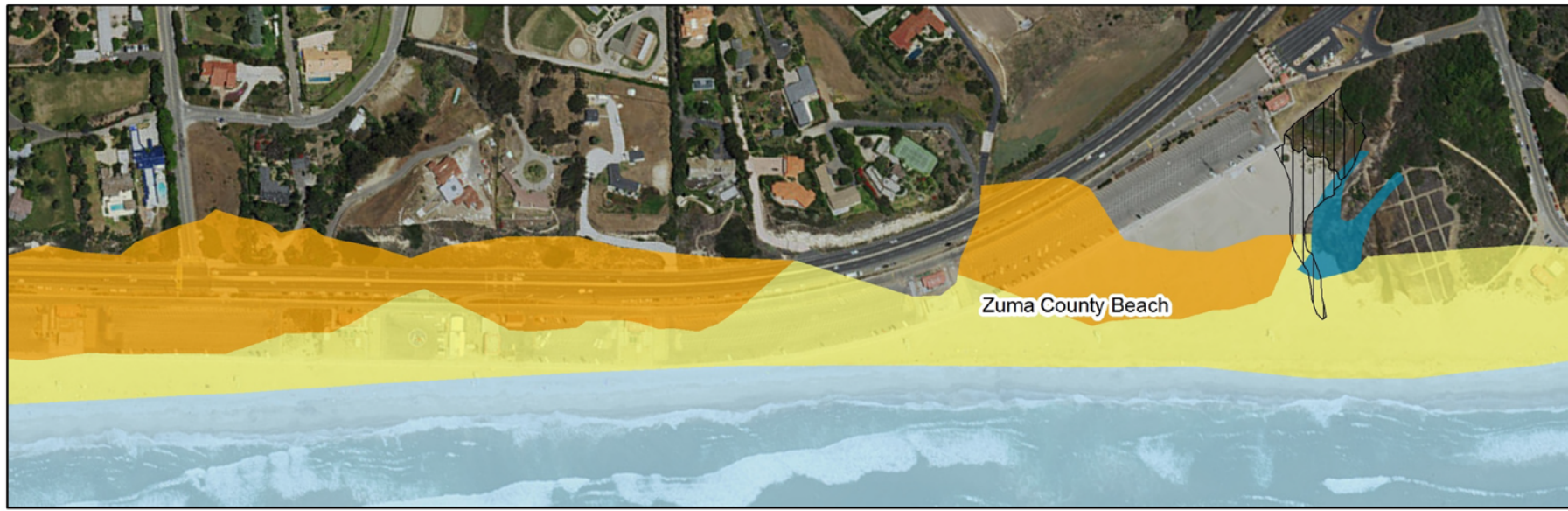


The Malibu Living Shoreline Project



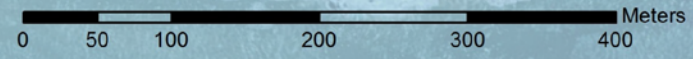


Zuma County Beach



Point Dume State Beach

Westward Beach



- Historical Wetlands**
- Ocean
 - Beach
 - Dune
 - Open Water
 - Proposed Restoration Sites

Malibu Living Shorelines Restoration Project

Historical Beach and Dune Systems at Zuma County Beach and Point Dume (Westward Beach)

Data Source: Wetland Extent derived from Historical T-Sheet 1857, 1877 (SFEI, SCCWRP, CSUN)



