# An Oil Spill Impacting Wildlife: The Response Before the Animals are Retrieved



The Fifth **Biennial Freshwater Spills Symposium** 

New Orleans, LA



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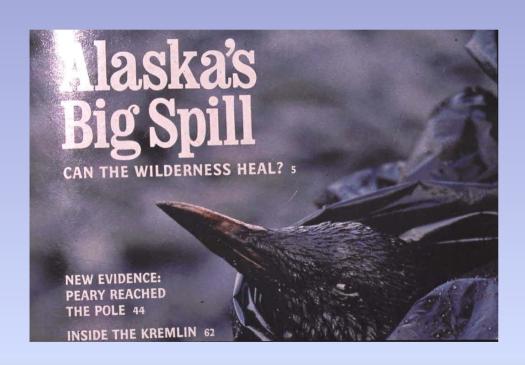
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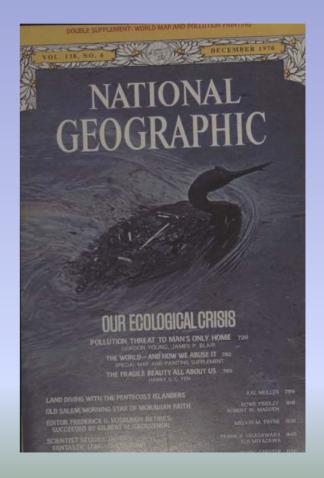


## Things to Consider.....

- The overall structure of the response effort and how it relates to wildlife concerns
- Safety concerns for the wildlife component of any response effort
- Preparation for the potential immediate needs for a successful wildlife response

# A Long History of Impacted Wildlife





# Some Early Attempts...





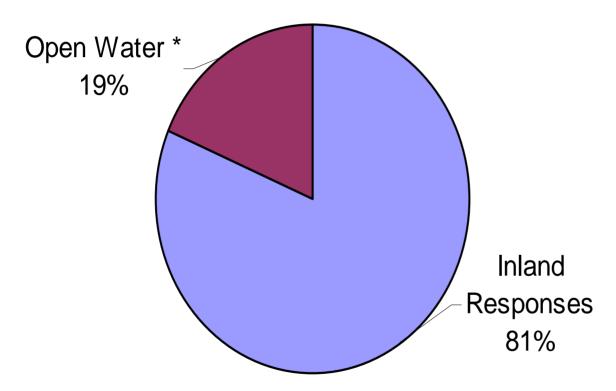
## Fresh Water Responses are:

- Usually Smaller Amounts of Product
- Usually More Frequent
- Usually Involve Refined Products

Inland Zone Habitats are:
 Usually More Diverse than Ocean Spills

- Inland Species are:
  - Usually More Diverse than Ocean Spills
    - Avian, Mammalian, Amphibian, Reptilian

# Tri-State Bird Rescue & Research, Inc. Inland vs. Open Water Spills 1989-2002



<sup>\*</sup>Open Water responses include those occuring in bays, sounds, beaches, coastal, offshore, and involving islands.

Note: Statistics do not include international coorperative efforts e.g. M/V Treasure (SA).

#### Effects of Oil on Wildlife

- Environmental
- External
- Internal



#### **External Effects of Oil**

- DisruptsWaterproofing
- InhibitsThermoregulation
- DecreasesBuoyancy
- Impairs Flight



#### Internal Effects of Oil

- Routes Of Exposure
  - Inhalation
  - Ingestion
  - Absorption through skin
- Medical Concerns
  - Dehydration
  - Organ failure
  - Irritation of skin, eyes, and mucosal surfaces
  - Blood disorders
  - Nervous system damage
  - Reproductive and endocrine changes

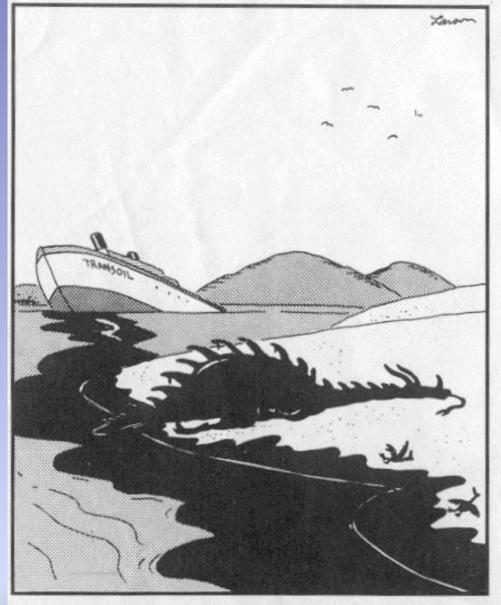
## Reproductive Systems

- Poor survival of young
- Direct harm to eggs
  - Greatly reduces hatch-rate
  - Deformities
- Future productivity decreases



## Why Rehabilitate Oiled Wildlife

- Mandated under OPA 90
- Understanding effects on common species increases survivability with T / E species
- Understanding how different products impact animals - survivability
- Public Relations



A tragedy occurs off the coast of a land called Honah-Lee.

