

# TransMountain Expansion Project

Presented to: NV District, North Vancouver, B.C.

By: Mark Johncox

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# Present Day

- ▶ In operation since 1953
- ▶ 300,000 barrels/day total capacity
- ▶ 75,000 barrels/day average over the dock
- ▶ 4–5 Aframax sized tankers per month
- ▶ single berth, 3 designated anchorages



# Pipeline

BRITISH  
COLUMBIA

ALBERTA

WASHINGTON

WESTRIDGE  
BURNABY  
PORT KELLS  
FERNDALE  
ANACORTES  
SUMAS  
HOPE  
WAHLEACH  
LAUREL  
BURLINGTON

BLACKPOOL  
DARFIELD  
BLACK PINES  
KAMLOOPS  
STUMP  
KINGSVALE

HARGREAVES  
REARGUARD  
ALBRED  
CHAPPEL  
BLUE RIVER  
FINN  
McMURPHY

JASPER

EDSON

WOLF

GAINFORD

NITON

CHIP

STONY PLAIN

EDMONTON

EDMONTON TO DARFIELD 36"

EDSON TO HINTON 30"

HINTON TO BLACK PINES 24"

DARFIELD TO BLACK PINES 30"

BLACK PINES TO KAMLOOPS 30"

BLACK PINES TO BURNABY 36"

KAMLOOPS TO BURNABY 24"



