

AANDC Contaminants and Remediation Directorate (CARD) Presentation for the Dehcho Negotiation Table

February 16, 2012



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Outline

1. Contaminants and Remediation Directorate (CARD) – who are we?
2. Program Objectives
3. Process of selecting and prioritizing sites
4. Highlights from CARD
5. Contracting & Program Statistics



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AANDC Contaminated Sites Program

Overall objectives:

- To reduce risks to human health, safety, and the environment
- To rationally prioritize and remediate contaminated sites
- To promote the social and economic benefits to aboriginal people, Inuit and northerners
- To develop innovative strategies
- To meet the spirit and intent of land claim agreements
- Implement a consistent, cost-effective and accountable program



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Contaminants and Remediation Directorate

- Manages abandoned contaminated sites on Crown Lands in the NWT which have health and safety and/or environmental concerns.
 - mostly private sector mining, oil and gas activities and government military activity (DEW line sites).
- Monitors contamination caused from long range transport outside of NWT.
 - Activities such as industrial use of pesticides, fire retardants, nuclear testing where the contamination gets into the air and water and is transported north to our environment



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History

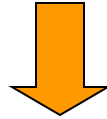
1991-1996 Arctic Environmental Strategy – Green Plan

1998-1999 Abandoned mines such as Colomac, Giant and Faro go bankrupt and revert to AANDC

2002 and 2003 OAG Audits identified the Federal Government needed to increase resources, especially in Northern Affairs, to address priority contaminated sites

2003 Announcement in Budget of \$175M over two years for contaminated sites

2004 Announcement in Budget of \$3.5B over 15 years



Creation of Federal Contaminated Sites Action Plan (FCSAP)



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FCSAP Project Selection

Major focus of CSP is delivering FCSAP-funded projects

Eligibility for FCSAP

- Sites must be on lands owned or leased by GoC or otherwise accepted
- Sites must be classified CCME or FCSAP as Class 1 (Action required)
- Sites must meet TB definition of contaminated site and be recorded in the Federal Contaminated Sites Inventory

Priority setting

- Projects ranked primarily according to health and ecological risk using science-based criteria
- Other considerations include: impact on traditional lifestyles, risk of increasing liability if no action taken, potential legal issues

Types of Projects

- Assessment
- Remediation/Risk Management
- Care and Maintenance



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Assessment Program

- Identify and verify sites
- Complete a historical review to determine if the site is of concern to human safety and the environment.
- Update and maintain an inventory of known and suspect sites
- Prioritize sites based on:
 - Risk classifications (High, Medium and Low) and data available
 - Available funding, capacity, and sequencing
 - Coordination with other projects



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Phase	Step	Activity
Assessment	1	Identify Site
	2	Historical Review
	3	Initial Testing
	4	Classify Site (NCS 1,2, 3 or waste site)
	5	Detailed Testing
	6	Reclassify Site
Licencing/ Permitting	7	Develop Remediation/Risk Management Plan
Remediation	8	Implement Plan (Remediation)
	9	Confirmatory Sampling
Monitoring	10	Long Term Monitoring



Planning/ Sequencing

- CARD tries to address contaminated sites in a way which maximizes input but does not over extend capacity of the stakeholders

Sites	2005/06	2006/07	2007/08	2008/09	2009/10	2010/11	2011/12
Site 1	Consultation	Mobilize	Remediation	monitoring	monitoring	monitoring	monitoring
Site 2	Assessment	Consultation	Mobilization	Remediation	Remediation	monitoring	monitoring
Site 3		Further studies	Consultation	Licencing	Mobilization	Remediation	monitoring
Site 4		Further studies	Consultation	Licencing	Mobilization	Remediation	monitoring
Site 5				Phase I/II	Action Plan		
Site 6		Further studies	Further studies	Consultation	Licencing	Mobilization	Remediation
Site 7		Further studies	Further studies	Consultation	Licencing	Mobilization	Remediation