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# Main Components of a Successful Wildlife Response

- Notification
- Field Effort
- Personnel
- Facility
- Rehab Effort



#### **Notifications**



- 1-800
- Call Out Lists
- Resource Agencies
- Specialists

# **Players** EPA / CG RO RP Animals QWR Agencies Volunteers Media Community

## Benefits of a Pro-Active Approach

- Cohesive and Accurate Information
- Updates for the Community
  - Rapid Reporting of Animals in Distress
  - Safe Practices
  - Needs of the Wildlife Effort
    - Donations
    - How to Help



# QWR Integrates into the Incident

- Under contract to the RP
- Working in Operations under the Wildlife Branch Director (US FWS / State)
- Coordinating with Joint Information Center
- Addressing concerns of local community
  - (potential volunteers)

# Getting the word out

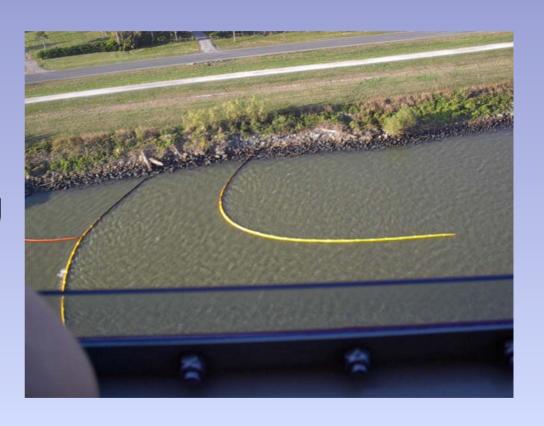


- ID 2 phone numbers
  - To report wildlife in distress
  - For potential volunteers

- Distribution
  - JIC
  - Media briefings

# Response Strategies

- Stop the Spill
- Containment or Protective Booming
- Shoreline Clean up
- SCAT



#### Field Considerations for Wildlife

- Assessment of Resources at Risk
- Deterrent Options
- Hazing Plan
- Field Safety Plan
  - Safety Training for Field Personnel
- Coordinated Retrieval and Transport
  - Equipment
- Comms



#### NRDAR

- Identify Resource Trustees
- Collection and maintenance of evidence
- Security
- Carcasses



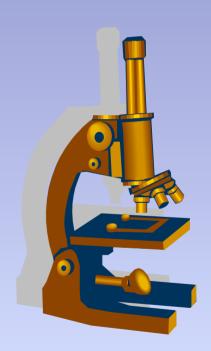
# Personnel Involved in Wildlife Response

- RP / or reps
- Agencies
- QWR
- Media
- Community
- Volunteers



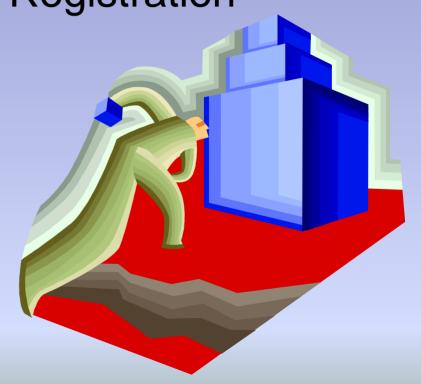
#### Media

- Keep Spill Management up to date
- Coordinate with JIC
- Schedule timely media interviews & facility tours
- Accommodate Spill Management in interviews (or the process)
- Write punctual, accurate press releases
  - Reviewed by the management system
- Present accurate information
- Present factual information
- Speak on wildlife issues only



#### Volunteers

- Volunteer Requirements
- Volunteer Training and Registration
- Release of Claims
- Sign In Form
- Shift Schedule



# Oiled Wildlife Facility Selection: Or picking the perfect spot



# Facility requirements can vary depending on the following factors:

- Anticipated number of animals
- Types and numbers of species
- Age of wildlife contaminated
- Type of contaminant
- Season/weather
- Location of the spill
- Facility availability



## Requirements

- Geographically Close to Spill Site
- Space
- Climate Controlled
- Water
- Electric
- HVAC



#### Climate Controlled

 Temperature can play an important part of the

rehab process



#### Water



- Cold Water Volume (pools and general use)
  - 23,360 gallons per day
- Hot Water Volume (animal cleaning only)
  - 450 gph @104 degrees F.6,750 gallons per day @ 15 hrs
- Water Pressure (animal cleaning only) 50 - 60 psi
- Water Hardness (animal cleaning only) 2.5 - 3.5 gpg

#### **Electric**

 200 amp 120/240 volt 3-wire single phase service with minimum of ten (10) 20 amp circuits in addition to the lighting and HVAC needs, with the ability to expand.

#### **HVAC**

- Air Exchanges in the wildlife response facility should be exchanged
  - 6 times / hour (office space)
  - 10 times / hour within large open areas involving animal care
  - 20 times / hour (ICU and surgical areas)

and still maintain ambient temperatures.

## The Rehab Effort







#### In conclusion....

Preplanning + Communication + Coordination =

A successful wildlife response effort

- good community relations

- good survivability
- cost effective

