



# Northern Gateway Project Presentation Spring 2009



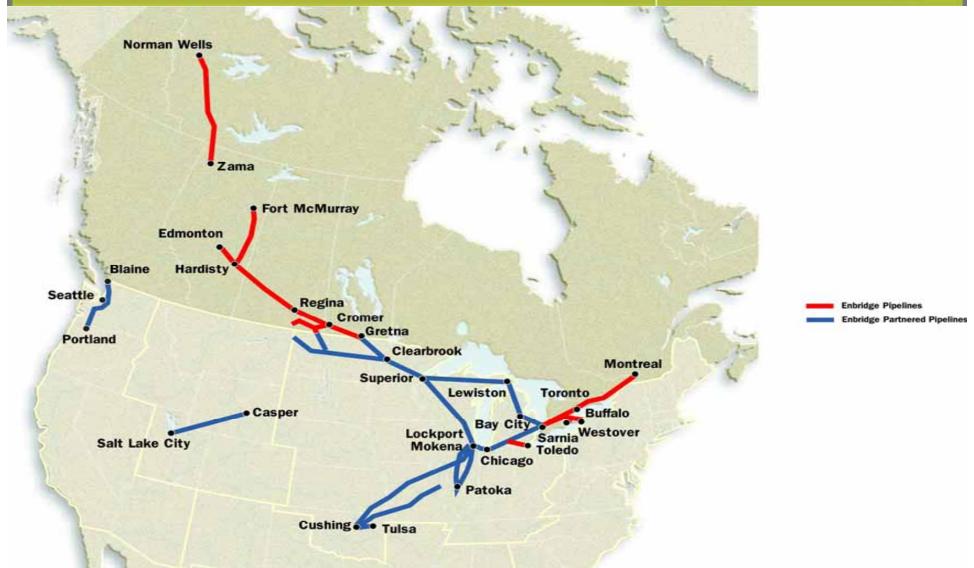
### ENBRIDGE NORTHERN GATEWAY PIPELINES

### About Enbridge

- A Canadian company that employs over 5000 people
- Owns and operates 13,500 km of pipelines
- Ranked in the worlds top 100 most sustainable companies by World Economic Forum



