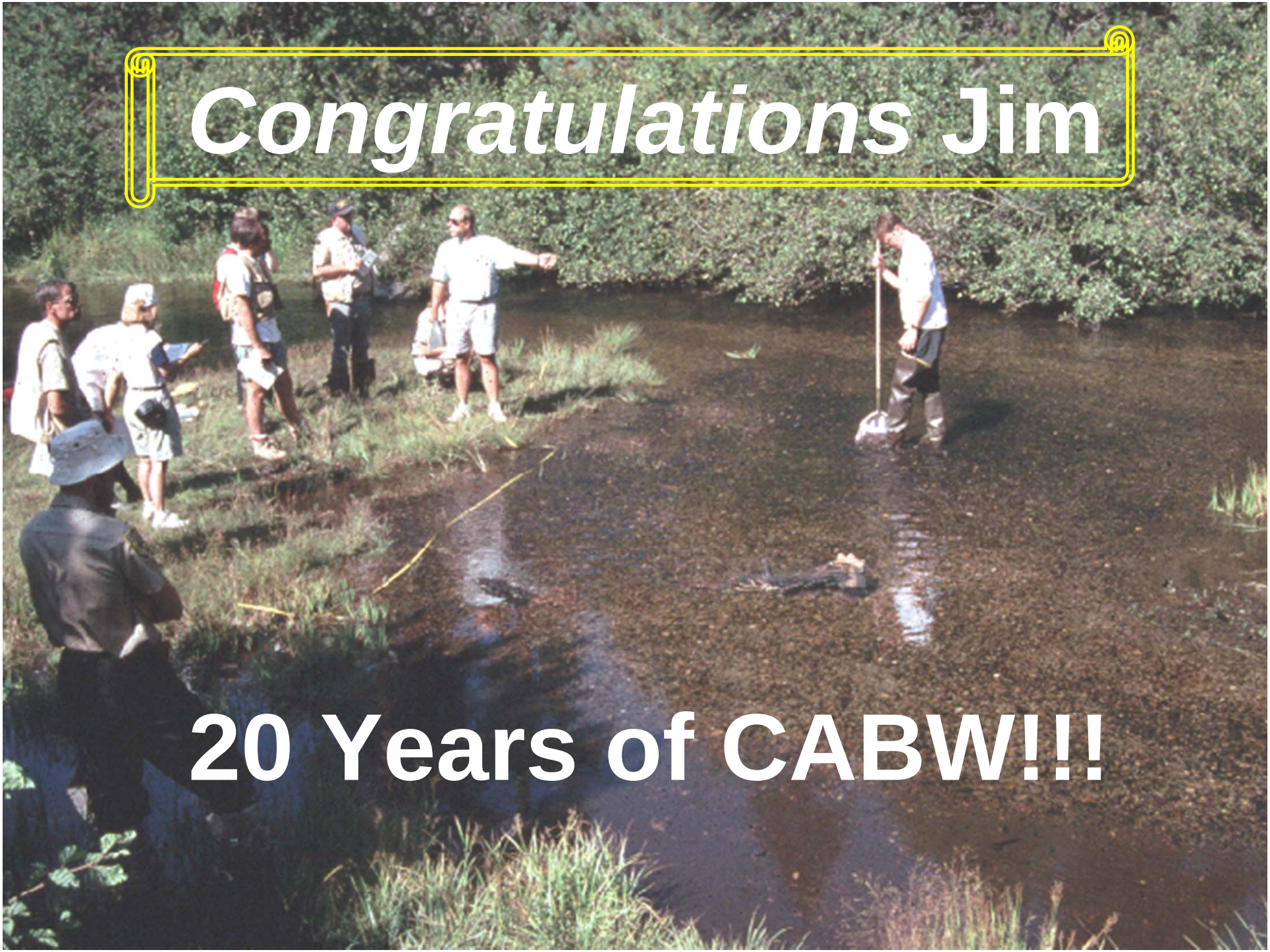
Overview of the Office of Spill Prevention & Response (OSPR)

Office of Spill Prevention & Response
California Department of Fish & Wildlife


Congratulations Jim
20 Years of CABW!!!

CDFW as Trustee

- “The fish and wildlife resources are held in trust for the people of the state by and through the Department.” F&G code 711.7
- “Thus…as the Sovereign, DFW has an obligation to manage and protect the wildlife resources”

CDFW Water Policies

Water Policy (excerpt; 11/03/94)

"Encourage and support programs to maintain or restore a high quality of the waters of this state, and prevent the degradation thereof caused by pollution and contamination."

Wetlands Policy (excerpt; 08/18/05)

"…the Commission opposes wetland development proposals unless, at a minimum, project mitigation assures there will be 'no net loss' of either wetland habitat values or acreage."

Fish & Game Code 5650

…makes it a crime to cause or allow any material that is deleterious to fish or wildlife to enter the waters of the State of California.

Enforced by CDFW, this code can be traced back to the 1876 CA Penal Code

Section 635, Approved April 1, 1876

OSPR's Origins

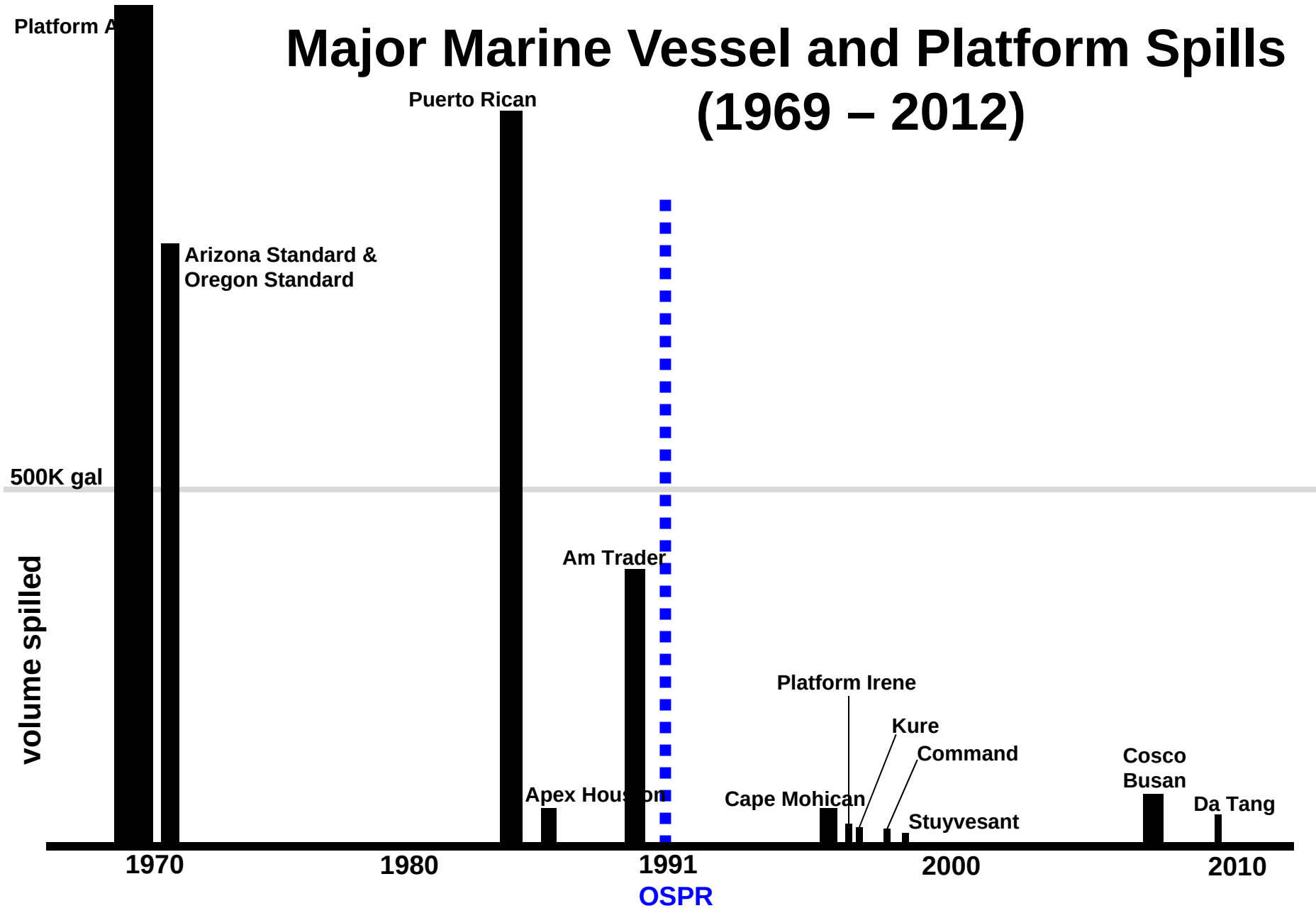
- OSPR's mandates were created by the Lempert-Keene-Seastrand Oil Spill Prevention and Response Act of 1990

