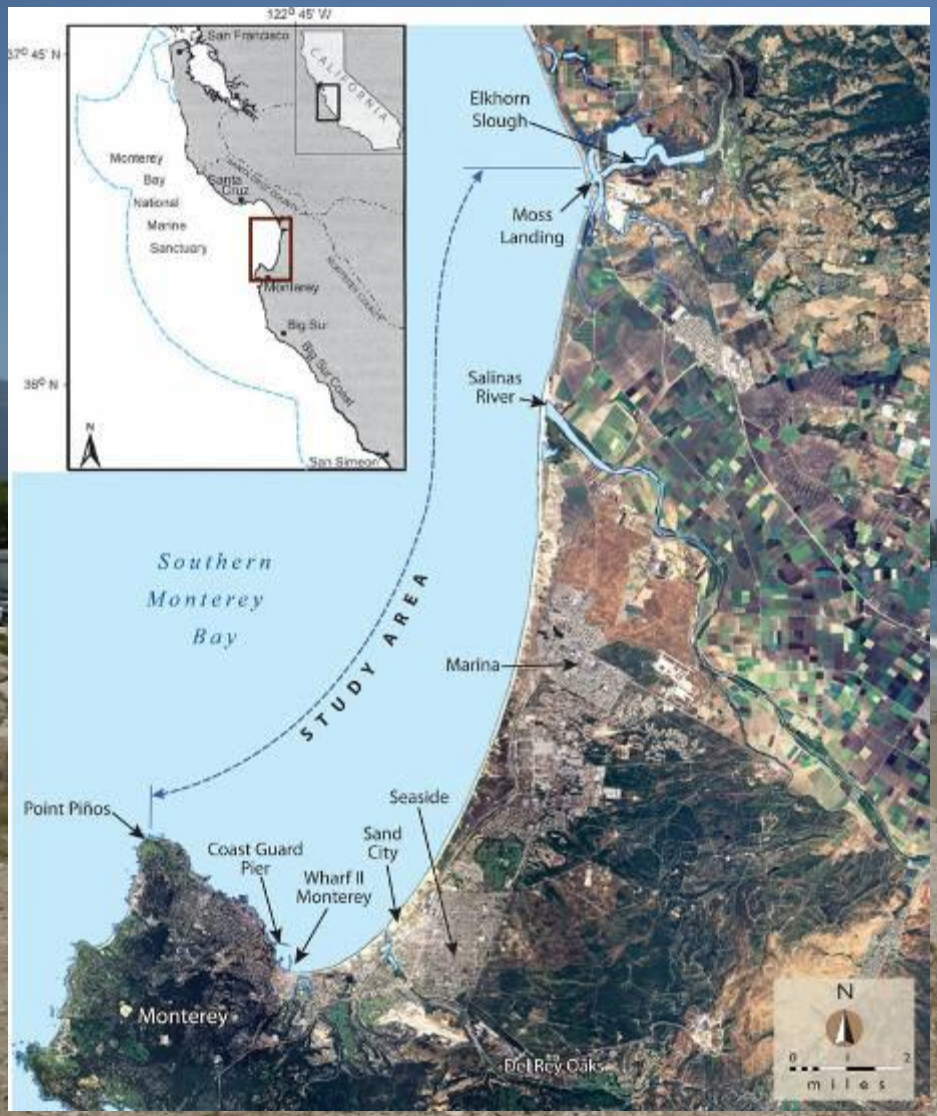
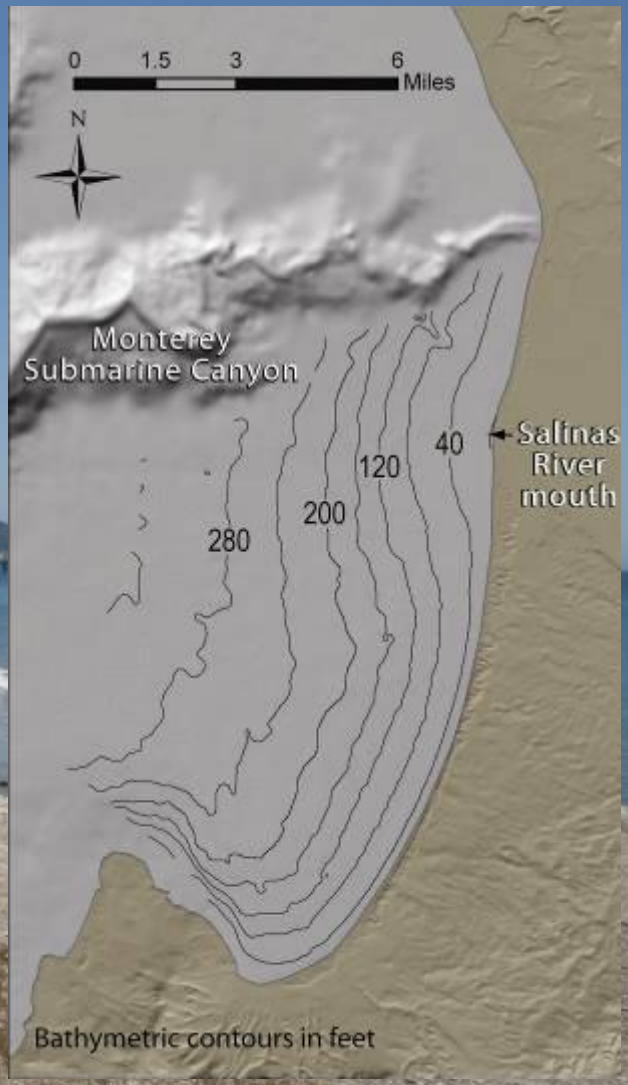
Southern Monterey Bay