TRANSMOUNTAIN

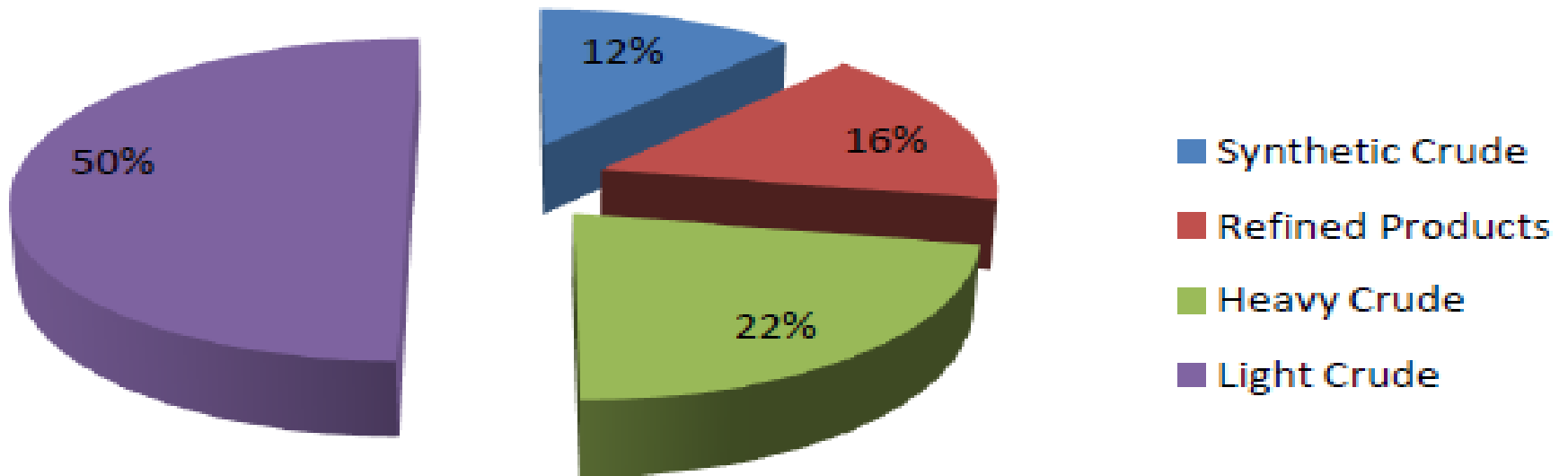
KINDERMORGAN  
CANADA

PROPOSED  
TRANSMOUNTAIN PIPELINE EXPANSION  
PROJECT CONFIGURATION MAP  
FEB 8 2013

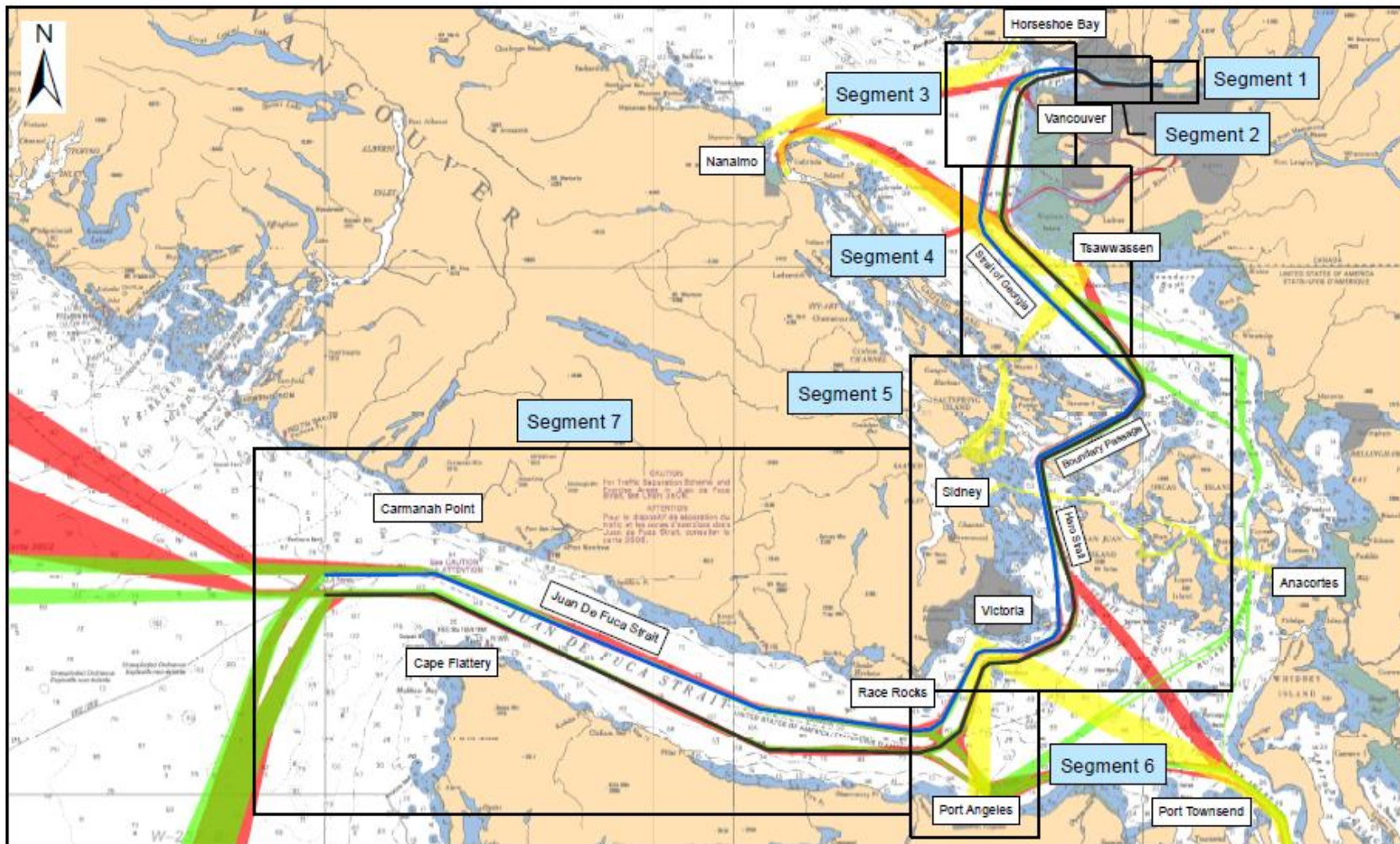
- NEW PUMP STATION
- EXISTING PUMP STATION (DEACTIVATED)
- EXISTING PUMP STATION (EXPANDED)
- EXISTING PUMP STATION
- ADJACENTLY LOCATED PUMP STATIONS
- TERMINAL
- EXISTING PIPELINE -ACTIVE
- EXISTING PIPELINE -REACTIVATED
- NEW PIPELINE
- EXISTING PIPELINE -INACTIVE