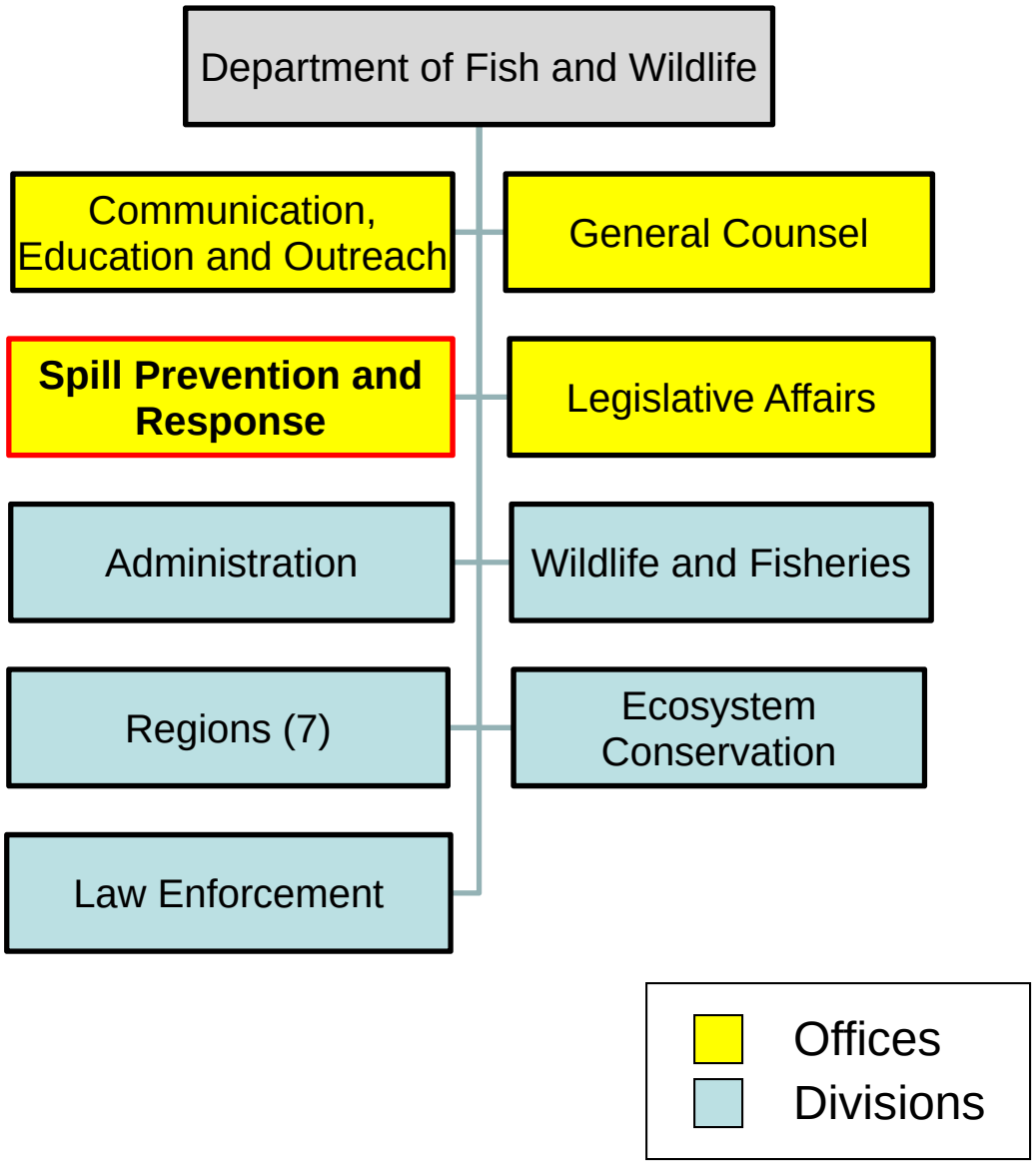

Exxon Valdez 1989

- LKS establishes oil spill prevention requirements for large vessels and facilities that could affect marine waters, and requires cleanup of all marine oil spills

Prevention ~ Preparedness
Response ~ Restoration

- Write regulations to prevent marine oil spills
- Review & approve all vessels' & facilities' marine oil spill contingency plans
- Require proof of ability to pay for cleanup and damages from a spill (e.g., insurance)
- Lead State agency for off-highway spills
- Fund Oiled Wildlife Care Network
- Ensure restoration of injured natural resources


Major Marine Vessel and Platform Spills
(1969 – 2012)
Platform A
Puerto Rican
Arizona Standard &
Oregon Standard
500K gal
volume spilled
Am Trader
Apex Houston
Platform Irene
Kure
Command
Cape Mohican
Stuyvesant
Cosco
Busan
Da Tang
1970
1980
1991
OSPR
2000
2010


Department of Fish and Wildlife
Communication, Education and Outreach
General Counsel
Spill Prevention and Response
Legislative Affairs
Administration
Wildlife and Fisheries
Regions (7)
Ecosystem Conservation
Law Enforcement
Offices
Divisions

OSPR Organization

- Executive Unit (Administrator, Deputy)
- Enforcement Branch (Wardens)
- Legal Branch
- Marine Safety Branch (Vessel Inspections)
- Preparedness Branch (Drills)
- Fiscal and Admin Svcs Branch
- Public Affairs Unit
- **Scientific Branch** (largest Branch in OSPR)

OSPR Scientific Branch

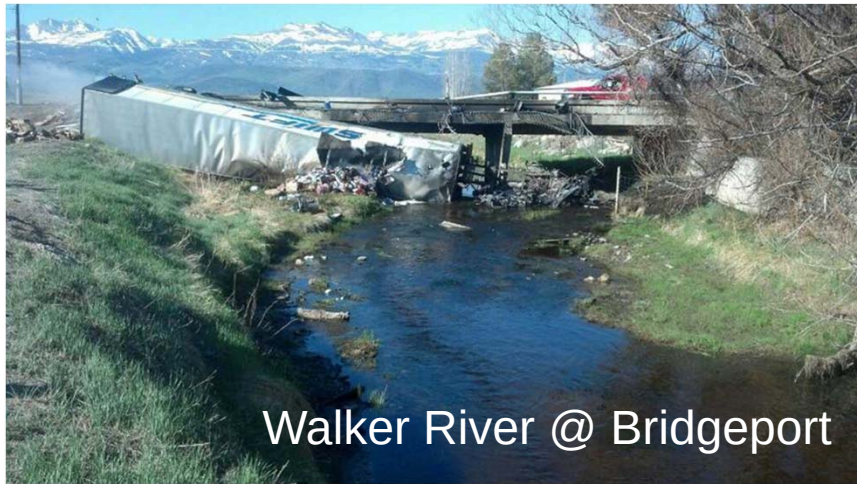
- Field Operations: Environmental assessment and sensitive site protection
- Geographic Information Systems (GIS)
- Veterinary services and wildlife operations – Oiled Wildlife Care Network (OWCN) and Marine Veterinary Care & Research Center (MVCRC)
- Natural resource damage assessment and restoration
- Health and safety program

OSPR Scientific Branch (cont.)