Courtesy: Doug Smith (CSUMB)

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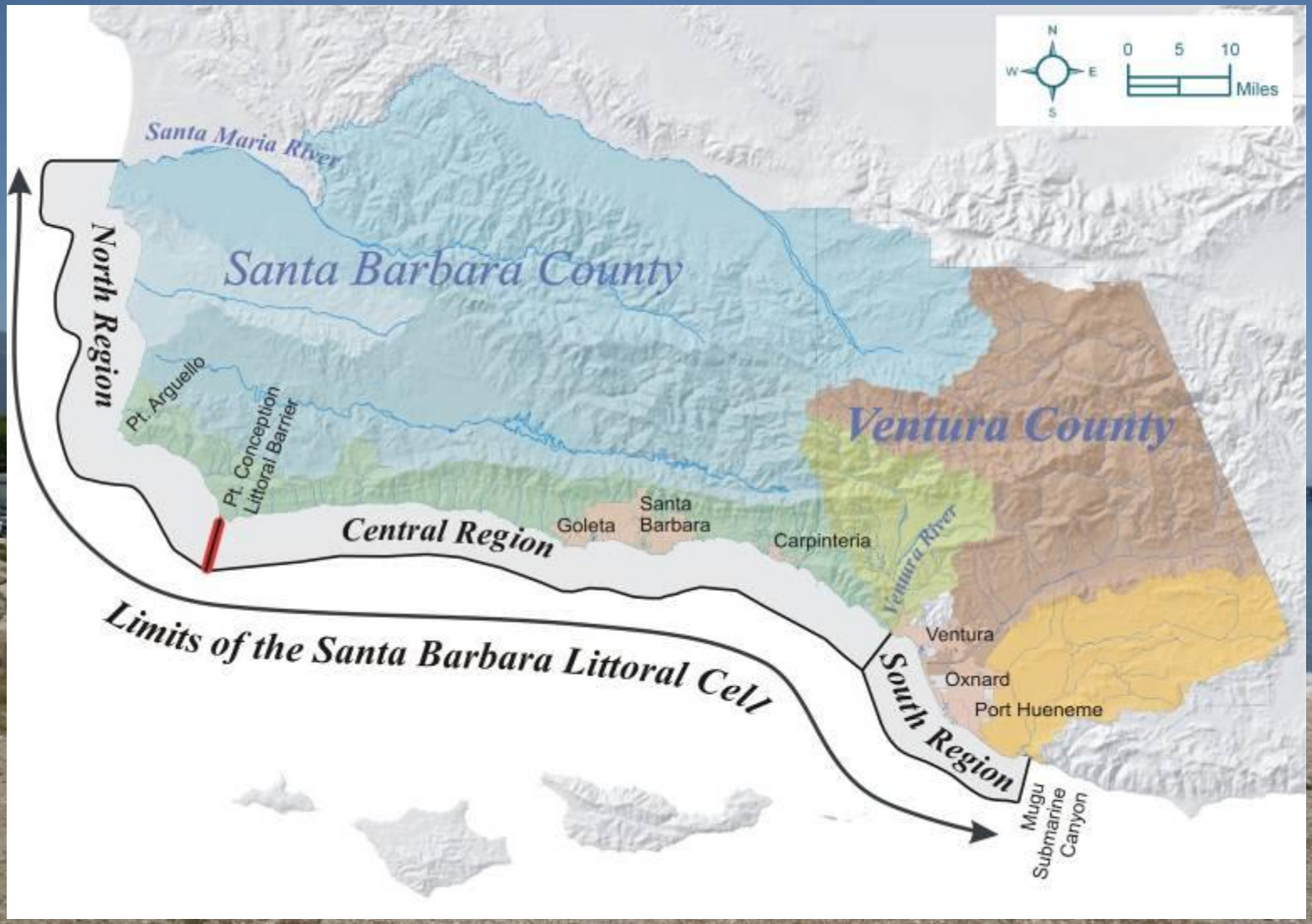
Santa Barbara & Ventura Counties



