



Nature Collective

CONNECT. EXPERIENCE. PROTECT.



SD Management and Monitoring Program run by the US Geological Survey



Inspiring conservation action across North County San Diego, and beyond, for 34 years.





Connect. Experience. Protect.





We exist to drive a passion for nature, for all.





Cardiff Living Shorelines

Project Overview







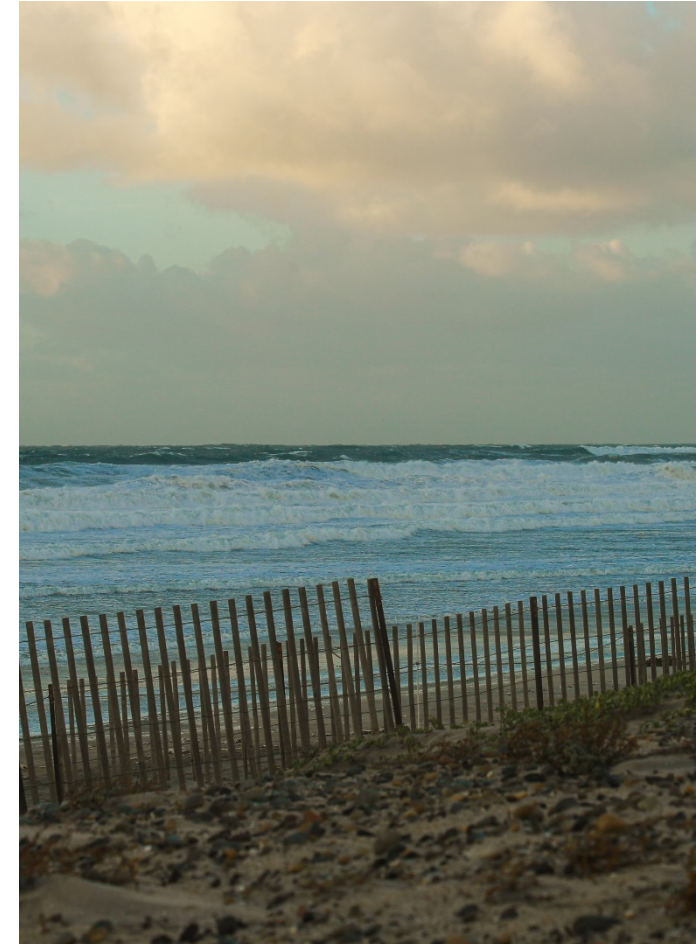
Project Summary

Why?

To serve as a natural sea-level rise (SLR) adaptation approach to protect a vulnerable segment of the roadway.

What?

2,600 feet (~0.50 miles) of created southern foredune habitat.





Project Summary

Where?

From the south end of the Chart House to the Seaside Terrace Project at the Seaside State Beach parking lot.