- Applied response technologies (dispersants, in-situ burning, etc.)
- Military Facilities and Superfund programs
- Marine Invasive Species Monitoring Program
- **OSPR "Labs"**
  - WPCL (Rancho Cordova)
  - ABL (Rancho Cordova, Elk Grove and Chico)
  - PCL (Rancho Cordova)
  - MPSL (Moss Landing)

Spill Response Responsibilities (Inland and Marine)

- Act as Trustee Agency for the State
- Form unified command with Federal Lead Agency & Responsible Party (RP)
- Provide State On-Scene Commander (SOSC)
- Staff Incident Command System (ICS) positions
- Ensure thorough investigation, clean-up & NRDA


Walker River @ Bridgeport

What is a Marine Oil Spill?

- 42 gallons (one barrel) of petroleum hydrocarbons into tidally influenced waters of the State
- Federal Lead agency is US Coast Guard
- OSPR is designated State lead agency
- State funding for response: Oil Spill Response Trust Fund (fee-based)

What is an Inland Spill?

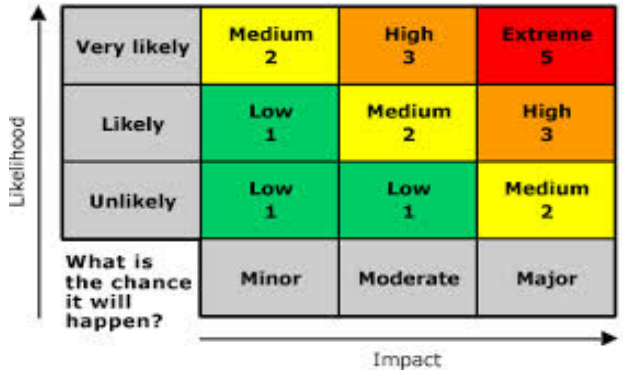
- Unauthorized release of any material that is deleterious to inland waters of the State
- Shared responsibility with Fish and Wildife Regional Offices
- Federal Lead Agency is US EPA
- Extremely limited State funding for inland response

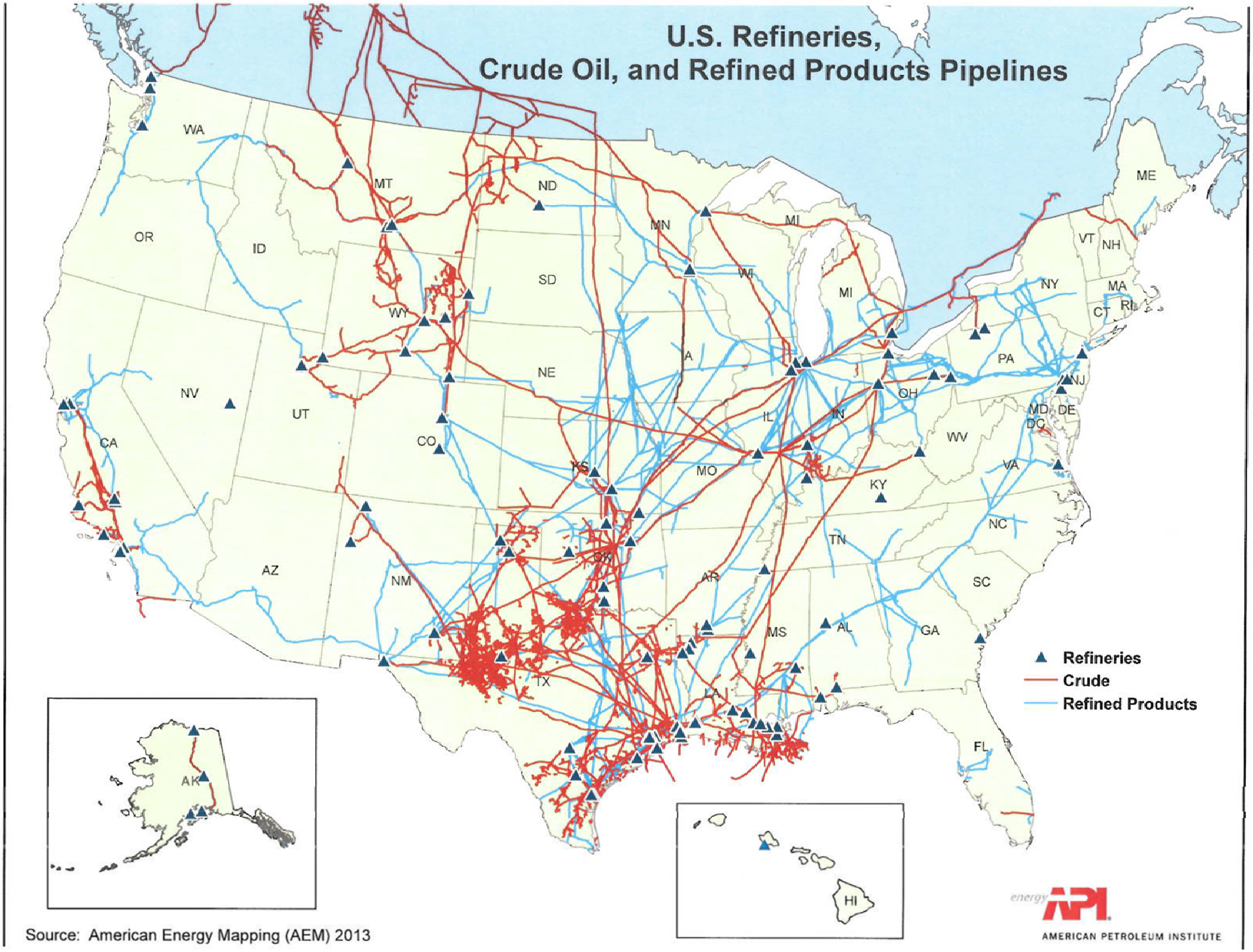
DFW's Trust Resources

- 840 miles of Coast
- 3,427 miles of Shoreline
- State waters totaling 7,734 square miles
- Four Marine Sanctuaries totaling 8,767 square miles
- More than 300 Threatened or Endangered Species
- We respond to spills anywhere in California's interior 155,973 square miles

Our Risks (average year)

- Oil transported by vessel 543,688,350 barrels
- Total cargo imported by vessel 170,000,000 tons
- 7,500 miles of pipeline
- 14,667 vessel movements (LA-LB, SD, SFB)
- California oil production 184,000,000 barrels
- Offshore production 30,900,000 barrels
- **Increasing rail imports from North Dakota Bakken formation (shale oil)**