THMP SYSTEM MAP FEB 8 2013.DWG

# Products



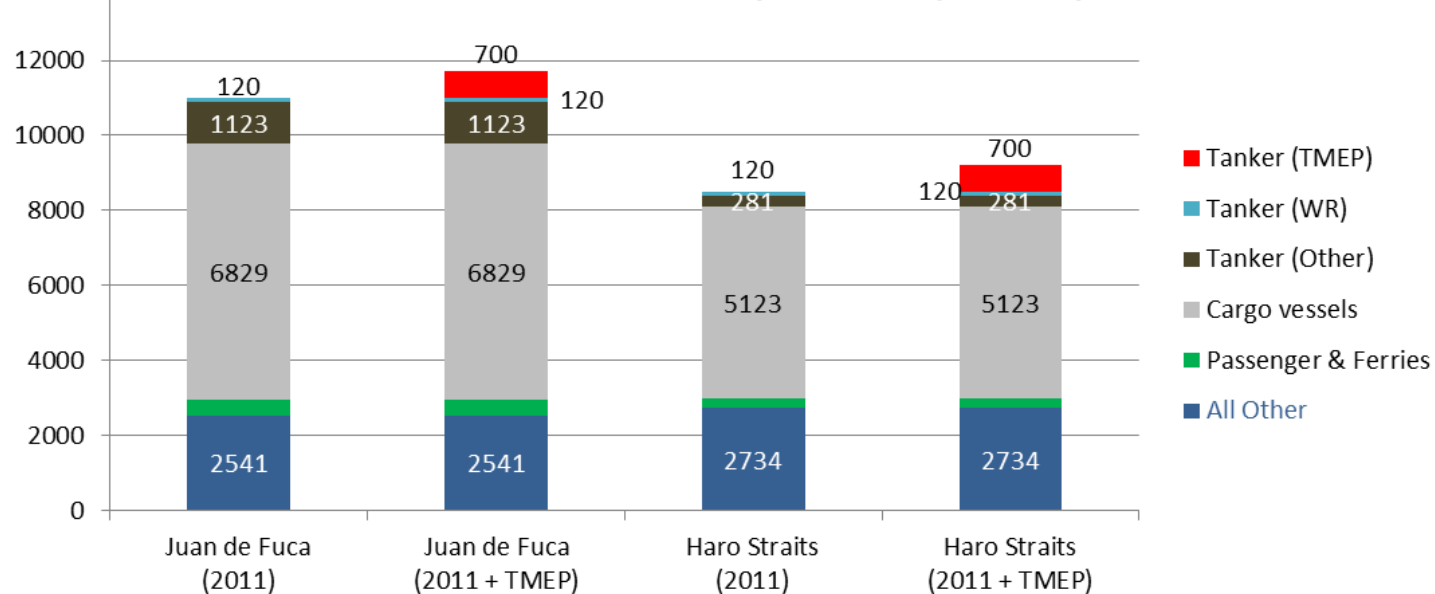




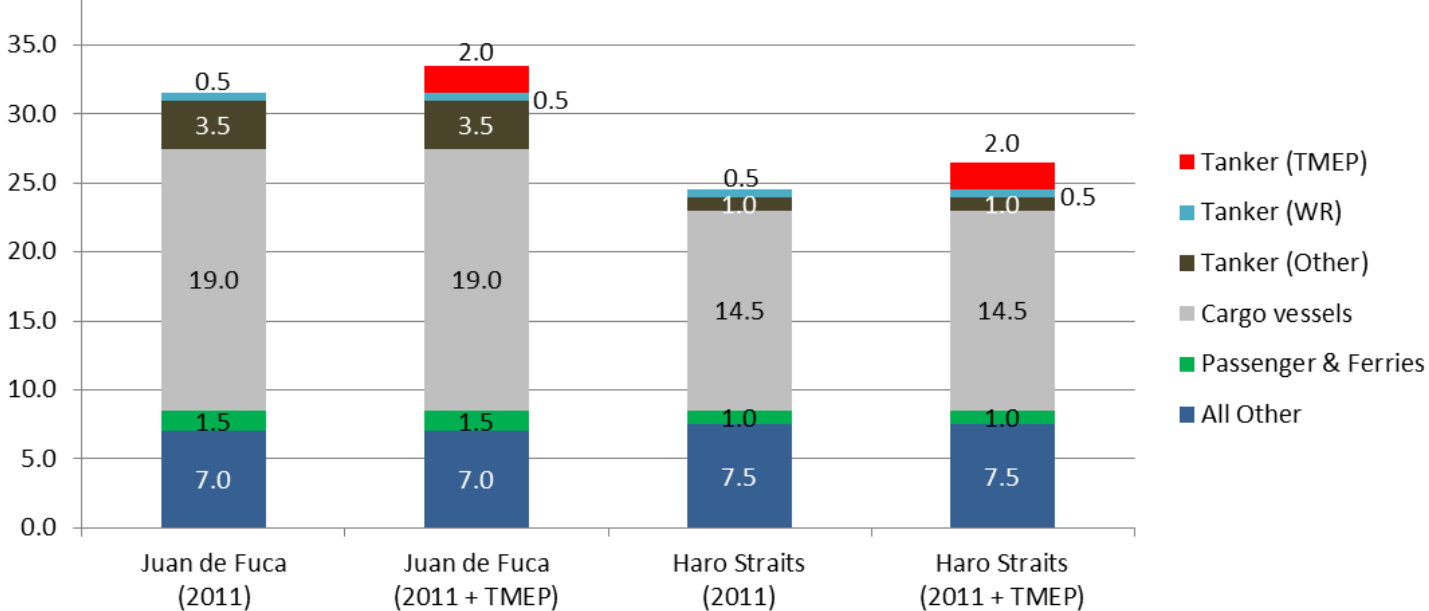
<p>PREPARED BY:</p>  <p><b>moffatt &amp; nichol</b></p> <p>777 WEST BROADWAY, SUITE 301 VANCOUVER, BC, CANADA, V5Z 4J7</p> <p>SCALE: 1:1,500,000</p> <p>0 5 10 20 Nautical Miles</p>	<p>— Inbound Route — Outbound Route — Passenger Routes — Tanker Routes — Cargo Routes</p>	<p>TRANS MOUNTAIN PIPELINE EXPANSION</p> <p><b>VESSEL TRAFFIC ROUTES</b></p> <p>Sources: Compiled from Canadian Hydrographic Service surveys and United States of America charts</p> <p>DATE: 1/25/2013 FIGURE ID: 3001</p> <p>COORDINATE SYSTEM: Sphere Mercator DATUM: NAD 83</p> <p>DRAWN BY: JT/KY CHECKED BY: RB</p>	<p>PREPARED FOR:</p>  <p><b>TRANS MOUNTAIN</b></p> <p><b>KINDER MORGAN</b> CANADA</p> <p>FIGURE NO: <b>A-01</b></p>
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# AIS

**ALL Vessel - Juan de Fuca & Haro Straits Yearly Movements (Base 2011)**



**ALL Vessel - Juan de Fuca & Haro Straits Daily Movements (Base 2011)**



# Expansion Project

- ▶ Twin remaining 980km of the pipeline
- ▶ 830,000 barrels/day
- ▶ 630,000 barrels/day over the dock
- ▶ Approx 30 Aframax tankers per month
- ▶ New terminal– expanded to 3 berths
- ▶ Increased pumping and storage capacity
- ▶ No dredging
- ▶ Tanker escorts to Buoy Juliet (proposed)

