

# Tar Sands: Wildlife Impacts and Overview

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# Tar Sands Region

- Rich mix of boreal forest and wetlands (40% wetlands).
- Some of the most important wildlife habitat in the world.
- World's bird nursery.
  - Between 22 million and 170 million birds breed in the tar sands area.
  - 292 species of birds use Alberta boreal forests, 130 species use tar sands area.



# Wildlife Impacts

- Massive habitat destruction.
- Toxic tailings ponds that together are twice the size of Manhattan and attract wildlife.
- Dewater wetlands and rivers.
  - Tar sands operations licensed to divert 172 billion gallons of water annually – 7 times the annual water use of Edmonton.
  - One barrel tar sands uses 2-4 barrels of fresh water.

# More Wildlife Impacts

- Toxic tar sands pollutants enter nearby streams, wetlands and rivers.
  - Ponds leak 3 million gallons of water a day.
  - Hg, arsenic, phenols and other pollutants found in Athabasca river at higher than natural levels.
- Fragments forest habitat.
- Noise, air pollution from 5,000 compressors stations.









# Alarming Numbers for Birds

- 58,000 to 402,000 birds have likely already been lost.
  - Includes massive waterfowl kill in 2008 of 1600 ducks - \$3M fine for Syncrude.
- Projected loss of 10-50% of forest dependent bird population.
  - Loss of habitat for 480,000 to 3.6 million birds.
  - Birth reduction of 9.2M to 72M over 40 years.



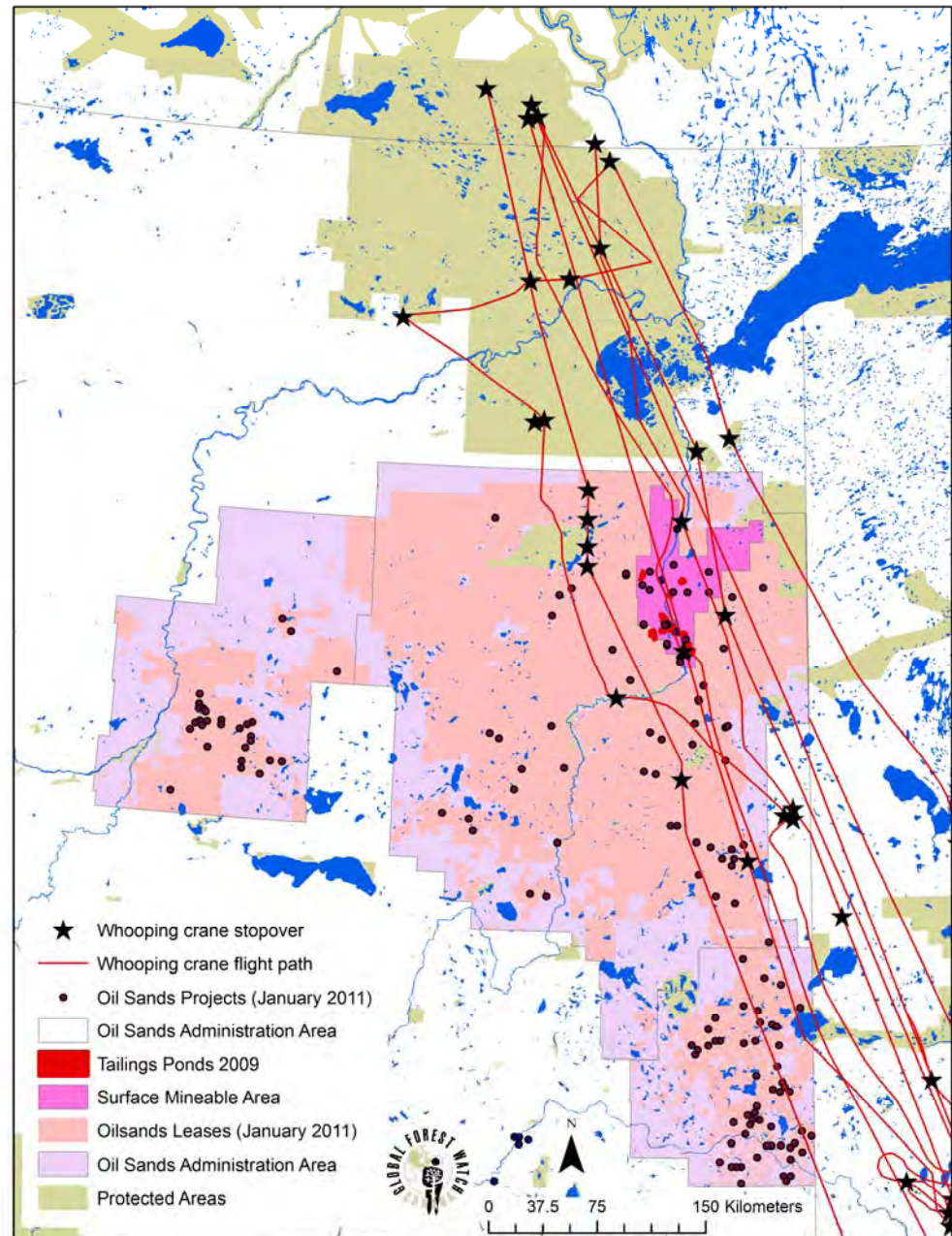
Massive  
Tailings  
Ponds Are  
Hazards for  
Wildlife



# Whooping Crane

- Critically endangered – less than 400 wild birds, up from 16 in 1941.
- North America's tallest bird.
- Extensive use by cranes of tar sands area.
- Sensitive to habitat destruction, wetland loss, toxic tailing ponds.
- Also impacted by power lines – leading cause of fledged and migration deaths.