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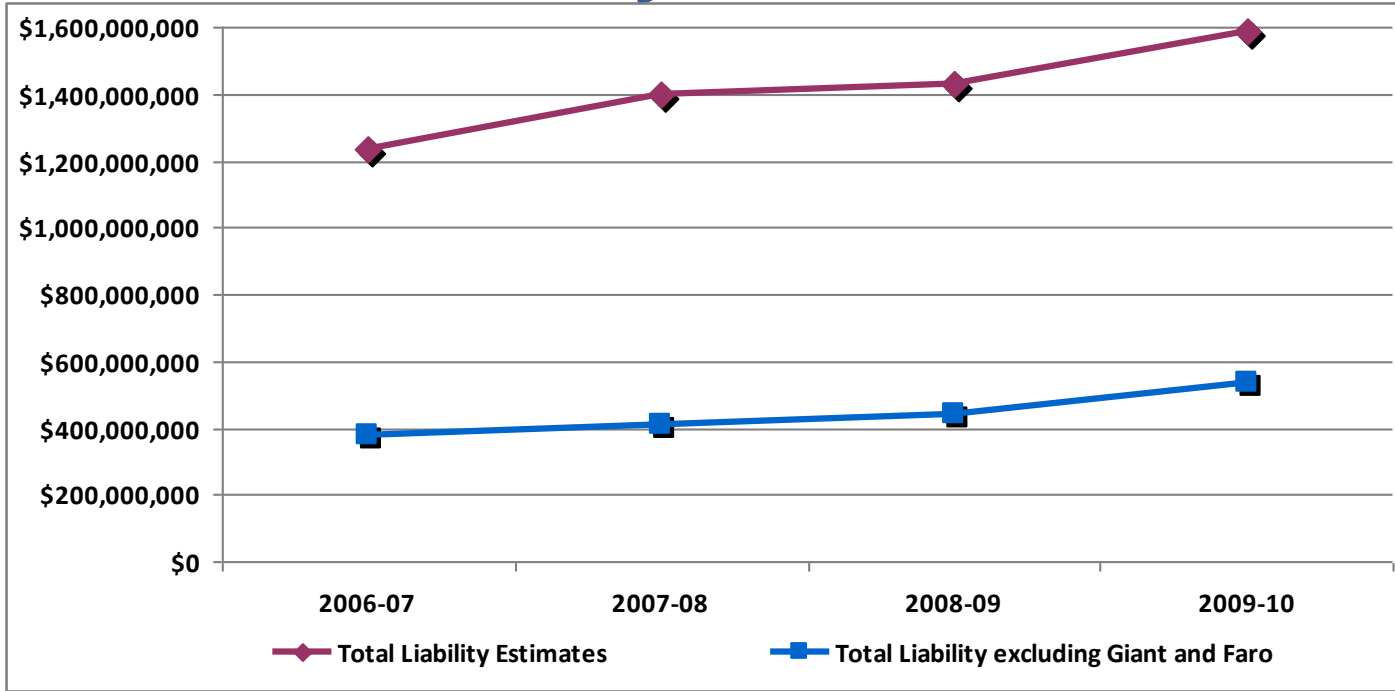
Federal Contaminated Sites (Treasury Board, 2010)



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Trends in Liability



Since 2005, the NCSP has eliminated almost \$67 million in federal liability, with the remediation of nine sites, while an additional \$40 million in liabilities has been reduced at five additional sites under active management. New liabilities of \$41 million have been added at thirty-one sites in the NWT and Nunavut.

