

A woman wearing a blue hard hat and an orange safety vest is standing in a wetland area, writing in a notebook. The background shows a body of water surrounded by tall grasses and a line of trees under a blue sky with light clouds.

## Biodiversity Conservation at Suncor

Global Partnership for Business and Biodiversity - October 2, 2013



## Biodiversity Protection

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- Suncor is an energy company developing the oil sands resource using mining and in situ technologies
- Suncor's activities in the oil sands impact terrestrial resources
- Recognizing this, Suncor uses two primary methods of mitigating those impacts and maintaining biodiversity in the boreal forest:
  - Reclamation (regulated)
  - Land Protection (non-regulated)

## Reclamation

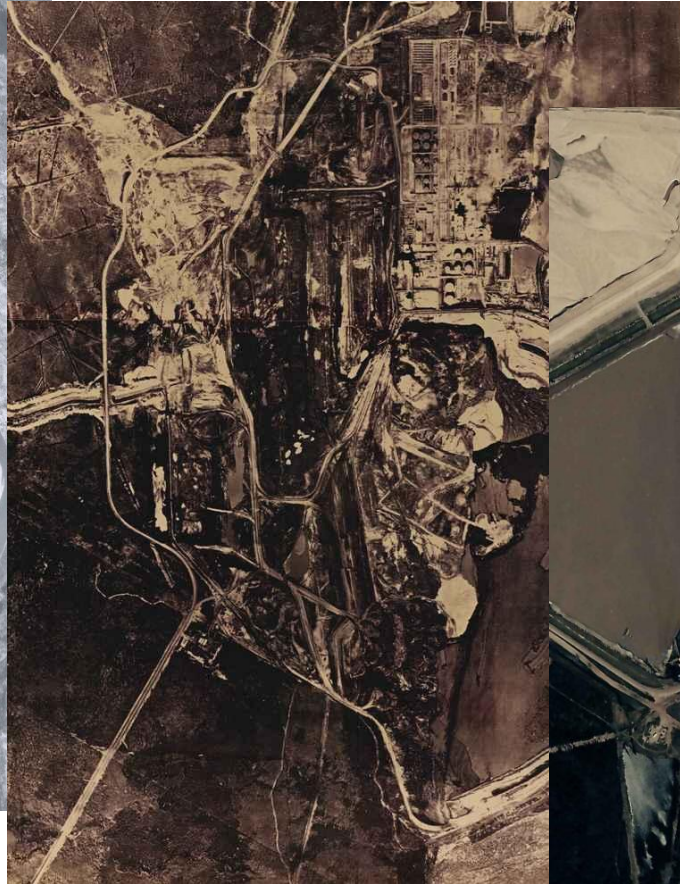
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- Suncor is required to reclaim disturbed lands to an equivalent capability
- This means returning the land to a pre-disturbance level of biodiversity either directly or by providing the elements that put the land on a trajectory to the pre-disturbance level of biodiversity
- This does not mean putting the land back exactly the way it was before it was disturbed.