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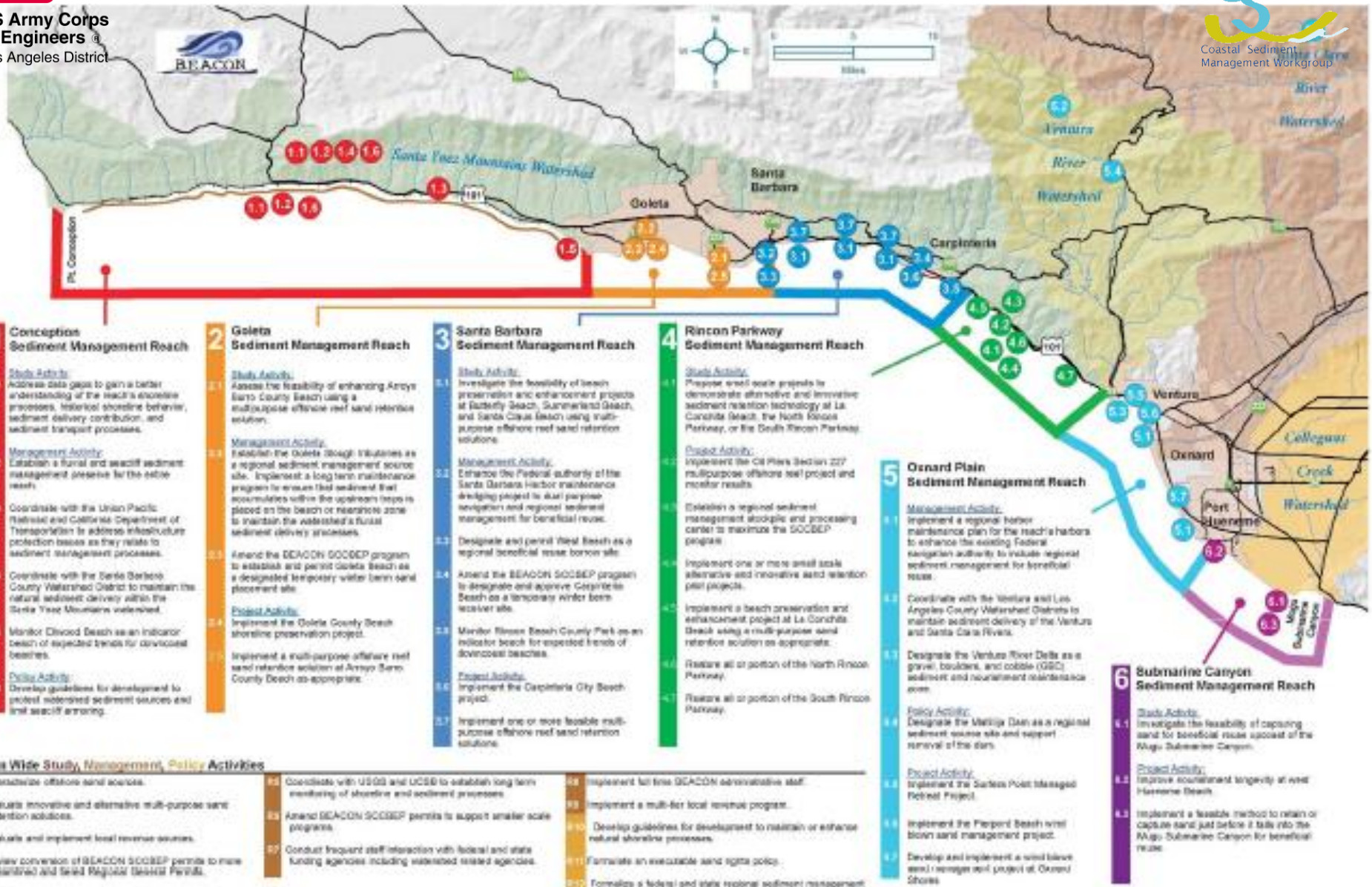

