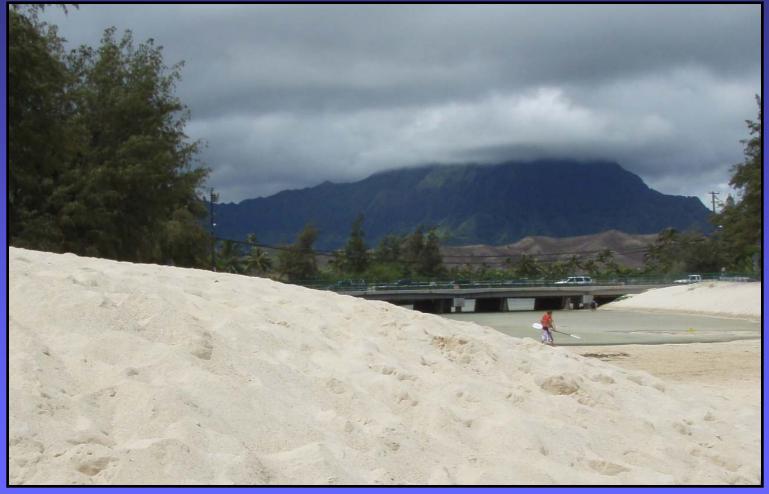


# Ka'elepulu Stream







# Recent Shoreline Change





# Sand Grabbers August 2006 to August 2008







# **Boat Ramp Erosion**

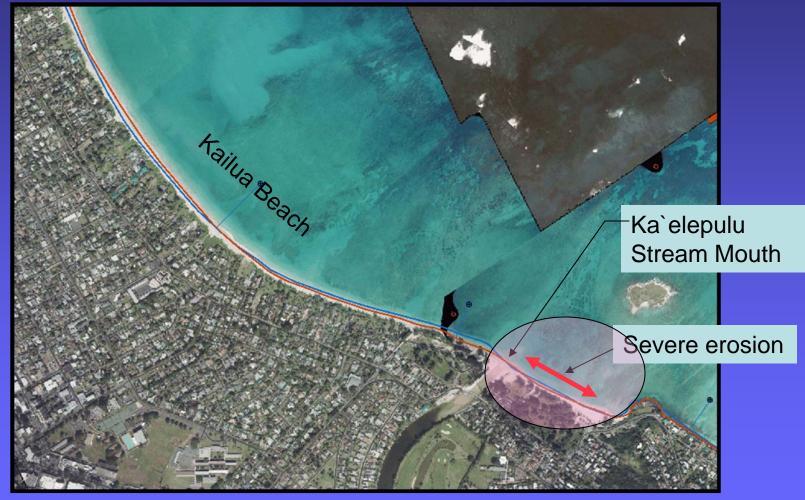






## Vicinity Map



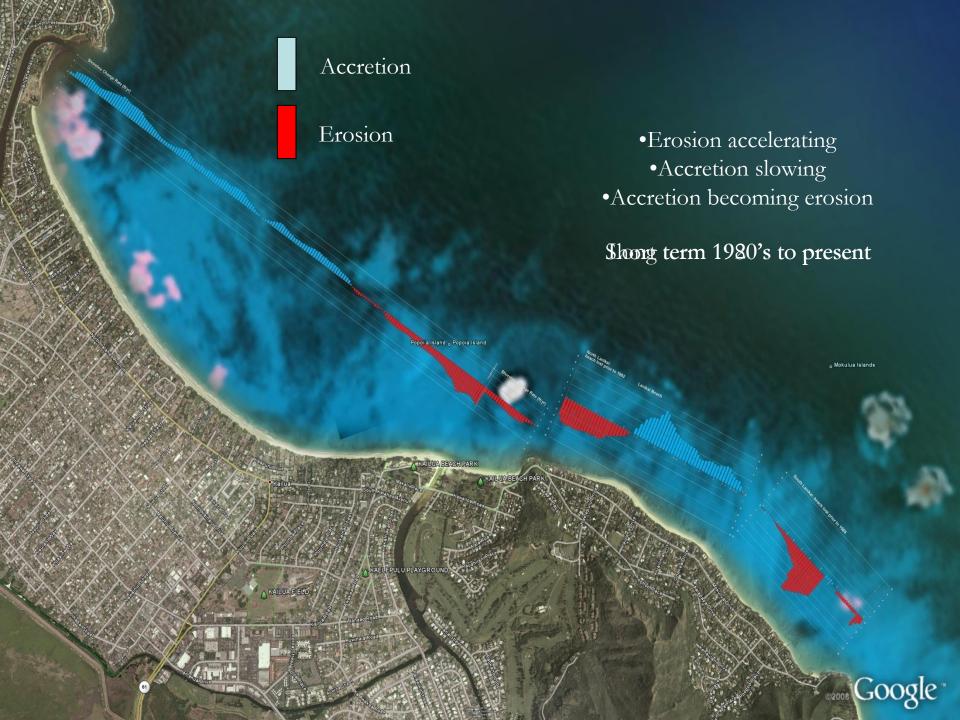




#### **Bank Erosion**









#### Local processes

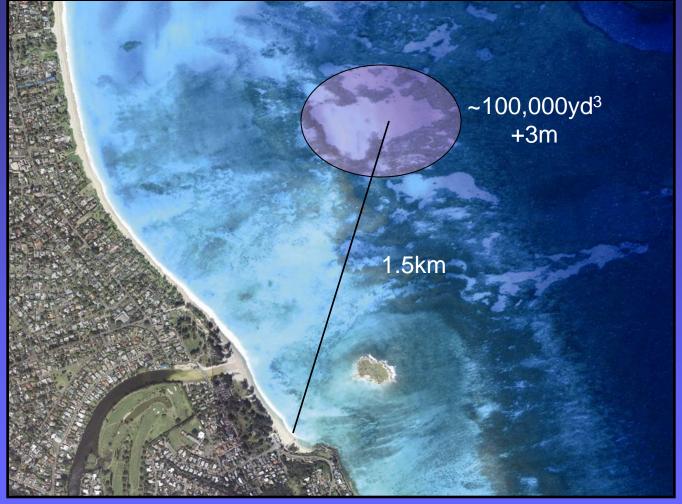






#### Nourishment







## Back-passing







# Remove sand-grabbers







# Ka`elepulu Stream Questions



- Can routine sand management be improved?
  - What is the current practice?
  - Can canal sand be routinely placed at boat ramp?
- Should sand grabbers be removed?
  - Will parking lot be threatened?
  - What is plan if parking lot is threatened?
- Is offshore nourishment a viable option?
  - Logistics appear viable, cost ~\$2m.
- Is major back-passing effort a viable option?
  - Pollutants and fines?
  - Permitting?
- Other ideas?



# How do we move forward?









# THANK YOU