Source: American Energy Mapping (AEM) 2013

California's Crude Oil Supply in 2012

Where crude comes from

How crude gets here

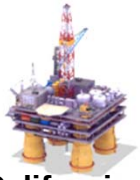
Alaska

13%

overseas

52%

tanker



California - offshore

5%

California - inland

30%

pipeline

California's Crude Oil Supply in 2016

Where crude comes from

How crude gets here

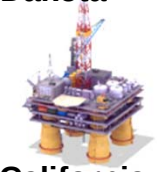
Alaska — 10%

tanker

overseas — 28%

Bakken/North Dakota — 26%

rail



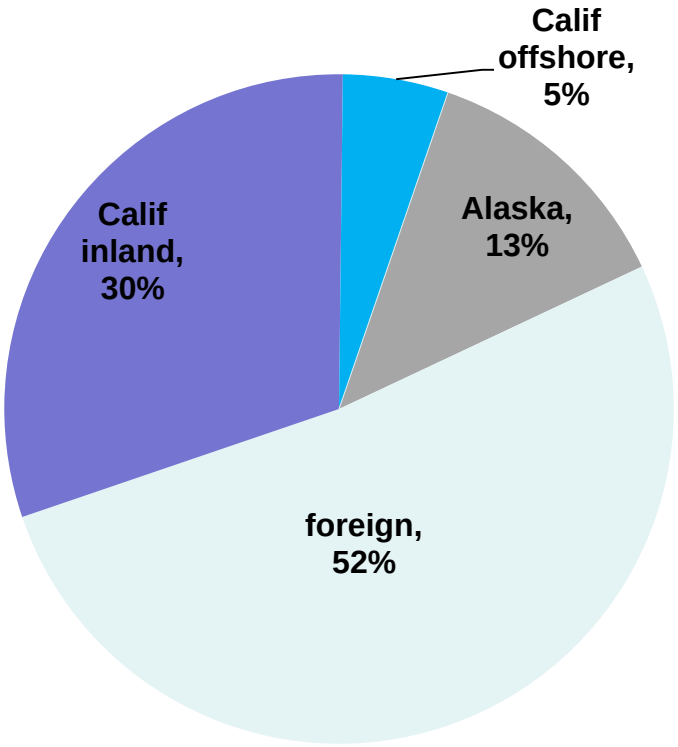
California - offshore — 5%