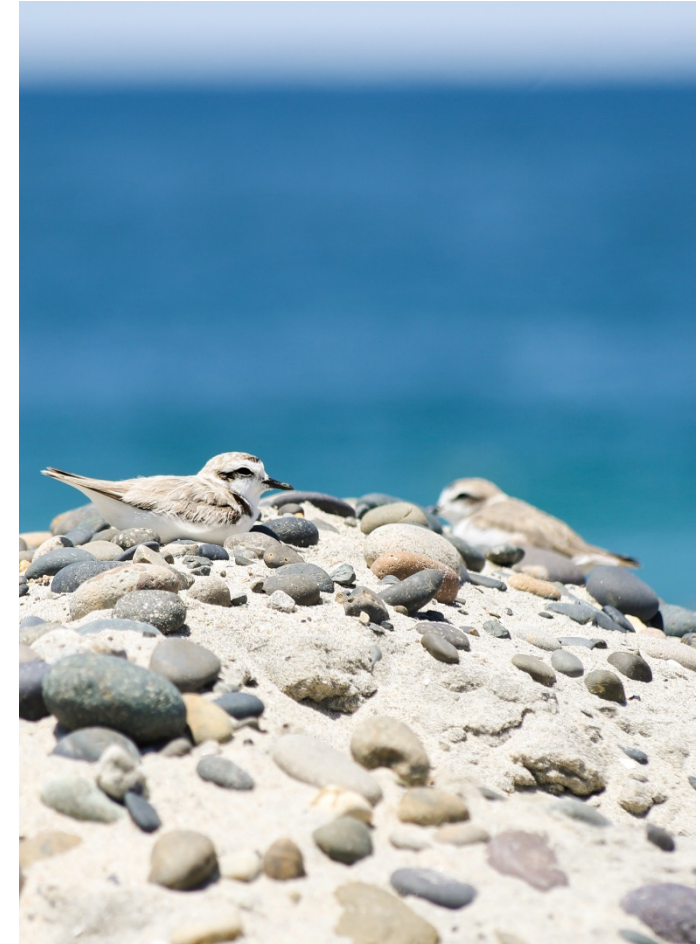




Project Summary

Who?

- The City of Encinitas
- The Ocean Protection Council
- The State Coastal Conservancy
- Nature Collective
- California Department of Parks and Rec
- SANDAG
- Moffatt and Nichol
- USFWS
- UCLA





Project Summary

When?

Start date: October 1, 2018.
Construction is estimated to last
~75 days. Last Planting effort
conducted in fall 2019.

