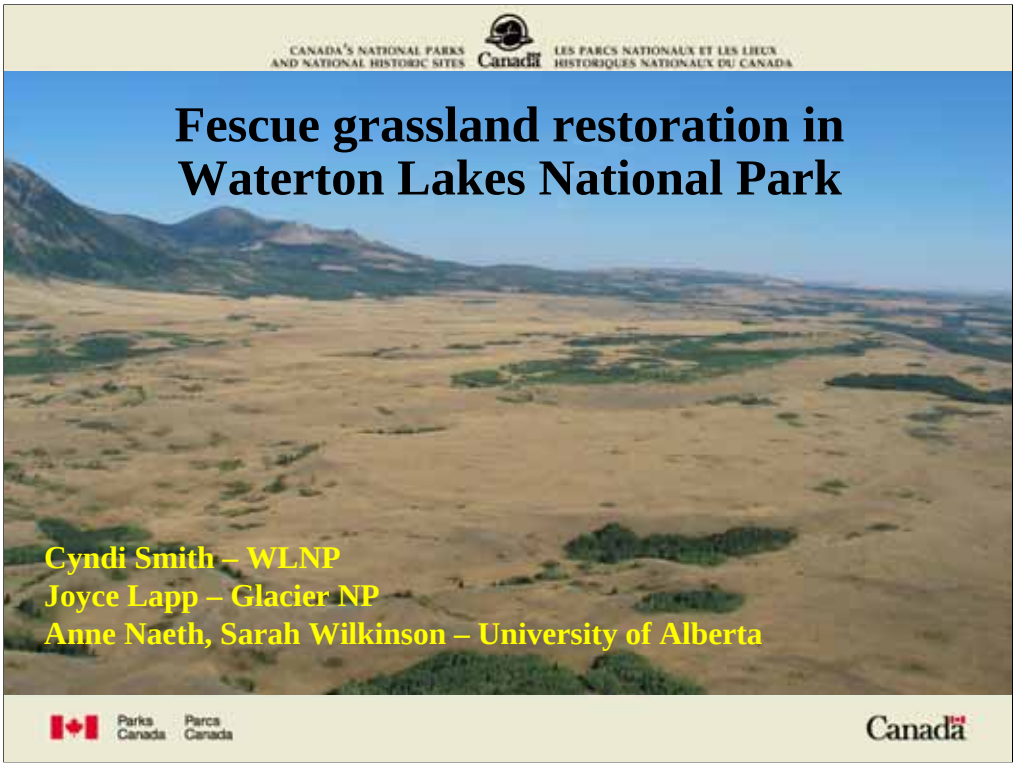
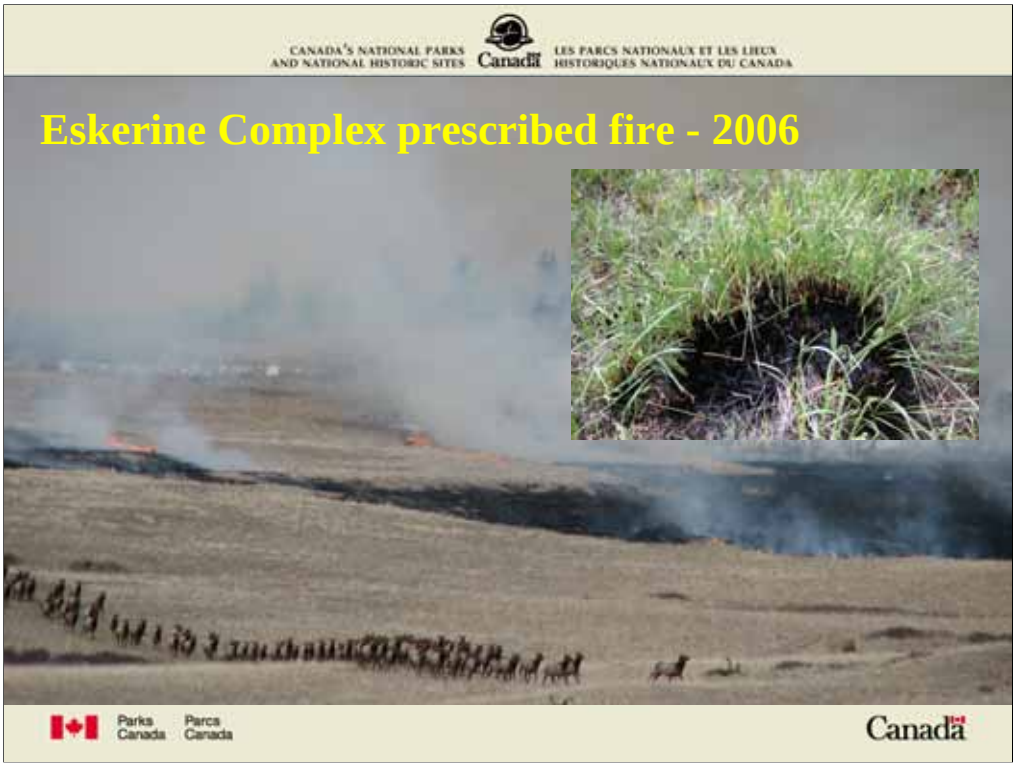