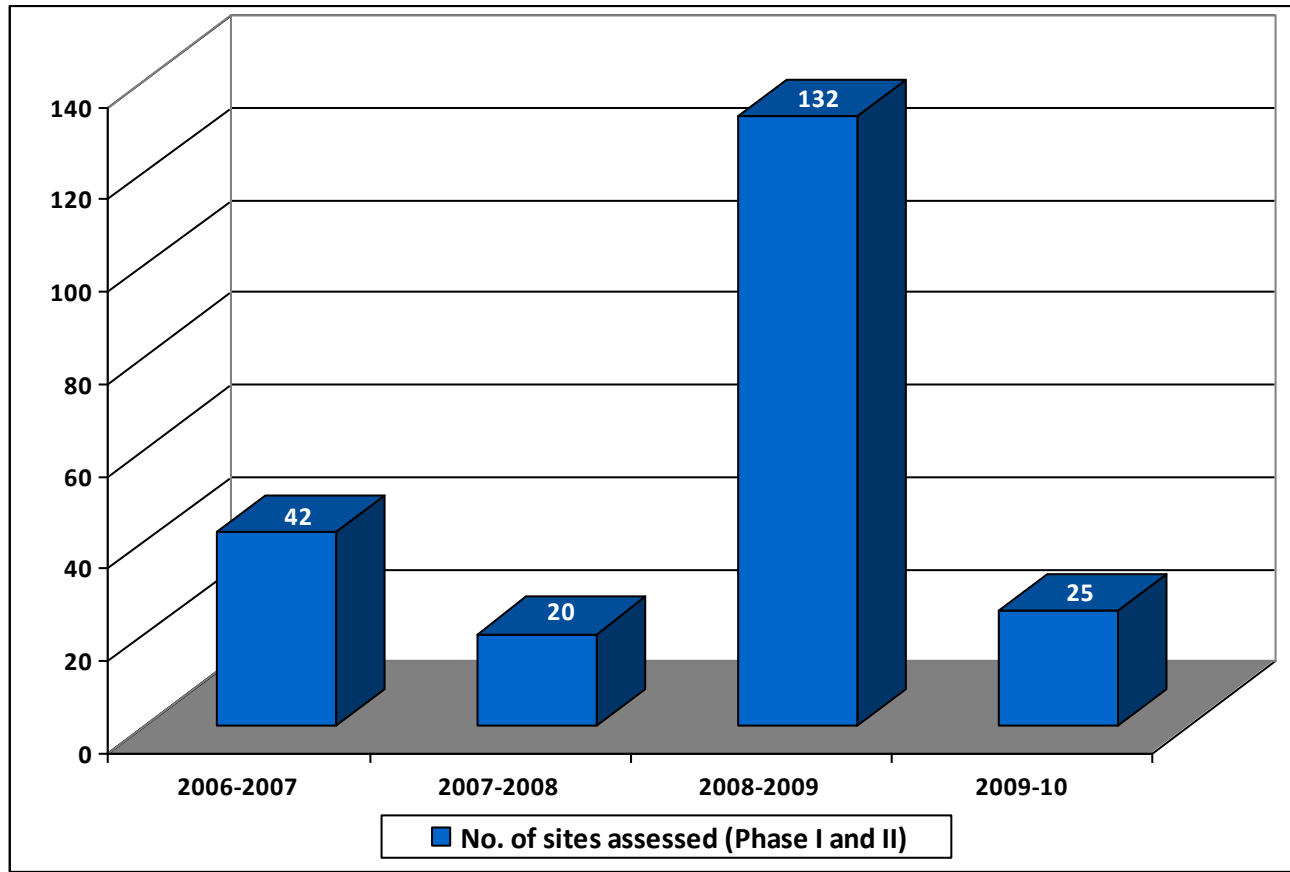


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Assessment Progress (NCSP)



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Typical Sites

AANDC sites are typically

Abandoned mines, oil and gas exploration staging areas and military sites

Major Crown Sites/projects

Example, Giant and Faro mines

Tens of years to remediate

Costs of \$250-400M

Large sites/projects

Example, Colomac and UKHM

Five to ten years to remediate

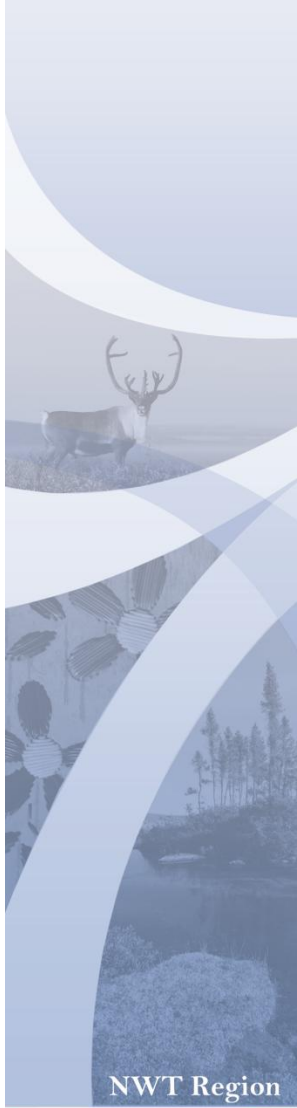
Costs of \$50-100M

Small-to-medium sites/projects

Example Silver Bear and Tundra mines, Sarcpa Lake

Two to five years to remediate

Costs of \$1-25M



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Current Priorities

Major Remediation Projects

- Giant, Colomac, Tundra, Great Bear Sites

Remediation Sites

- Dehcho:
 - Jean Marie River (shared responsibility with GNWT)
- Akaitcho:
 - Bullmoose, Ruth, Spectrum, Beaulieu, Joon, Chipp Lake, Storm, Blanchet, Outpost, Copper Pass, Stark Lake, O'Connor
- Tlicho:
 - Indore/Hottah