Figure 9. The BEACON Coastal Regional Sediment Management Plan

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San Diego Coastal RSM Plan

SANDAG

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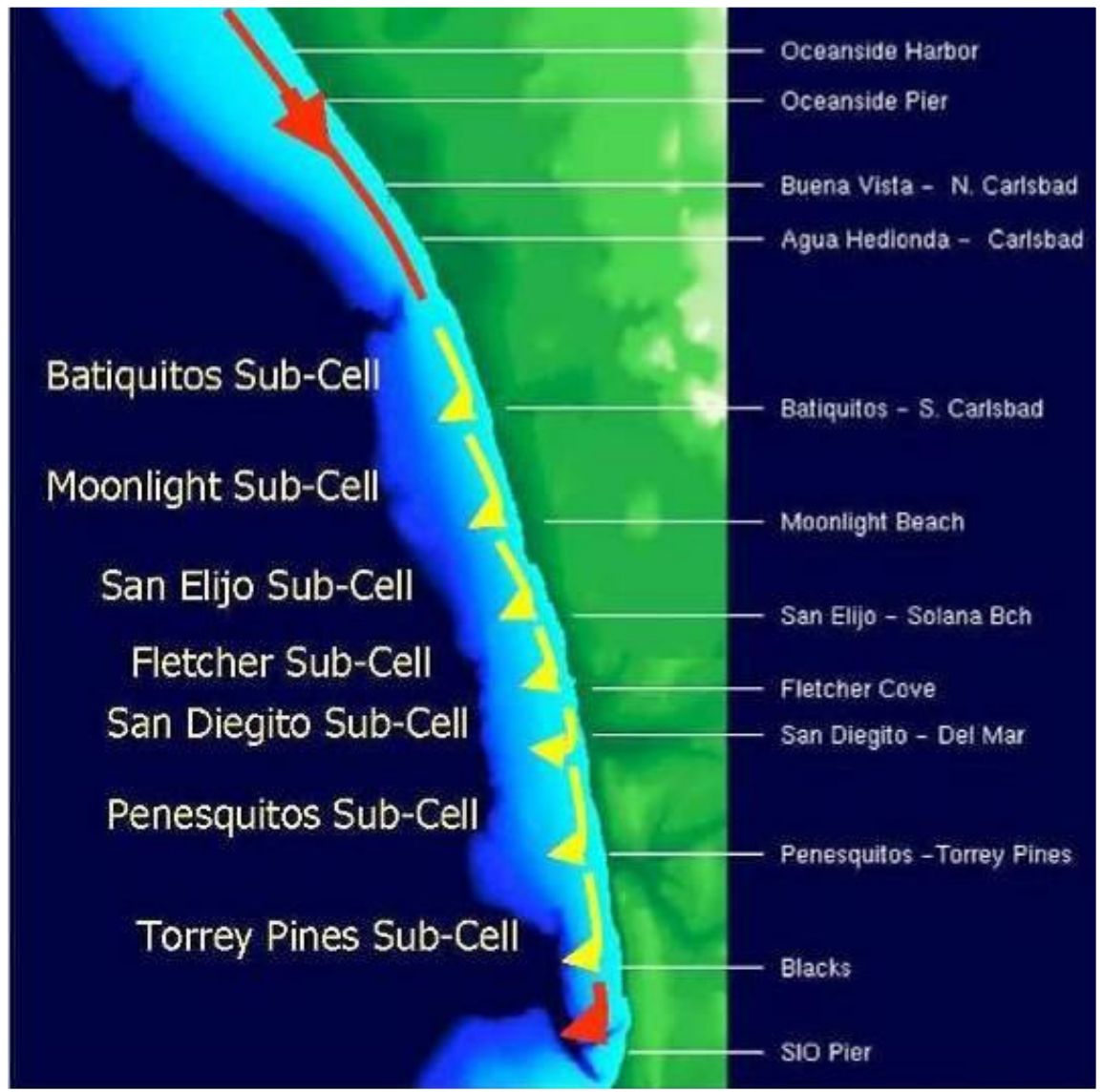
Coastal Processes