CANADA'S NATIONAL PARKS AND NATIONAL HISTORIC SITES
Canada
LES PARCS NATIONAUX ET LES LIEUX HISTORIQUES NATIONAUX DU CANADA
Fescue grassland restoration in Waterton Lakes National Park
Cyndi Smith – WLNP
Joyce Lapp – Glacier NP
Anne Naeth, Sarah Wilkinson – University of Alberta
Parks Canada
Parcs Canada
Canada

Management plan direction

- Eskerine complex ~4,000 ha of Festuca/Danthonia grassland … Environmentally Sensitive Site (PMP)
- Reduce or eliminate the impact of the Trade Waste Pit on the ESS
- Restore at least 50% of long term fire cycle (~7 yrs in the Foothills Parkland Ecoregion) – have lost ~25%
- Assess feasibility of reintroducing plains bison during fall and winter to the Blakiston & Waterton valleys


CANADA'S NATIONAL PARKS AND NATIONAL HISTORIC SITES
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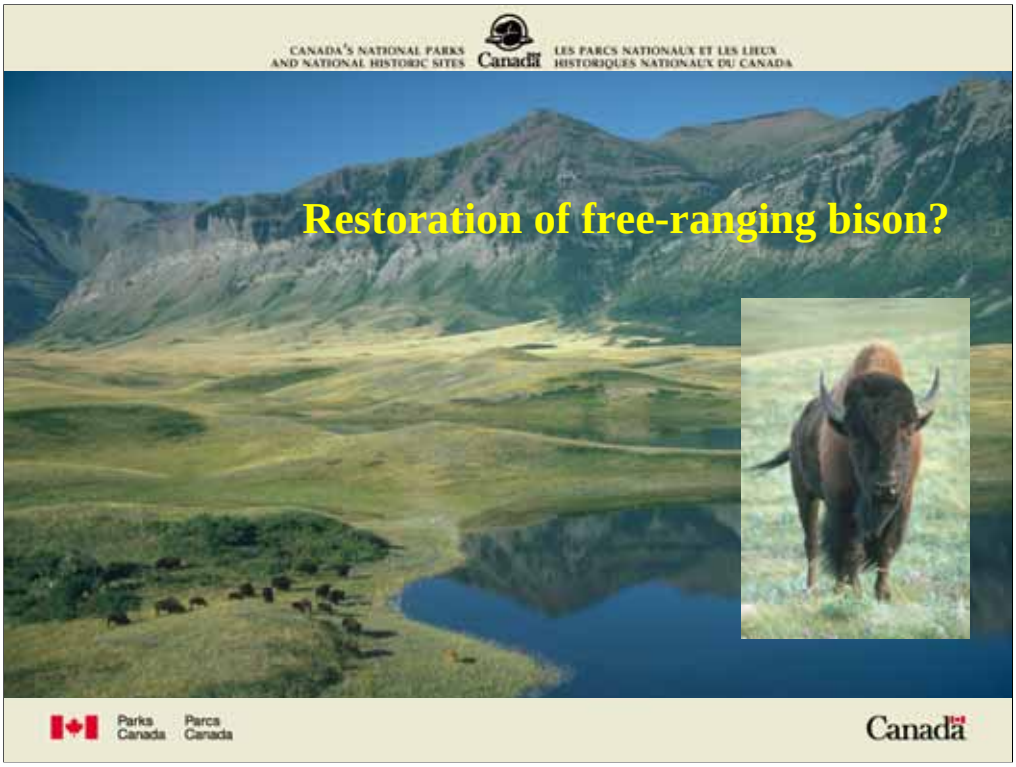
LES PARCS NATIONAUX ET LES LIEUX HISTORIQUES NATIONAUX DU CANADA
Eskerine Complex prescribed fire - 2006
Parks Canada
Parcs Canada
Canada