Project Goals

Restore ~3 acres of sandy beach and dune habitat at Zuma and Westward Beaches

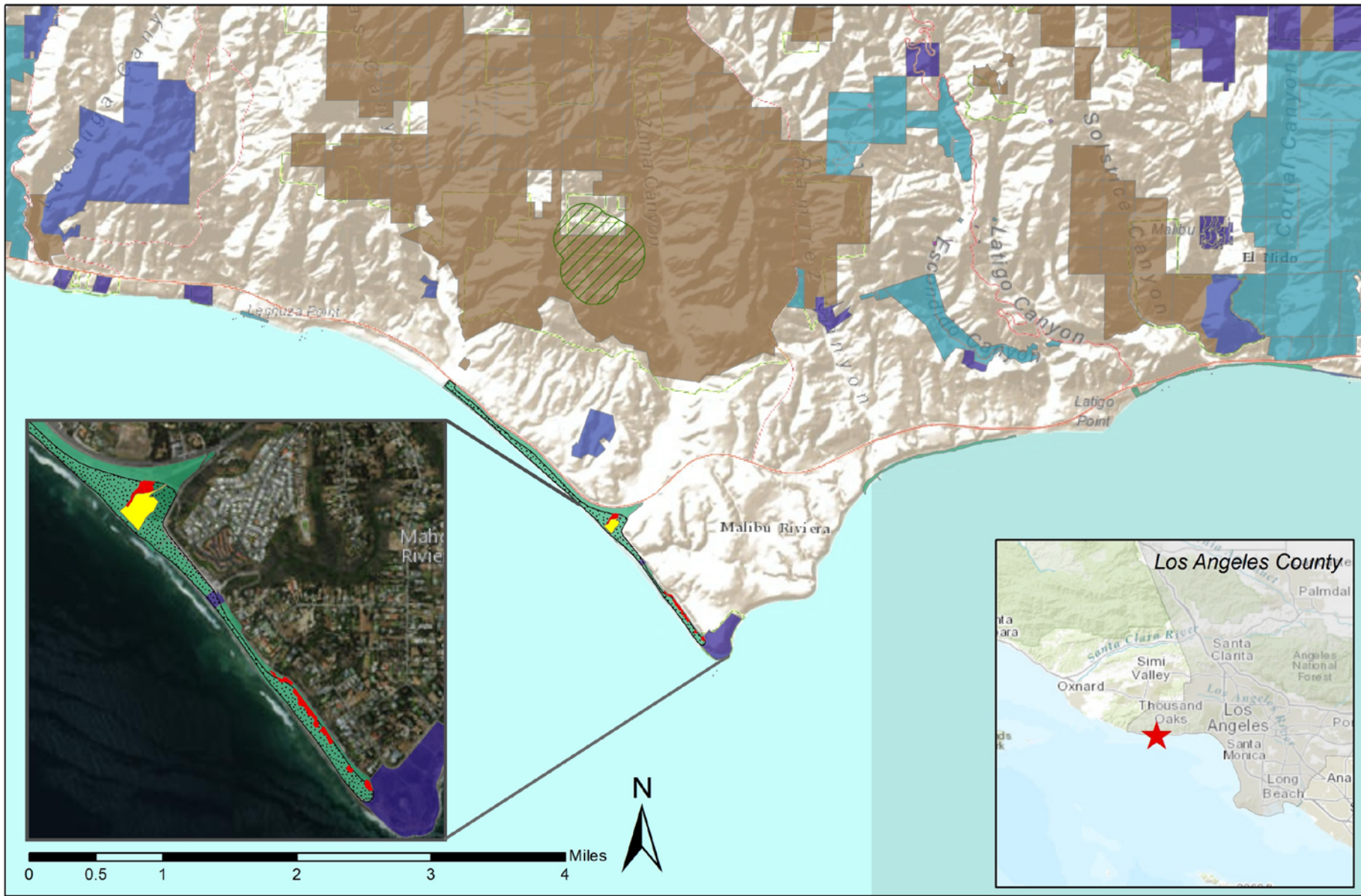
1 – increase the resiliency of the shoreline through the restoration of sandy beach and dune habitat



2 – implement “soft-scape” protection measures against sea level rise and coastal storms

3 – increase engagement of the community through enhanced beach experiences, outreach, and education





- | | | |
|-------------------------------|--|---------------------------|
| Restoration Area | California's Protected Areas | Non Profit - Conservation |
| USFWS Critical Habitat | City Agency | Open Space District |
| Braunton's milk-vetch | County Agency | State Agency |
| Tidewater goby | Federal Agency | Water District |
| Western snowy plover | <i>Data Source: USFWS 2017, CPAD 2016b</i> | |