Biological Constraints Guide Coastal Source and Receiver Site Locations

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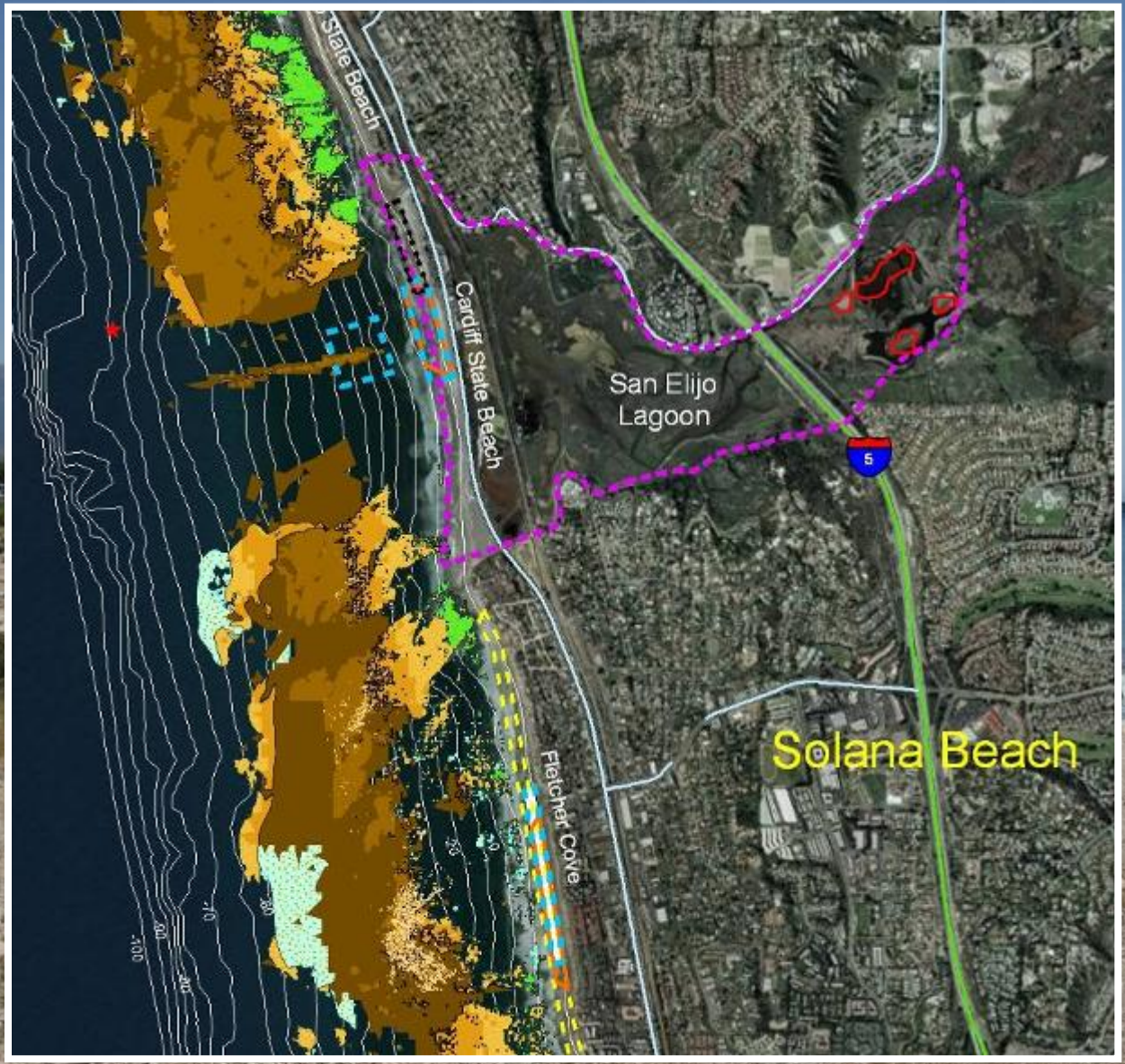