pipeline

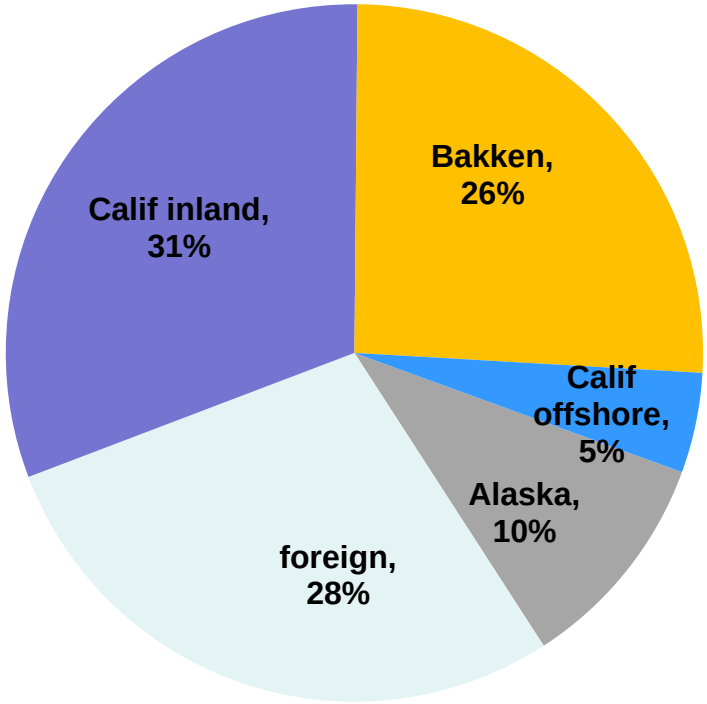
California - inland — 31%

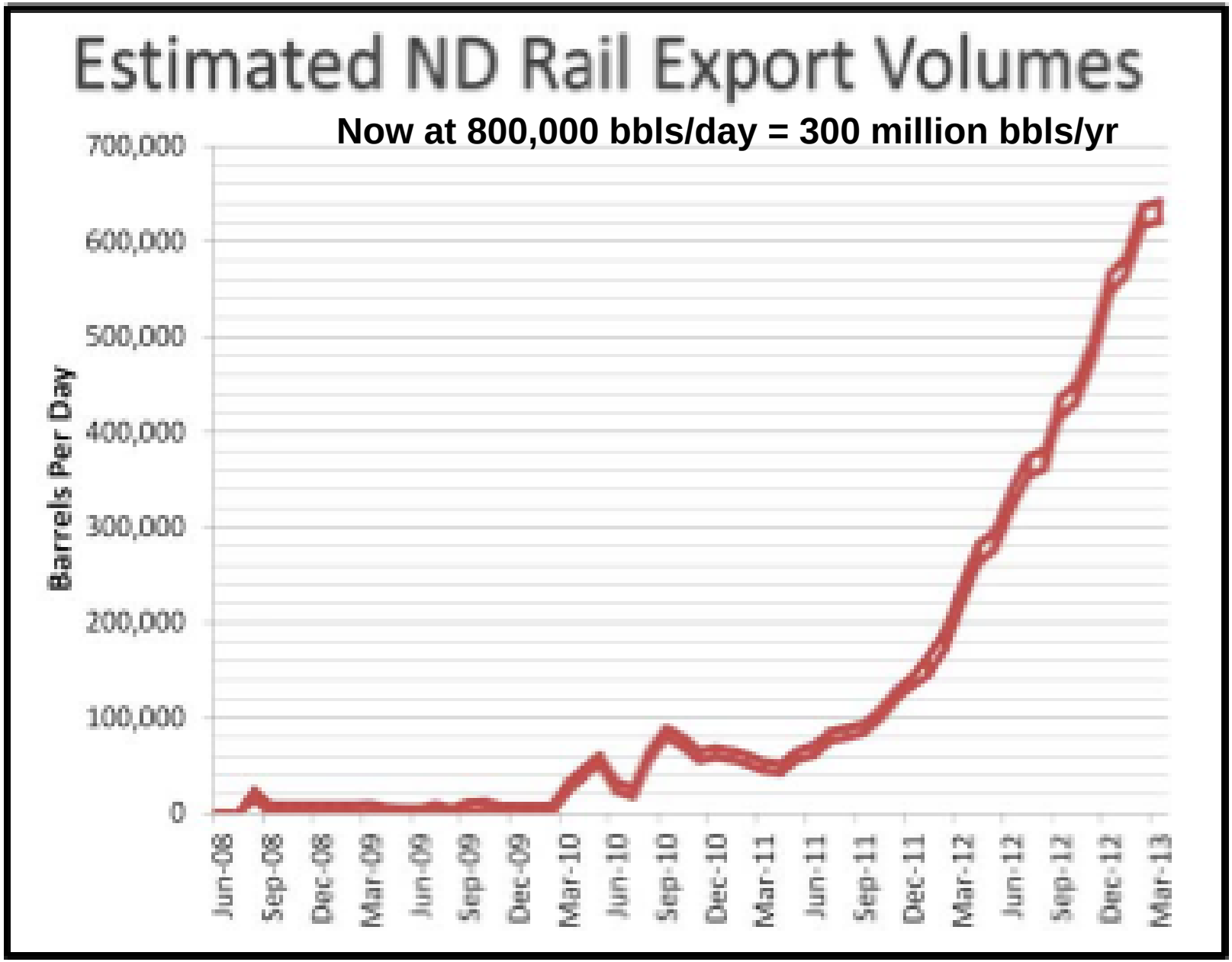
California's Crude Oil Supply

2012



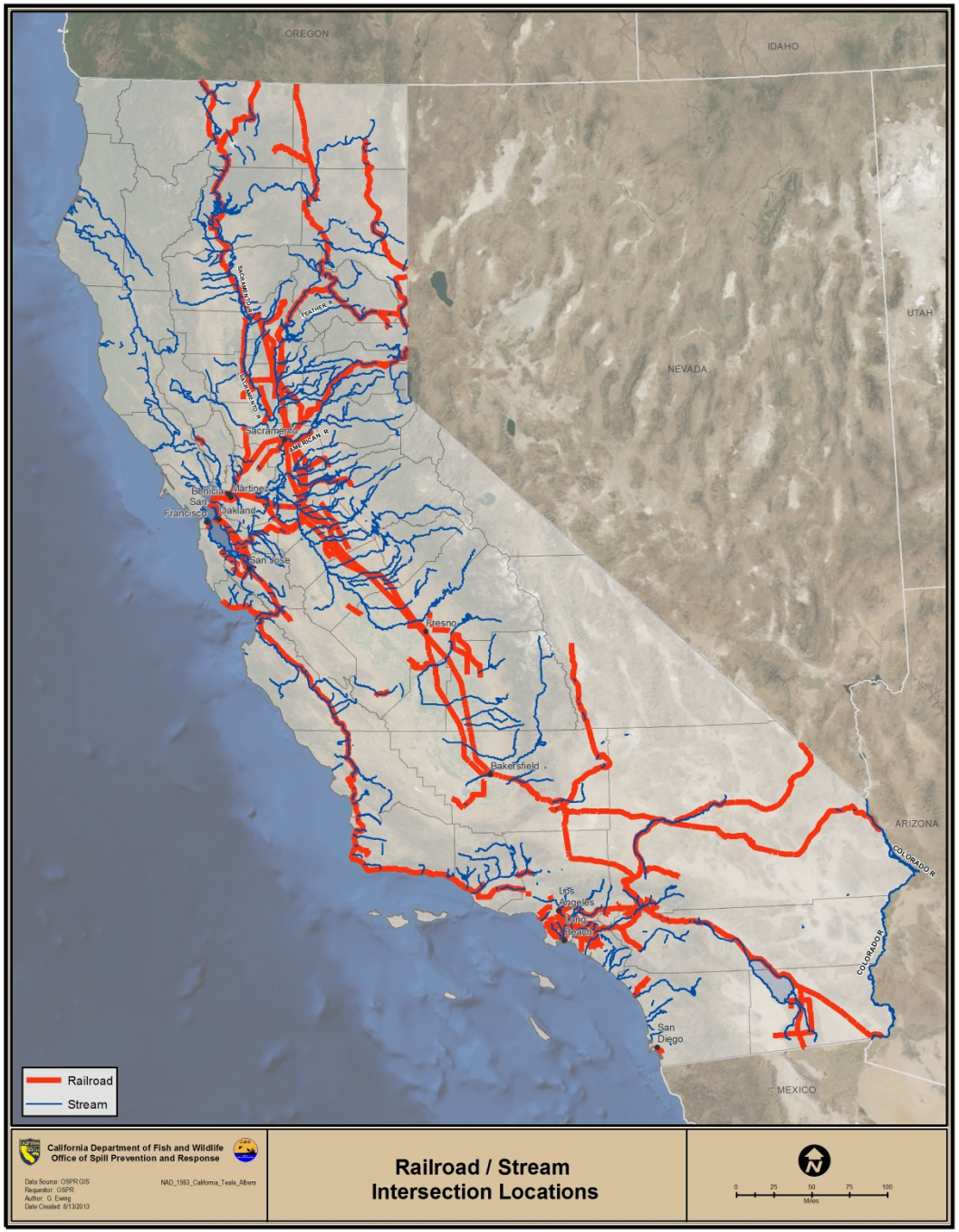
2016



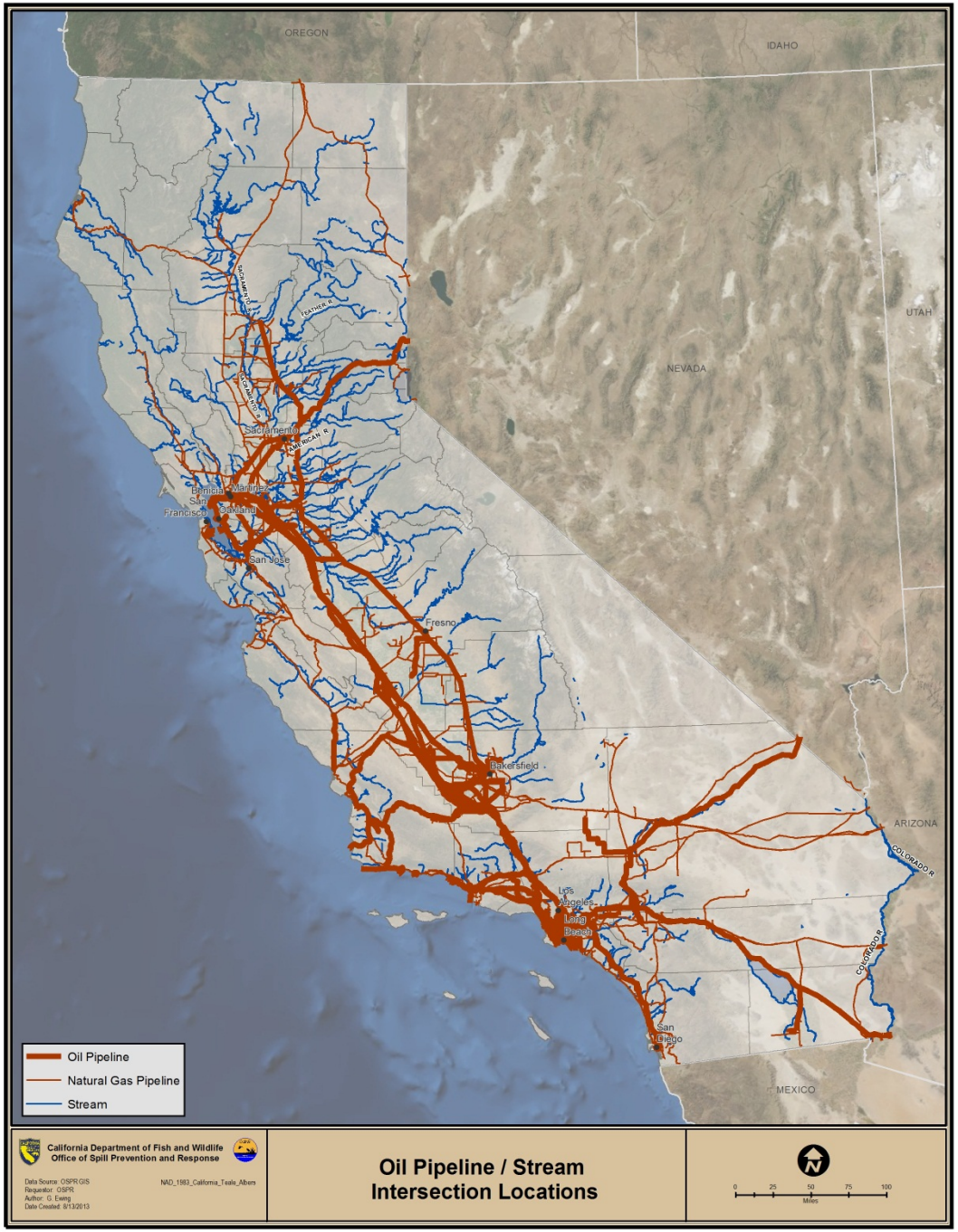

Estimated ND Rail Export Volumes
Now at 800,000 bbls/day = 300 million bbls/yr
Barrels Per Day
700,000
600,000
500,000
400,000
300,000
200,000
100,000
0
Jun-08
Sep-08
Dec-08
Mar-09
Jun-09
Sep-09
Dec-09
Mar-10
Jun-10
Sep-10
Dec-10
Mar-11
Jun-11
Sep-11
Dec-11
Mar-12
Jun-12
Sep-12
Dec-12
Mar-13

