

San Diego Audubon Community- based wetlands restoration



Presented by Chris Redfern
sandiegoaudubon.org

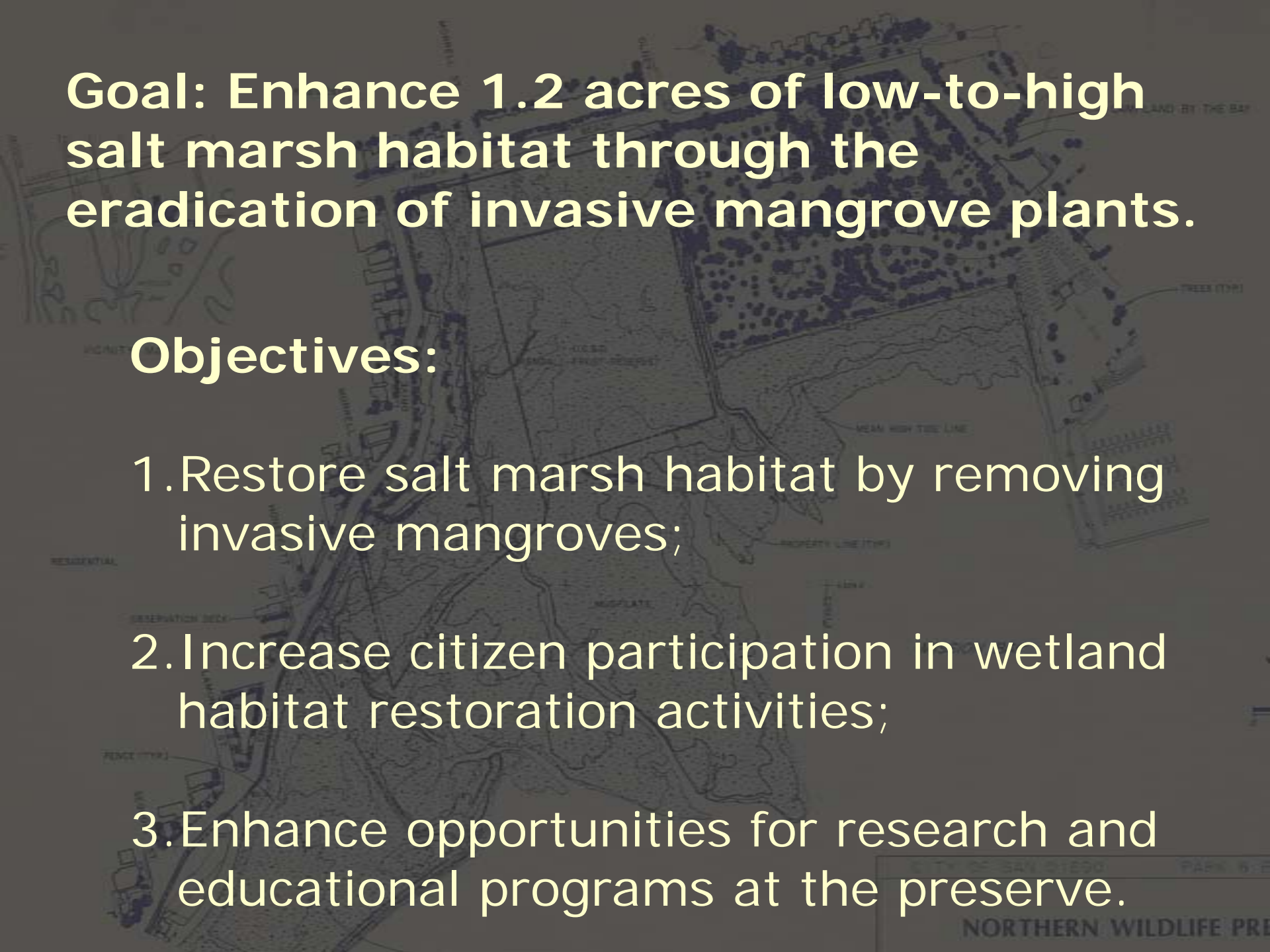


San Diego Audubon
non-sanctuary paid staff (in foreground)