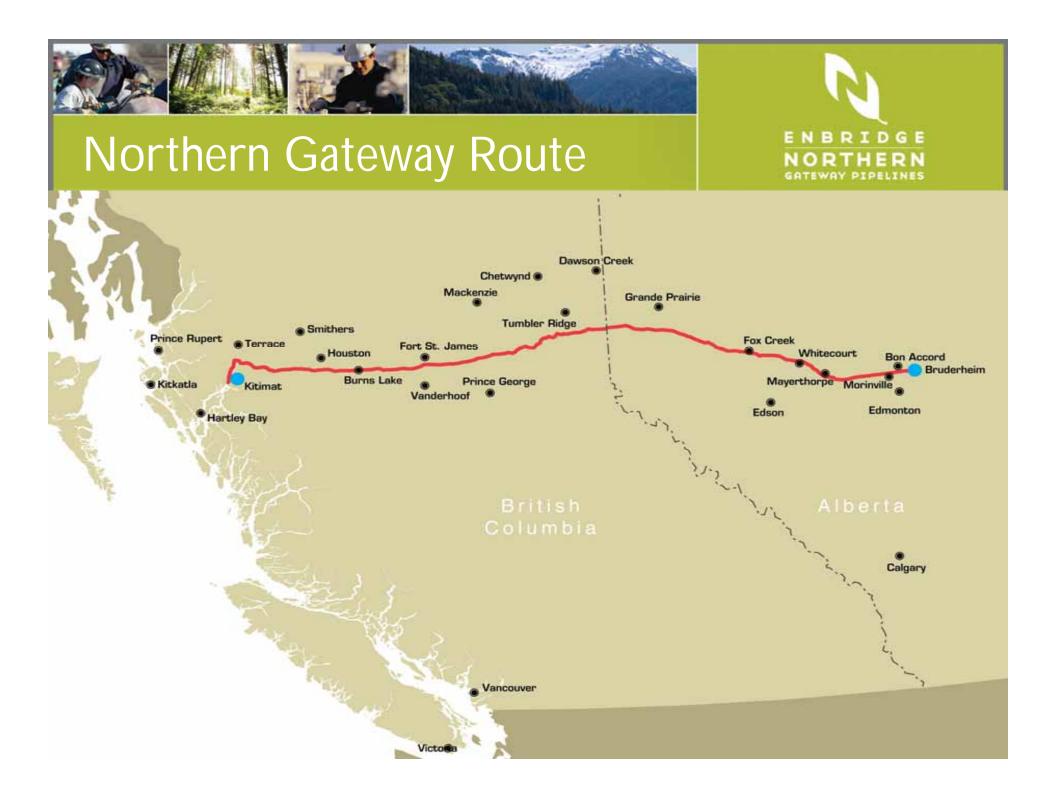








- Proposed Northern Gateway Project
- Twin 1170 km pipelines between Bruderheim and Kitimat
- West line will carry 525,000 barrels of petroleum per day from Bruderheim to Kitimat
- East line will carry 193,000 barrels of condensate from Kitimat to Bruderheim
- Commercial support through regulatory process







### **Economic Opportunity**

- Investment of \$4 billion (2005 estimate)
- \$ 2.7 billion in wages earned in Corridor Communities in BC and Alberta
- Over 4000 direct jobs created during three years of construction
- 12 construction spreads across pipeline corridor



# ENBRIDGE NORTHERN GATEWAY PIPELINES

### **Economic Opportunity**

- Business/Employment Opportunities:
  - All Phases: Pre-Approval, Construction, Restoration & Operational
    - Environmental Services
    - Electrical and Mechanical contracting
    - Transportation (air, trucking)
    - Clearing, Logging and Salvage
    - Site Restoration
    - Supplies (concrete, gravel, building materials)
    - Industrial rentals, repairs
    - Ancillary (food services, accommodation)



### Keys to Success



- Marine Safety
  - Prevention
  - Mitigation
- Aboriginal Engagement
  - Alignment of Interests
  - Sustainable Development
- Northern Communities
  - Collaborative Processes
  - Sustainable Development



### Marine Environmental Features



- Ship (and Crew) Vetting
- Double Hull Tanker Construction Inert Gas System
- Ship Steering and Navigation Systems Redundancy
- Tug Escort Operations (Tethered Towing)
- Compulsory Pilotage
- Pilot-carried Electronic Navigation Systems
- Improved Aids to Navigation (including VTM radar)
- Weather Monitoring and Ship Transit Limits
- Ship and Terminal Safety Plans
- Places of Refuge and Emergency Planning
- Training of local response teams



### Marine Safety



### Mitigation:

- Emergency Response capability in excess of Transport Canada Regulations
  - Significantly Reduced Response Times
  - Locally trained and equipped
- Cumulative Shipping Impact Study
- Ongoing Environmental Stewardship Plan
- Coast Marine Advisory Boards









