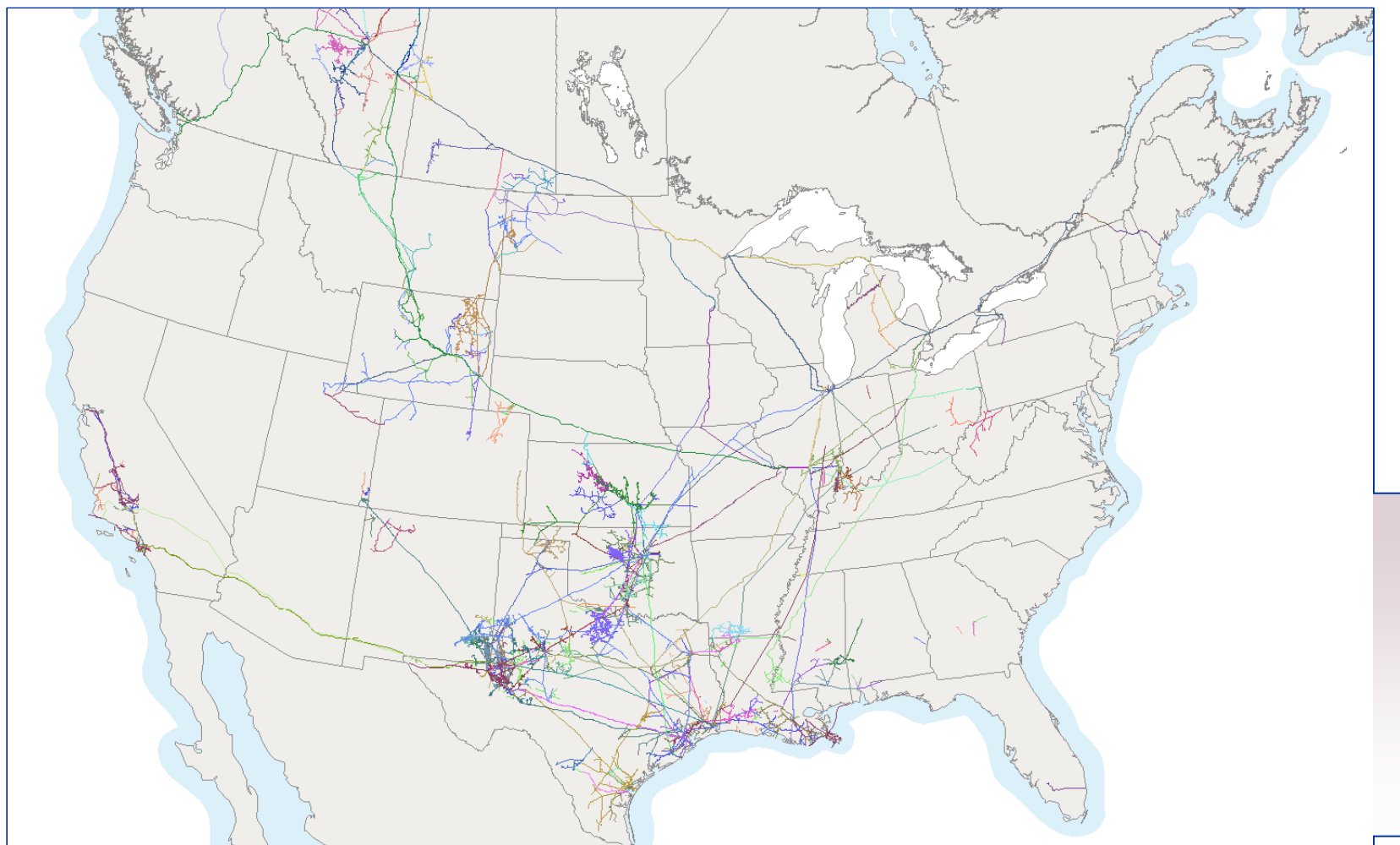


US EPA ARCHIVE DOCUMENT



Emergency Response and Preparedness Keystone Pipeline Project 2009 Freshwater Spills Symposium St. Louis, Missouri

Keystone Pipeline



Project Overview



- Transport Canadian crude oil from the WCSB to U.S. markets
- 30", 34" and 36" pipeline with initial capacity of 435,000 bpd. Anticipated in service date Q3, 2009
- Extends from Hardisty, Alberta to Wood River and Patoka, Illinois
- Consists of numerous pump stations, valves, and other facilities. Three-350,000 barrel storage tanks
- Designed, constructed and operated to the highest industry standards

What is an Emergency?