CANADA'S NATIONAL PARKS AND NATIONAL HISTORIC SITES
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LES PARCS NATIONAUX ET LES LIEUX HISTORIQUES NATIONAUX DU CANADA
Restoration of free-ranging bison?
Parks Canada
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Bison restoration

- Investigations to date:
  - Ecological role of bison in Waterton
  - Feasibility study
  - Economic feasibility study
  - Range assessment of the existing summer/winter paddock and nearby grassland
- Work in progress or planned:
  - Further range assessment
  - Interactions with elk and increasing deer population
  - Public consultation

Trade Waste Pit issues

- Continually disturbed areas provide ideal sites for non-native plant infestations to begin, to perpetuate and to spread into surrounding native vegetation
- Removes or reduces wildlife habitat – particularly for our wintering elk herd (~800)
- A registered contaminated site
- Possibility of continuing to contaminate surface and ground water

PMP direction for the TWP

- Implement the contaminated site strategy, focusing on the clean up of priority sites
- Reduce or eliminate the impact of the TWP on the Festuca/Danthonia grassland, an Environmentally Sensitive Site
  - Actively manage vegetation (e.g. fescue grassland) … to promote resistance to exotic pathogens or invasive species
  - Actively promote research into restoration techniques for native fescue grassland


CANADA'S NATIONAL PARKS AND NATIONAL HISTORIC SITES
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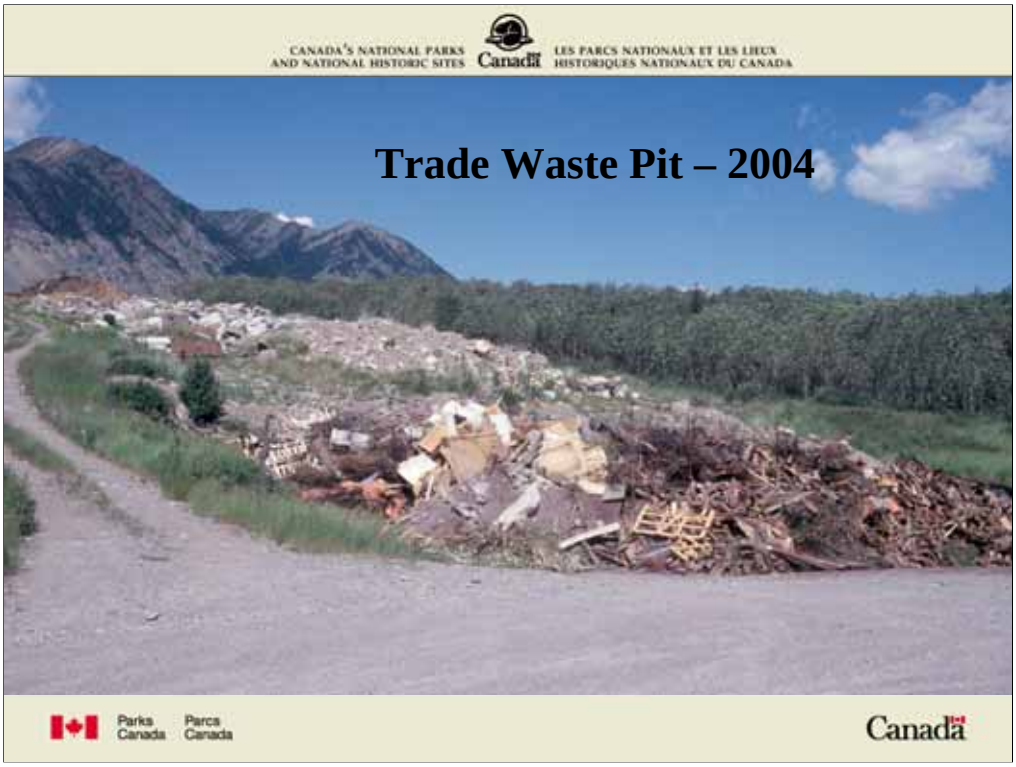
LES PARCS NATIONAUX ET LES LIEUX HISTORIQUES NATIONAUX DU CANADA
Restoration of the Trade Waste Pit
< 1 ha active
Approx. 8 ha overall
Road ~ 1 km
Parks Canada
Parcs Canada
Canada


