

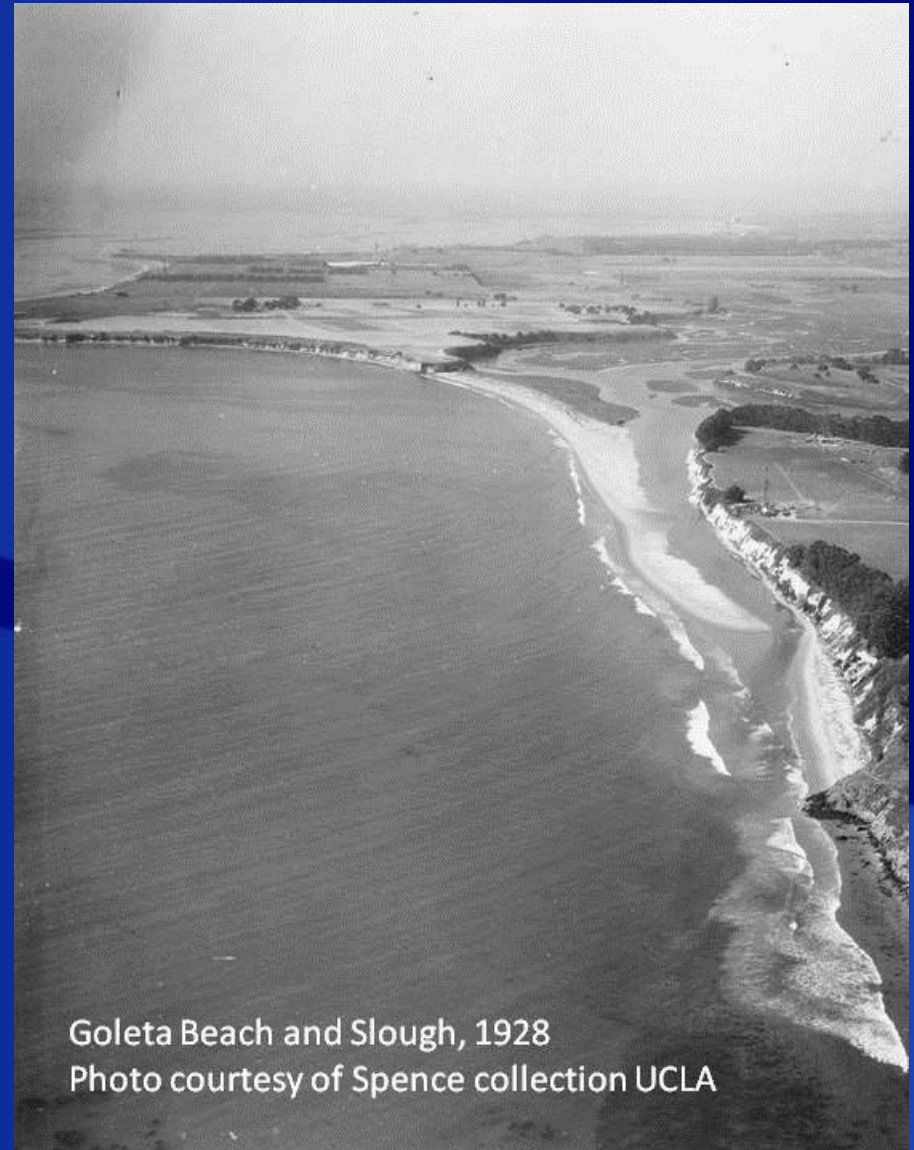
# GOLETA SLOUGH HYDROLOGIC MODELING

Santa Barbara County Board of Supervisors

February 18, 2014

# Goleta Slough

- Largest coastal wetland on South Coast
- Northern limits of several Southern California species
- “Supermarket” for coastal wildlife