**Malibu Living Shorelines
Restoration Project**
Regional Map
May 2017





Proposed Restoration

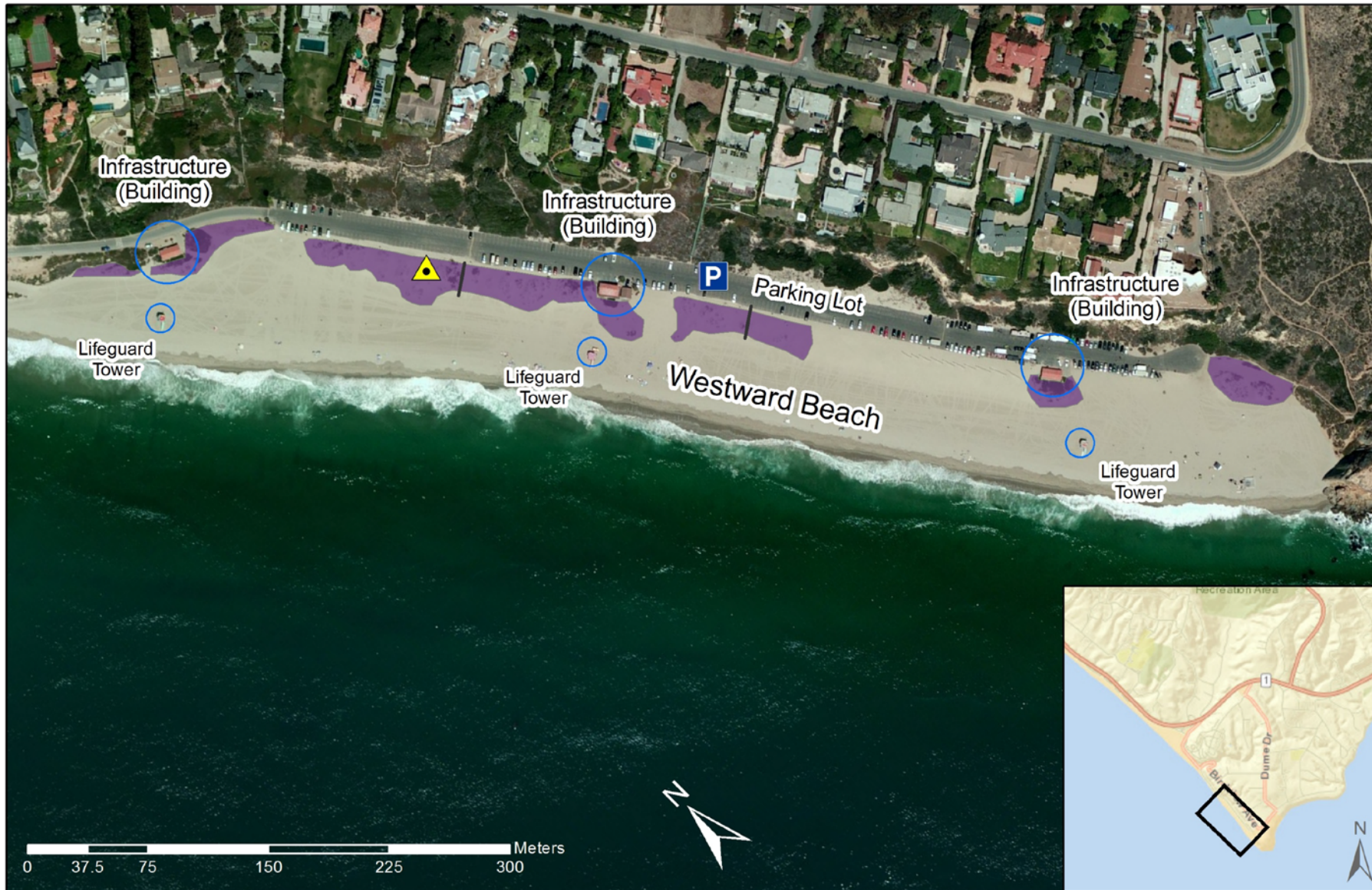
- Dune Restoration
- Iceplant Removal and Restoration
- Transitional Dune-Wetland Restoration
- Interpretive Signage
- Symbolic Fence Pathway

Malibu Living Shorelines Restoration Project
Restoration at Zuma County Beach (near Zuma Creek)

Site-scale Map

May 2017





Proposed Restoration

- Dune Restoration
- Interpretive Signage
- Symbolic Fence Pathways

Malibu Living Shorelines Restoration Project
Restoration at Westward Beach (Point Dume)

Site-scale Map

May 2017



Project Tasks

Phase 1

- 1 • Outreach and Stakeholder Meetings
- 2 • Finalize Planning and Design
- 3 • Permitting
- 4 • Baseline Monitoring

By May 2019

Phase 2

- 5 • Implementation
- 6 • Post-restoration Monitoring and Maintenance
- 7 • Post-restoration Outreach
- 8 • Project Management

Fall 2019/
Winter 2020

Spring 2021

Ongoing

