

## KMC Emergency Response Program

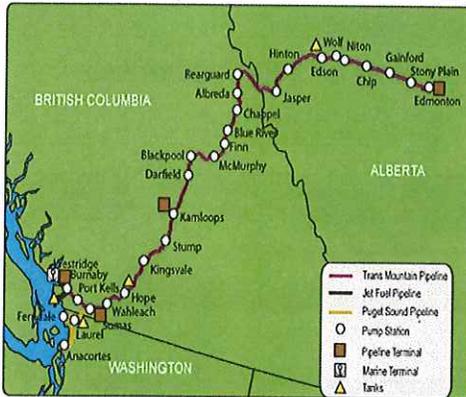
Puget Sound Worst Case Exercise

May 1, 2014

Bellingham, Washington



## The Trans Mountain Pipeline



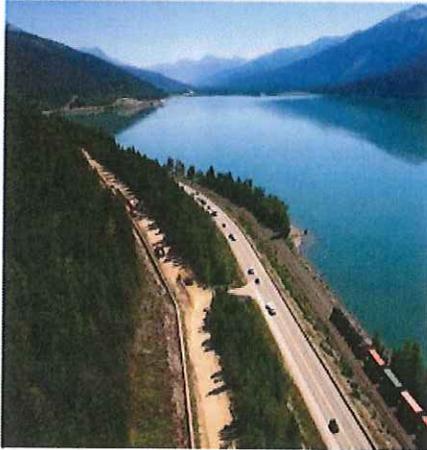
The only pipeline to Canada's West Coast

Operating for 60 years

Supplying local refineries and offshore markets



## Today



- About 30 per cent of the system has been twinned
- Moves crude oil and refined petroleum products
- Kinder Morgan Canada does not own the products that are transported
- Westridge Marine Terminal in Burnaby: only western Canadian marine loading facility connected to a federally-regulated pipeline

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## Supply



- Current capacity 47.7 million litres or 300,000 barrels capacity per day



- Equivalent to a tanker truck leaving Edmonton for Vancouver every minute
- Ability to transport multiple products in batches up to 350 km long travelling at 5 km/hr:



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## Product Quality



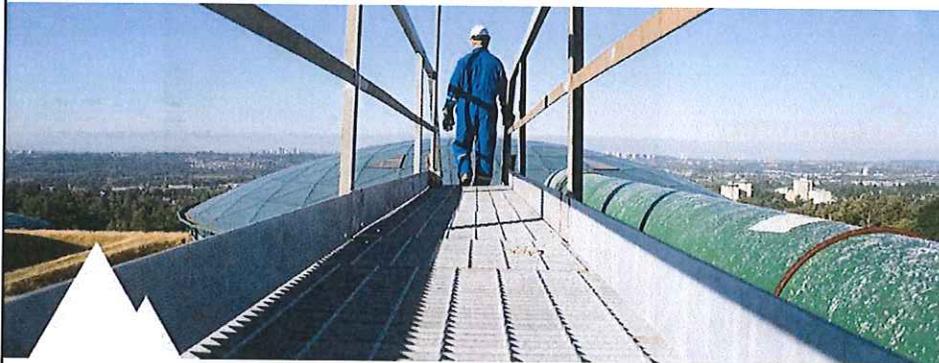
We transport a wide range of products and the terms and conditions for this service are defined in our [Tariff 92](#)

These conditions include product quality *maximum* limits:

- (a) Reid vapour pressure: 103 kPa
- (b) Sand, dust, gums, sediment, water or other impurities (total in aggregate): 0.5%
- (c) Receipt Point temperature: 38°C
- (d) Density: 940 kg/m<sup>3</sup>
- (e) Kinematic Viscosity: 350cSt
- (f) Having any organic chlorides or other compounds with physical or chemical characteristics that may render such Petroleum not readily transportable by the Carrier...