# WCMRC

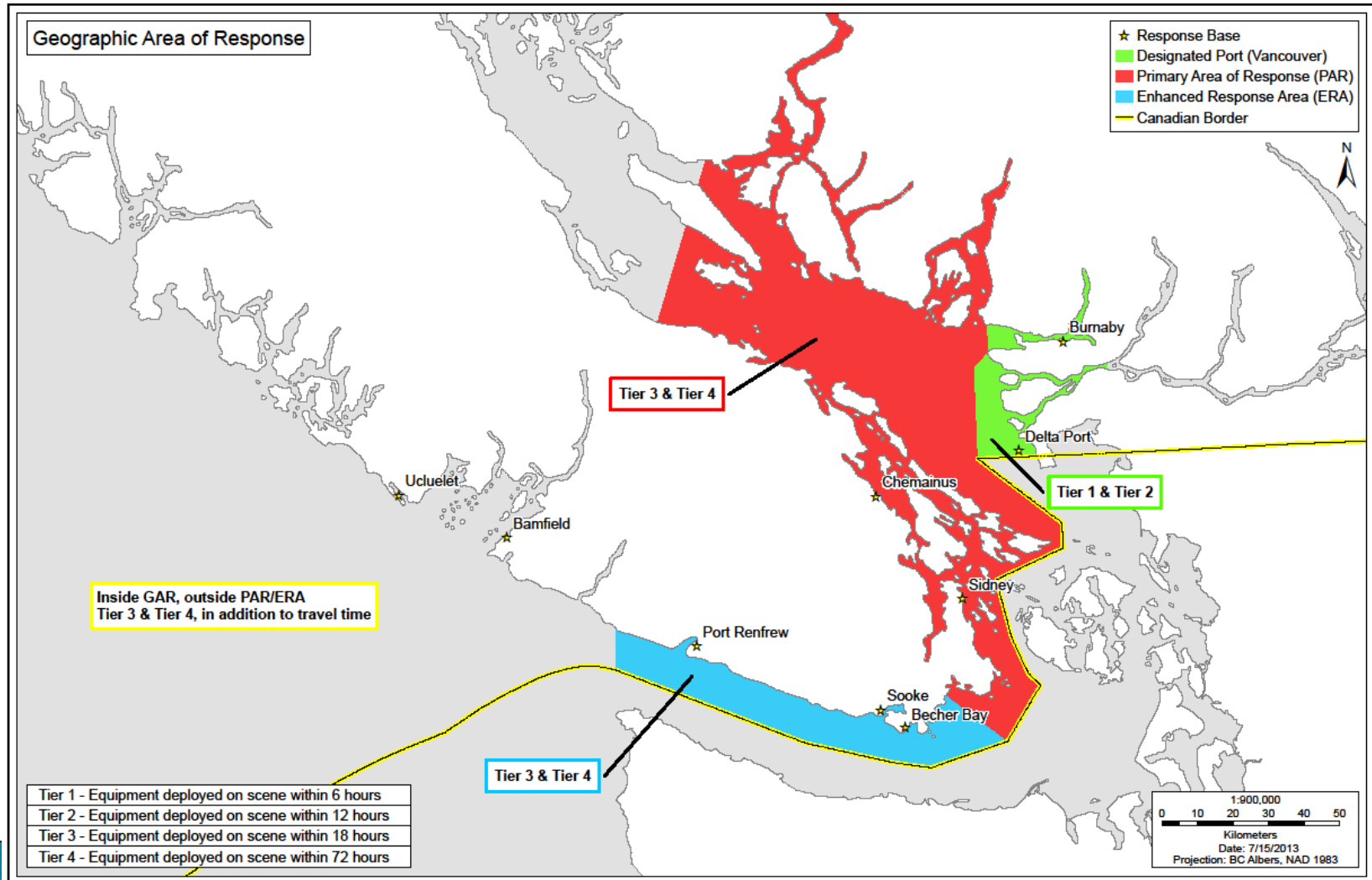
- ▶ Multiple issues facing us currently
  - Tanker review–changing regime?
  - Social license issue
  - Increased community engagement
- ▶ Need to address the above proactively
- ▶ Huge opportunity to rework WCMRC from the ground up



# WCMRC (Southern BC) currently

- ▶ 2 locations: Burnaby, Duncan
- ▶ 2 large skimming vessels: #9, MJ Green (50t/hr and 90 tonne storage combined)
- ▶ 3 barges: #10, #17, #18 (7,000 tonnes)
- ▶ 4 boom boats: #8, #11, #6, #7 (1,400m)
- ▶ Various smaller vessels
- ▶ 20 people approximately
- ▶ Tiered response and time standards (6–72 hours depending on location and size)

