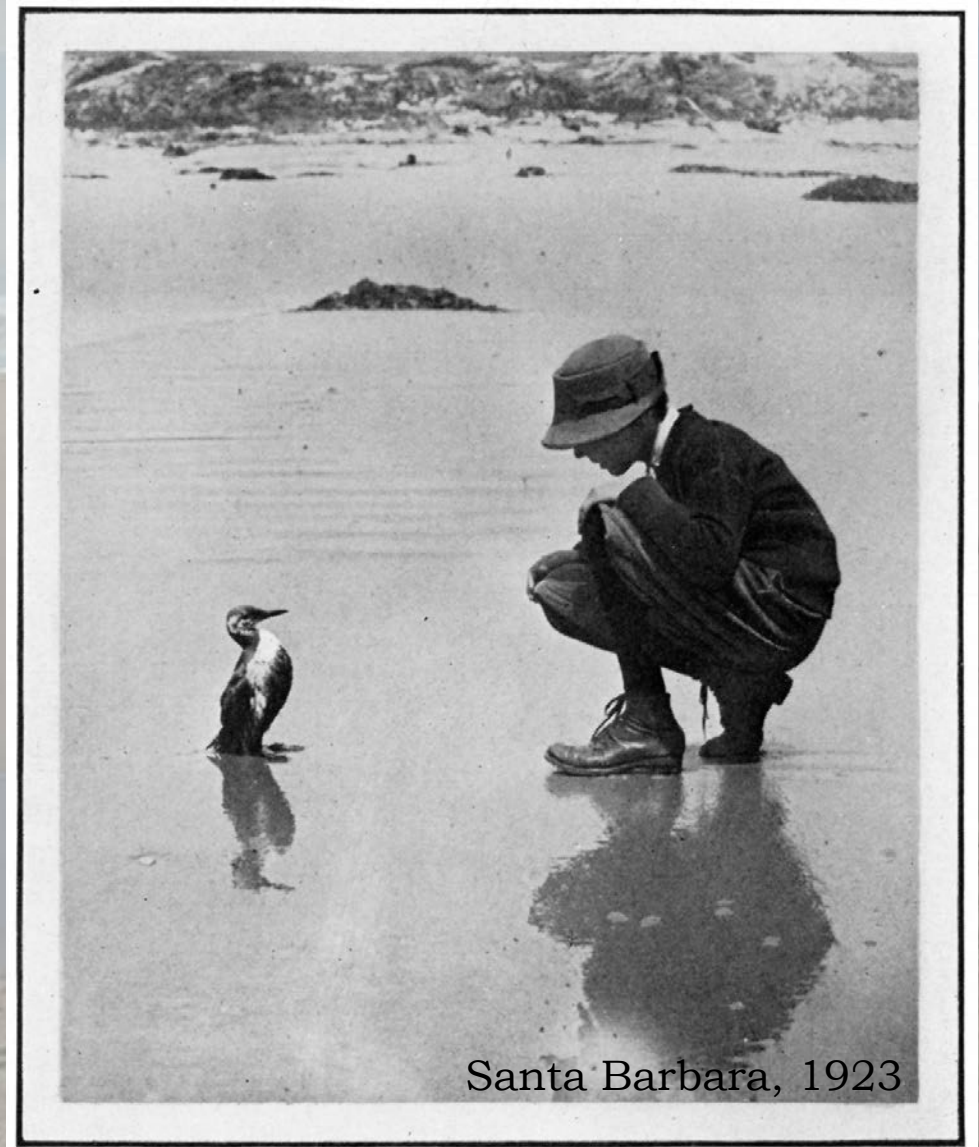


Resource Injury and NRDA

Local Gov't Training
2014

Matt Zafonte,
Steve Hampton,
Beckye Stanton
Bruce Joab
OSPR Scientific



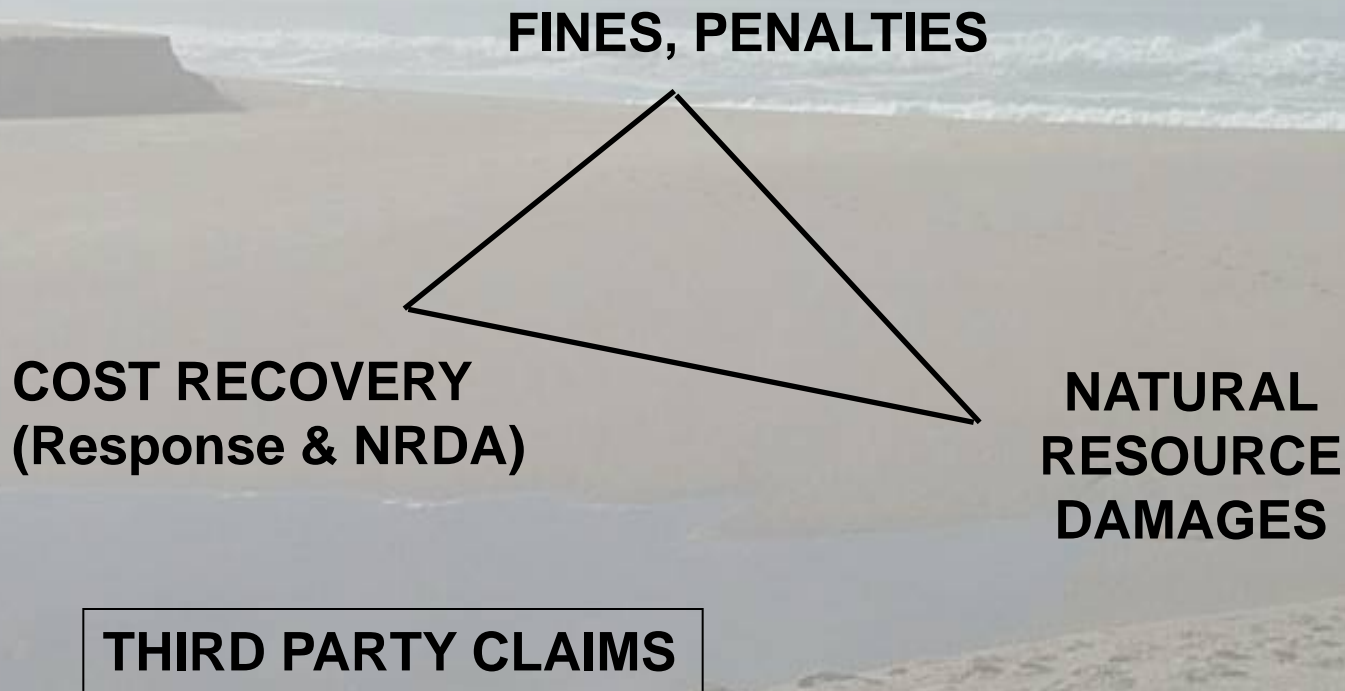
Goals

- Not...
 - How to Investigate Pollution Incidents
- Instead...
 - How Natural Resource Damage Assessment (NRDA) can augment pollution cases

Overview

- What is Natural Resource Damage Assessment (NRDA)?
- Methodology
- “Large Spills”
- Questions and Answers

Potential Components of a Pollution Settlement



What are Natural Resource Damages?

- Compensation for natural resource injuries
- “Injuries” versus “Damages”
- Damages based upon amount of **restoration** needed to “make the environment and public whole” (OPA 90 Rule, CERCLA)

NRDA Myths?

- NRDA is a black box of smoke and mirrors and there is no standard method for calculating damages
- Natural resource damages are usually much larger than response costs
- NRDA is punitive
- Trustees are only interested in “cash out” settlements
- Settlement money goes into the general fund

A Good NRDA Case?

- Cause of action (legal basis)
- Evidence of injury
- Ability to collect damages
- Scope of the incident (to a lesser extent)

