

Attachments to the Notice of Motion: Requiring the placement of automatic shut off valves on either side of Toronto's major watercourses in order to protect our environment and our drinking water

Below is a list of recent pipeline spills that the City of Toronto submitted as a part of its evidence to the NEB:

- Exxon pipeline spill in Arkansas on March 30, 2013
- Chevron pipeline spill near Salt Lake City, Utah, on March 18, 2013
- Enbridge pipeline spill in Wisconsin on July 27, 2012
- Enbridge pipeline spill near Edmonton on June 29, 2012
- Plains Midstream pipeline spill near Sundre, Alberta, on June 8, 2012
- Exxon pipeline spill near Billings, Montana, on July 1, 2011
- Plains Midstream pipeline spill near Little Buffalo, Alberta, on April 29, 2011 80.
- More recently, on June 22, 2013, a spill from Enbridge's Line 37 near the company's Cheecham terminal in Alberta, resulted in the release of about 1,300 barrels of oil: <http://www.enbridge.com/MediaCentre/News/Line-37.aspx>

Date	Location	Owner/Operator	Description of Incident ¹
March 30, 2013	Mayflower, Arkansas	Exxon	<ul style="list-style-type: none"> - Rupture of the Pegasus pipeline released up to 420,000 U.S. gallons (13,333 barrels) of heavy crude at Mayflower, Arkansas, a community of 1,700 located 25 miles (40 km) north of Little Rock - U.S. EPA categorized the incident as a major spill, which applies to spills greater than 250 barrel - 22 homes were evacuated - 640 workers are involved in the clean up, which is on-going - 2,000 feet of boom (600 m), 14 vacuum trucks, and 60 storage tanks were deployed - Crews were working to prevent the crude from entering Lake Conway - Mayflower drinking water supply was not affected because the source is located 65 miles (100 km) to the northeast
March 18, 2013	Outside Salt Lake City, Utah	Chevron	<ul style="list-style-type: none"> - Rupture of a Chevron pipeline carrying diesel fuel released up to 27,000 gallons (850 barrels) into a wetland near the Bear River Migratory Bird Refuge and Willard Bay State Park - Willard Bay covers 10,000 acres (4,000 ha) and supports walleye, crappie, and catfish - Crews are using absorbent booms and vacuum trucks to prevent the diesel fuel from reaching Willard Bay Reservoir and nearby nesting and feeding habitat - No estimates of residents evacuated - U.S. Transportation Department's Pipeline and Hazardous Materials Safety Administration filed a corrective action order requiring Chevron to obtain government approval before re-opening the pipeline and limiting operations to 80% of normal operating pressure - This is Chevron's 3rd pipeline spill in Utah in 3 years: in June, 2010 – 30,000 gallons of crude oil spilled and in December, 2010, 21,000 gallons spilled; all spills were near Salt Lake City,

¹ Based on on-line research carried out by Toronto Water Staff on sites including: [NTD – Jacinta to advise]

