SAN ELIJO LAGOON

Restoration Project

San Elijo Lagoon Restoration project

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San Elijo Lagoon Restoration and Cardiff Beach Nourishment

- Objectives: Improve tidal hydrology and flushing, expand wetland habitat areas, remove legacy high nutrient content soils.

- Sediment Management of Dredged Spoils: Over-dredge pit created as disposal opportunity for unsuitable soils.

- Beneficial Sediment Re-Use: Sand was placed at Cardiff Beach and Solana Beach to provide for summer recreation followed by winter storm protection and littoral cell enhancement.

Lagoon Dredging Leads to Beach Sand Delivery

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Cardiff Beach Nourishment Also Enhances the Littoral Cell Sand Volume

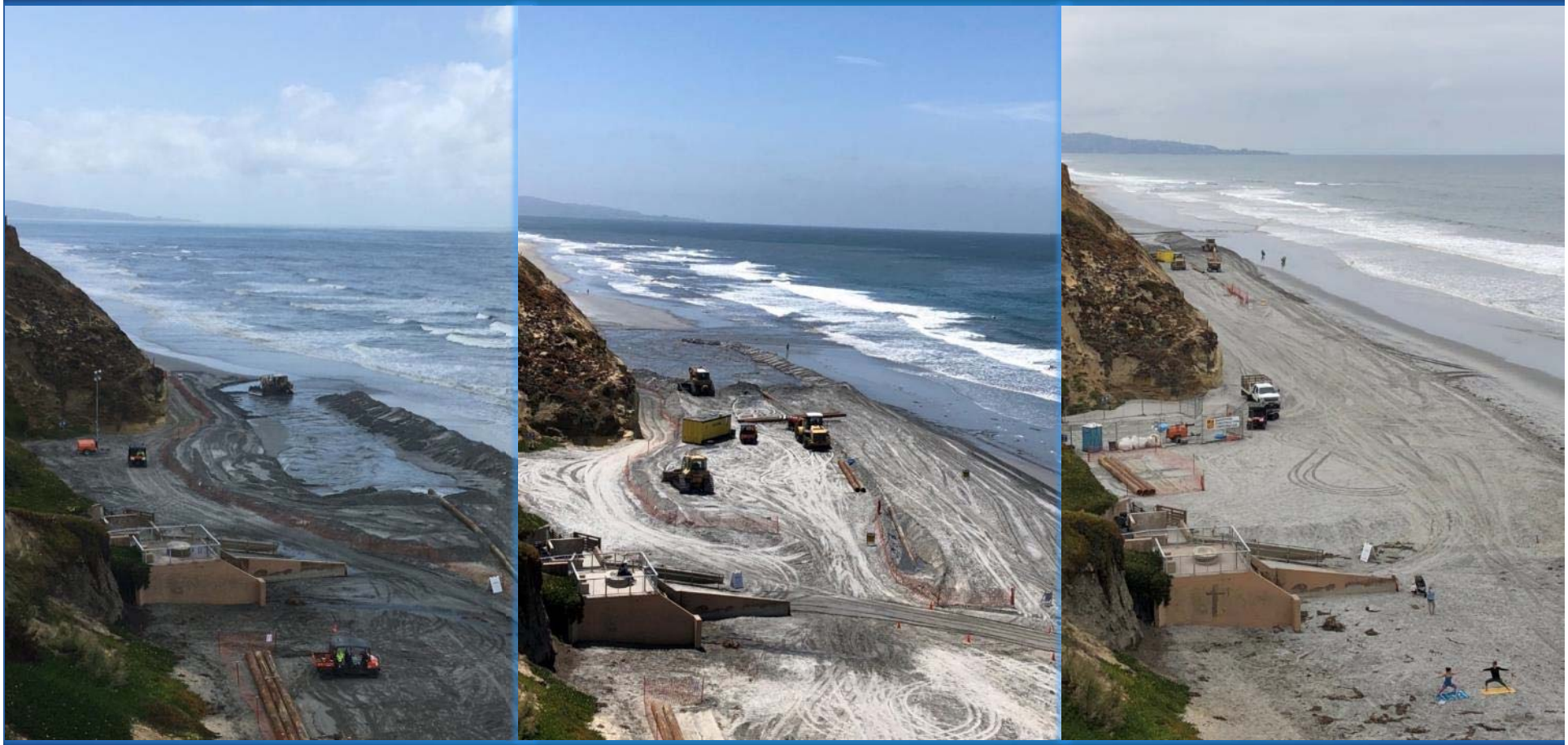
Beach Nourishment Was Assumed to be Short-Term

Sand Containment Dike at Cardiff

Cardiff Beach Prior to Nourishment

Cardiff Beach After Nourishment – Much of This Sand is Now in Lower Elevations Along the Shore

Beach Sand Placement at Solana Beach in a Sequence – Similar Outcome



Conclusions

- Cardiff Beach was nourished with 300,000 cy of sand in spring of 2018.
- Solana Beach was nourished with 150,000 cy of sand in spring/summer of 2018.
- Both projects contributed sand to the littoral cell to improve protection during an El Nino winter.
- Lagoon restoration can be designed to accomplish habitat improvement while benefitting the coast.