# Time Standards– Existing



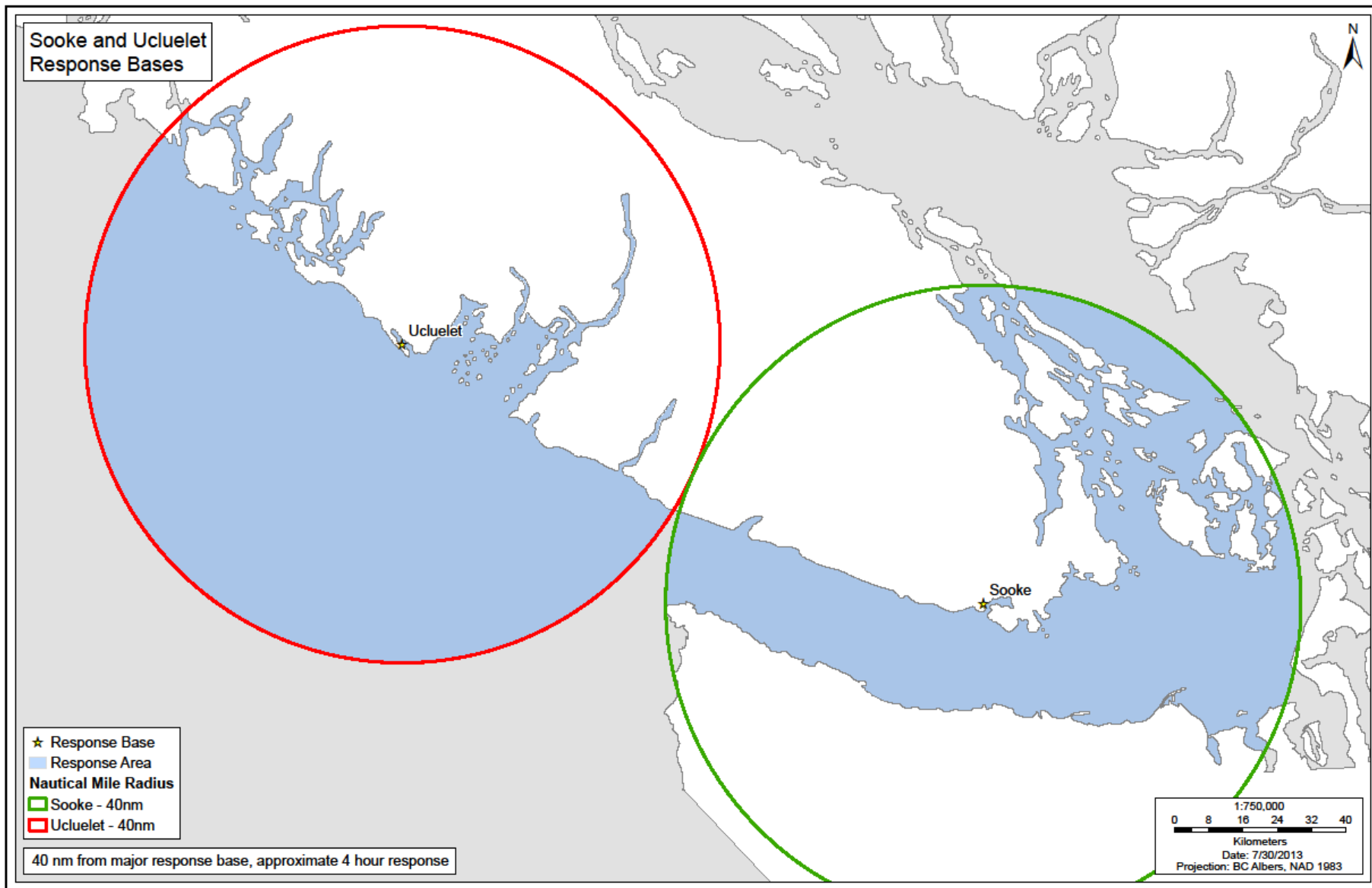
# WCRMRC– Proposed

- ▶ 6 locations (4 PROPOSED): Burnaby (24/7), Delta Port (24/7), Saanich Peninsula (24/7), Sooke area, Ucluelet area, Nanaimo/Campbell River
- ▶ Up to 6 large skimming vessels: #9, MJ Green, 2 65' high speed skimmers, 2 90' high speed skimmers (180t/hr and 246 tonne storage)
- ▶ Possibly 6 barges: #10, #17, #18 +3 new (27,000 tonnes)
- ▶ 9 boom boats: #8, #11, #6, #7, 2 more boom boats, 3 large landing craft (3,900m)
- ▶ Multiple quick recovery barges
- ▶ Possibly a large supply vessel
- ▶ Up to 90 people approximately
- ▶ Reduced response times, regardless of spill size
- ▶ Potentially tripling the BC capacity, but on the tanker route

# Delta Port, Nanaimo, and Sidney Response Bases







# Supersized