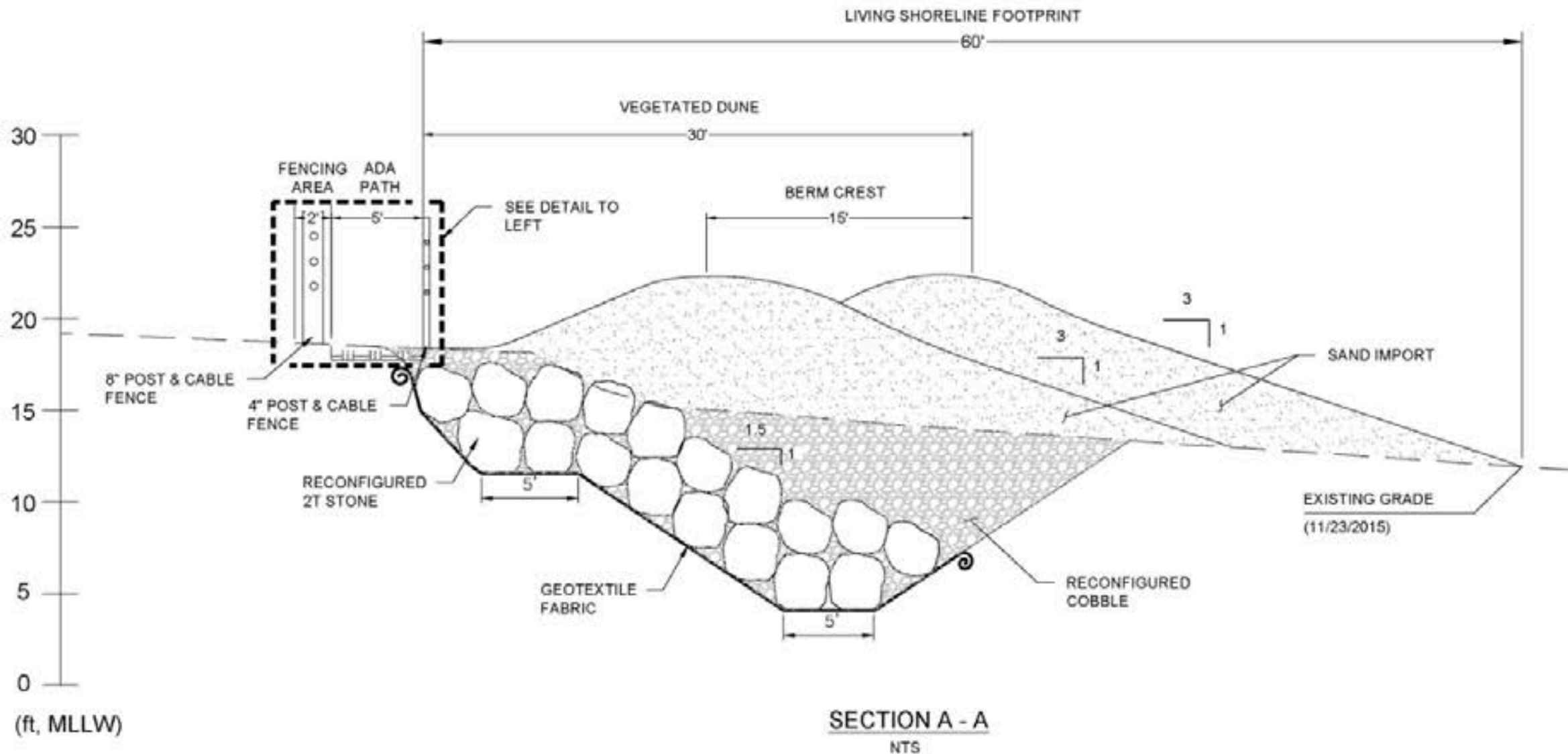




Project Summary

How?

- Sand for dune construction was sourced from the San Elijo Lagoon Inlet, as well as re-used from within the project footprint.
- Approximately 12,000 cubic yards were placed in front of the dune footprint.
- The previous stretch of rip rap and cobble along Hwy 101 was removed via trenching and piled up on the seaward end of the dune.







Public Access During Construction

- The **City** posted a Project Sign at the site giving notice to the general public of the pending construction activity.
- Throughout the process of construction public access was maintained through fencing and signage.





Public Access During Construction

- During the rock work and pedestrian trail construction, public access was maintained through re-routing the public.
- Signs were placed at the northern and southern portions of the project area.





Nature Collective's Role

- Project Biologist
- Project Planning + Management
- Sand
- Compliance Training
- Construction Monitoring
- Dune Planting
- Education + Outreach
- Long-term Biological Maintenance and Monitoring