- An unforeseen or imminent event which requires:
 - ❖ A priority to protect the health, safety and welfare of the public and our employees
 - ❖ Protection of the environment
 - ❖ Minimizing damage to property, company operations and reputation
 - ❖ Efficient coordination of resources including highly trained response personnel
 - ❖ Prompt communications and notifications

Regulatory Requirements



- Must meet DOT/PHMSA Title 49-Part 194(Appproved)
- Must meet National Energy Board OPR and regulatory Commitment Approval table(Filed)
- Must meet local, provincial and state commitments.

Objectives of Emergency Response Program



- Meet all regulatory requirements
- Must be consistent with existing TCPL management system
- Appropriate and practical for operations
- Complete training and resource requirement prior to operations
- Ensure comprehensive stakeholder and customer input is received

Emergency Response Program Components



1. Comprehensive and complete plan
2. Proactive training and exercise/drills
3. Equipment and resources (internal, contractors and mutual aid)
4. Continuous improvement through auditing and review process
5. Awareness of public officials (local emergency services) through Integrated Public Awareness(API 1162)

Emergency Response Program Components



Comprehensive and
complete plan

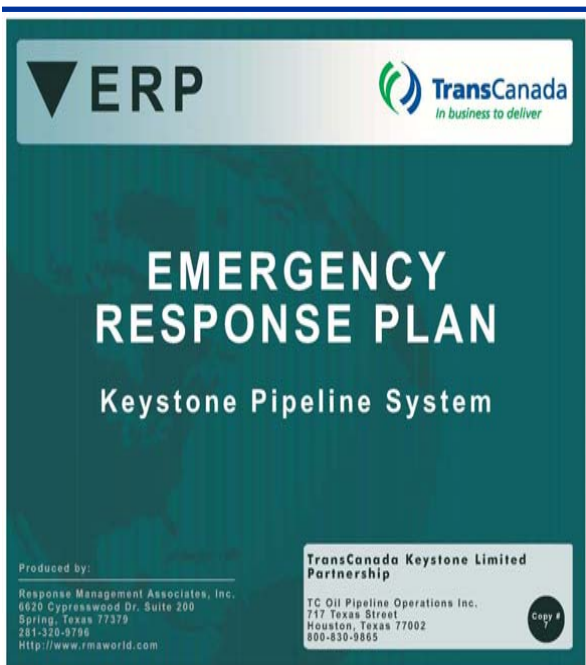
Proactive training
and exercise/drills

Equipment
and
Resources

**EMERGENCY
RESPONSE PLAN**
Keystone Pipeline System

Awareness of
Public Officials

Continuous
Improvement



Emergency Response Plan



- Retained third party contractors with expertise to develop the plan
- Developed in accordance with regulatory standards and best industry practices
- Continually reviewed to ensure practicality for operations
- Comprehensive and includes all aspects of emergency response and preparedness and complements existing corporate plans
- Updated on a continual basis to reflect new information and technologies

Specific Objectives of the Plan are to:



- Establish Response Teams, assign individuals to fill the positions on the teams, and define the roles and responsibilities of the team members (ICS)
- Define notification, activation, and mobilization procedures to be followed when discharge occurs
- Define organizational lines of responsibility to be adhere to during a response operation
- Document equipment, manpower, and other resources available to assist with the response
- Ensure compliance with Canadian Onshore Pipeline Regulations and the U.S. National Oil and Hazardous Substances Contingency Plan and associated Area Contingency Plan(s) for the area of operation.