# Whooping Crane stopover and flight path over tar sands region



# Oiled Cranes (2006)



# Big Oil's Answer to Bird Concerns

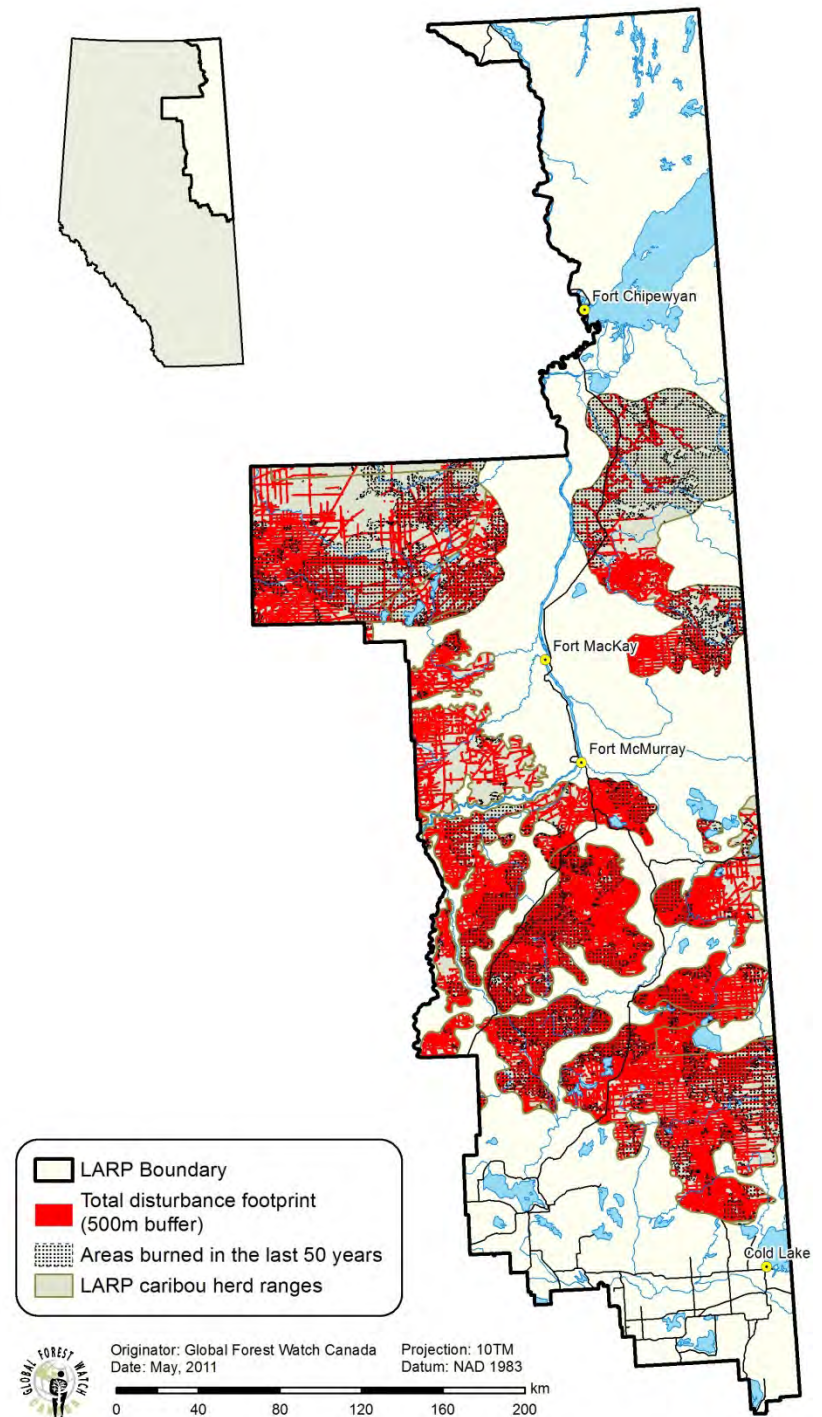


# Woodland Caribou

- Critically endangered.
  - Population in tar sands region has plummeted – 50% decline, on course for extinction.
  - Science, including Canadian study: loss due to habitat fragmentation, noise and human disturbance.
  - About 40-50% of herds in tar sands region close to disturbed area.



# Habitat Disturbance in Woodland Caribou herd ranges in the Lower Athabasca Regional Plan of Alberta





# Canadian Response



- Massive wolf kill: 500 wolves poisoned or shot from the air already.
- Wolves being scapegoated to allow tar sands development.