Cardiff Living Shoreline Restoration Site - North Section Comparison





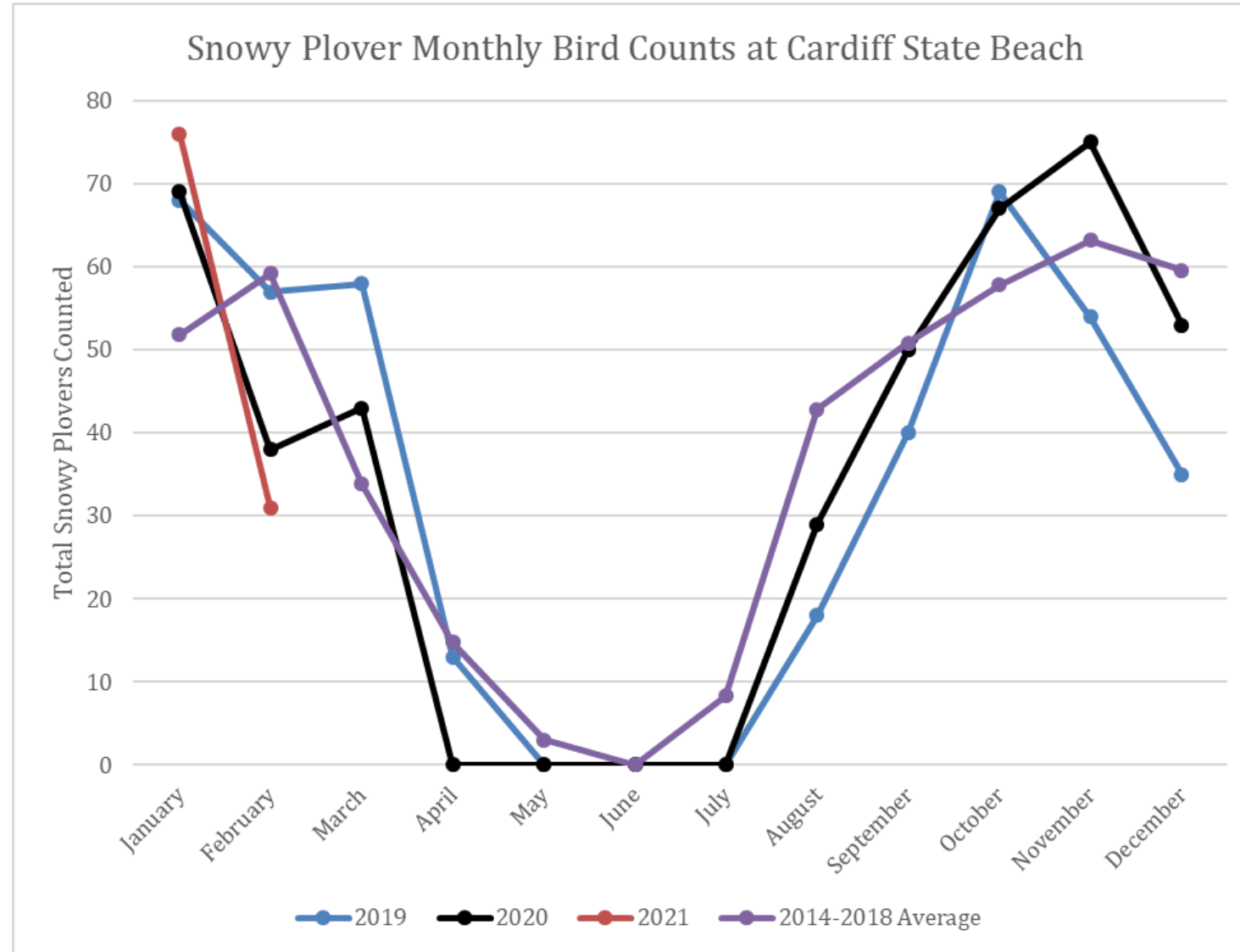














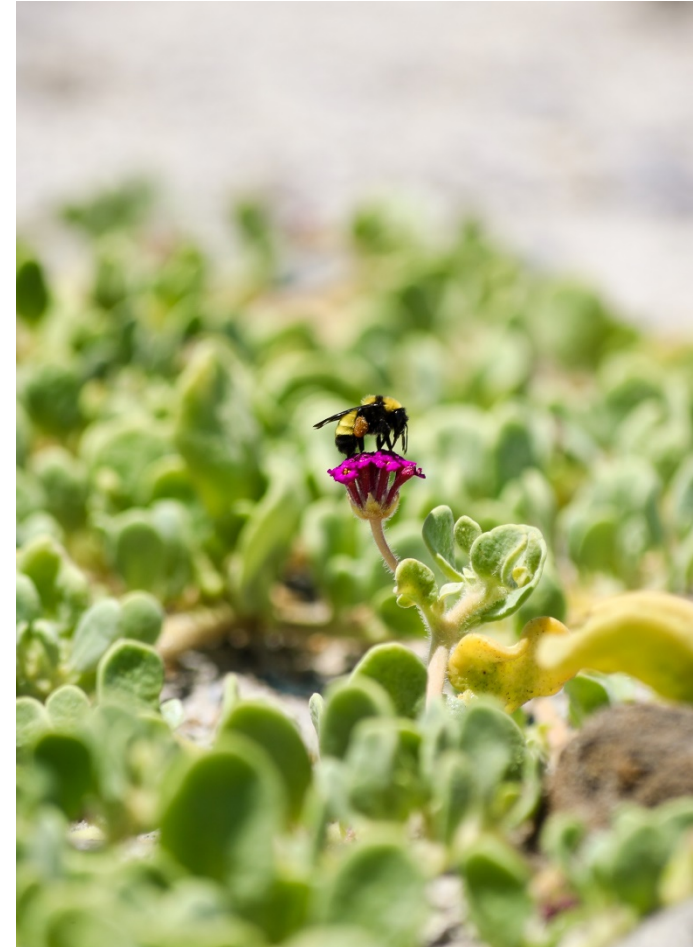
CLS Footprint and Photo Monitoring





Thanks to Our Partners

- The City of Encinitas
- The Ocean Protection Council
- The State Coastal Conservancy
- California Department of Parks and Rec
- SANDAG
- Moffatt and Nichol
- USFWS
- UCLA





Nature Collective

CONNECT. EXPERIENCE. PROTECT.