Key Features of are Plan



- Resides on a database and easily updated
- Consistent with existing TCPL Systems
- Notification (Internal and External)
- Organizational Structure
- Personnel and Public Safety Procedures
- Environmental Overview
- Worst Case Scenarios 🇺🇸
- Response Zones 🇺🇸
- Tactical Control Plans 🇺🇸
- Incident Command System
- Training
- Technical Response Methodology
- Contractor and Spill Response Contacts



ePlanPro Snapshot

 **TransCanada**
In business to deliver

Welcome RMA Administrator | [Logout](#)

Home Administrator

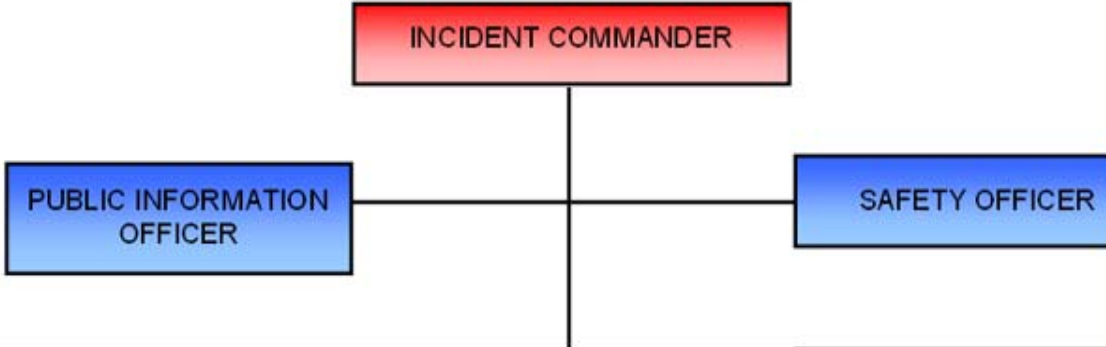
Administrator » Tactical Plans

Keystone Pipeline System

- Foreword
- Emergency Response Action Plan
- 1.0 Introduction and Plan Content
- 2.0 Notification and Response Procedures
- 3.0 Response Actions
- 4.0 Response Teams
- 5.0 Response Planning
- 6.0 Spill Impact Considerations
- App. A - Response Resources
- App. B - Worst Case Discharge Analysis and Scenarios
- App. C - Emergency Pre-Planning
- App. D - Training and Drills
- App. E - Disposal Plan
- App. F - Miscellaneous Forms
- App. G - State Requirements
- App. H - Material Safety Data Sheet
- Regulatory Cross Reference
- RESPONSE ZONE 1
- RESPONSE ZONE 2

COMMAND

Incident Commander.....	4
Public Information Officer.....	4
Liaison Officer.....	4
Safety Officer.....	4
Legal Officer.....	4



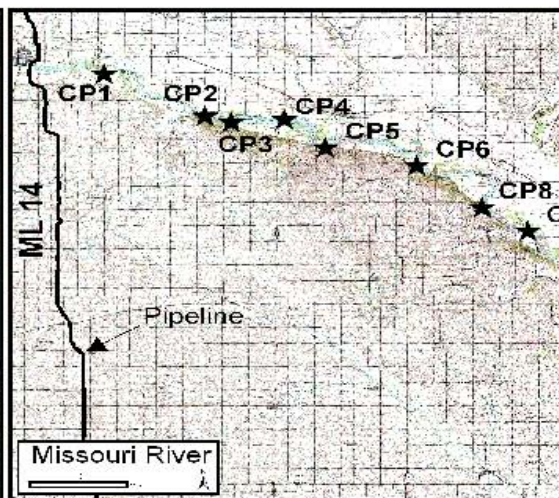
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graph TD; IC[INCIDENT COMMANDER] --- PIO[PUBLIC INFORMATION OFFICER]; IC --- SO[SAFETY OFFICER];
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Done Internet

ePlanPro Snapshot



Missouri River N CP1: St. Helene Boat Ramp



RESPONSE STRATEGY

Nearest Response Equipment:

Company: The nearest company spill response equipment trailer is in Yankton, SD.

Contractor: The nearest contracted spill response equipment is in Watertown, SD.

Access to Area:

Take Hwy 81 south, turn left on CR-121 (898th), turn left on 563 Ave and continue to the St. Helene Boat Ramp (CP1).

Location of Staging Area / Boat Launch:

A staging area can be set up on site in the public parking lot at the park. A boat ramp (compacted dirt ramp) is available on site.