Typical NRDA Cases

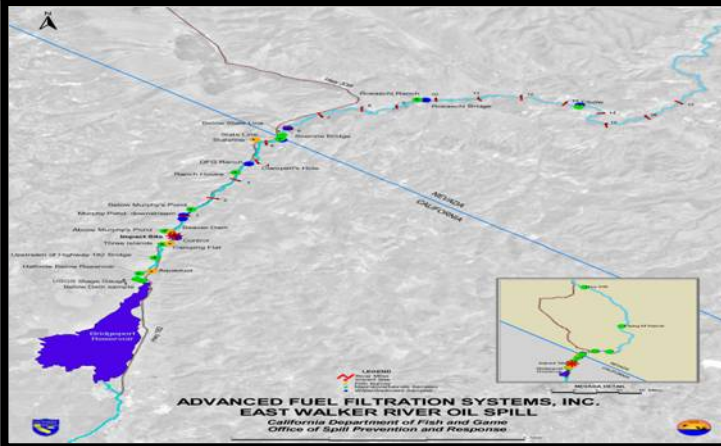
Large

Small

Marine



Inland



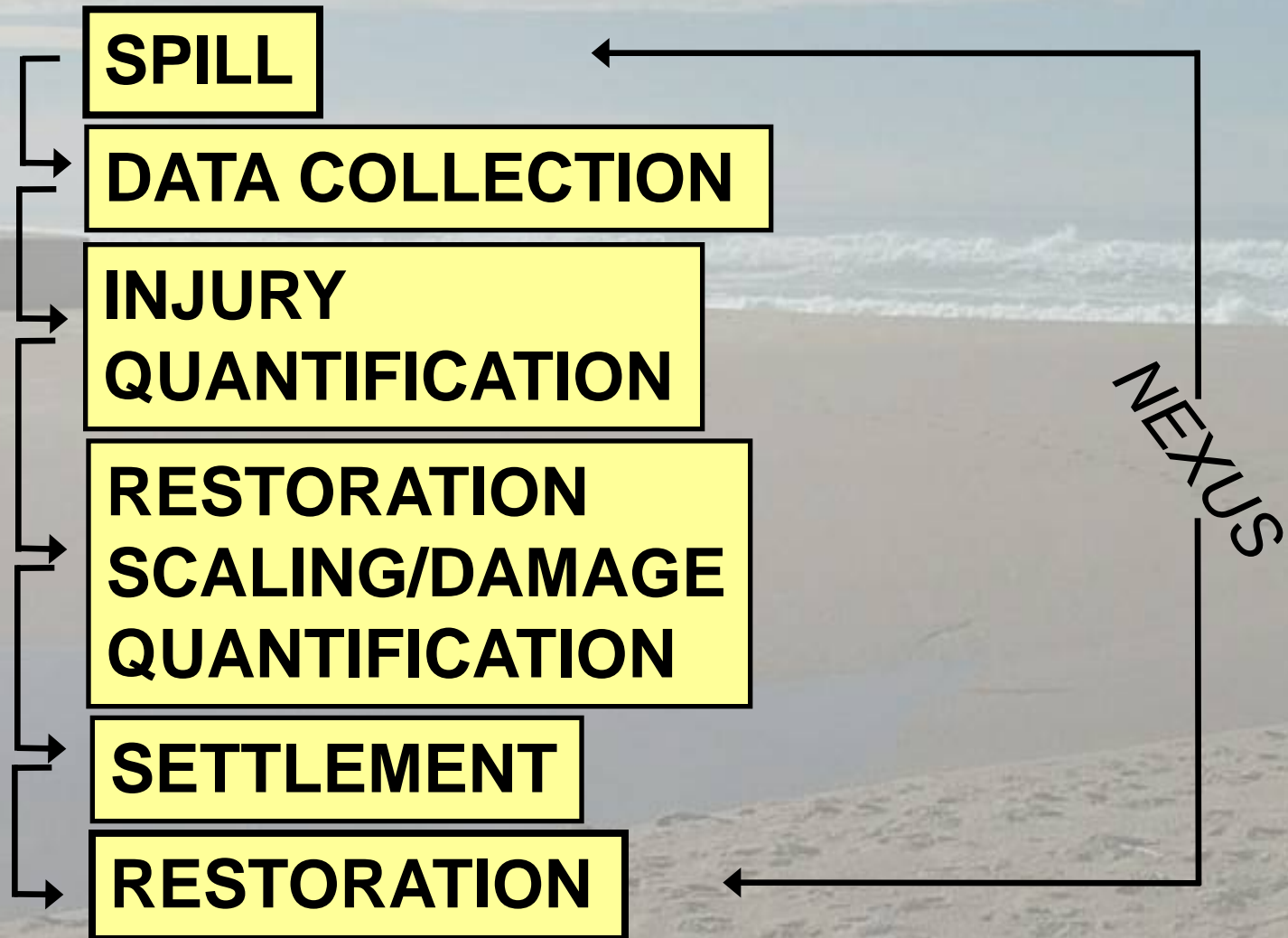
Examples of resources affected: birds, habitat, fish, recreational uses, tribal uses

NRDA Stats (2013)