Assessments

- 10 Phase III – Gordon Lake Area
- 16 Phase II
- 26 Phase II - CANOL Trail sites
- 3 Phase I

Monitoring - Rayrock, Discovery, Port Radium, Horton River (Bar E), North Inca, Hidden Lake, Johnson Point



Tundra Mine Water Treatment



Colomac Hydrocarbon Remediation



Ruth Mine remedial option selection

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Progress to date

- The highest priority sites have been identified and are being managed
- Two of these sites (Giant and Faro mines)
 - Account for 60% of the liability
 - Have strong management teams in place
- Remediation completed at:
 - Axe Point, Atkinson Point, Johnson Point, Horton River, Discovery Mine, North Inca, Hidden Lake Mine & Port Radium in the NWT
 - Colomac 95% complete



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Highlight of Assessment Work in Dehcho



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Recent Assessment Work in the Dehcho Region

- 2008 to 2009 – Reconnaissance/preliminary assessment completed of inventoried sites in Dehcho region.
- 2009/10 - Phase I Environmental Site Assessments (ESAs) completed at SM053 – Little Dal Lake, SM034 – FPC Tenneco Root River (I-60), and SM478 – Hwy #1 km 508.
- 2010/11 - Phase I ESA completed at SM100 – Caribou Point, and Phase II ESAs completed at SM034 – FPC Tenneco Root River (I-60), and SM478 – Hwy #1 km 508.
- 2012/13 – Combined Phase I/II ESA planned for SM482 – Pine Point Railbed, and Phase II ESA planned for SM100 – Caribou Point.



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Reconnaissance Program Summary

- Reconnaissance completed of approximately 100 sites across the Dehcho region in 2008 and 2009.
- Purpose of reconnaissance/preliminary assessment program was to identify abandoned sites with potential and actual contamination and to move these sites forward to a Phase I ESA. Reconnaissance program also identified sites to be closed in the inventory because either: site risk was below threshold (ie waste/garbage site with no obvious contamination); site doesn't exist or could not be located; site is operational; or site is not federal responsibility.
- Reconnaissance program found that the majority of inventoried sites in the Dehcho were former oil and gas exploration well sites with no obvious signs of contamination, and minimal waste materials on-site.
- Exploration well sites with observed sumps currently remain open in inventory. Responsibility for these sites needs to be determined.