Trans Mountain has been transporting diluted bitumen since late 1980s without incident or operational problems due to dilbit properties

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## KMC EMERGENCY RESPONSE PROGRAM

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## Introduction: Pipeline Safety today



- The most important aspect of preparedness is to prevent an emergency from occurring at all
- There are a number of programs in place to prevent problems including:
  - community and contractor awareness programs
  - Pipeline & Facility integrity programs
  - regular surveillance of activity near the right-of-way
  - 24-hour monitoring and leak detection programs



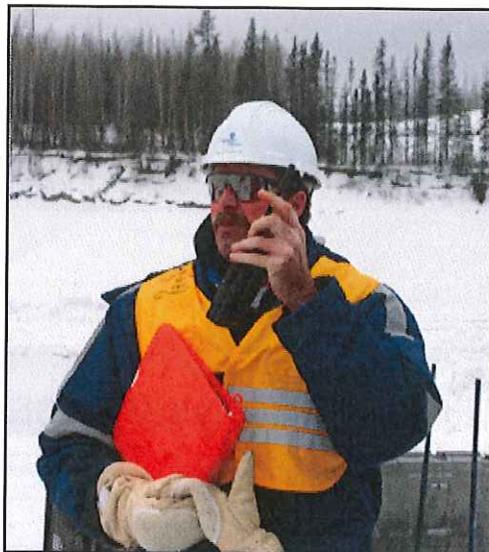
## CAER Program

**C**ommunity

**A**wareness

**E**mergency

**R**esponse



## Emergency Response & Security Group Responsibilities

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- Training
- Exercises
- Emergency Response Plans
- Emergency Response
- Security Plans
- Incident Command System

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## Emergency Response Line

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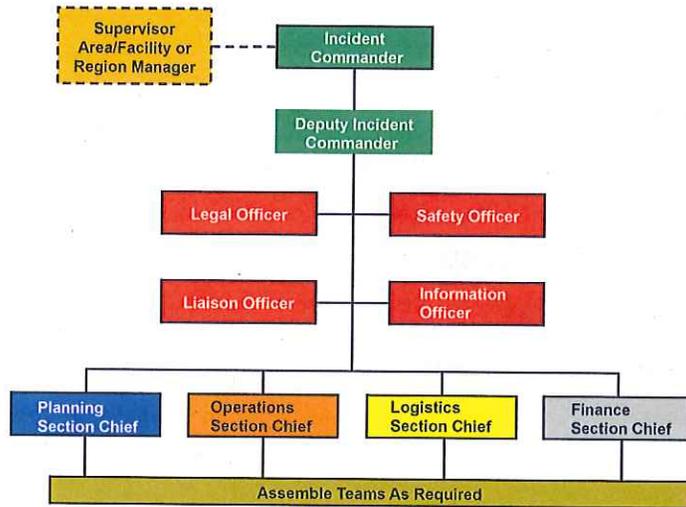


- All incidents reported to the Control Centre
- Control Centre Activates ERL or ERL+
- Notification
- ERL Calls



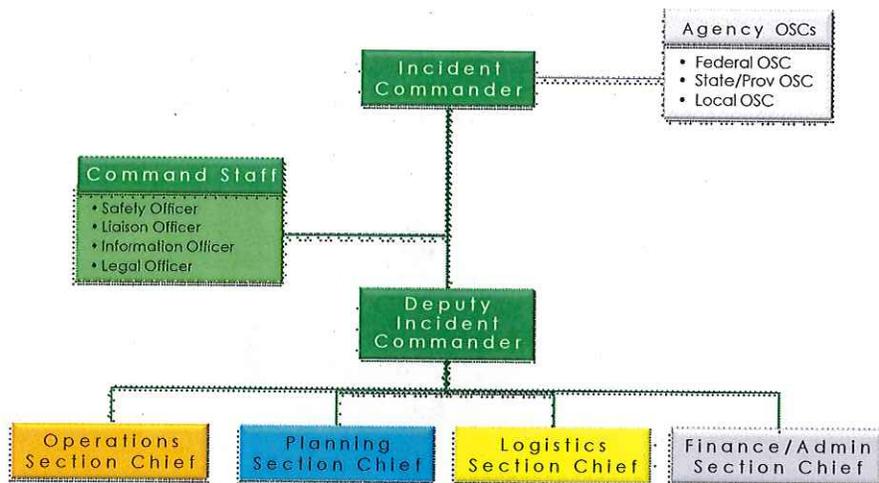
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## Incident Command System