CANADA'S NATIONAL PARKS AND NATIONAL HISTORIC SITES
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LES PARCS NATIONAUX ET LES LIEUX HISTORIQUES NATIONAUX DU CANADA
Trade Waste Pit – 2004
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Contaminant testing

Seed collection

CANADA'S NATIONAL PARKS AND NATIONAL HISTORIC SITES Canada LES PARCS NATIONAUX ET LES LIEUX HISTORIQUES NATIONAUX DU CANADA

Glacier's greenhouse and nursery

Parks Canada Parcs Canada

Canada


CANADA'S NATIONAL PARKS AND NATIONAL HISTORIC SITES
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LES PARCS NATIONAUX ET LES LIEUX HISTORIQUES NATIONAUX DU CANADA
Increaser fields – NRCS Plant Materials Center, Bridger, MT
Parks Canada
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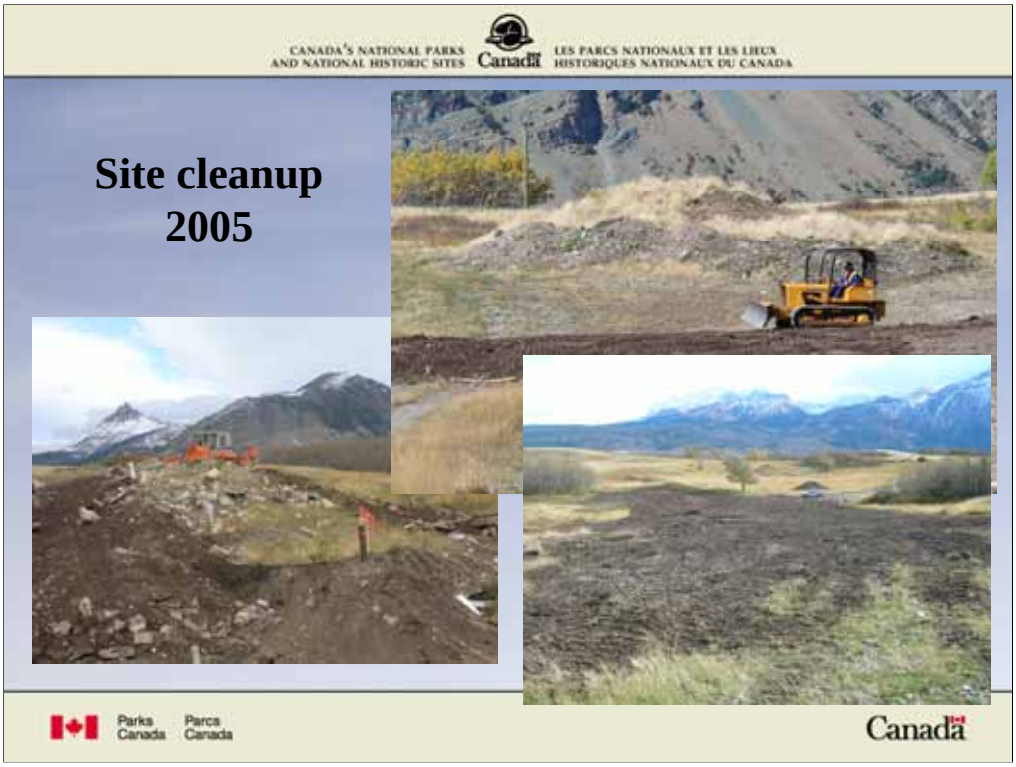
Canada