Possible Routes for Crude-by-Rail

Railroad / Stream Intersection Locations

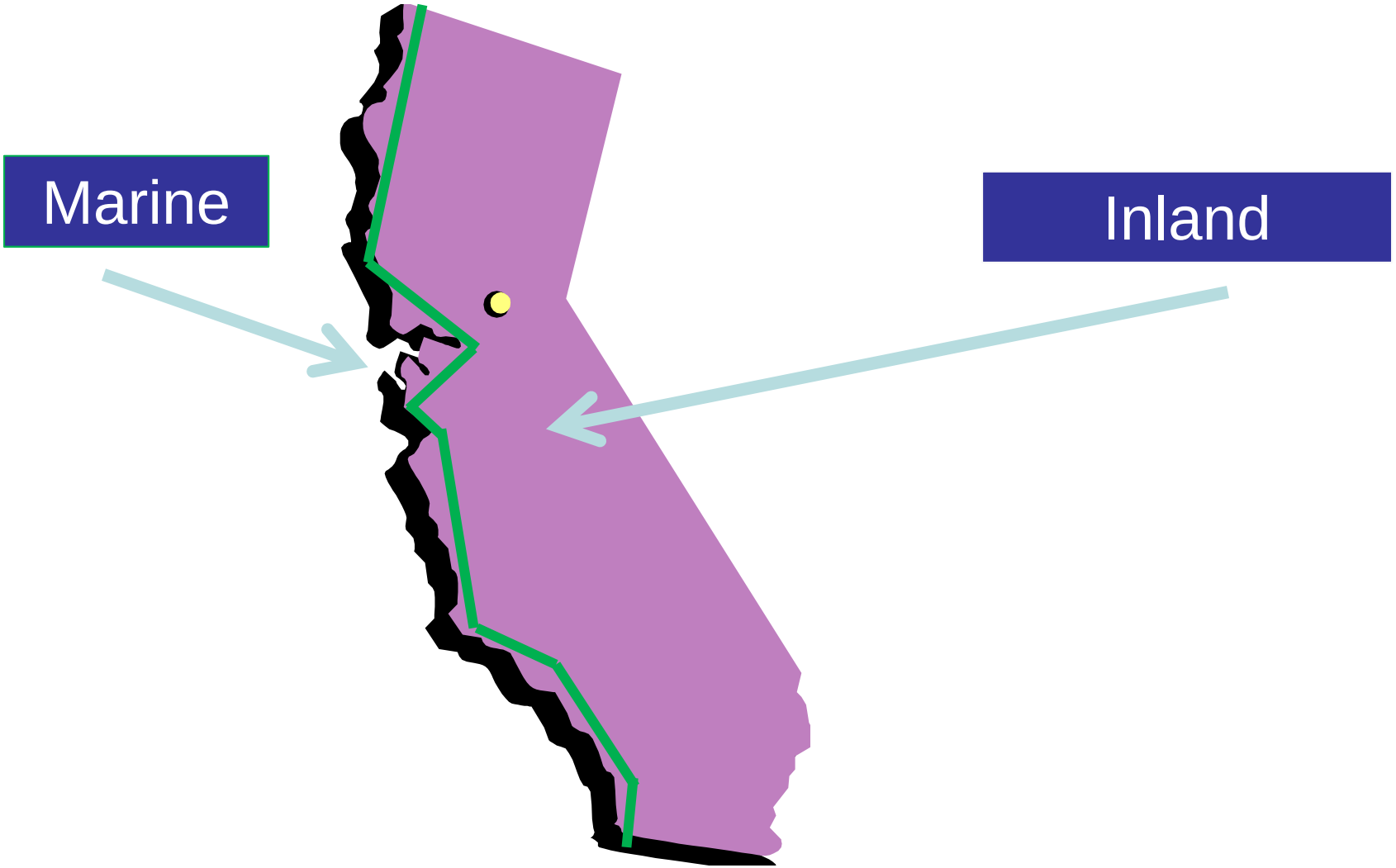


Oil Pipeline / Stream Intersection Locations



Challenge

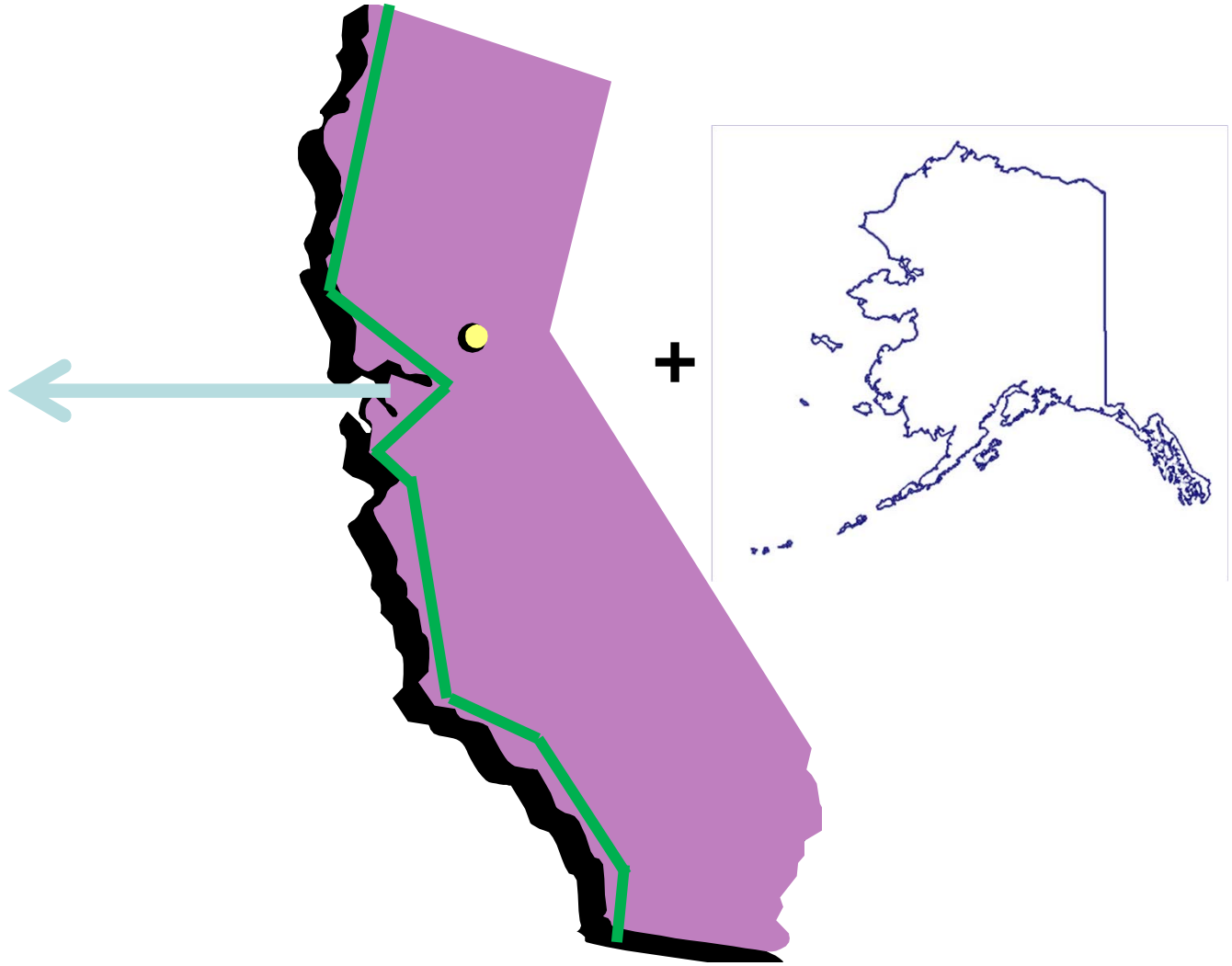
- **Current emphasis on marine oil spills**