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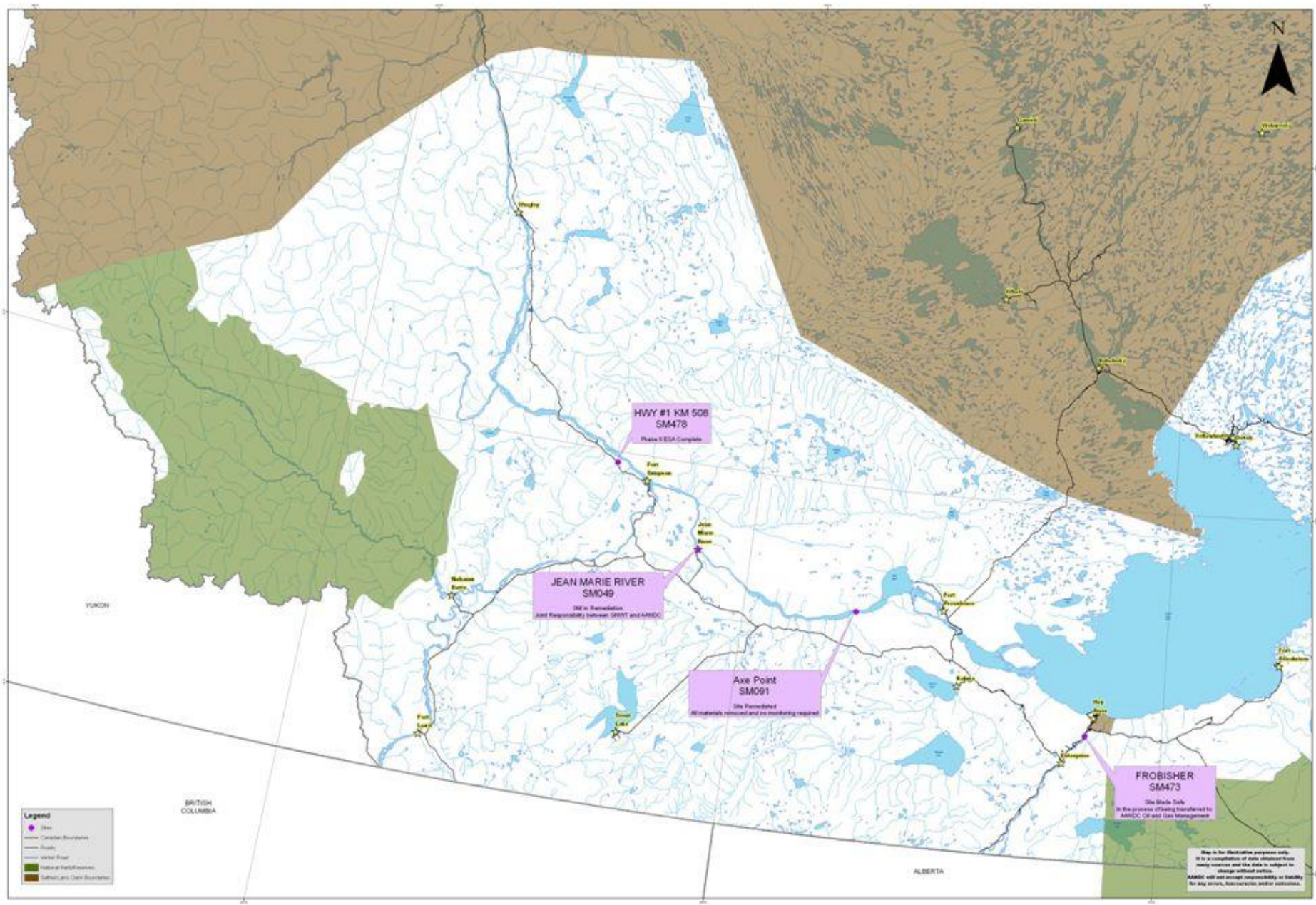


Summary of Unconfirmed Contaminated Sites in Dehcho Region

- 18 potential contaminated well sites where responsibility is unknown.
- 5 potential contaminated sites where responsibility is unknown.
- 2 potential contaminated sites with federal responsibility
- 2 contaminated sites with potential owner.
- 1 Class 3 contaminated site— Low Priority for Action where responsibility is unknown.



Contaminated Sites with CARD Involvement in the Dehcho Region of NWT





Summary of Confirmed Contaminated Sites in Dehcho Region

- 1 site remediated (Axe Point).
- 1 site undergoing remediation (Jean Marie River).
- 1 site made safe (Frobisher Bay Sour Gas Wells).
- 1 Class 2 contaminated site – Medium Priority for Action (Hwy #1 km 508).

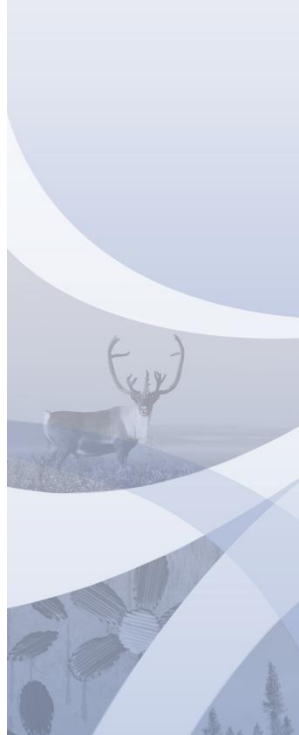


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SM478 - Hwy #1 km 508

- Site was originally developed as borrow source in 1970's for highway construction. In the late 80's and 90's, the site was used as a staging and storage area for waste materials collected in the region. As well, the site was used in the 90's for highway maintenance purposes.
- Site contains drums, culverts, boat wheelhouse, tanker trailer and various debris.
- Phase I ESA completed in 2009/10 and Phase II ESA completed in 2010/11.