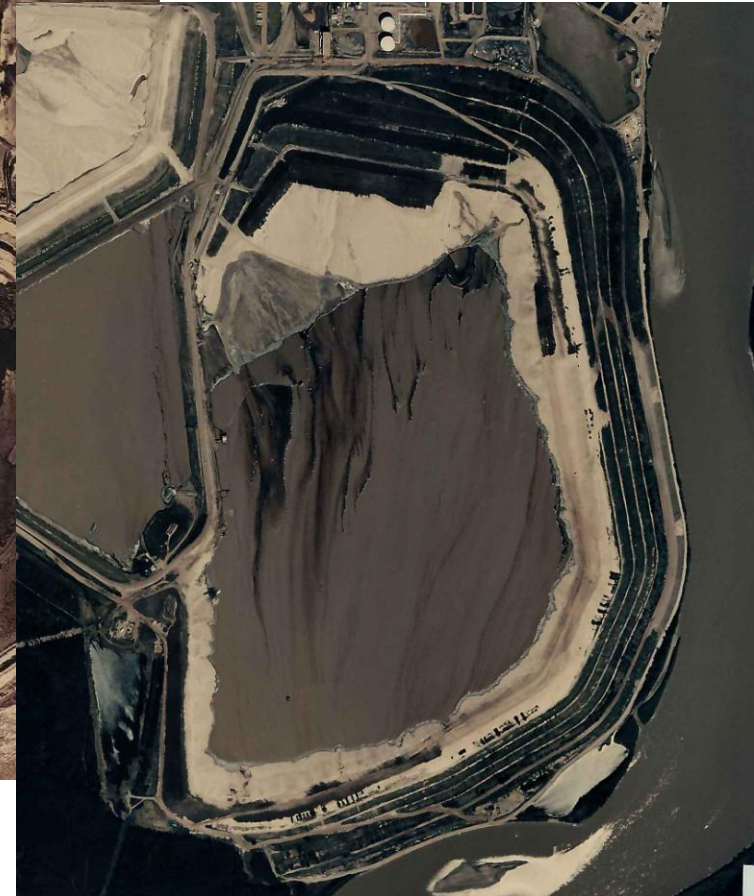
# Reclamation of Suncor's Pond 1



1963



1969



1991

# Reclamation On-the-Go

- Early reclamation focused on erosion protection – we learned “on the job”
  - First trees planted were smothered by grass and mice
  - Raptor nests to attract raptors to control mice - tilling used to reduce grass competition
  - In-fill planting of trees/shrubs to increase density attracted deer - deer browsed new plantings
  - By the mid-1980’s barley was applied as nurse crop - barley did not compete with woody species
  - In 1991, peat mineral soil mix placed directly on tailings sand – no tilling
  - Preservation of seeds and propagules to produce more diverse natural plant community
  - Additional studies undertaken to assess erosional stability of the dyke
- Reclamation of the dyke slopes completed by ~1999



## Erosion Protection to Biodiverse Landscapes

- 1970's – Prevent erosion
- 1980's - *Disturbed lands shall be reclaimed mainly with gentle slopes to primarily a forest use compatible with the pre-disturbed terrain, providing habitat for wildlife and with possibilities for recreation. Dyke slopes shall be re-vegetated primarily for erosion control with possibilities for forest and wildlife uses*
- 1990's - *Developed lands shall be reclaimed to viable ecosystems compatible with pre-development, including forested areas, wetlands and streams. The reclaimed lands will provide a range of end uses including forestry, wildlife habitat, traditional use and recreation*
- **This objective set the stage for the completion of Pond 1 reclamation**

## MFT Removal and Infill Operations



2006



2007



2008



2009

# Biodiversity Hardware...and Software





## ...and the Users



# The (sort of) Finished Product



## Land Protection

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- In 2003, Suncor and the Alberta Conservation Association (ACA) formed the Boreal Habitat Conservation Initiative (BHCI) to conserve ecologically significant areas of Alberta's boreal forest.
- Since then, with almost \$4 million invested, more than 6,570 acres (29 parcels) of natural boreal forest have been protected as a natural space for fish, wildlife, vegetation and Albertans to enjoy.
- The BHCI began with a pilot project at Winagami Lake in Grande Prairie with a \$200,000 grant to conserve 470 acres of habitat around the lake.
- The protected area complemented the adjacent provincial park ensuring connectivity and the natural ecological function of the land.
- The pilot project and partnership successfully proved how a conservation organization, a landowner and an energy company can team up to protect significant boreal forest habitat.

## BHCI Accomplishments

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- Conserved 6,890 acres of ecologically sensitive land in the boreal region.
- Created 29 Conservation Sites on Alberta's landscape.
- Increased awareness of habitat securement and direct benefits to wildlife and the public through responsible *recreational activities*.
- *Collaboration* between the Alberta government, conservation organization, private landowners, the community and one of Canada's largest energy companies, to identify and conserve sensitive boreal habitat.
- Partnership has been extended until 2016.