Five Topics

- Project overview & partnerships
- Scientific research & intern program
- Community outreach
- “Friends” & post-project monitoring
- Organizational capacity-building

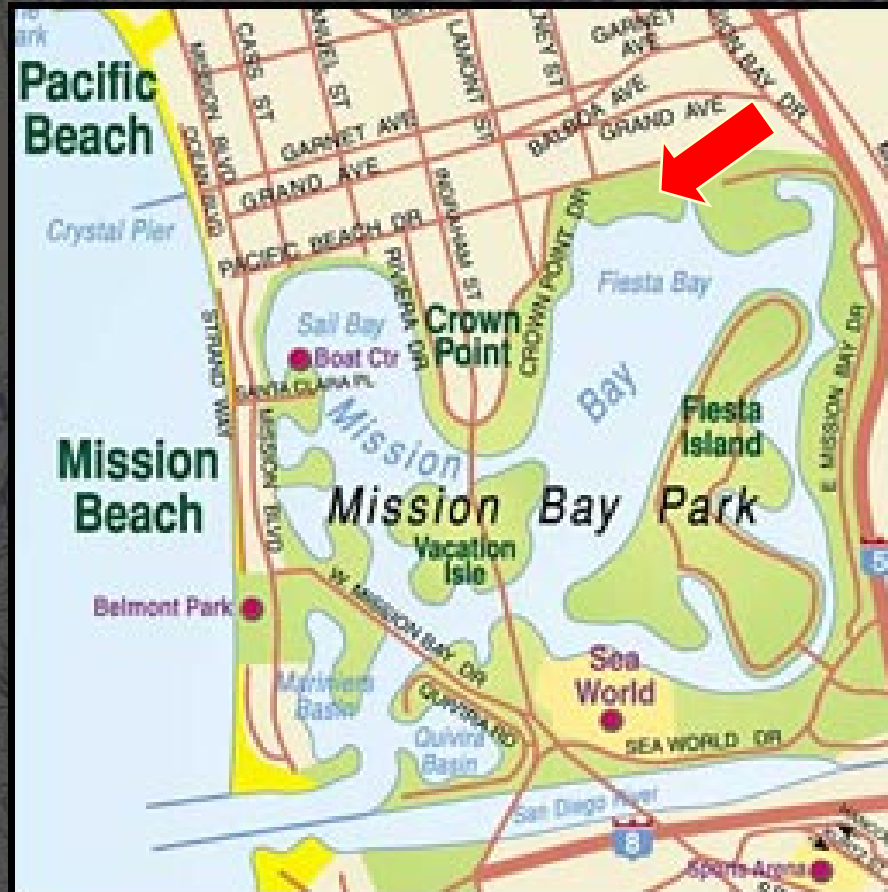


Goal: Enhance 1.2 acres of low-to-high salt marsh habitat through the eradication of invasive mangrove plants.

Objectives:

1. Restore salt marsh habitat by removing invasive mangroves;
2. Increase citizen participation in wetland habitat restoration activities;
3. Enhance opportunities for research and educational programs at the preserve.