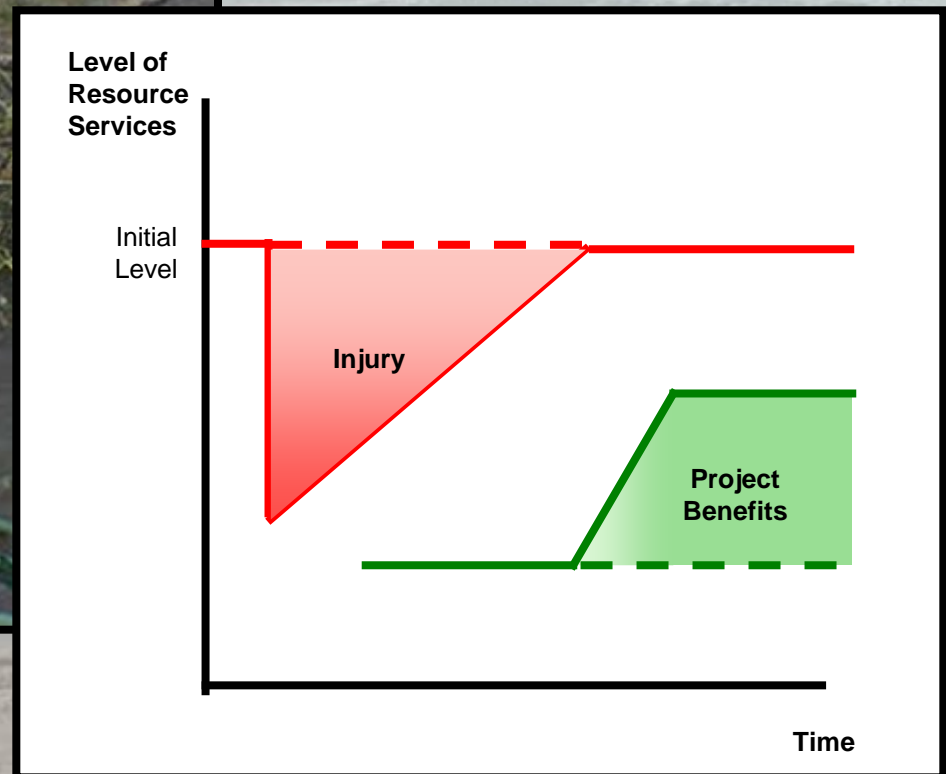
- **Large Cases: 26**
 - Settled: 25 (Total = \$203 million)
 - Active: 1 (Leviathan Mine)
- **Small Cases: 183**
 - Settled: 102 (Total = \$6.7 million)
 - Terminated: 25
 - Active: 56
- **Restoration Projects: 347**
 - Completed: 218
 - On-going: 58
 - Planned: 71