CANADA'S NATIONAL PARKS AND NATIONAL HISTORIC SITES
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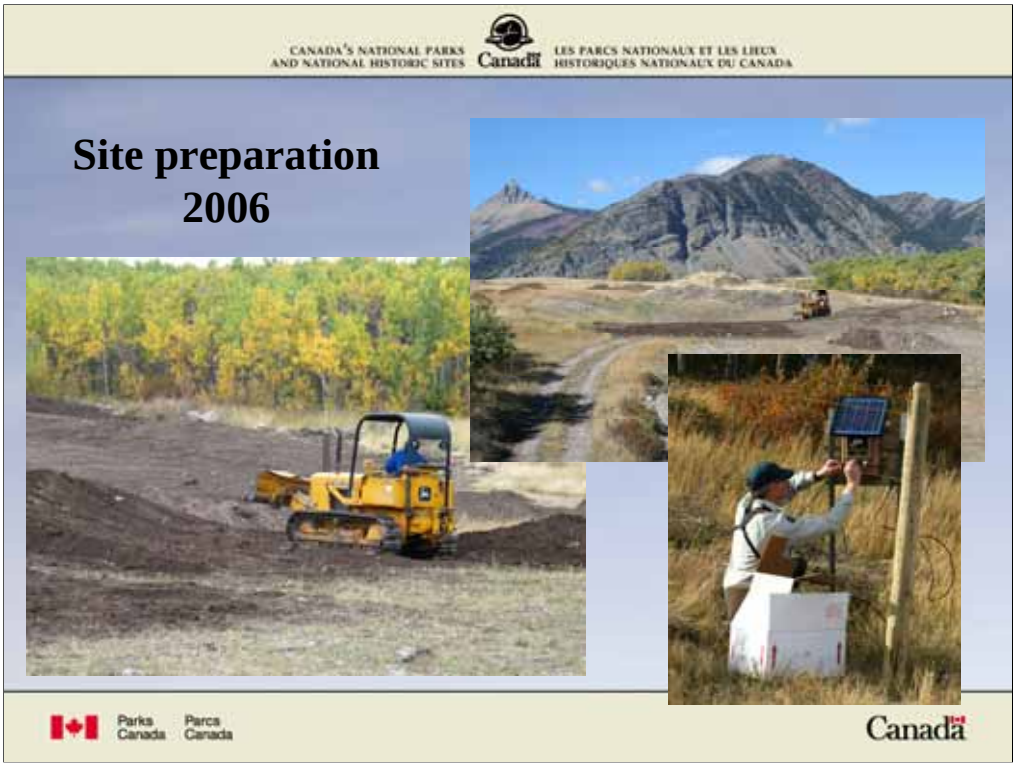
LES PARCS NATIONAUX ET LES LIEUX HISTORIQUES NATIONAUX DU CANADA
Site cleanup 2005
Parks Canada
Parcs Canada
Canada