SM478 - Hwy #1 km 508

- Site currently contains approximately 1100 drums, the majority of which are empty. Full and partially full drums contain aviation fuel, waste oil and unidentified liquids.
- Petroleum Hydrocarbon (PHC) contaminated soil exists in drum cache area of site.
- Some locations at site show selenium (metal) concentrations to be slightly elevated above federal guidelines. Elevated selenium in soil may be natural in origin.
- Surface water and sediments on site are not contaminated above federal guidelines.
- Some groundwater samples from site show exceedances of interim federal guidelines for PHCs and Polycyclic Aromatic Hydrocarbons (PAHs).
- Paint on boat wheelhouse contains lead above NWT guidelines.
- Asbestos containing pipe wrap present on some conduit (culvert) sections at site.



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SM478 - Hwy #1 km 508



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SM478 - Hwy #1 km 508

- National Classification System for Contaminated Sites (NCSCS) score of 58.8 – Class 2 (Medium Priority for Action) based on Phase II ESA results.
- Site is currently ineligible for FCSAP funding. FCSAP funding is only available for Class 1 (High Priority for Action) sites.
- Further site work is on hold. An alternate funding source is required to further assess and/or clean-up site.



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Highlights of CARD Remediation Work



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Axe Point

- Military camp constructed in 1942 in support of the construction of the Canadian Oil (CANOL) trail pipeline project undertaken by Imperial Oil Ltd and the US Army.
- 61-hectare site included:
 - abandoned military camp
 - emergency airstrip
 - operations site
 - former Dene village consisting of cabins and gravesites
- Site remediated in 2007



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Axe Point Remediation 2007



Aerial view of Axe Point during remediation

Demolition of Garage structure



Collection of empty drums from the former Barrel Dump area



Burning of non-hazardous material in burn boxes



Port Radium Cleanup 2007-2008



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Colomac Clean-up – 95% completed in 2011



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Procurement / Contracting

Objectives:

- Ensure work can be done safely
- Meet land claim obligations
- Ensure best value for tax dollars
- Ensure quality Goods and Services
- Ensure open, fair and transparent process
- Maximizing aboriginal involvement & benefits
- Ensure compliance with all legal and regulatory requirements
- Major contracts through PWGSC
- For most projects, an open contracting process with Aboriginal opportunities considerations is the most appropriate tool for maximizing local, regional and Aboriginal employment and business opportunities



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How do we evaluate contract bids?

Mandatory minimum requirements

Merit (60%) ~60% pass mark

- 1/3 Technical – how contractor plans to do the work
- 1/3 Management – experience, team
- 1/3 Aboriginal Opportunities Considerations (AOC) – commitment to aboriginal content in mgmt, labour, sub-contractors & training

Cost (40%)

- Contract can be awarded to a proposal with a higher cost (up to 15% more) if technical proposal is sound

Training

- Up to 2% of total project costs available for related training and apprenticeship programs