# Tanker in Douglas Channel









### Vessel Size in Perspective



#### **Douglas Channel**

Largest proposed vessels: 350 m x 60 m Narrowest point of waterway: 1.575 km

Waterway to vessel width ratio: 26:1



#### **Inside Passage**

Average cruise ship: 237 m x 35 m

Narrowest point of waterway: 650 m Waterway to vessel width ratio: 19:1



19:1

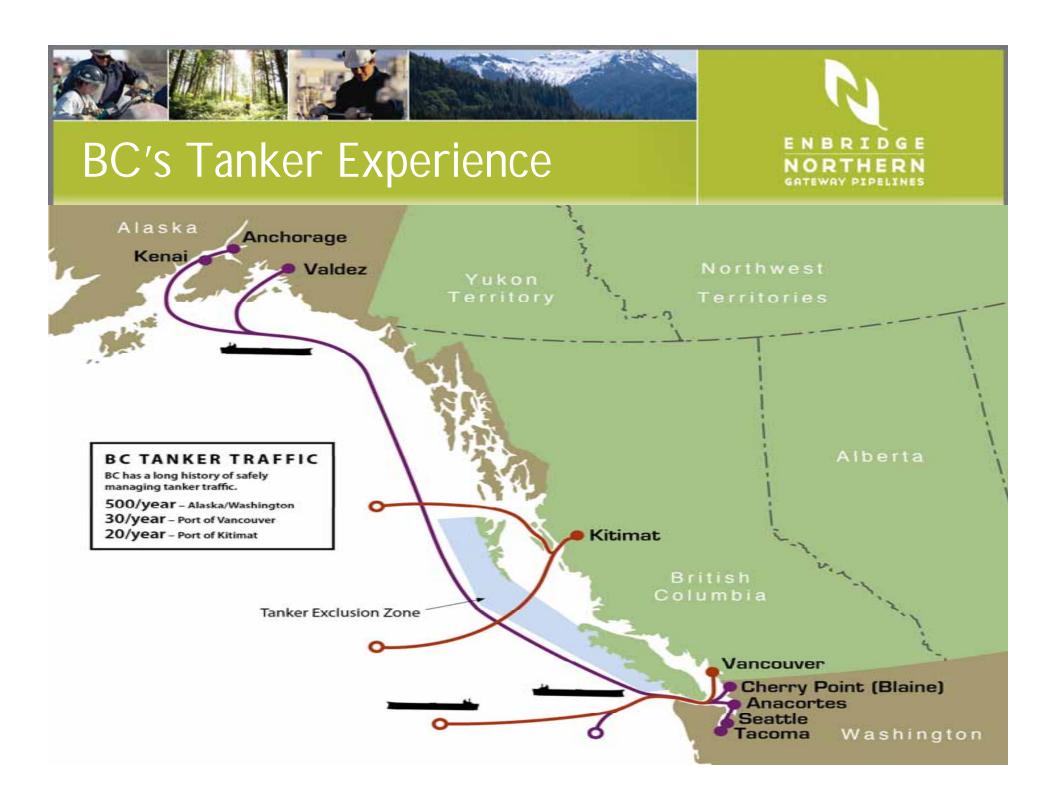
#### Port of Vancouver

Aframax tanker: 245 m x 41 m

Narrowest point of waterway: 360 m Waterway to vessel width ratio: 9:1

m x 41 m ) m

9:1







### BC's Tanker Experience

- Oil tankers regularly entering the Port of Vancouver and moving product from refineries and terminals
- Oil tankers regularly moving off coast of Victoria to refineries in Washington State
- 1500 tankers with petrochemicals have entered Kitimat harbour over past 25 years
- Cargoes such as Ammonia, Condensate and MTBE





- First Nation engagement recognizes traditional territories and the principle of aboriginal rights and title
- Northern Gateway taking a new approach:
  - Equity Investment Option
  - Resourcing Funding Agreements
  - Long Term Relationship Agreements
  - Coastal Community Strategy





- Equity Proposal:
- Developing Long-Term Relationship to the Project:
  - Complex
    - Multi owners
  - Accessible to all First Nations
    - Affordable
  - Structure
    - Easy to Understand and Communicate
  - Positioned to Present to FN Communities in 2009





- Resource Agreements:
  - Participate in the EA Process
    - Collaborative Engagement
  - Develop Long-term Benefit Agreements
    - Open Houses
    - Traditional Use Studies (ATK)
    - Skills Development Workshops
    - Technical Forums
    - Local Assistance Agreements
    - Business Opportunities





- Coastal Communities Strategy:
  - Increased Shipping Activity on the West Coast
    - Kitimat/Stewart/Ridley Island/Fairview Terminals
  - Environmental:
    - Enhanced Emergency Response
    - Environmental Stewardship Plan
    - Marine Cumulative Impact Studies
    - Technological Improvements
      - Tug Tethering, Radar, Double Hull Vessels
    - Community Based Marine Advisory Boards





- Benefits:
  - Equity
  - Business/Employment Opportunities:
    - Emergency Response
    - Environmental Monitoring/Stewardship
    - Marine Operations
  - Skills Development Opportunities
    - Marine/Pilots/Emergency Response/Environmental Disciplines
  - Sustainable Community Investments





- 6 Northern Gateway teams have engaged approximately 50 separate Aboriginal communities
- Consultations ongoing, currently 29 Resourcing Agreements signed
- Collaborative approach to design, construct and operations
- Environmental Stewardship



### Northern Communities

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- Northern Gateway meeting regularly with community leaders
- 18 Open houses held in BC and Alberta corridor communities in 2008
- Open Houses held in BC and Alberta First Nations communities
- Collaborative approach





# ENBRIDGE NORTHERN GATEWAY PIPELINES

### Northern Communities

- Northern Gateway Trust
- Northern Gateway 'Greening Initiatives'
- Project 'Shaping'
- Community Advisory Boards
- Your support will help further the project and give Northern BC and Northern Alberta businesses opportunities to participate



### Public Review and Construction



#### **Timeline**

	2008	2009	2010	2011	2012	2013	2014	2015
Public open houses								
File regulatory application		0						
Public review process								
Construction (subject to regulatory approval)								
In operation								





Please visit our website for more information...www.northerngateway.ca

Thank You!