

Finding balance when  
you are stuck in a  
marsh: Navigating the  
complexities of Upper  
Newport Bay for  
effective invasive plant  
management

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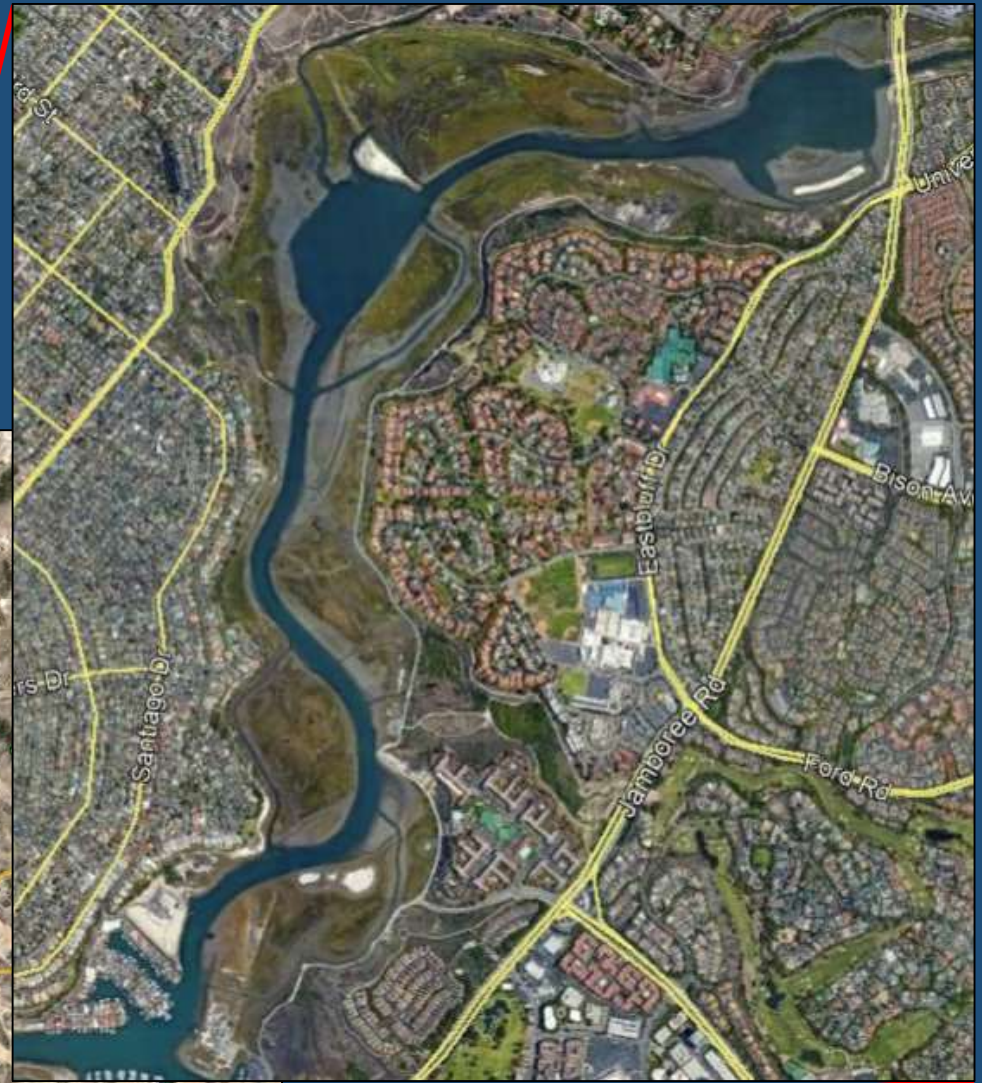
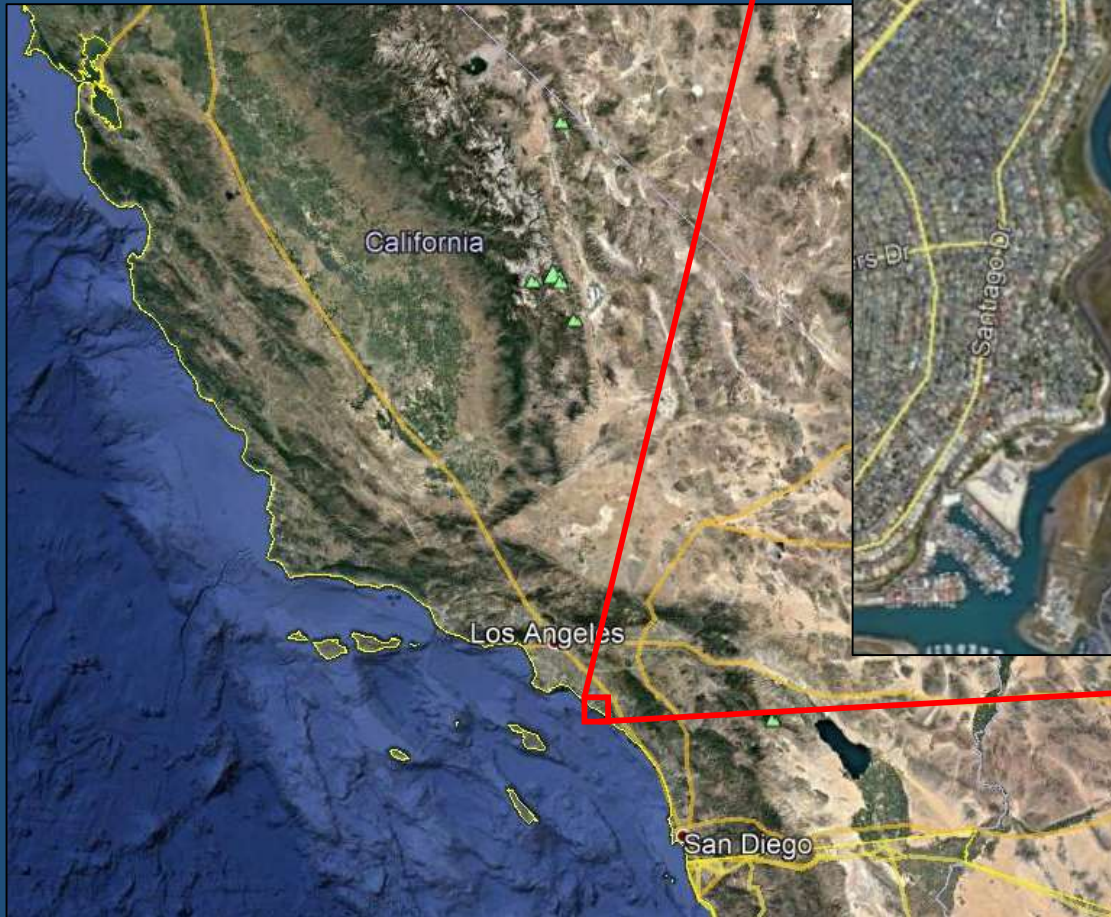
Newport Bay Conservancy