Project Site: Northern Wildlife Preserve



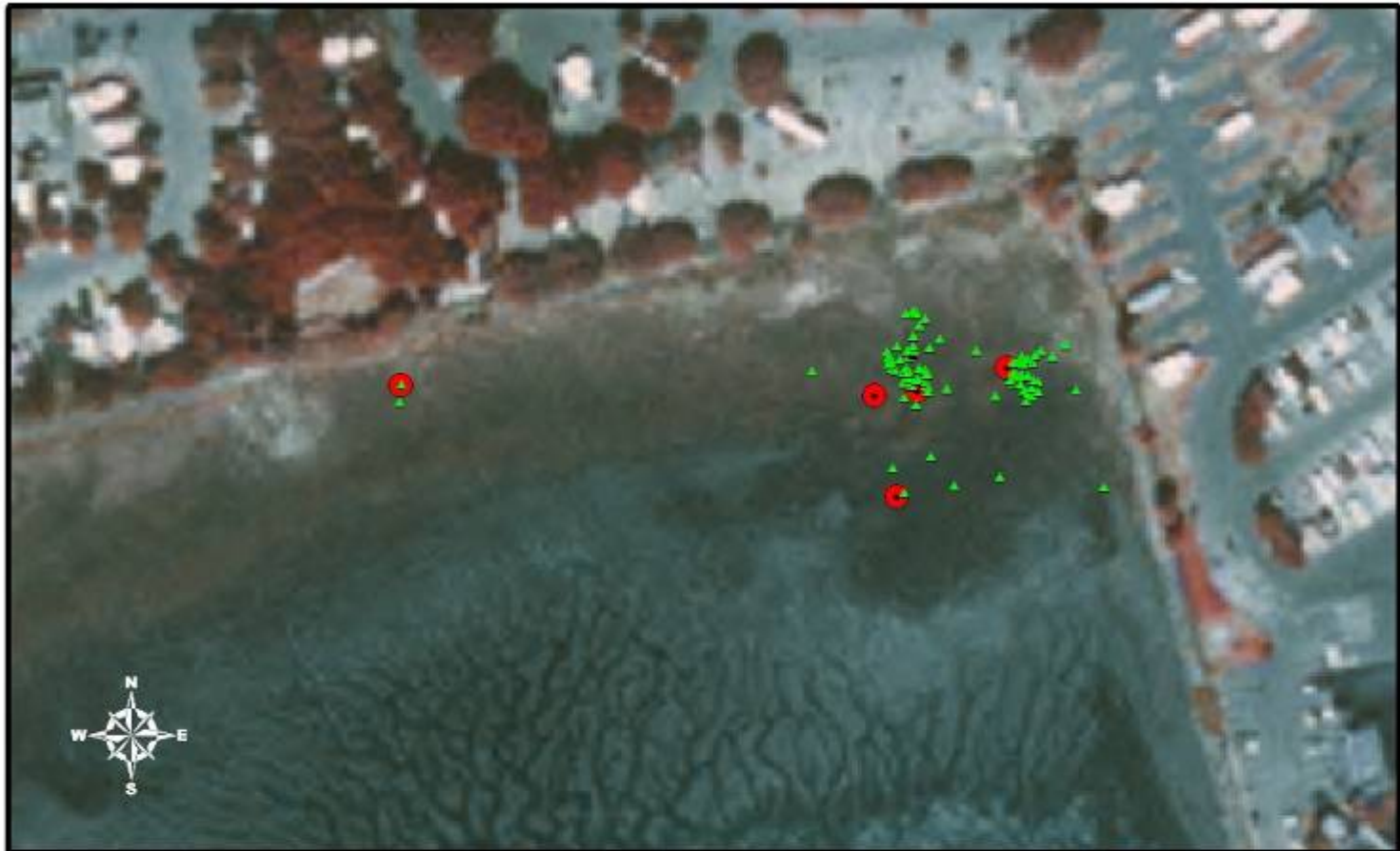
Kendall Frost Marsh circa 1970's



Invasive: *Avicennia marina* (Grey Mangrove)



Mapped extent of invasion



0 50 100 200 Feet

Base map: dir2000west.sid (SANGIS)

Legend

- ▲ fruiting mangroves
- Largest fruiting mangroves

Partnership Roles



Funder



Design science component



Intern program



Community outreach & project management



Scientific research & intern program

CITY OF SAN DIEGO

PARK 6-E

NORTHERN WILDLIFE PRE

Isabelle Kay, UC Natural Reserve Manager



Dr. Amanda Demopoulos, Grad. Researcher



Interns

- Jared Ocampo
- Ulisses Barraza
- Marlem Rivera
- Adrian Alvarez
- Vanessa Sandoval (C)
- Lindsay Goodwin (C)