CANADA'S NATIONAL PARKS AND NATIONAL HISTORIC SITES
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LES PARCS NATIONAUX ET LES LIEUX HISTORIQUES NATIONAUX DU CANADA
Site preparation 2006
Parks Canada
Parcs Canada
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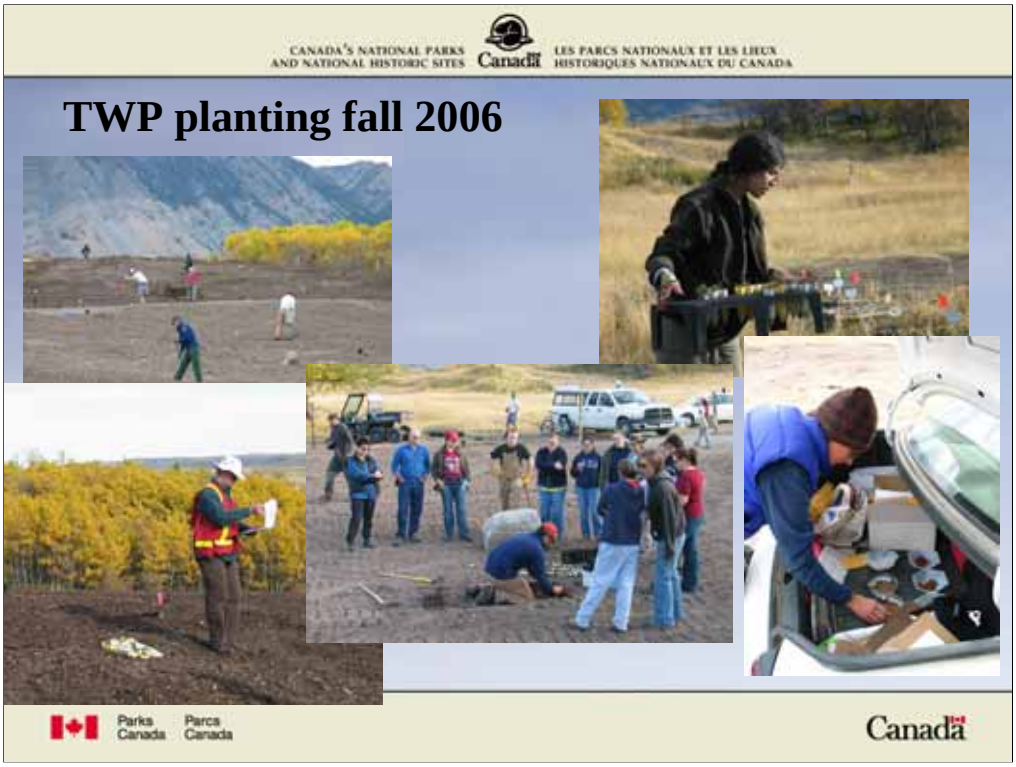
CANADA'S NATIONAL PARKS AND NATIONAL HISTORIC SITES Canada LES PARCS NATIONAUX ET LES LIEUX HISTORIQUES NATIONAUX DU CANADA

Transporting plant material across the border

Parks Canada Parcs Canada

Canada


CANADA'S NATIONAL PARKS AND NATIONAL HISTORIC SITES
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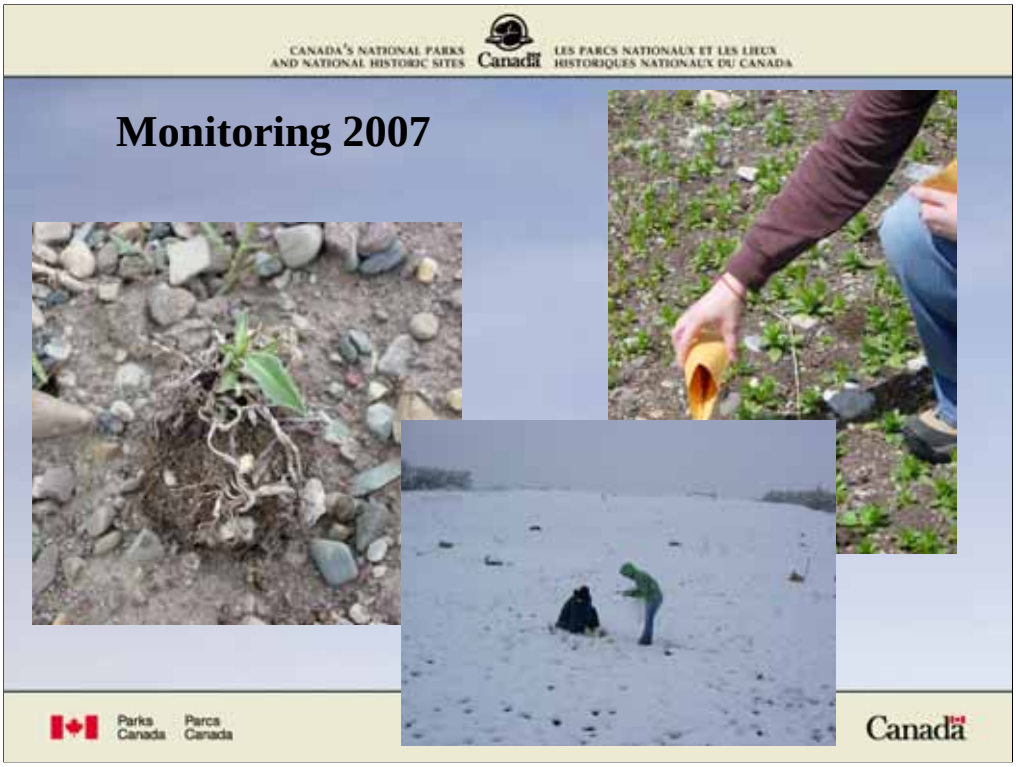
LES PARCS NATIONAUX ET LES LIEUX HISTORIQUES NATIONAUX DU CANADA
TWP planting fall 2006
Parks Canada
Parcs Canada
Canada