Challenge

- **Exports (increase of 126% in 6 years incl AK)**

Refined Products
465,000 barrels/day
(July 2013)



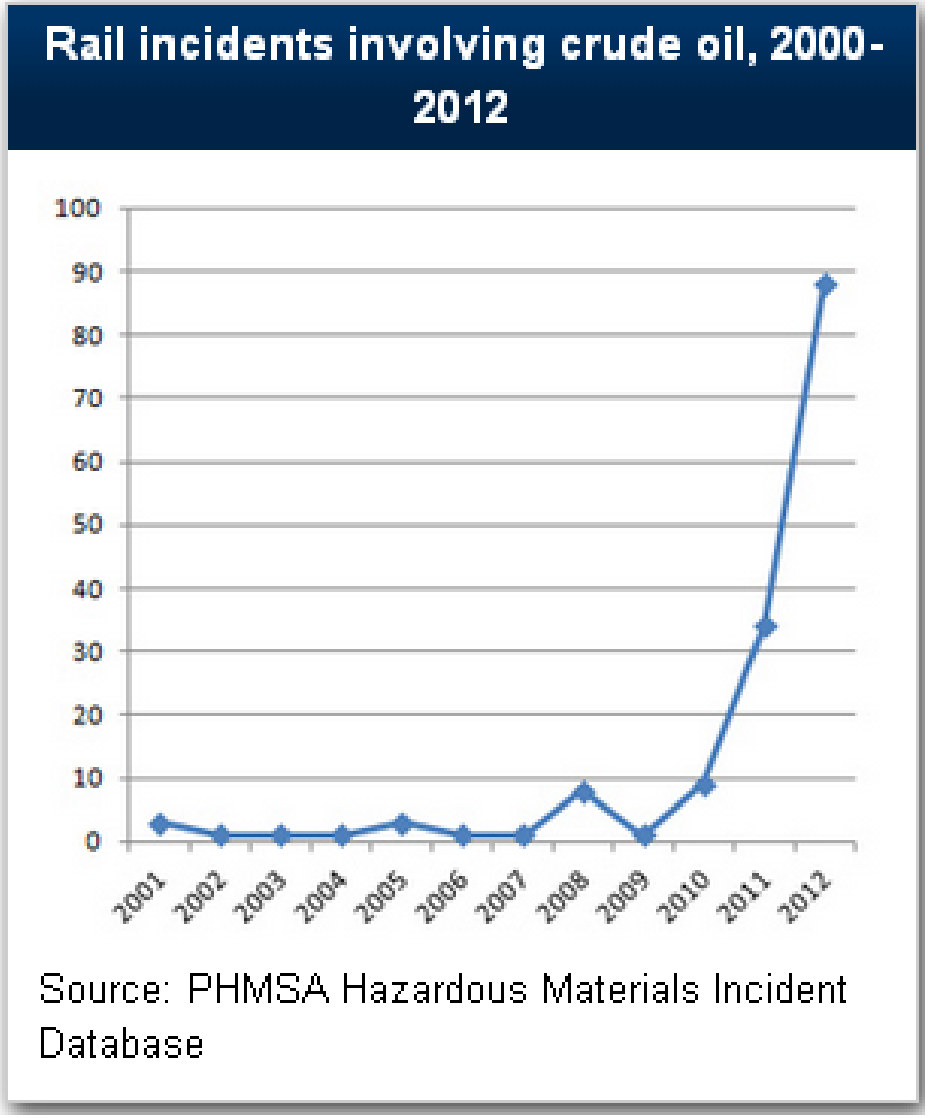
Challenge

- **Inland oil accidents are likely to increase**

Quebec, July 2013

DOT-111 tank car capacity = 30,000 gal
30,000 gal = 180,000 lbs
15,000 lbs gasoline = 225,000 lbs TNT

NTSB – “Inadequate design”, “high incidence of tank failures during accidents”



“I wouldn’t be any more concerned about a tank of Bakken oil versus a tank of gasoline,” University of North Dakota Energy & Environmental Research Center Associate Director John Harju said in an interview, though he affirmed that “Bakken oil is more volatile than heavy crude” and likened its handling to some of the lighter, liquid condensate produced alongside natural gas.

Quebec, July 2013

"… crude oil business leaped 300 percent. These significant increases in transporting chemicals increase the risk of chemical leaks and spills as a result of derailments."

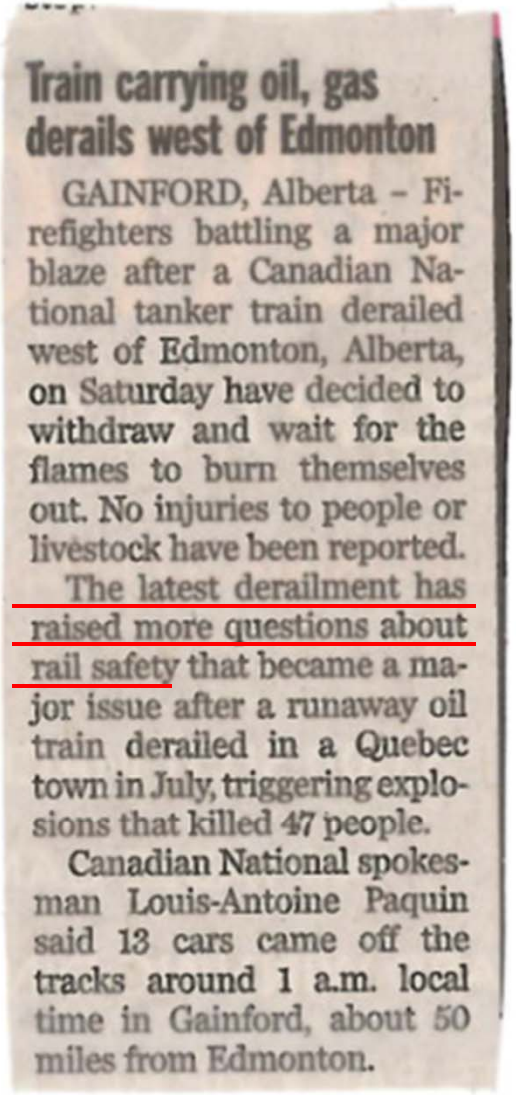
- 2012 Railway Safety Report (Calif PUC)