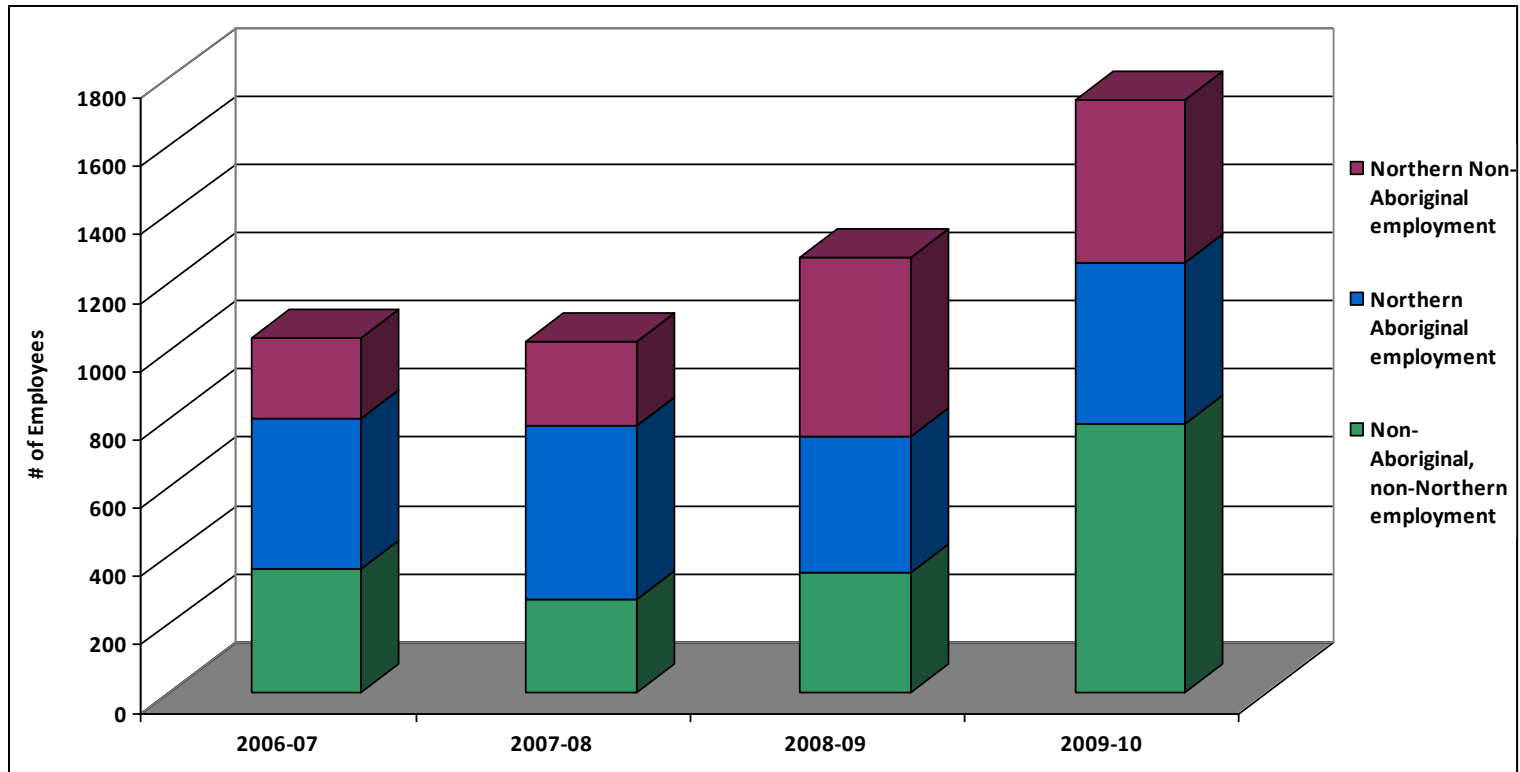


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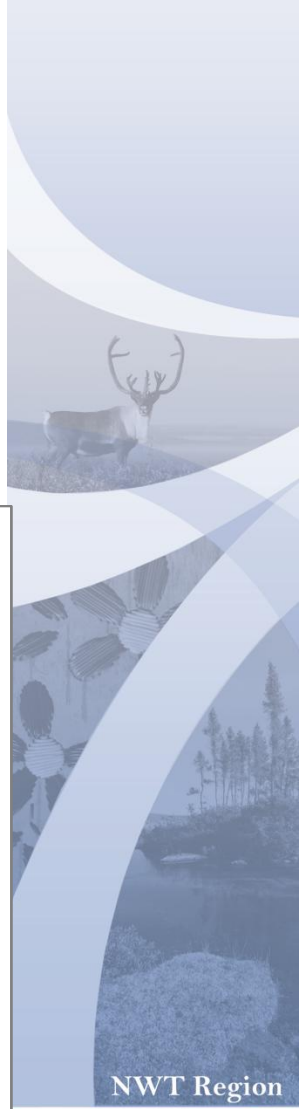
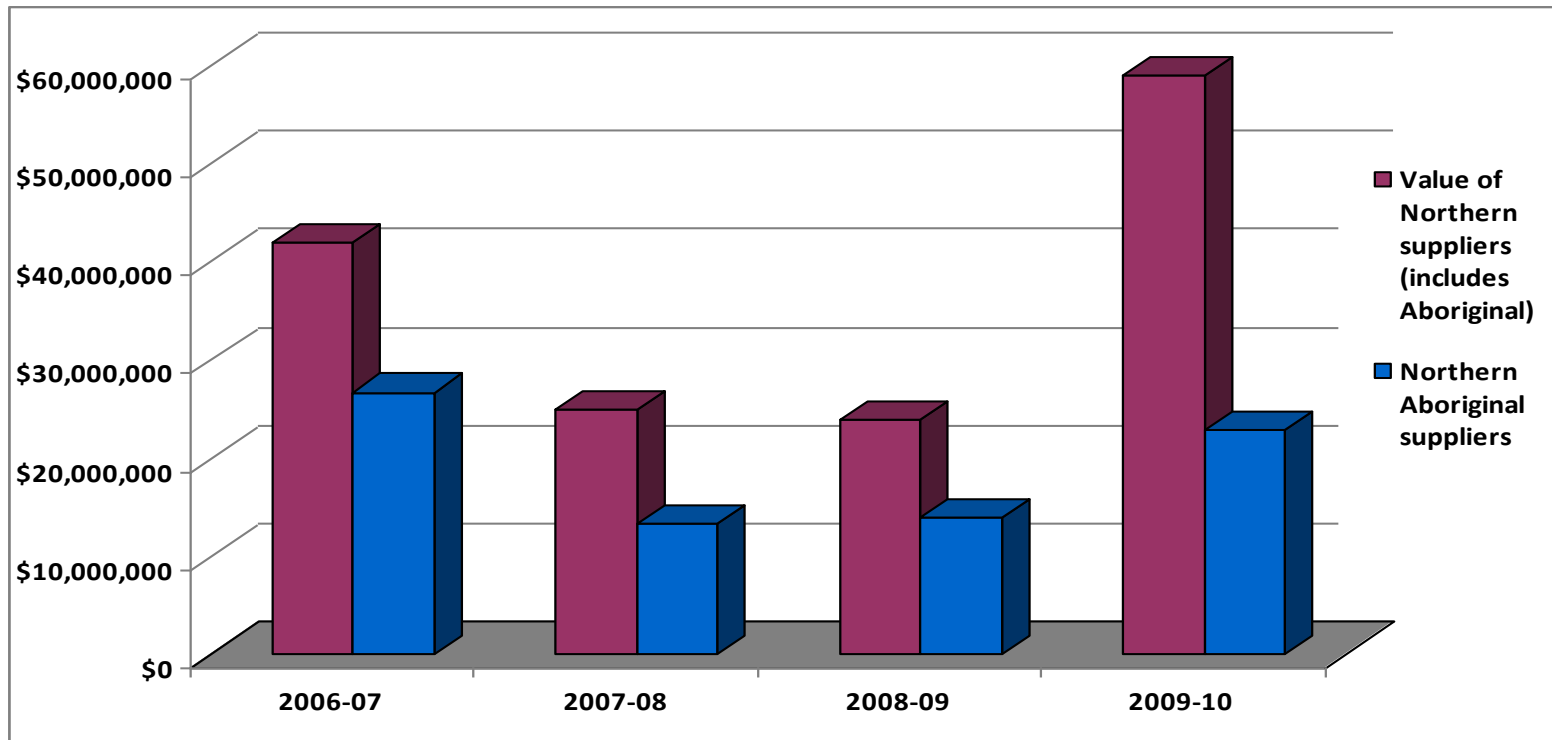


NCSP Employment Benefits



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Goods and Services – Northern & Aboriginal Benefits





Summary