CANADA'S NATIONAL PARKS AND NATIONAL HISTORIC SITES
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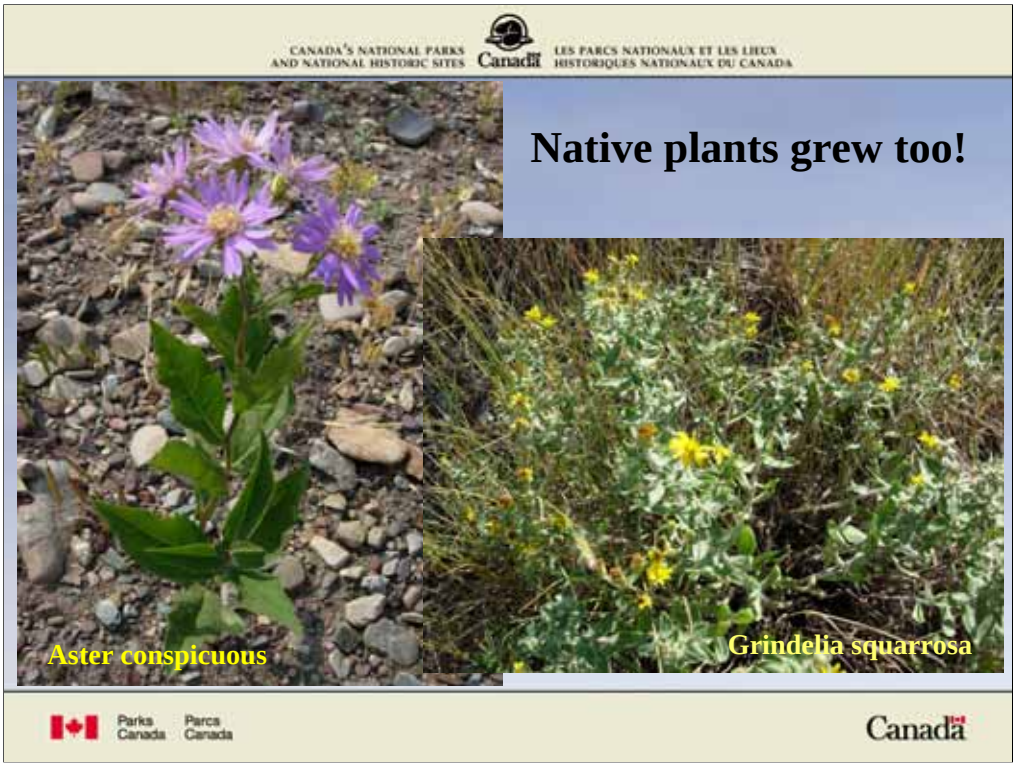
LES PARCS NATIONAUX ET LES LIEUX HISTORIQUES NATIONAUX DU CANADA
Monitoring 2007
Parks Canada
Parcs Canada
Canada