California Invasive Plant Council Symposium

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# Upper Newport Bay





# What challenges does Upper Newport Bay face?

- History of disturbance
- Urban development
- Extremely sensitive habitat
- Complex land ownership, stakeholder, and partner relationships



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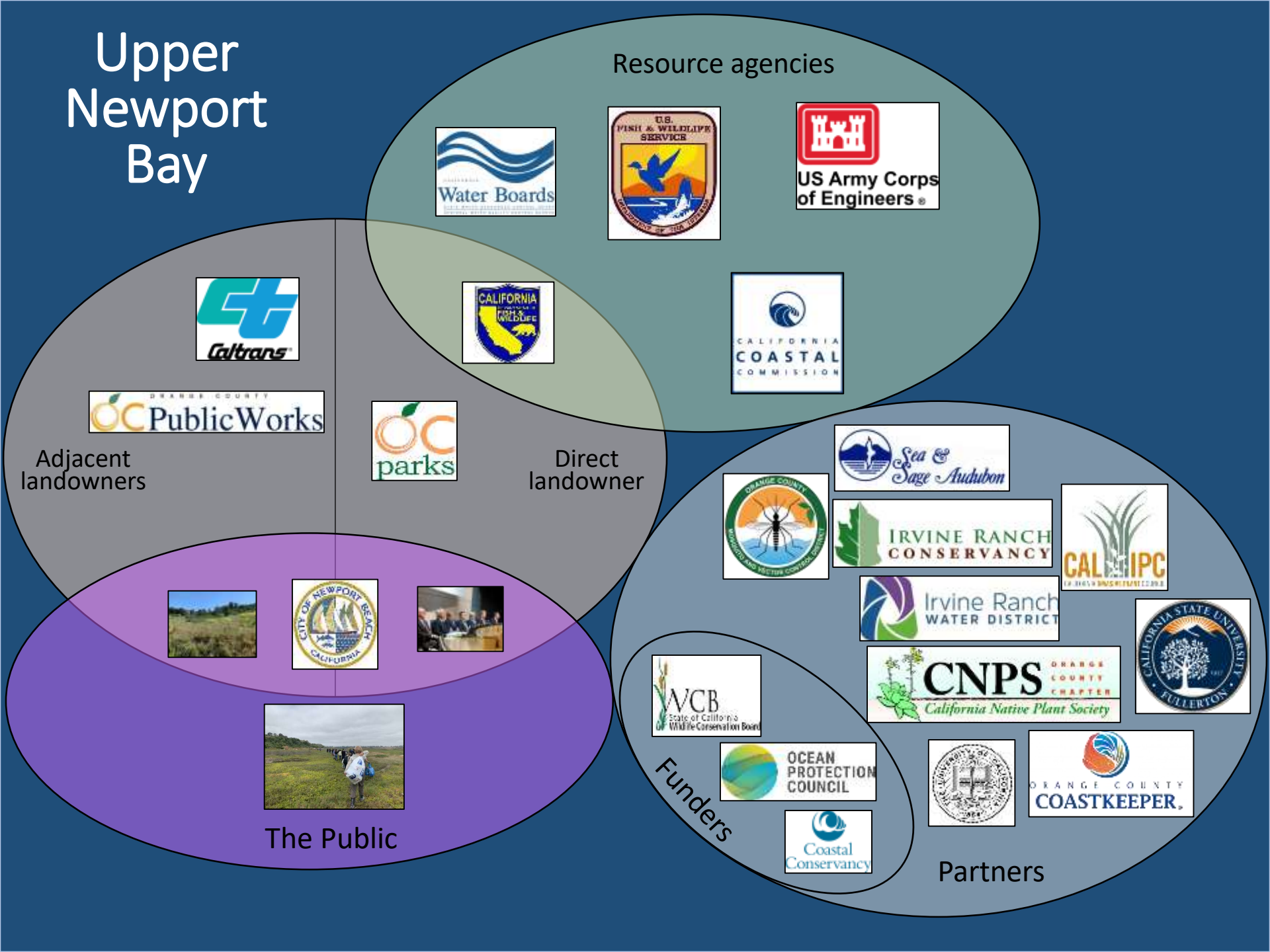




# Complex land ownership, stakeholder, and partner relationships

- Landowners: often have some degree of involvement with land management
- Resource agencies: issue permits for restoration and land management activities
- The public: the City (council, committees), residents and homeowners, volunteers
- Partners: other nonprofits, educational and other independent institutions
  - Funders

# Upper Newport Bay



Resource agencies



Adjacent landowners

Direct landowner



The Public



Funders



Partners

# What is the Newport Bay Conservancy's role in managing invasive plants in Upper Newport Bay?

- Big Canyon Restoration and Habitat Adaptation Project
- Monitoring and management of invasive *Limonium*
- Eradication of *Volutaria tubuliflora*



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# Big Canyon Habitat Restoration and Adaptation Project



## Major Site Issues

- Big Canyon Creek with altered hydrology and dry weather flows
- Invasive Brazilian peppertrees dominate

## Goals

- Remove all invasive plants
- Restore hydrology
- Reestablish native communities

## Challenges

- Multiple landowners
- Considered tidelands
- Homeowners immediately adjacent

# Big Canyon Habitat Restoration and Adaptation Project



**Big Canyon Habitat Restoration & Adaptation Project**  
Prepared by Newport City Conservancy

**Public Health & Safety**

- Standing water creates mosquito-breeding habitat.
- Invasive vegetation provides cover for undesirable and illegal activity.
- Invasive plants (Invasive perennials for sale) increase soil erosion during heavy rain events.
- Polyphagous shot-hole borer (PSHB), an invasive beetle, attacks over 115 tree species including several important trees and forest tree health and vigor.

**Ecological Issues**

- Elevated sediment levels impact water quality and riparianity of local wildlife.
- Disruption of riparian vegetation and other resources (plants, animals, birds) plant growth.
- Invasive plants and PSHB infested trees present potential wildlife habitat for sensitive wildlife of the area.
- PSHB infests and can be carried into trees further reducing habitat for wildlife.