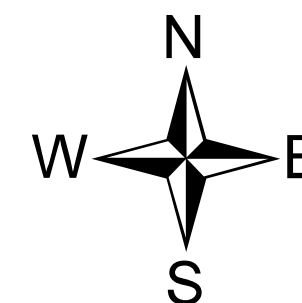
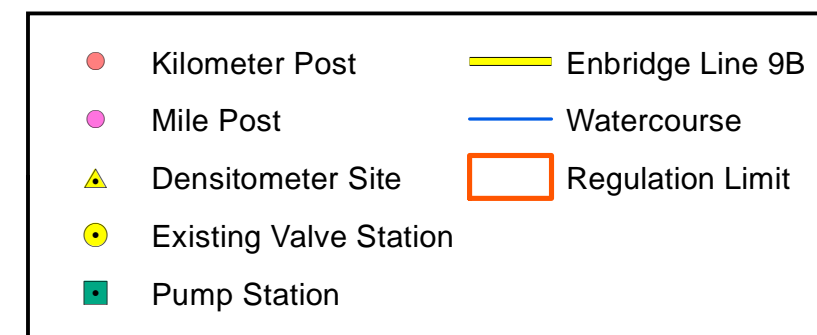
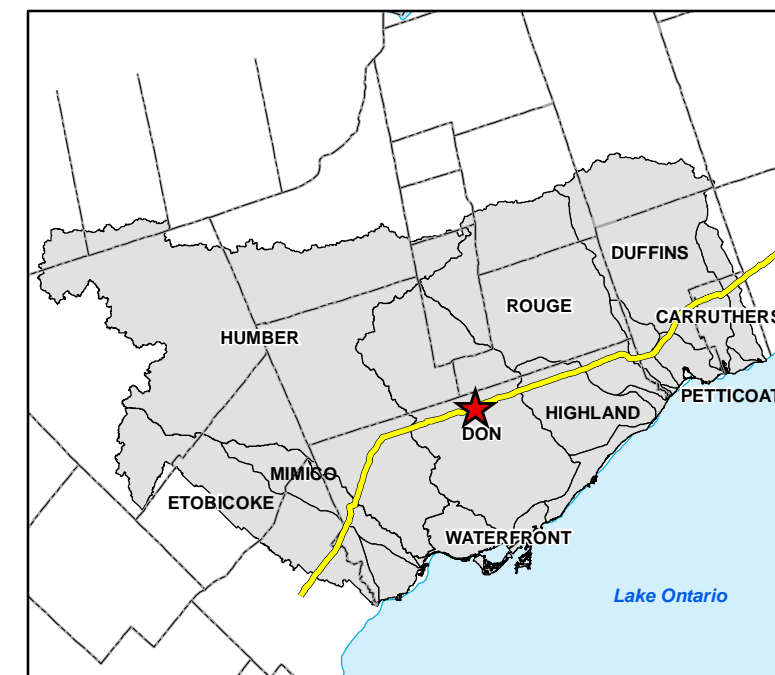
Date	Location	Owner/Operator	Description of Incident ¹
July 27, 2012	Grand Marsh, Wisconsin	Enbridge	<ul style="list-style-type: none"> – Rupture of an Enbridge pipeline released 1,200 barrels (38,000 U.S. gallons) of light crude oil at Grand Marsh, Wisconsin, which is located approximately 110 km north of Madison – Population of Grand Marsh is 127 – The pipeline was built in 1998 to carry 317,600 barrels per day of light crude oil to refineries in the Chicago area
June 19, 2012	Near Edmonton, Alberta	Enbridge	<ul style="list-style-type: none"> – Rupture of an Enbridge pipeline spilled 60,760 gallons (1,930 barrels) of heavy crude oil at Elk Point, Alberta, which is north of Edmonton – Enbridge said in a news release that the cause of the leak appeared to be failure of a flange gasket – The spill occurred on land, and there were no water impacts
June 8, 2012	Near Sundre, Alberta	Plains Midstream	<ul style="list-style-type: none"> – Rupture of a Plains Midstream pipeline released 125,000 gallons (4,000 barrels) of light sour crude oil into Jackson Creek, a tributary to the Red Deer River – 90 workers were involved in the clean-up – Booms were erected in Lake Gleniffer (a man-made reservoir and popular recreational area), 40 km downstream from the rupture, to prevent the oil from reaching Red Deer, Alberta's third-largest city, which draws its water from the Red Deer River – A lawsuit for \$75 million against Plains Midstream claimed the pipeline spill was the result of leak may have occurred due to heavy rains that eroded the soil around the pipeline
July 1, 2011	Near Billings, Montana	Exxon	<ul style="list-style-type: none"> – Rupture of an Exxon pipeline released 1,000 barrels (31,500 U.S. gallons) of crude oil into the Yellowstone River – EPA estimated the crude oil travelled at least 20 miles (32 km) downstream, crossing into North Dakota – 140 residents were evacuated – 350 Exxon employees involved in the clean up

Date	Location	Owner/Operator	Description of Incident ¹
April 29, 2011	Near Little Buffalo, Alberta	Plains Midstream	<ul style="list-style-type: none"> – Rupture of a Plains Midstream pipeline released up to 1.6 million U.S. gallons (38,000 barrels) of oil into a bog in a remote area, northeast of Peace River, Alberta – Determined to be one of the second-worst oil spill in Alberta history – The break was believed to be the result of improper maintenance done in 2010 – soil was packed in a way that led the pipe to settle and crack – A school in the nearby First Nations community of Little Buffalo had to be closed – Oil was still present in watercourses in the area more than a year after the spill – The spill response suffered from: (1) delayed detection of the pipeline break, (2) initial response that was inadequate for the volume of oil released, and (3) lack of communication.

Photo 4



Photo of exposed Line 9B pipeline within Newtonbrook Creek -
Don River Watershed



0 25 50 100
Meters

**Map 11 - Enbridge Line 9B Reversal & Expansion Project
Newtonbrook Creek (Don River Watershed) Exposure Site**

Coordinate System: NAD 1983 UTM Zone 17N
Projection: Transverse Mercator
Created: 8/1/2013