Weed invasion … of course


CANADA'S NATIONAL PARKS AND NATIONAL HISTORIC SITES
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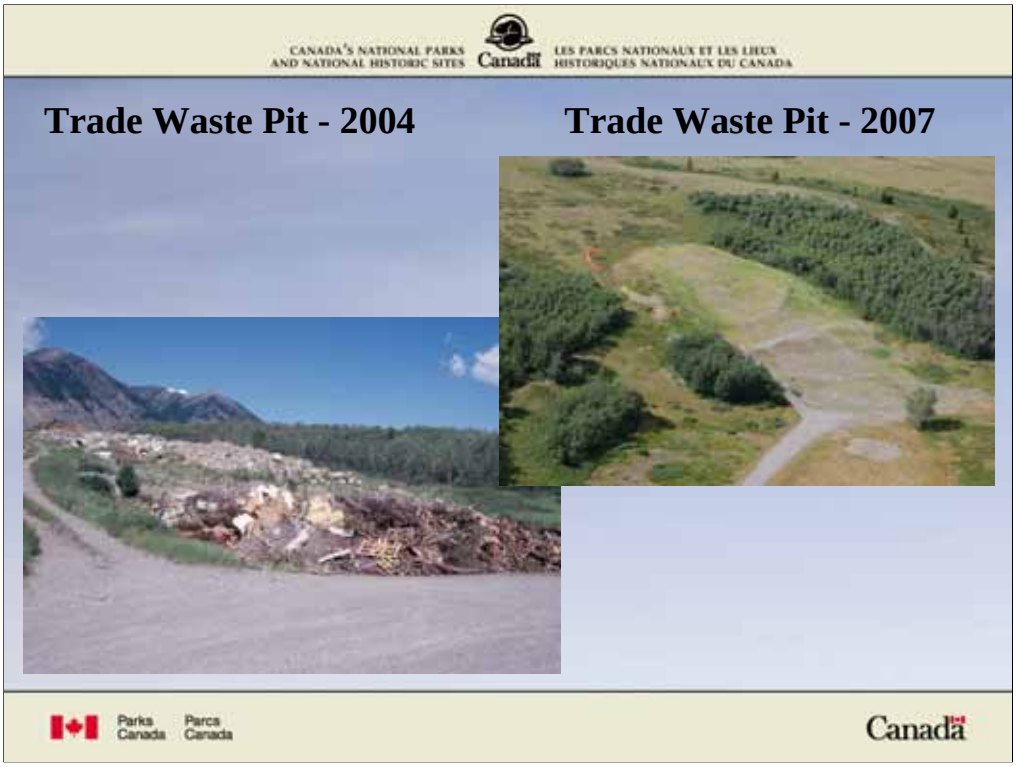
LES PARCS NATIONAUX ET LES LIEUX HISTORIQUES NATIONAUX DU CANADA
Native plants grew too!
Aster conspicuous
Grindelia squarrosa
Parks Canada
Parcs Canada
Canada

What has been accomplished?

- Received $115K from national EI Innovation Fund:
  - Burn pit moved from the TWP to the Upper Compound
  - Assessed contamination; no issues, but 4 monitoring wells
  - TWP filled in and re-contoured, native species planted
- Ecological integrity slowly being improved:
  - Park management practices and human disturbance were 2nd and 3rd ranked stressors in 1999 SOPHA report; significant contribution to reducing these stressors
  - Knowledge gained will help us to reduce costs in other park projects and transfer the knowledge to other field units and agencies restoring fescue grasslands

What's next?

- Adaptive management as we go:
  - 2007 drought probably had a big impact
  - Analyse the data collected in 2007
  - Aggressive control of perennial invasives needed
  - 3000 plants in production, more planting in 2008; involve volunteers or service groups in planting if possible
  - Continue with media involvement
  - Move the fence corners in to reduce elk impact


CANADA'S NATIONAL PARKS AND NATIONAL HISTORIC SITES
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LES PARCS NATIONAUX ET LES LIEUX HISTORIQUES NATIONAUX DU CANADA
Trade Waste Pit - 2004
Trade Waste Pit - 2007
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