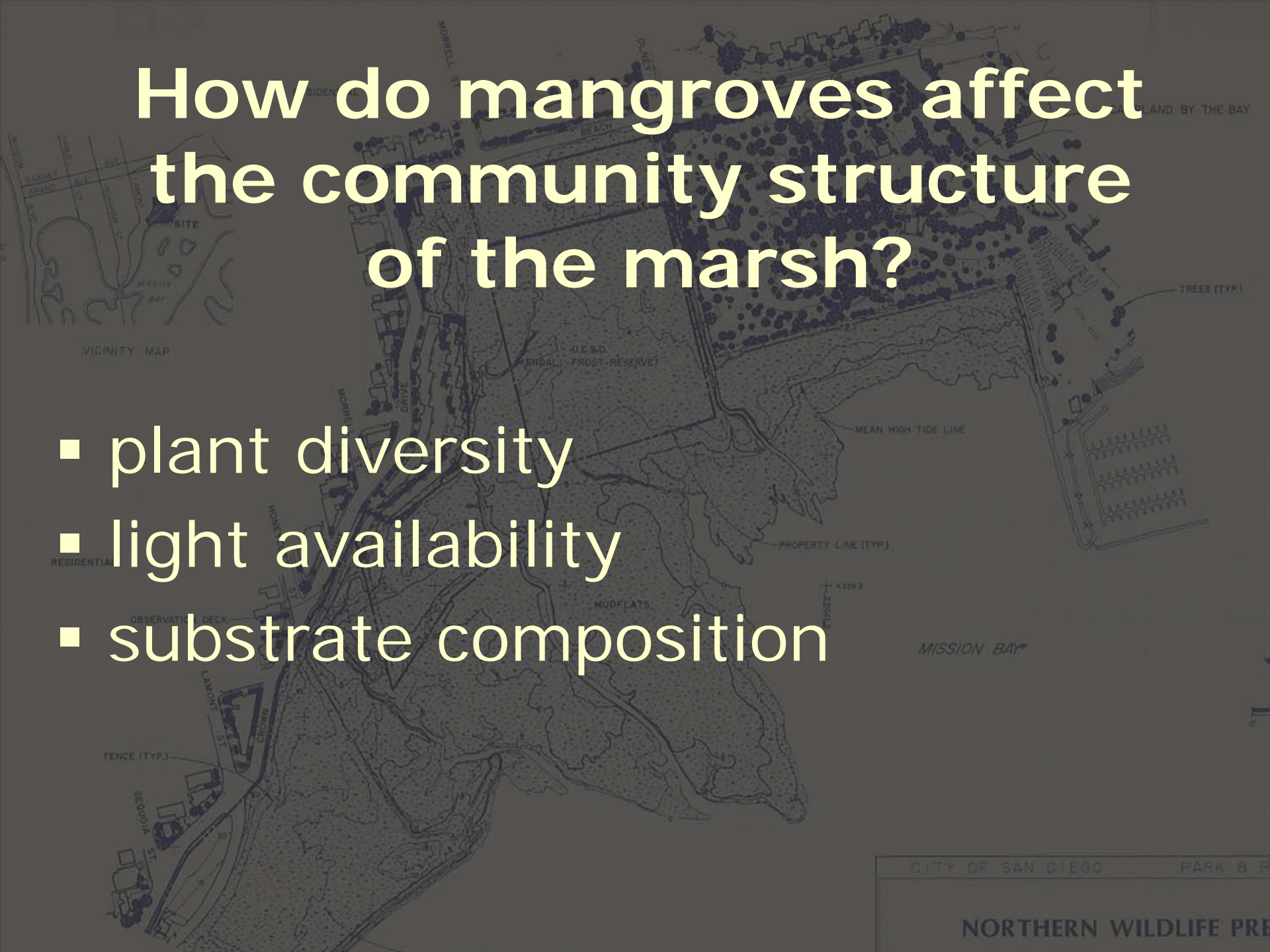
Undergrad Researcher

- Rebecca Schwartz



How do mangroves affect the community structure of the marsh?

- plant diversity
- light availability
- substrate composition



Plant diversity

- quadrats with control plots
- plant species
- percent cover
- plant height



Light availability

- light meter
- canopy
- base



Substrate composition



- sediment cores
- root biomass (dried and weighed)
- particle size
- organic matter

Community outreach



Volunteer recruitment methods



Event posting – local newspapers, online volunteer sites, community calendars, university volunteer clubs, high schools that have community service requirements.

Door hanger distribution – 100 door hangers distributed to the immediate area surrounding our project site.

Media coverage – a feature piece was written on the project and published in the SDUT

Public Awareness – the project was presented to the Mission Bay Park Committee to raise community consciousness of the project.