Description of Watercourse:

The Missouri River is a large meandering river with a high silt content and a number of distinct habitats. General river flow is southeast.

At this location, the river ranges from approximately 800-2000 ft wide, with a depth ranging from 10-45 ft, and a current of 5-10 kts depending on conditions.

Bank Characteristics:

Both the north and south bank are generally gently sloping with low vegetation, areas of riprap. Depending on the current, there may be eroding river banks with occasional bluffs. Numerous sand bars and islands can be found on the river between CP1 and CP2.

Environmental Sensitivities:

National Park Service - Missouri National Recreational River, Lewis and Clark State Recreation areas.

Protected species along Missouri - Piping Plover, Least Tern, Pallid Sturgeon.

Decontamination Areas:

Establish a decontamination area in the parking lot to provide decon for response members.

Establish a small decon area for equipment, if necessary.

Comments:

INFORMATION

Location/Site: Missouri River N CP1: St. Helene Boat Ramp
Nearest City: Yankton, South Dakota

Latitude/Longitude:
42 51.008N° 97 16.216W°

Landowner: National Park Service

Upstream CP: Pipeline Crossing

Phone: (402) 336-3970

Downstream CP: CP2

EQUIPMENT AND PERSONNEL

Equipment/Personnel	Quantity	Location	ETA
Personnel	30	Watertown, South Dakota	4.06 hours
Jon Boats	2	Watertown, South Dakota	4.06 hours
Response Trailers	2	Watertown, South Dakota	4.06 hours
18" Containment boom	5000 ft	Watertown, South Dakota	4.06 hours
Sorbent Trailers	1	Watertown, South Dakota	4.06 hours
Vacuum Trucks	2	Watertown, South Dakota	4.06 hours
Product Storage	2	Watertown, South Dakota	4.06 hours
Skimming Systems	2	Watertown, South Dakota	4.06 hours
Product Storage Barges	2	Watertown, South Dakota	4.06 hours

RESPONSE OBJECTIVES

Deploy containment boom in a cascade strategy towards the southern shore to collection points with vehicle access.

Utilize skimming boats, with on water storage (e.g. barges).

Deploy exclusion booming to minimize amount of oil entering side channels, small sand bar cuts and between islands and the shore.

Deploy deflection booming to divert oil from small islands within the river.