Goleta Beach and Slough, 1928  
Photo courtesy of Spence collection UCLA

# Goleta Slough Management Committee (GSMC)

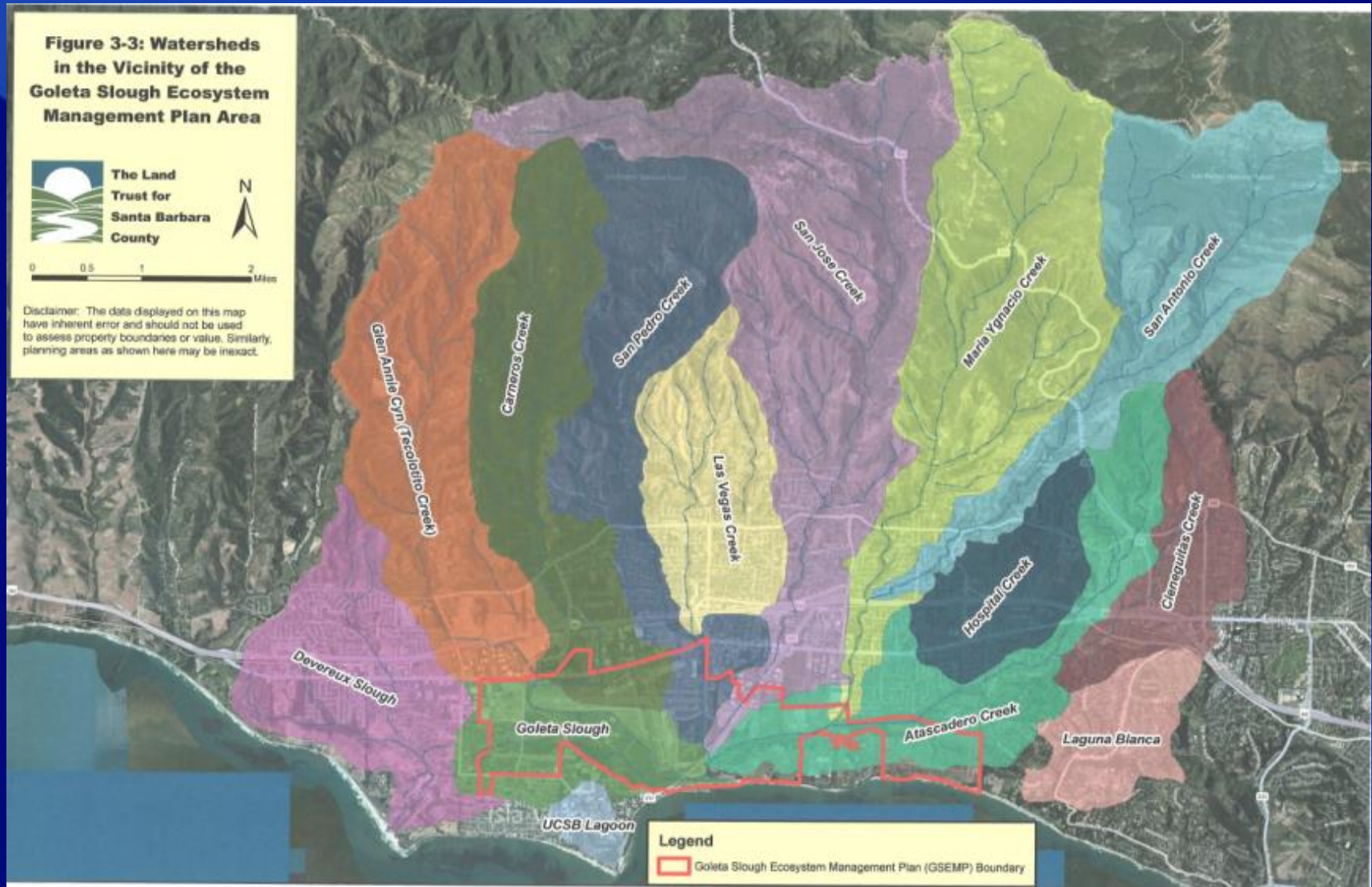
- Founded in 1991
- Ad hoc committee of interested parties, property owners, and government representatives
- Supported by member entities (e.g. Airport)

# Goleta Slough Ecosystem Management Plan (GSEMP)

- Completed in 1997
- 2013 update underway
  - Includes sea level rise modeling
  - Assumes Flood Control maintenance activities continue
  - Will inform land use, habitat restoration, and capital infrastructure planning