Diesel spills into Feather River after train accident in canyon

By DAN McDONALD – Plumas County News

POSTED: 01/25/2013 06:02:48 PM PST

Sacramento Bee
Sunday, Oct 19, 2013



Train carrying oil, gas derails west of Edmonton

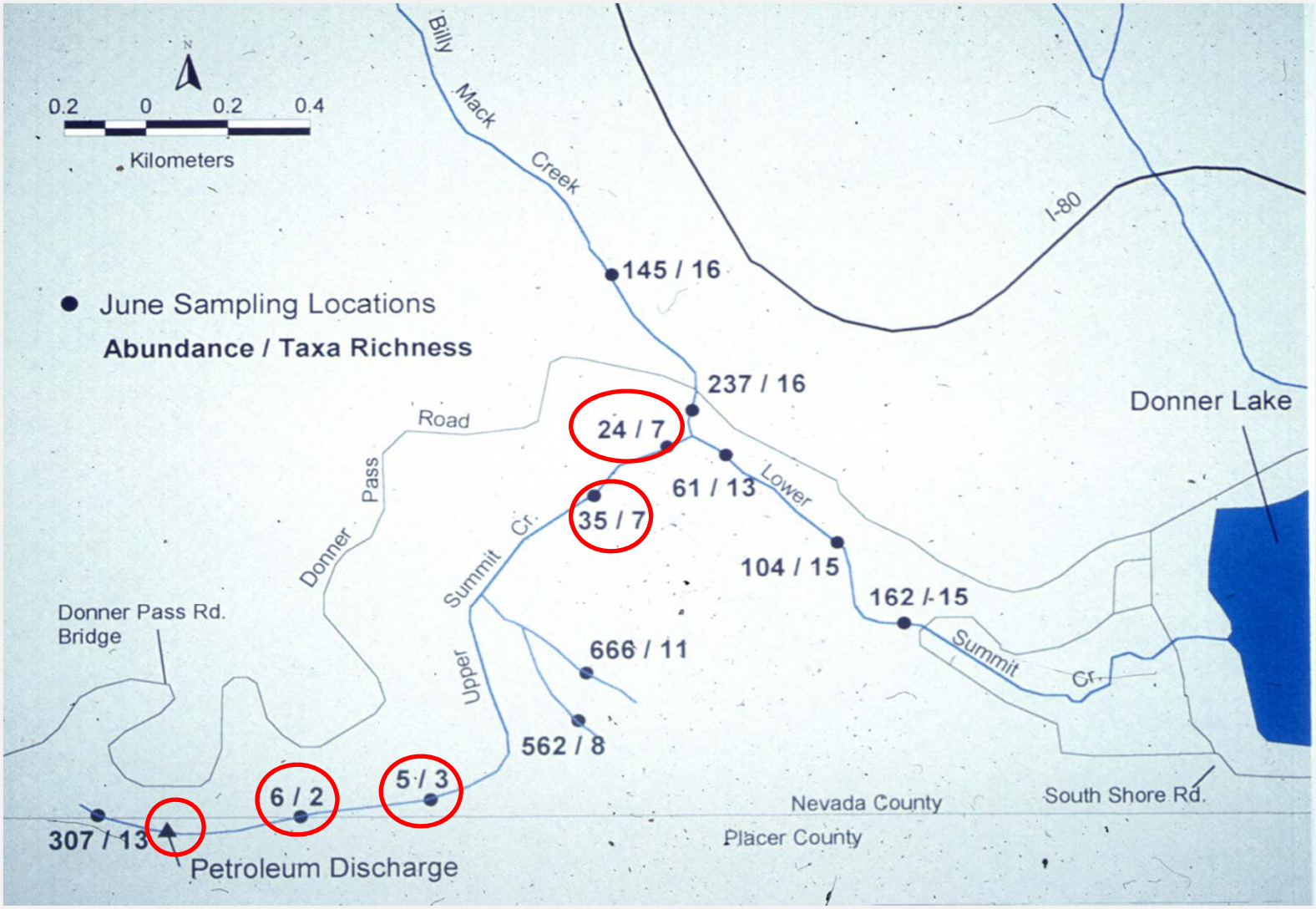
GAINFORD, Alberta – Firefighters battling a major blaze after a Canadian National tanker train derailed west of Edmonton, Alberta, on Saturday have decided to withdraw and wait for the flames to burn themselves out. No injuries to people or livestock have been reported.

The latest derailment has raised more questions about rail safety that became a major issue after a runaway oil train derailed in a Quebec town in July, triggering explosions that killed 47 people.

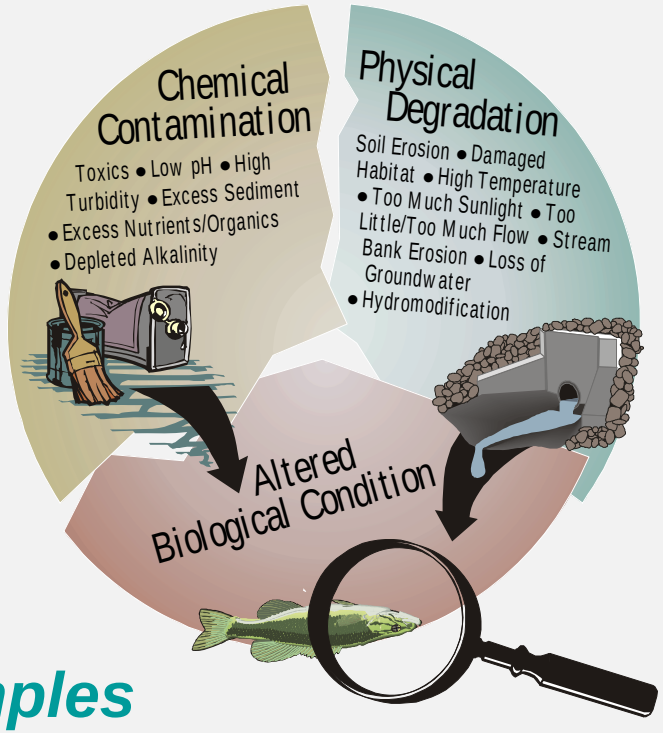
Canadian National spokesman Louis-Antoine Paquin said 13 cars came off the tracks around 1 a.m. local time in Gainford, about 50 miles from Edmonton.


Kinder Morgan Energy Partners Pipeline
5650 Violation/ Diesel Spill
Donner Summit/ Summit Creek
Bioassessment:
Response Monitoring Spring/Summer 2005
Recovery Monitoring 2006 thru 2009

Kinder Morgan Energy Partners Pipeline
5650 Violation/ Diesel Spill
Donner Summit/ Summit Creek



BIOASSESSMENT AS AN ENFORCEMENT TOOL



Why use Bioassessment?

- ***Cost-effective tool***
- ***Targeted and multi-habitat approach***
- ***No holding time requirement for samples***
- ***Unlike fish, benthos cannot move around as much so they are less able to escape the effects of sediment and other pollutants***
- ***Benthos represents an extremely diverse group of aquatic animals that possess a wide range of responses to stressors***
- ***Allow detection of past pollution events such as oil spills and illegal dumping***

Marijuana Grow Sites

- Water diversions
- Water pollution
  - ✓ Illegal pesticides
  - ✓ Rodenticides
  - ✓ Fertilizers
  - ✓ Erosion (sediment)
- Habitat destruction
- Wildlife losses
  - ✓ Illegal pesticides
  - ✓ Rodenticides

Thank you!

Gregor Baltzel

From the Office of Spill Prevention and Response