Loving Nature, Carefully: Balancing the Needs of People and Nature
Regional Setting
Why Ormond Beach?

- Significant wetland restoration opportunity in southern California
  - intact dune-transition zone–marsh system and surrounding upland habitat
  - buffer against sea level rise for local community
  - 46% of southern California wetland restoration and SLR habitat migration opportunities are in the Ventura sub-region (*SCWRP Regional Strategy 2018*)

- More shorebird species are known to use Ormond Beach than any other site in Ventura County
  - over 200 migratory bird species – eBird hot spot
  - California least terns & western snowy plover breeding grounds

- Benefit and Resource to the residents of South Oxnard and beyond
  - Include marginalized populations in restoration planning
  - Develop community support and value of the area
  - Provide access to currently inaccessible areas
Threats to the Ormond Beach

- Industrial and urban development
- Levees/channelization
- Agricultural development
- Marinas/ports
- Draining/filling/dumping
- Agricultural pesticides/degraded water quality
- Power generation infrastructure and discharge
- Heavy metal contamination - soils and groundwater
- Invasive species/predators
Threats to the Ormond Beach

Sea Level Rise/Global Warming

The California Climate Change Center estimates that 16,000 people in Ventura County would be vulnerable to the impacts of a 100-year flood coupled with a 1.4-m rise in sea level.
Climate Change & Sea-level Rise Modelling (SLAMM)

Sea-level Rise  Tidal inundation

http://maps.coastalresilience.org/california/#
Climate Change & Sea-level Rise Modelling (SLAMM)

Sea-level Rise vs Tidal inundation

1 ft

http://maps.coastalresilience.org/california/
Climate Change & Sea-level Rise Modelling (SLAMM)

Sea-level Rise

Tidal inundation

http://maps.coastalresilience.org/california/
Climate Change & Sea-level Rise Modelling (SLAMM)

Sea-level Rise

<table>
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<th>Sea-level Rise</th>
<th>Tidal inundation</th>
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<td>5 ft</td>
<td>2100</td>
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http://maps.coastalresilience.org/california/
Ormond Beach Restoration and Public Access Plan

Vision

A resilient coastal environment that inspires the enjoyment, use, and support of the local community and beyond.
Goal: Restore the natural ecosystem and habitats

USDA
Regional Restoration Priorities

- Restore wetland area, size, distribution, habitat diversity and condition.
- Protect and increase the area of wetland/upland transition zones.
- Restore hydrological connectivity (freshwater & tidal).
Existing Habitats

Designated Areas
1. Ormond Lagoon, inc. beach, dunes, and channels
2. Ormond Lagoon Waterway
3. South-of-Railway, near Halaco slag
4. South-of-Railway, near power plant
5. Agriculture
6. Tank Farm
7. Salt Marsh / Pan
8. Beach and dune south of 3
9. Beach and dune south of 5
10. Beach and dune south of 6

SCWRP 2018:
Restored Ormond Beach is an Intermediate Estuary
Restoration priorities

- Self-sufficient ecosystem with minimal active management or maintenance
- Reroute Ormond Lagoon Waterway away from the Halaco Properties to improve water quality and to support additional habitat with a more natural channel
- Emphasize salt marsh, salt pannes, dunes and dune swales with an eye to habitat conversion with SLR
- Facilitate habitat migration in response to SLR; allow for increased salt marsh at Ormond as salt marsh at Mugu Lagoon is lost; allow for beach and dune migration inland.
- Create a series of shallow basins in the agricultural area at different elevations; higher basins will convert to salt marsh and salt panne habitat as sea level rises
- Hydrologic connectivity between wetlands and the agricultural area; maintain a balance between freshwater inputs and desired salt marsh habitat
- Heterogeneity as a hedge against uncertainty
- Favor larger patches of continuous habitat over smaller less resilient patches
- Expand wetlands and upland transition habitats
- Use adaptive management and pilot projects to refine final project design
Goal: Improve Public Access and Enjoyment of Ormond Beach While Protecting Nature
Public Access Priorities

- Access points that connect to neighboring communities, including non-automobile forms of transportation
- Emphasize perimeter trails; support a “natural experience” where habitat is not broken up by trails; allow wildlife more room to move
- Family loops (i.e. short, easily accessible walking path) at Ormond Lagoon and near the Ormond Lagoon Waterway
- Include spur trails, bird blinds and overlooks for birding and views, educational kiosks
- Bridge over tšumaš Creek, bridge or floating dock over Ormond Lagoon and Lagoon Overlook to provide beach access
- Multi-use trails (e.g. walking, biking, running) that connect to the CA Coastal Trail
- Multi-use trails used for site security to protect sensitive habitats and tern and plover nesting and foraging areas
- Seasonal symbolic fences along dunes and seasonal trail closures to keep people on strand and away from sensitive habitats
- Amenities for schools and community groups; parking/turn-arounds for multiple school buses
- Improve visitor experience through interpretive signs, viewing areas, restrooms, shade structures, picnic tables, benches, trash cans and parking
Next Steps
Acknowledgements

Project Partners

Coastal Conservancy

Consultants

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Science Advisory Committee

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Valerie Vartanian, US Navy
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The Graduate

But mom, I'm building my career around habitat restoration.

That's fine, honey, but I'm still not turning my craft room back into your bedroom.

Questions?