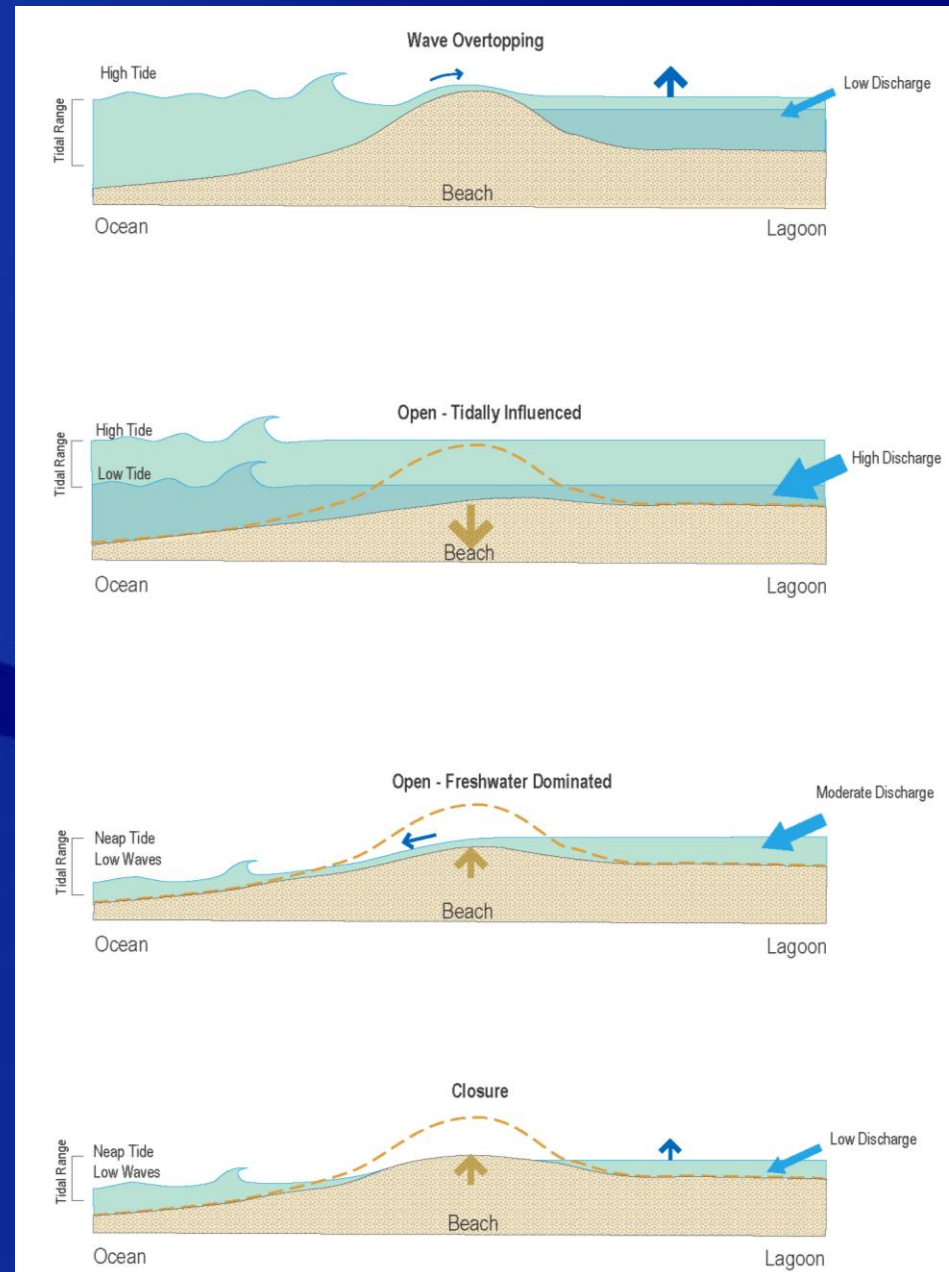


# GSEMP Area



# Slough Mouth

- County maintenance of open channel until in 2013
- Mouth breach now subject to natural forces/cycles





# Closed Mouth (high tide)



# Open Mouth (high tide)





# Why study the Slough Mouth?

Critical infrastructure is already affected  
Sea level rise (SLR) effects unknown

Low Tide, Open Mouth



Low Tide, Closed Mouth



# What does SLR look like?

2008



# What does SLR look like? (cont)

1995





# What does SLR look like? (cont)

1969



# What does SLR look like? (cont)

1941



# Inlet 13 Model

- Models seasonal closure cycle of coastal lagoons.
  - E.g. Mission Creek, Devereux Slough.
- Identifies changes in habitat condition and flood risk from ocean and rainfall.
- Will assist with Goleta Beach 2.0, Airport wildlife studies, and LCP updates.



# Funding and In-Kind Partners

| Inlet Model                          | Amount          |
|--------------------------------------|-----------------|
| <u>County of Santa Barbara CREF*</u> | <u>\$30,000</u> |
| USFWS Wildlife Coastal Program*      | \$7,530         |
| City of Santa Barbara                | \$5,000         |
| Coastal Conservancy                  | \$1,500         |
| <b>Total</b>                         | <b>\$44,030</b> |

| GSEMP Update                  | Amount           |
|-------------------------------|------------------|
| Coastal Conservancy           | \$50,000         |
| Goleta Valley Land Trust      | \$20,000         |
| City of Santa Barbara         | \$14,000         |
| Goleta West Sanitary District | \$15,000         |
| UCSB Coastal Fund             | \$5,000          |
| <b>Total</b>                  | <b>\$104,000</b> |

# Questions