Photo 6



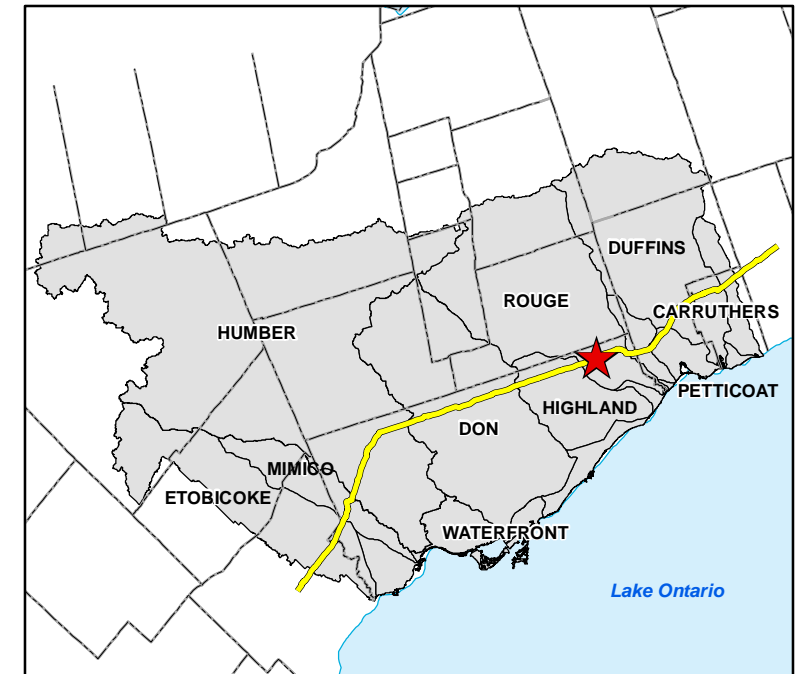
Photo of interim stabilization measures at exposure of Line 9B pipeline at the Rouge River.



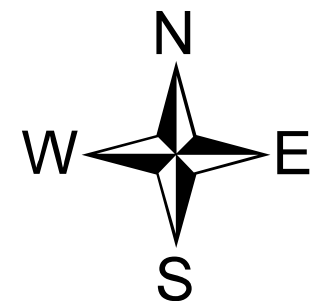
0 25 50 100
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Map 13 - Enbridge Line 9B Reversal & Expansion Project
Rouge River Exposure Site

Coordinate System: NAD 1983 UTM Zone 17N
Projection: Transverse Mercator
Created: 8/1/2013



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|--------------------------|--------------------|
| ● Kilometer Post | — Enbridge Line 9B |
| ● Mile Post | — Watercourse |
| ▲ Densitometer Site | □ Regulation Limit |
| ● Existing Valve Station | |
| ■ Pump Station | |



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Photo 5



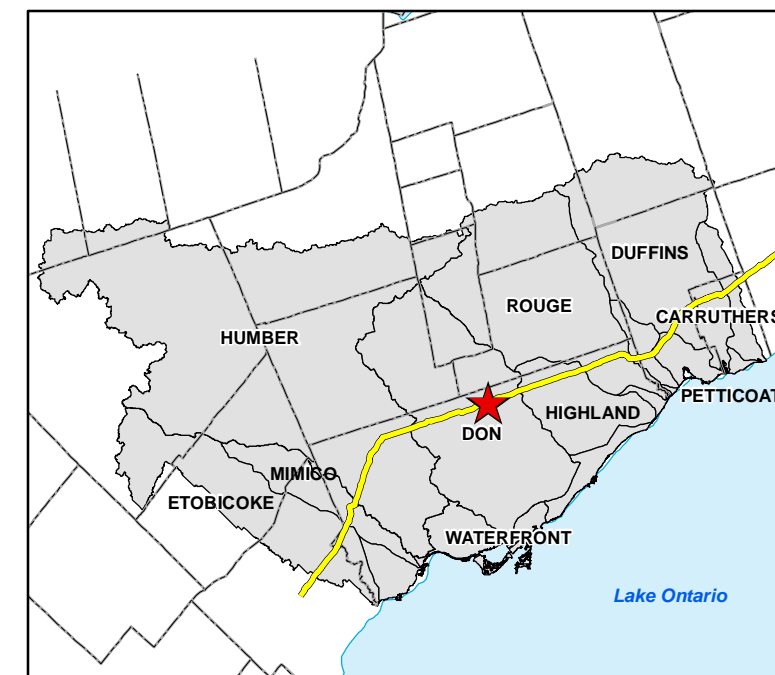
Photo of exposed Line 9B pipeline adjacent to the East Don Provincially Significant Wetland (PSW) Complex



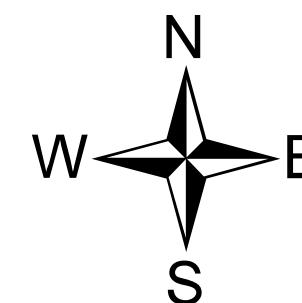
0 25 50 100
Meters

Map 12 - Enbridge Line 9B Reversal & Expansion Project
East Don River Exposure Site

Coordinate System: NAD 1983 UTM Zone 17N
Projection: Transverse Mercator
Created: 8/1/2013



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|--------------------------|--------------------|
| ● Kilometer Post | — Enbridge Line 9B |
| ● Mile Post | — Watercourse |
| ▲ Densitometer Site | □ Regulation Limit |
| ● Existing Valve Station | |
| ■ Pump Station | |



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