The NRDA Process

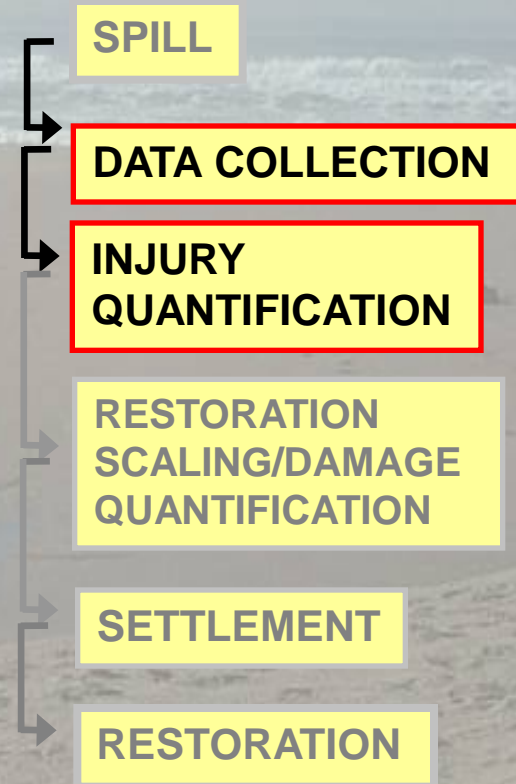


Natural Resource Damage Assessment: Methodology



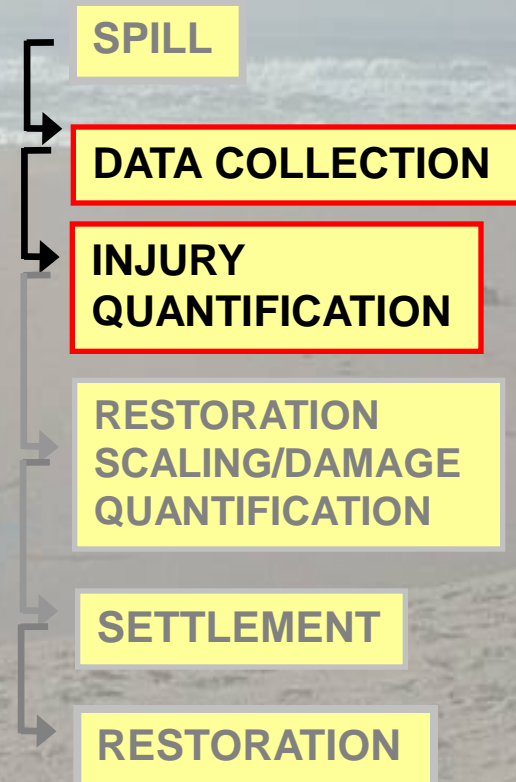
Data Collection and Injury Determination

- Central Questions
 - What was injured?
 - How much? (# animals, # of acres)
 - How badly?
 - For how long?
 - Use Reports & Study Data



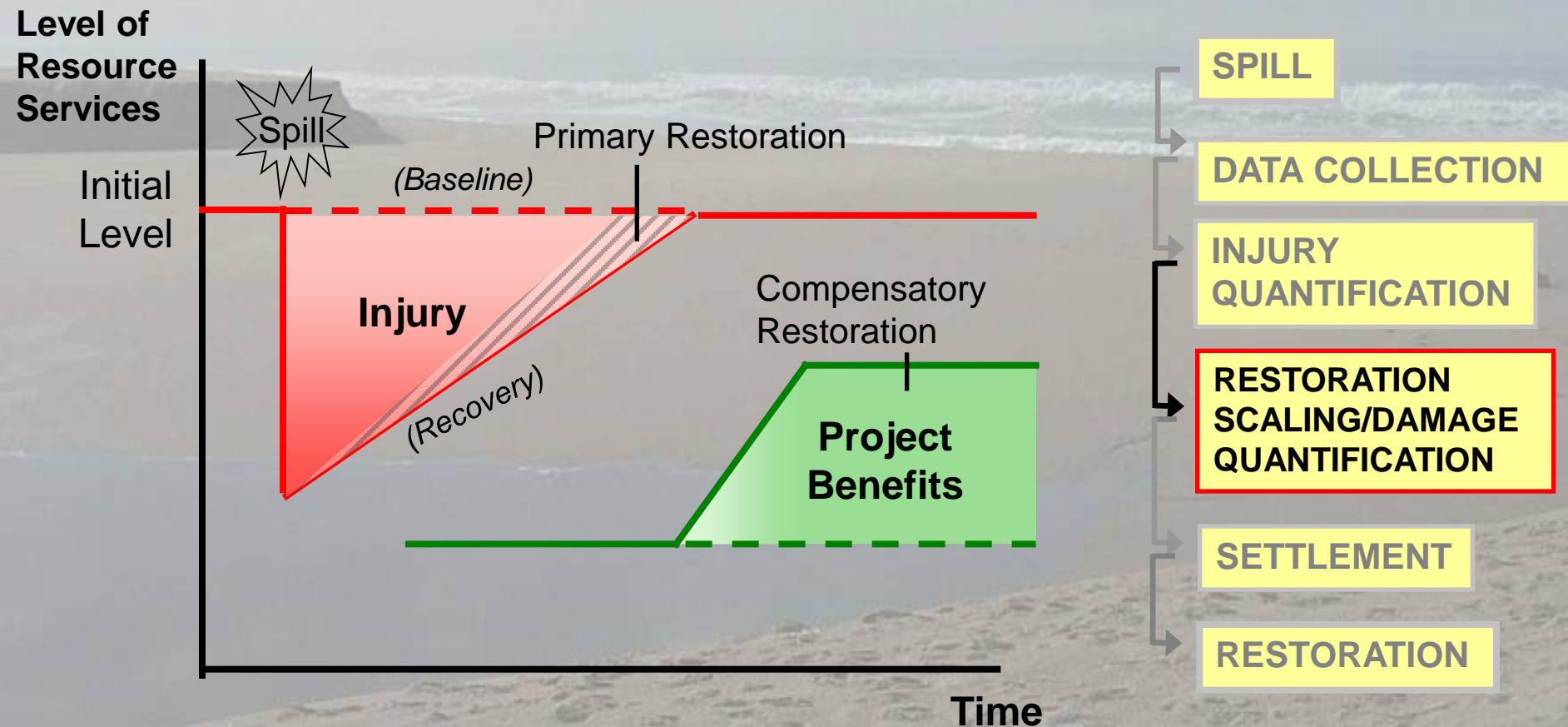
Data Collection and Injury Determination