**Project Benefits**

- Establish a contractee ensure that ability mitigate flooding.
- Remove areas for undesirable and illegal activity.
- Decrease soil erosion, increase potential for flooding, and protect groundwater by eroding the flood plain and planting native vegetation.
- Create an artificial meadow and native habitat that will act as a natural filtration system, trapping sediments and nutrients before they discharge into Upper Newport Bay.
- Remove/deplete plant communities that will provide habitat for native wildlife including two endangered birds (Least Tern & Western Gull) & the Southern Spotted Owl.
- Reduce sediment levels, protecting native wildlife.

**Timeline**

November 2019 February 2020	Late Summer/Early Fall 2020	Late Fall/Early Winter 2020
Select plant & PSHB infested landscape removal	Removal of riparian vegetation with grading & erosion control	Planting native plant species & installation of biocontrol agents

## Approach

- Technical Advisory Committee
  - all stakeholders and interested partners
- Strong correspondence with permitting agencies
- Building relationships with City staff and committees
- Giving presentations and creating “fact sheet” for neighboring homeowners



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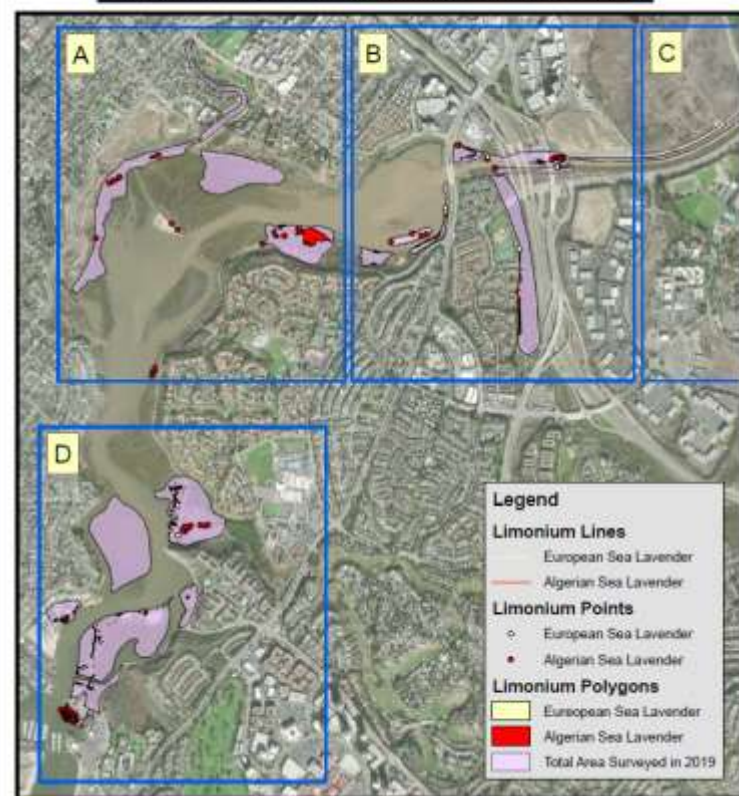
# Invasive *Limonium*



## Major Site Issues

- Invasive *Limonium* inhabits sensitive habitat throughout Upper Newport Bay
- *L. ramosissimum* and *L. duriusculum*

Areas Surveyed for Invasive Limonium 2019



## Goals

- Survey new areas
- Treat known populations
- Re-survey treated areas

## Challenges

- Multiple landowners throughout bay and upstream
- Homeowners throughout Bay
- Limited person power

# Invasive *Limonium*



## Approach

- Weekly community-based restoration events with regular volunteers
- Hosting larger groups when available
- Hiring specialized interns and contractors to survey, map and help treat
- Work with other partners to divide and conquer surveying and treatment
- Educational signage



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# EDRR of *Volutaria tubuliflora*



## Major Site Issues

- Two large populations in Bay on different properties

## Goals

- To eradicate from Upper Newport Bay
- Survey new locations
- Treating all infested areas

## Challenges

- Conducting bay-wide surveys
- Coordination and data sharing

# EDRR of *Volutaria tubuliflora*



## Approach

- Strategic meetings with stakeholders
- Actionable project activities
- Establish method of information sharing and coordination
- Coordinating treatments with subcontractors and volunteers



# Conclusion

- Important to understand the dynamics between stakeholders and partners
- Balancing and maintaining these relationships increases project success
- Know your audience to highlight their priorities and for effective communication



# Questions?

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