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## Unified Command

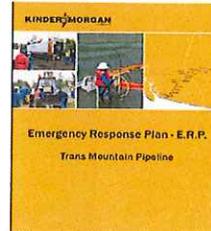


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## Response Manuals



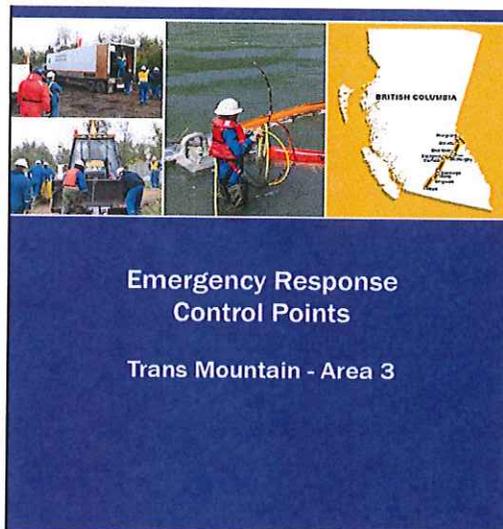
- Emergency Response Plan Trans Mountain Pipeline
- Emergency Response Plan Westridge Marine Terminal
- Emergency Response Plan Tank Farms
- Emergency Response Plan Puget Sound
- Control Point Manual
- Emergency Response Field Guide
  - Condensed ERP
  - Route Maps



KMC also has an environmental GIS with includes information on environmentally sensitive areas.



## Control Points



# Control Point – Fact sheets



<b>PICTURE</b> Date: 20/10/2005    Position (Looking At): Down Stream Orientation (Looking At): Description/Comment: A workplace drawing should be torated with workspace on north side of Sundance Creek.		<b>CAD DRAWING</b> 	
		<b>BEST ACCESS</b> 	
<b>KINDER MORGAN EMERGENCY RESPONSE</b> Best Access: CP 15-03 10/10/05		<b>Best Access Driving Instruction</b> From highway 11 go south on East Sundance Road (Range Road 102) for 500m. Control Point is at the bridge.	

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# Control Point – Fact sheets



Control Point Name		Control Point		CP 15-03					
Latitude	53.56675	Longitude	-110.70324	Elevation	549	Units	3/feet	Review Date	20/10/2005
Location		Land Owner			Unknown				
<b>WORKSPACE</b>									
Site	Small	Location: North west bank							
Description	Small gravel parking area								
Comments									
<b>WATER BODY</b>									
Name	SUNDANCE CREEK			Width	5m				
Depth Or Bank Height	2m. Gentle slopes on both banks								
Bed Type	Sand and gravel			Distance To Confluence	13km to Mackled River				
<b>LOGISTICS</b>									
Nearest Response Equipment	Jumper Station			Logistics Comment					
Helicopter Operation	Not Required								
Boat Launch	None								
Upstream Cp	None								
Downstream Cp	CP 15-01								
<b>STRATEGY</b>									
Comments	Booms and skimmer								

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## Training & Courses



- Incident Command System
  - 100, 200, 300,400
  - Workshops
- Safe Approach
- Basic Oil Spill Response

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## Exercises Deployments & Tabletops



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## Emergency Response Equipment



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## Oscar Trailer



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## Emergency Response Equipment Facts



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## Spill Co-ops/ROs



- MRC
- SDMAP
- Western Canadian Spill Services
- Western Canadian Spill Services

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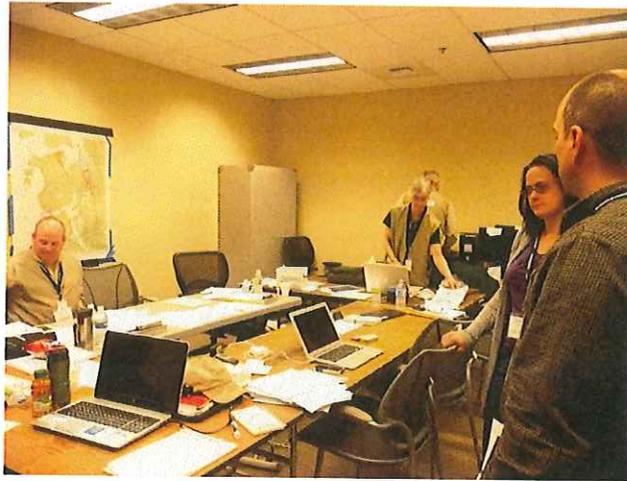
## Global Information System