- Later activities: “Putting it all together”
 - Modeling
 - Subsequent NRDA studies



Restoration Scaling/Damage Quantification

$$\text{Acre-Years of Loss Due to Spill} = \text{Acre-Years Gained from Restoration Project}$$



Damage Quantification for Human Rec Uses

- Human Recreational Uses
 - Beach Activities
 - Fishing
 - Wildlife Viewing
 - Tribal Uses
- Use surveys, car counters, input from land managers
- Damages for Use Losses
 - Value of Lost and Diminished User-Days

SPILL

DATA COLLECTION

INJURY
QUANTIFICATION

RESTORATION
SCALING/DAMAGE
QUANTIFICATION

SETTLEMENT

RESTORATION

Methodology: Summary

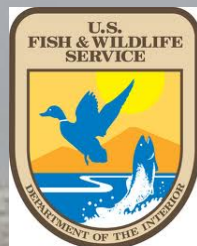
- Standardized method that uses degree and spatial/temporal extent of injuries to calculate damages
- Often uses information gathered during response and investigation, but additional field work may be needed
- Bottom Line: Damage Assessment “studies the spill”

“Large Spills”

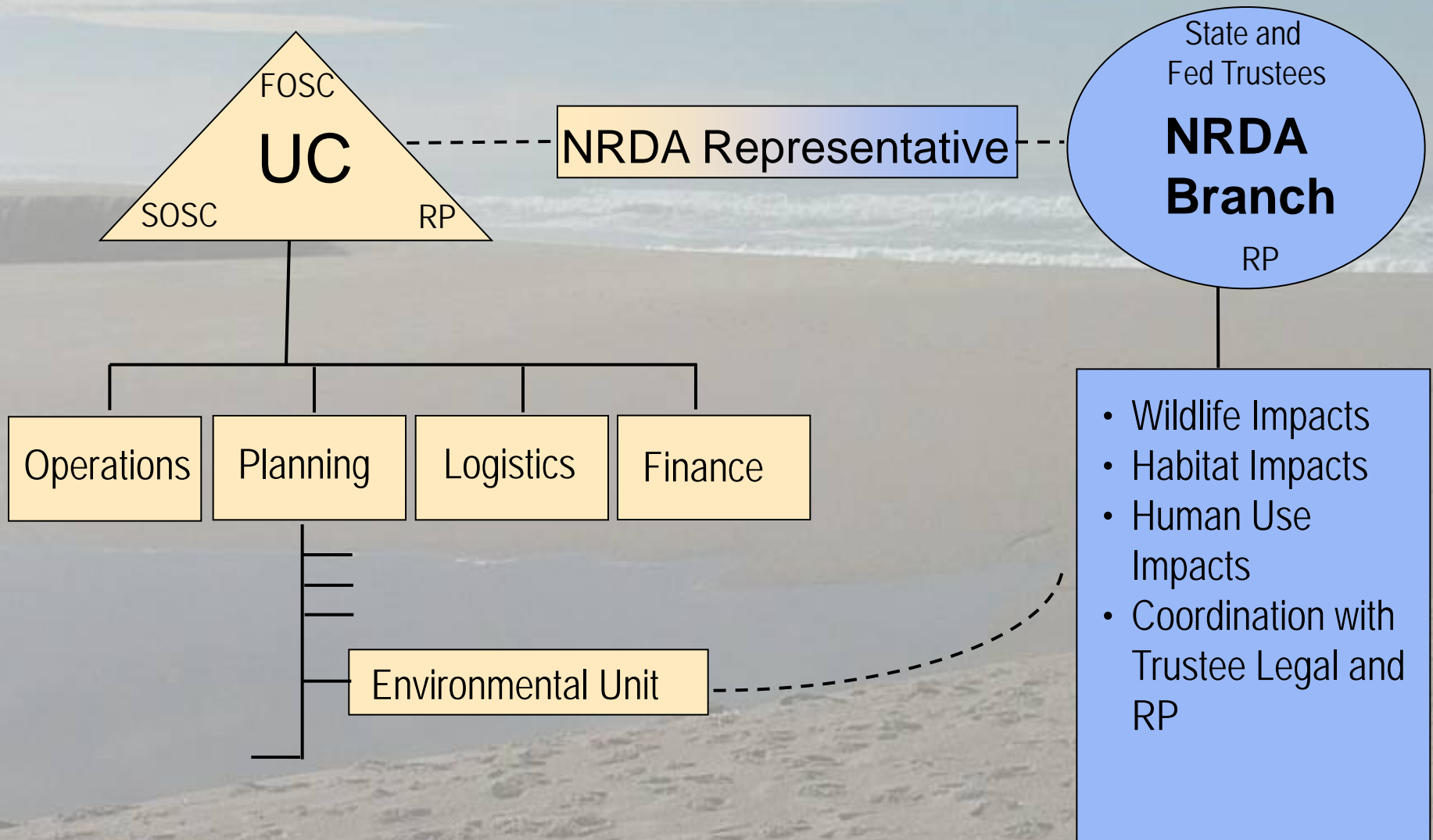


Characteristics of a “Large Spill”

- Multiple Trustees (e.g. USFWS, NOAA, NPS, State Parks, State Lands, tribes)
- Cooperative assessment with RP
- Staff from multiple agencies, RP, and contractors involved in NRDA present during spill response



Coordination during Response



NRDA Coordination After Response

- NRDA tasks done cooperatively among trustees and possibly RP
- NRD settlement coordinated with fines and penalties from multiple agencies for a *global* settlement
- NRD settlement is restoration project-based (maybe be “cash-out” or RP-implemented projects)

Trustee Councils

- Oversee restoration from large spill settlements
 - Multiple restoration projects for different species and habitats impacted
- One lead representative from each trustee agency involved in NRDA
- Coordinate input from public and other agencies
- Restoration Plan with public comment

Restoration Project Examples

- Devil's Slide Common Murre Colony Restoration
- Wetland Enhancement and Pt. Edith Wildlife Area (Contra Costa County)