Work party results



Work party results

- **3** work parties
- **30-70** average participants
- **4,658** mangrove plants removed
- **408** volunteer hours generated
- **25-30%** of volunteers came 2 or 3 times
- **10** volunteers signed up for "Friends" group



Friends of Mission Bay Marshes

A 'Friends of Mission Bay Marshes' group will continue to participate in marsh-based stewardship activities.

May 2008 – Interpretive marsh walk

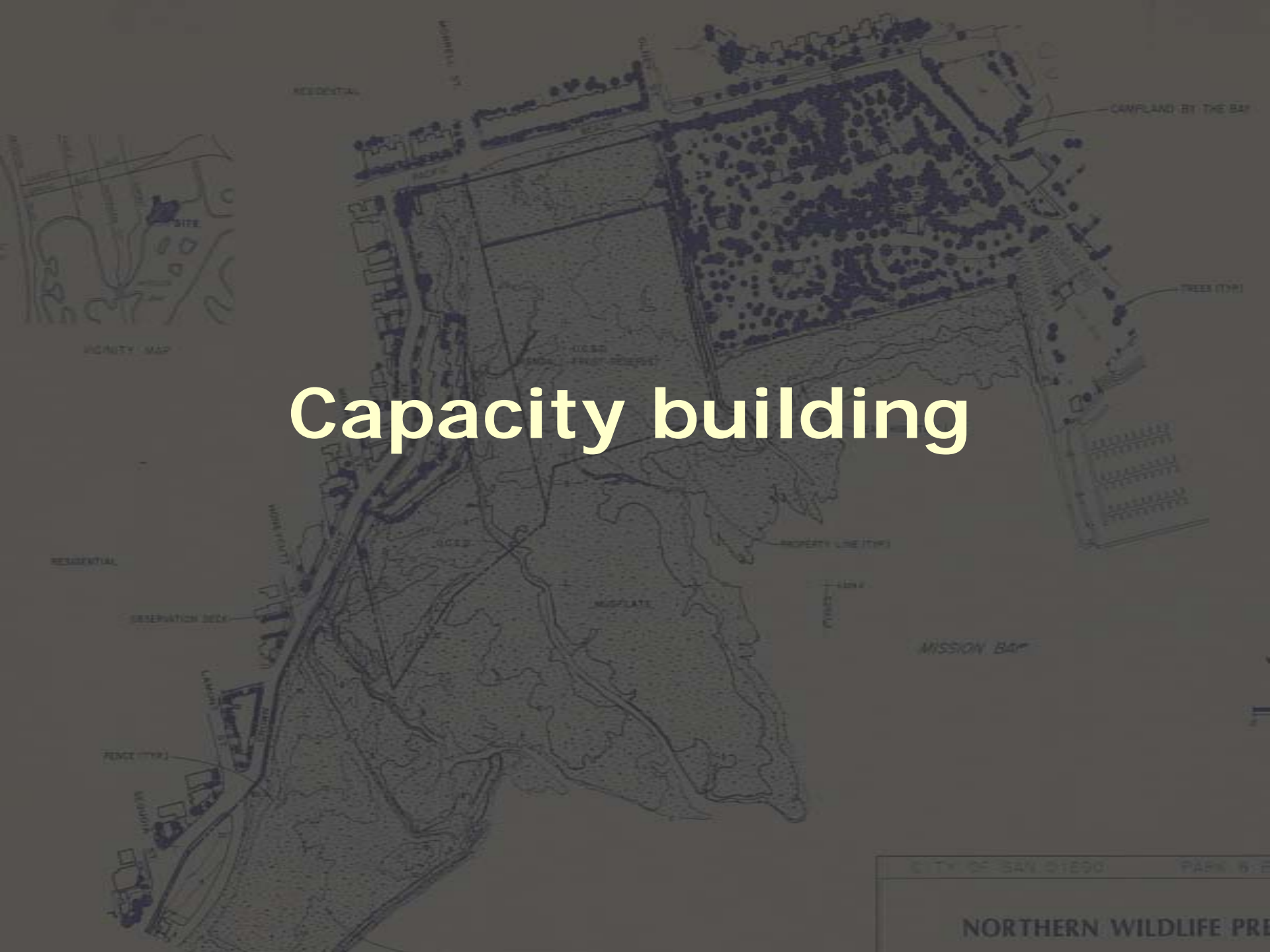
September 2008 – post-project monitoring work

February 2009 – 'Love your wetlands' Day

Objectives Results

1. Restore salt marsh habitat by removing invasive mangroves; all visible mangroves were removed; post-project monitoring by the “friends” group will ensure they don’t return.
2. Increase citizen participation in wetland habitat restoration activities; 113 community-members participated in the project; a “friends” group is currently being formed.
3. Enhance opportunities for research and educational programs at the preserve. High school interns and an undergraduate were able to conduct research as a part of this program. K-6 students visit during an after-school program.