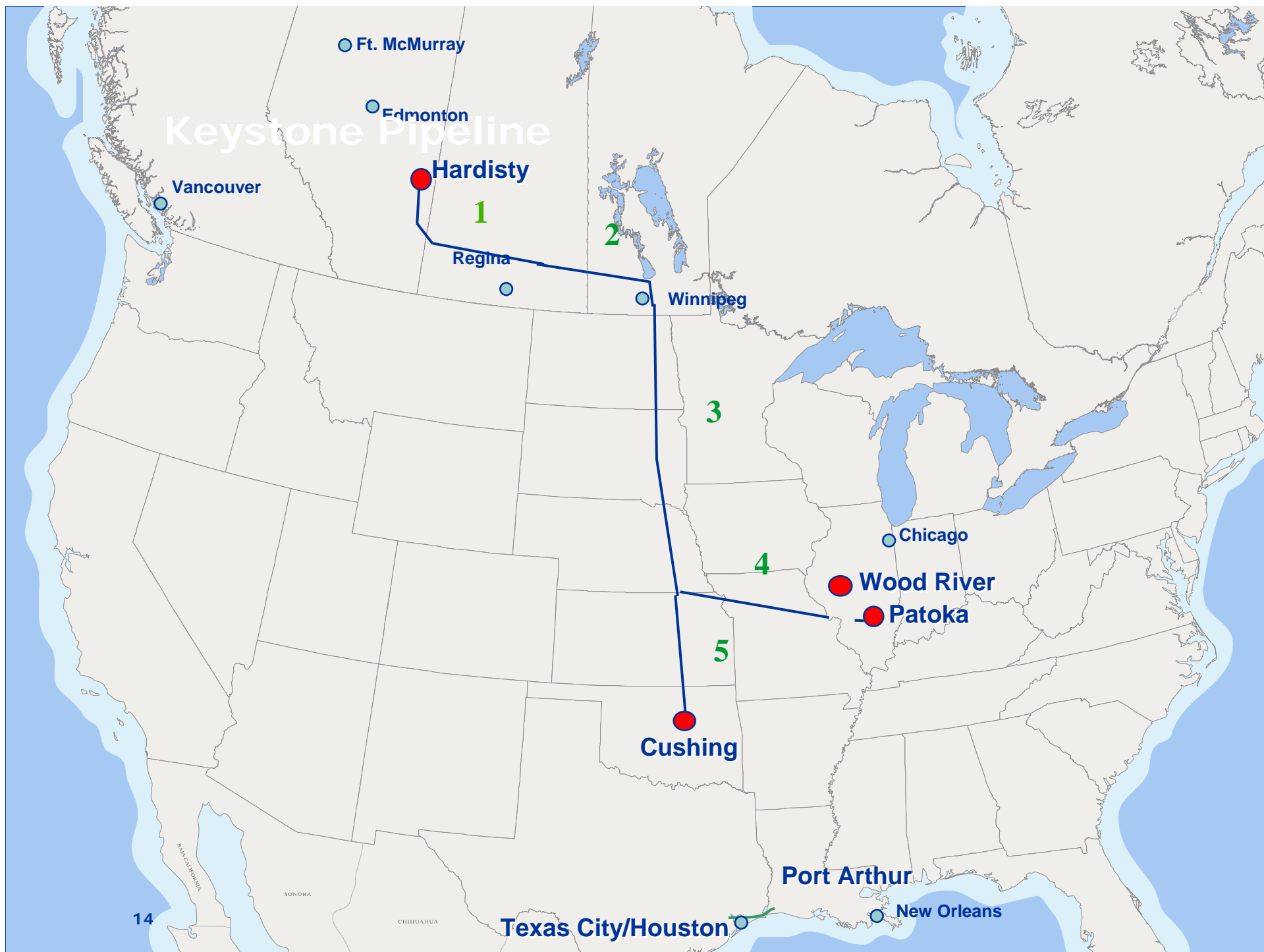
SAFETY

Conduct Operational Risk Assessment and put proper controls in place to protect the community and workers.

Conduct tailgate safety meeting before and after each shift; modify Site Safety Plan, as appropriate.

Request a State or US Coast Guard "Safety Zone".

Require the wearing of a Personal Floatation Device.



Environmental Sensitivity Maps



- 67 maps containing environmental receptor and pipeline information(2500 watercourses)
- 35 sensitivity maps from applicable Area Contingency Plans
- Maps also contain relevant pipeline and local information

Training



- Consultant proposing a three year training, drill and exercise matrix which include:
 - ❖ Incident Command and Emergency Management System
 - ICS 100, 200, 300,
 - ❖ Exercise and Response Drills
 - Two equipment deployment drills and three table-top exercises per response zone, annually
 - QI drills; one per quarter per QI
 - ❖ Industry and external resource training
 - *Hazwoper (24 hour initial, 8 hour awareness/refreshers)*
 - Equipment Training
 - Boat Handling
 - ❖ Partner with industry and public officials
 - Invitations for public officials/regulators and interested parties to attend drills and exercises