- Wetland Enhancement at McNabney Marsh (Contra Costa County)
- Pacific Herring Spawning Habitat Enhancement in San Francisco Bay
- Steelhead Stream Habitat Enhancement at San Francisquito Creek

Over \$110 Million in Restoration Funds Collected So Far

Large Spill Example: M/V Stuyvesant

- Marine spill in and around Humboldt Bay in 1999
- Dredging Vessel
- While only ~2000 gallons of bunker fuel released...
 - 1,251 birds collected dead and dying (including several threatened and endangered species)
 - Beach searches spanned 20 days and covered 100 miles of coastline
 - Local, State, and Federal agencies responded
 - Public outcry

Stuyvesant NRDA

- Trustee Agencies worked with the RP in a cooperative assessment
- Case settled in July 2006; NRDA portion \$6.71 M
- Final DARP June 2007 (8 years post spill)

Stuyvesant Restoration Plan

Injury Categories

1. Grebes and Loons
2. Pelicans, Cormorants, and Gulls
3. Rocky Seabirds
4. Marbled Murrelets
5. Wetland Birds
6. Water Column
7. Rocky Intertidal Habitat
8. Sandy Beach Habitat
9. Human Recreational Use

Restoration Categories

1. Grebe Colony Protection
2. Pelican Roost Protection
3. Common Murre Colony Enhancement
4. Marbled Murrelet Habitat Acquisition and Corvid Mgmt.
5. McDaniel Slough Project
6. Dune Restoration/Snowy Plover Projects
7. Patrick's Point Interpretive Trails

Summary: “Large Spill” NRDA

- Coordination challenges during response
- Extensive data collection
- Long time between spill and settlement
- Large settlements (usually)
- Not the typical spill

Summary

- NRDA Process
- General Methodology
- Process and Challenges in Large Spills
- The Goal is Restoration!

Contacts

OSPR NRDA

- Primary Contact, Supervisor
 - Michael Anderson
 - 916-324-9784
- Toxicology and Field Sampling
 - Beckye Stanton
 - Bruce Joab
- Economics, Birds, and Recreational Use
 - Matt Zafonte
 - Steve Hampton
- Restoration & Botany
 - Vicki Lake

OSPR Legal



<http://www.dfg.ca.gov/ospr/NRDA/>

Any Questions?