Capacity building





Mangrove removal

Mariners Point

Dune restoration



**D Street
LETE**

**D Street
WSP**

4.59 mi

Image NASA
Image © 2007 DigitalGlobe
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Google™

Success factors



Cultivate volunteer leadership



Integrate educational messages



Share your project with the community

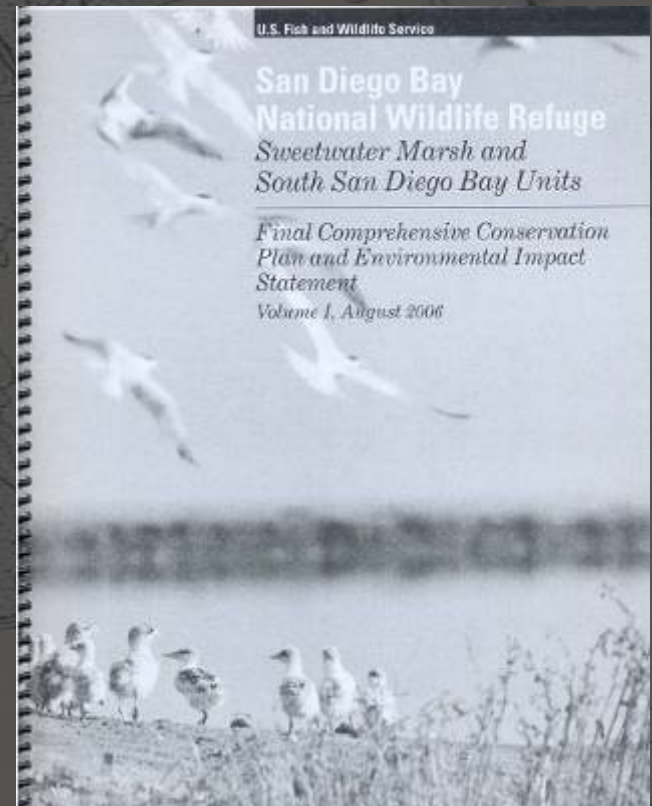
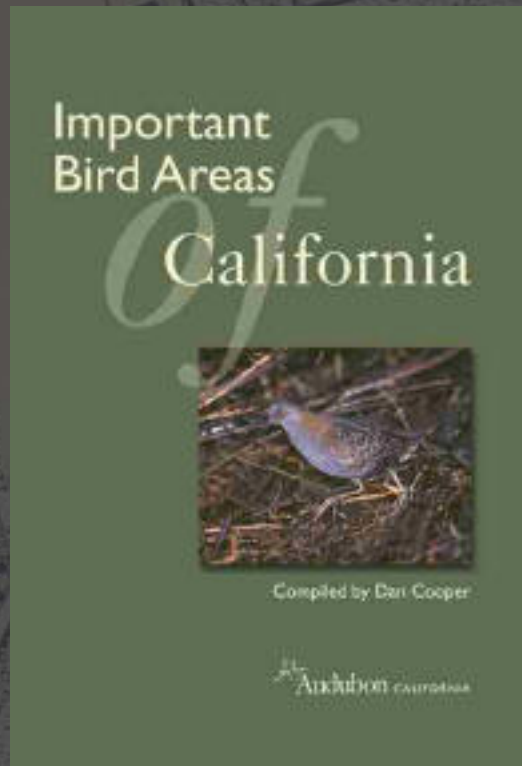


Find ways for kids to get involved





Align with priorities set by funders & partners



Questions?



CITY OF SAN DIEGO PARK 6-2
NORTHERN WILDLIFE PRE