## Drill Planning Team Room Activity

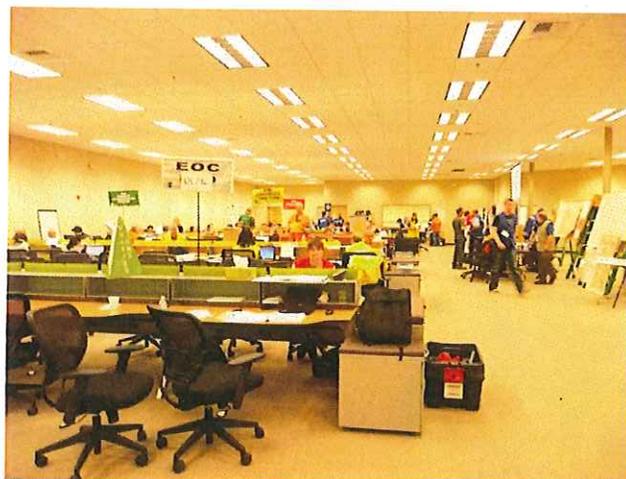


## Drill Activity Planners



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## Drill Operations Room



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## Drill Operations

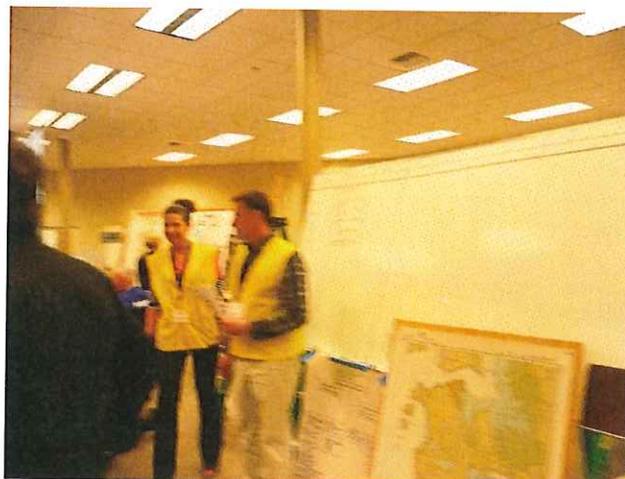


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## Drill Operations and Response Planning

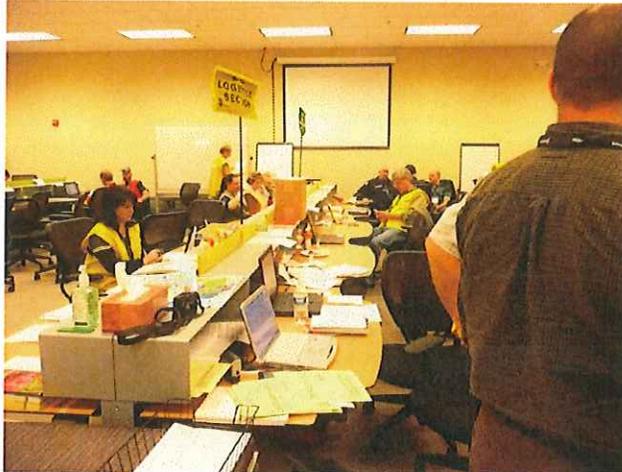


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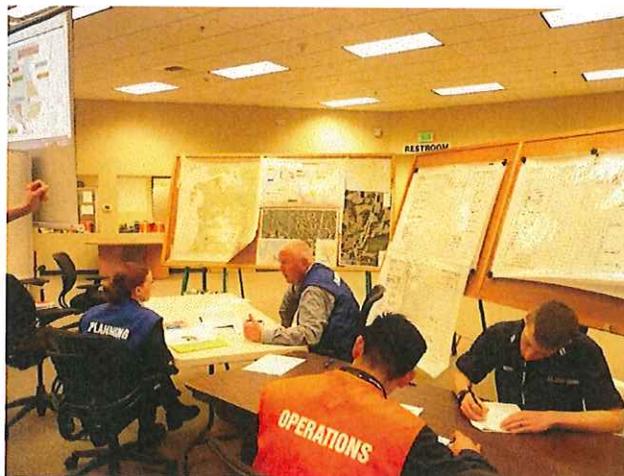
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## Drill Operations



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## Drill Command Center



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## Drill Situation Status Board



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## Drill Response Planning



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