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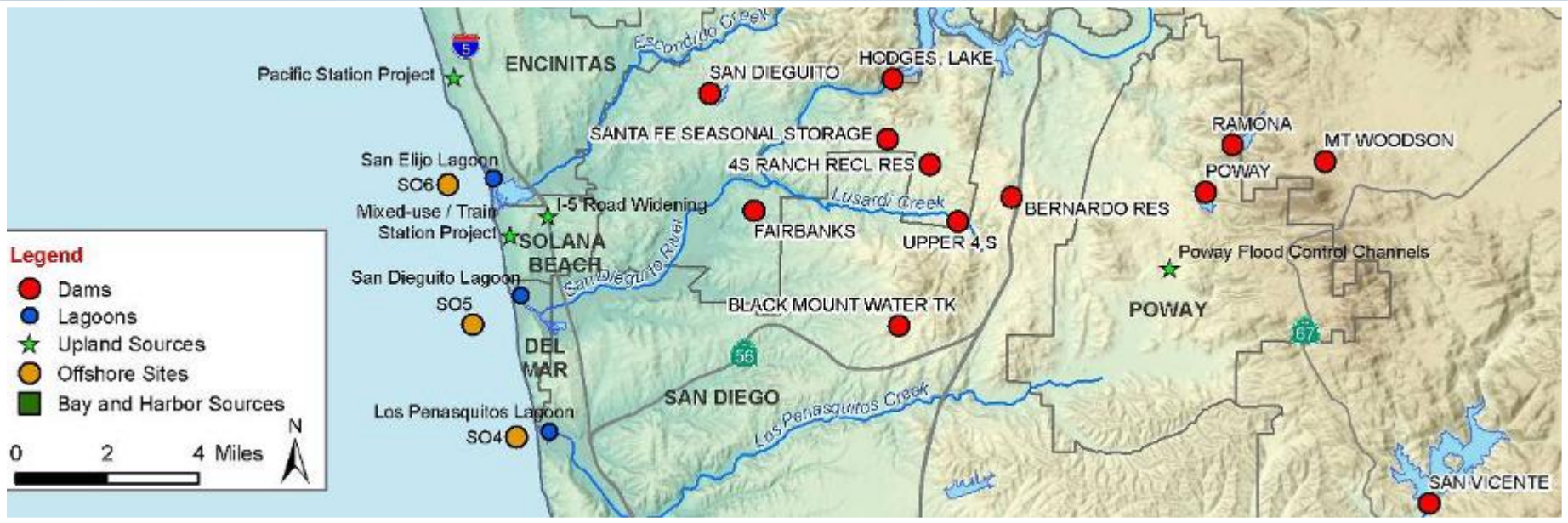
Inland Sources



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Plan Recommendations

- Implement Opportunistic Beach Fill Programs
- Continue maintenance dredging operations
- Implement large-scale projects (SANDAG, USACE, Harbor By-Passing)
- Strongly consider Sediment Management Devices, such as artificial submerged reefs

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Lessons Learned from RSM Plans

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- Involve **all local jurisdictions** at the **beginning** of the process.
  - Effective Plan implementation requires MOU/other agreement covering entire littoral cell: regional permits, funding, project assistance
- **Stakeholders ID sediment issues** of concern at early stages and provide thoughts on possible solutions
- Incorporate Plan, when developed, into Local Coastal Plans and General Plans
- **Continual Involvement of the policy people** is important in order to develop an implementable plan.
- **Focus on the 80%** of the points that everyone agrees on rather than on the 20% that people didn't agree upon.
- Important to **emphasize soft solutions**.
- Data gaps
  - Benefitted from original RSM plan developed in the early 90s
  - **Sediment transport/budget groundwork** was already laid out
  - Greatly benefitted from **regional USGS studies**
- Having an **easily readable Plan** is important to getting buy-in from public and local managers and politicians.