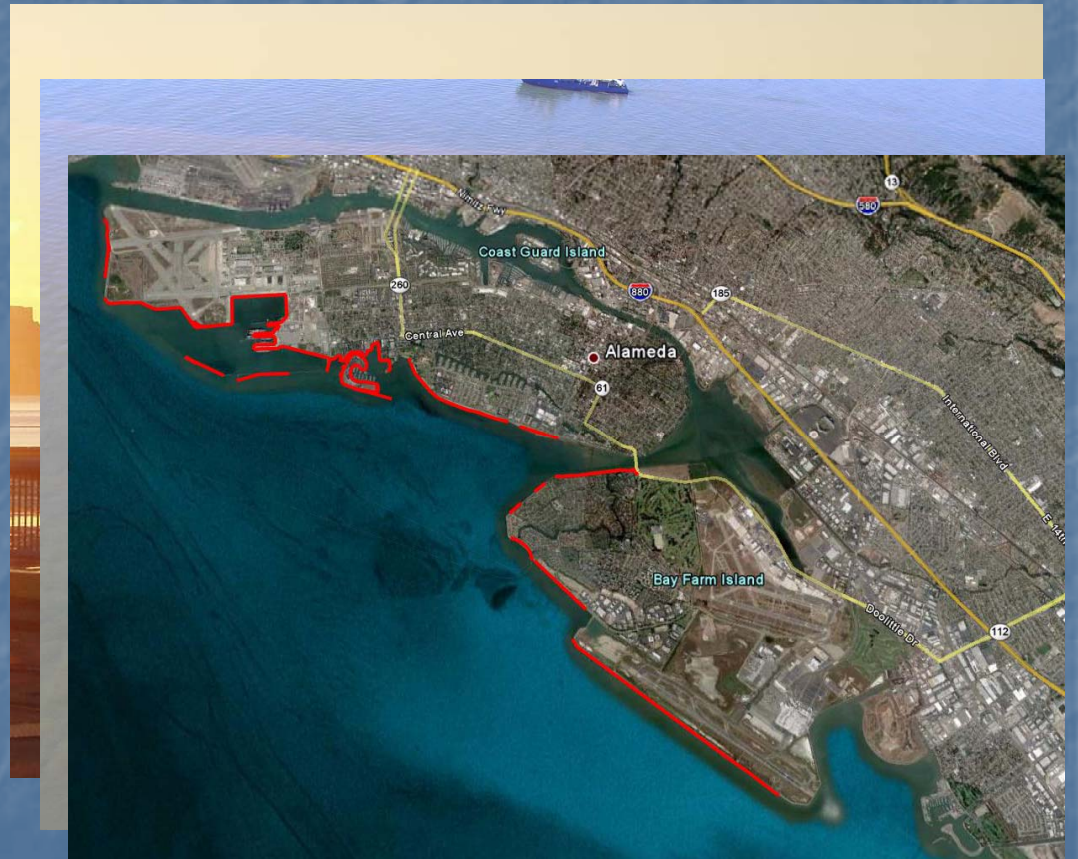


# **Dubai Star Oil Spill NRDA**

**Beckye Stanton, DFG-OSPR  
Prevention First 2010 Symposium  
October 20, 2010; Long Beach, CA**

# DUBAI STAR SPILL

- Location – San Francisco Bay, south of Bay Bridge
- Spill – IFO 380 spilled during re-fueling on October 30, 2009
- Oiling along Alameda shoreline



# NRDA Organization

- Organize by Resource Subgroups
  - Birds
  - Shoreline Habitats
  - Human Recreational Uses
- Participants
  - Trustees – US FWS, CA DFG, NOAA
  - Responsible Party Representatives
  - Involvement by East Bay Regional Parks District





# IMPACTS TO BIRDS



# BIRD INJURY

- Bird groups impacted
  - Shorebirds
  - Large Grebes
  - American Coots
- Numbers of live and dead birds collected or observed
- Estimate total mortality



# BIRD RESTORATION

## Predator Exclusion Fence

### Elsie Roemer Bird Sanctuary

- Problem - Domestic predators impacting marsh birds
- Project – install fence to deter predators
- Benefits – increase bird survival



# Impacts to Shoreline Habitats

- Habitats Impacted
  - Rocky Intertidal
  - Sandy Beach (Crown Beach)
  - Tidal Flats and Eelgrass
  - Salt Marsh





# HEA – Acres Impacted

- Use Response SCAT data for shoreline oiling
  - Oil band only - sandy beach and salt marsh
  - Oil band and lower intertidal zone - rocky intertidal
- Area of tidal flats and eelgrass adjacent to oiled shoreline



# HEA – Level of Injury

- % oil cover from Response SCAT data
- Smothering / Fouling by Oil
- Rocky intertidal community surveys
- PAH concentrations in bivalves and water
- Response activities

# HEA – Recovery

- Specific for each habitat type
- Degree and duration of oiling
- Life history of organisms



# Habitat Restoration Projects

- Rocky Intertidal
  - Fucus restoration via transplants
- Sandy Beach
  - Remove invasive plant species
  - Re-vegetate with native plant species
- Salt Marsh and Tidal Flats
  - Reduce and remove sand from Elsie Roemer marsh
  - Remove invasive plant species & re-vegetate with native plant species



# IMPACTS TO HUMAN RECREATIONAL USES





# Types of Human Recreational Uses

- General Shoreline Use
- Shore-based Fishing
- Boating



# Recreation Damages

$$\text{Lost Value (\$)} = \left( \frac{\text{Number of Affected Trips}}{\text{Number of Trips}} \right) \times \left( \frac{\text{Value per Trip}}{\text{Value per Trip}} \right)$$

- Lost
- Diverted
- Diminished

- Varies  
by Activity



# Potential Recreational Use Projects

- Projects to benefit
  - Shoreline use
  - Fishing
  - Boating
- Near spill location, if possible

# Questions?

- Beckye Stanton, DFG-OSPR
  - [bstanton@ospr.dfg.ca.gov](mailto:bstanton@ospr.dfg.ca.gov)
- Dubai Star NRDA info on OSPR
  - <http://www.dfg.ca.gov/ospr>

## DEPARTMENT OF FISH AND GAME

Home → OSPR → Natural Resource Damage Assessment (NRDA) & Restoration → Dubai Star / San Francisco Bay Spill



### Dubai Star / San Francisco Bay Spill

- **LOCATION:** San Francisco Bay
- **DATE:** October 30, 2009
- **INCIDENT SUMMARY:** During a refueling incident, the T/V Dubai Star spilled 400-800 gallons of Intermediate Fuel Oil (IFO 380) into San Francisco Bay at Anchorage 9 just south of the Bay Bridge. The spill affected more than 10 miles of shoreline, from just north of the east approach of the Bay Bridge to San Leandro Bay along the Alameda coast line. The spill resulted in shoreline oiling, bird mortalities, as well as beach and fisheries closures in the vicinity of Alameda Island.
- **RESPONSIBLE PARTY:** Harmony Shipping
- **NATURAL RESOURCE TRUSTEE:** California Department of Fish and Game, United States Fish and Wildlife Service, National Parks Service, National Oceanic and Atmospheric Administration.
- **RESOURCES IMPACTED:** Birds, shoreline habitats, and human recreational use.
- **STATUS OF RESTORATION:** Pending. The Trustees and responsible party are currently assessing injury and potential restoration project alternatives.