Types of training

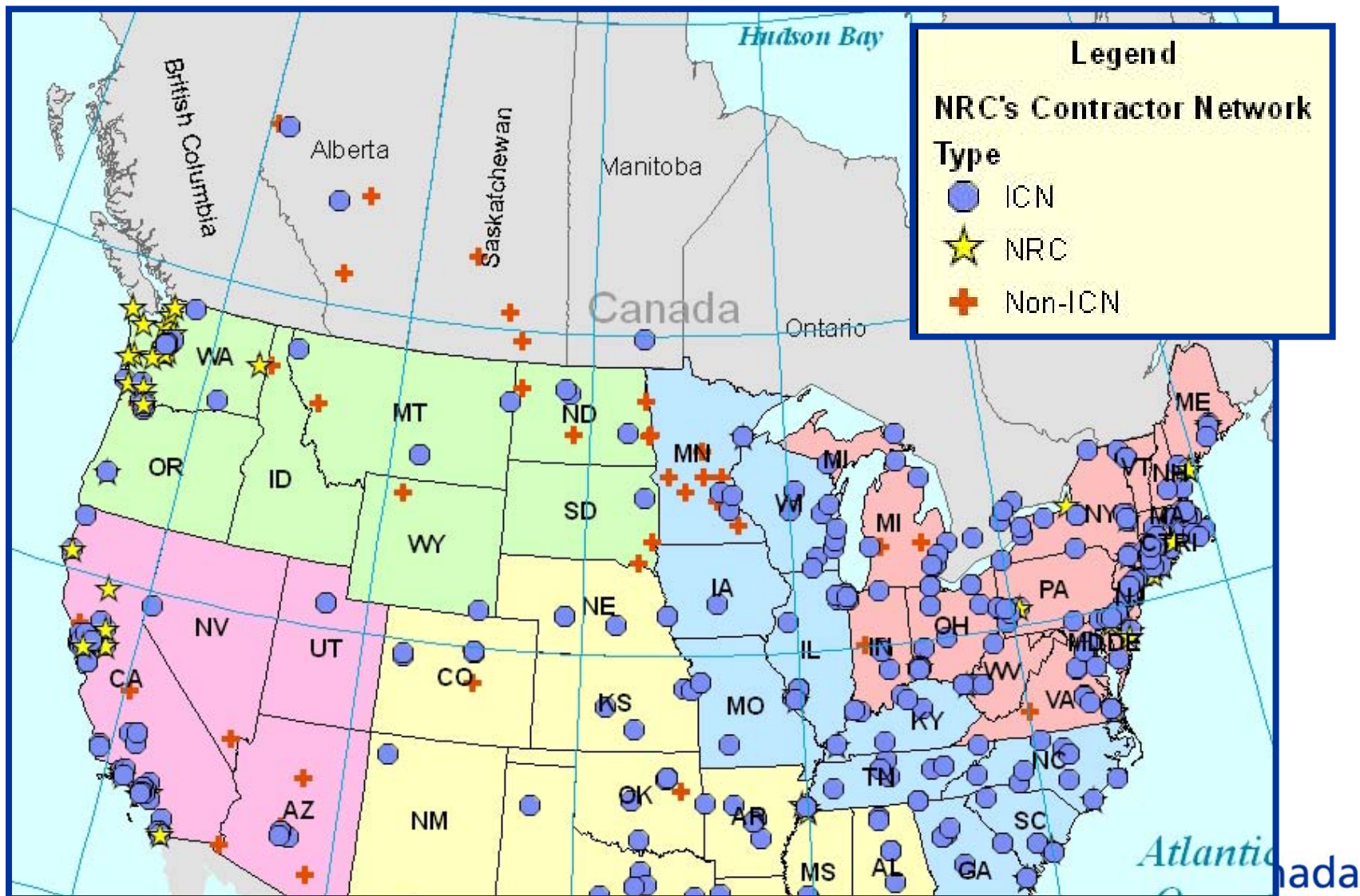


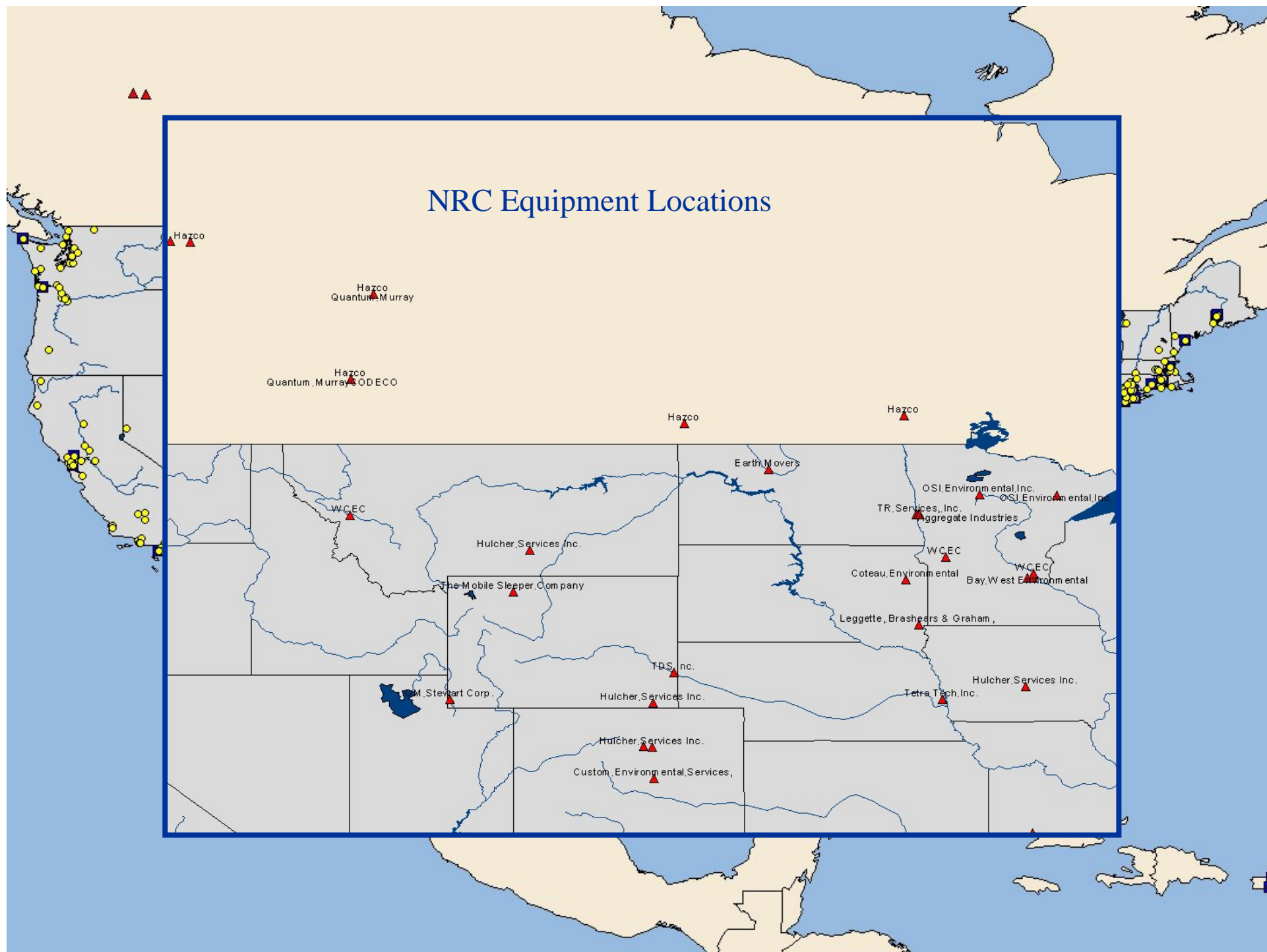
Equipment and Resources



- Procured company equipment to initially respond to incident
- Mandated by regulators to own our equipment
- 4 large trailers, 4 small trailers, 8 boats, other equipment
- Retained third party contractor with expertise in spill response(OSRO)
- Actively participate in mutual aid groups, including associations, and oil spill cooperatives
- Ensure adequate and trained resources are readily available to respond to any emergency

NRC Equipment Locations





Keystone Equipment Trailers



Keystone Equipment Trailers



Keystone Equipment Trailers



Keystone Response Boats



Keystone Response Boats



Continual Improvement Through Auditing and Review



- Review all aspects of the program and adjust as required
- Focus on continually improving all aspects of emergency response
- Retain third party auditor to review the program as needed

Public Awareness of First Responders



- Develop plan to ensure all public officials are aware of pipeline safety and Keystone response capabilities
- Encourage mutual aid joint exercise programs
- Provide notification and risk information on an ongoing basis

Conclusion



- Keystone is actively engaged in Emergency Response planning
- Emergency Response Program was developed to meet all regulatory requirements and local concerns and be appropriate for operations
- Ensure all public officials are aware of the Keystone Pipeline and the emergency response capabilities
- Public and employee safety is our number one priority



Keystone Update

Thank-you for your Attention!