- Over the next 5-10 years there is a large effort to reduce federal liability by identifying and addressing contaminated sites.
- CARD will attempt to address these sites efficiently yet as sustainable as possible.



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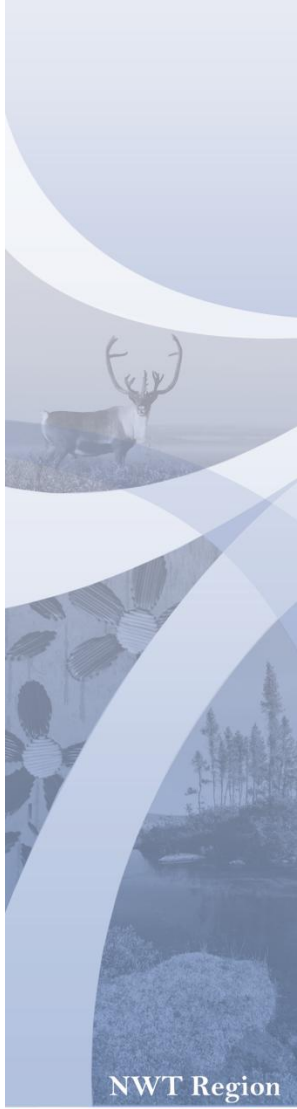
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