

# Federal Contaminated Sites Process



NOFNEC 2015  
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# Overview

- ▶ Contaminated Sites
- ▶ Polluter pays policy
- ▶ Spill Reporting process
- ▶ Historical Liability sites
- ▶ FCSAP Process
- ▶ Remedial and Treatment Techniques
- ▶ Local Involvement
- ▶ Successes and Challenges



# Contaminated Site

- ▶ Defined as soil and/or water (surface or ground water) which has been polluted and compromised environmentally which may cause harm to humans and/or animals through exposure.
- ▶ Most often, on reserve contaminated sites are contaminated with petroleum hydro carbons (PHCs) products, dissolved metals, liquid sewage and sometime waste leachate.



# Spill Reporting – Due Diligence

When a spill happens today or tomorrow

- ▶ Discharge to the natural environment
- ▶ Potential to cause damage to property or harm to human, animals or vegetation
- ▶ Loss of useable land

**SPIILLS ACTION CENTRE**  
**1-800-268-6060**

## SPIILLS MUST BE REPORTED

Be prepared to provide details  
Take steps and precautions.

1. Assess the spill (risk)
2. Stop the spill;
3. Notify Spills Action Centre
4. Contain and recover
5. Collect and dispose of  
Contaminant Sorbents
6. Make repairs

<http://www.ontario.ca/page/report-spill>



Who should report a spill, when and how? >>

What about off reserve spills, or liabilities?  
Provincial land responsibilities?

# Historical Federal Liabilities

## Mid 90's – Pre training

### EII Sites Assessments

- ▶ Series of site by site assessments completed to identify the magnitude of contaminated sites on FN reserves.
- ▶ Some remedial efforts were completed at high priority sites between 1997–2005.

(FCSAP Round 1)

## Post 1998

### Polluter Pays Policy

- ▶ After late 90s when INAC delivered initial fuel handling and spill training regionally.
- ▶ In 1997–98 INAC determined that all spills or releases post EII assessments, would be the responsibility of the polluter.

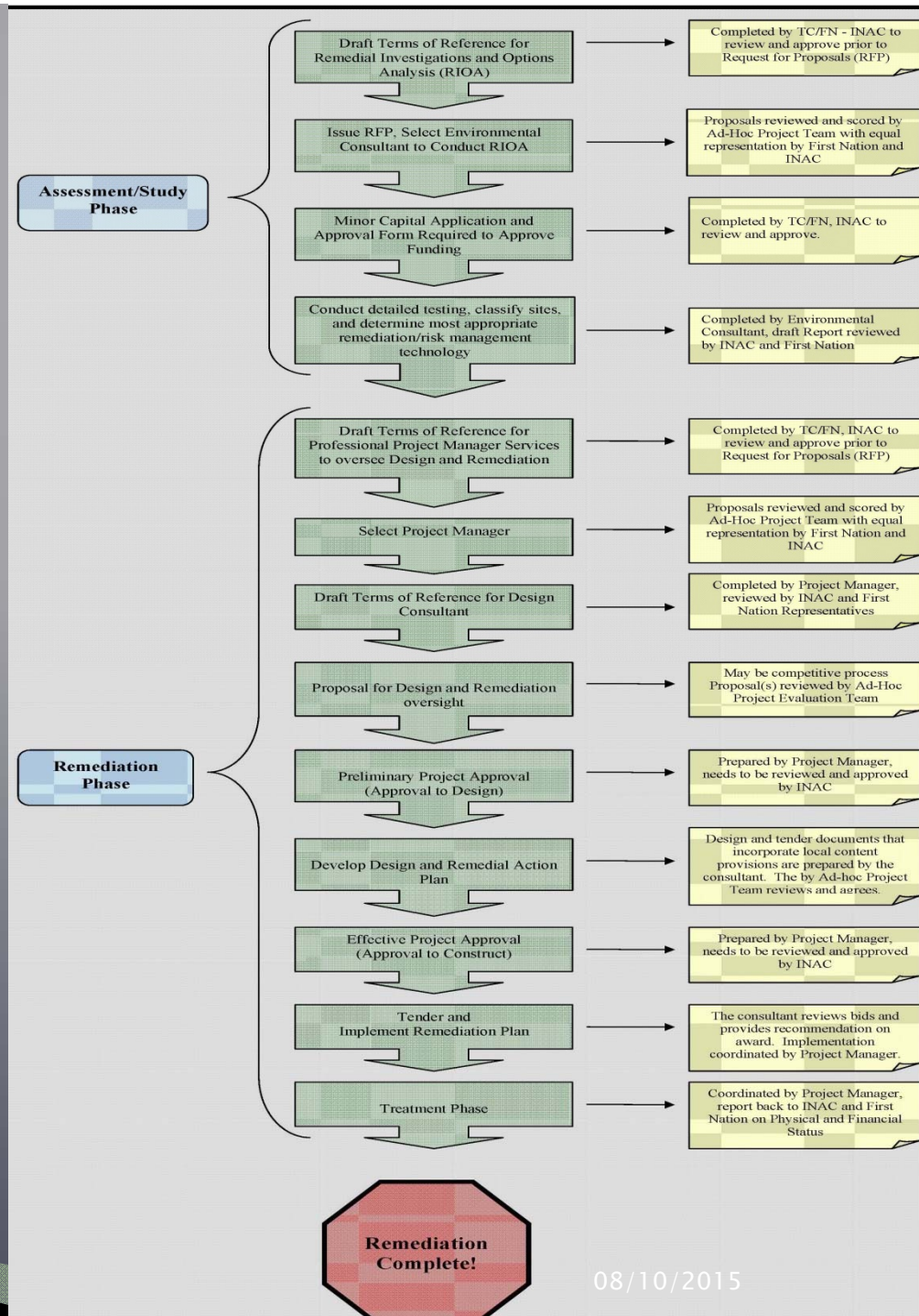


# Process

AANDC developed a flow chart to help understand the process....!?

## Phases

1. Assessment/Study
2. Design (monitoring)
3. Remediation, and
4. Closure/Completion



# FCSAP

## Federal Contaminated Sites Action Plan

A highly technical process and system put in place by Federal Government to classify and prioritize all (not just FN reserve) Federal contaminated sites for remedial efforts.

AANDC, through FCSAP, will remediate Class 1 and sometimes Class 2 sites.

- ▶ Class 1 sites are those which score a 70 or higher on the ranking system.



# Assessment –Study (RIOA)

## Environmental Issues Inventory (EII)

Historical sites (pre 1997), were part of original INAC EII Process

Since 2005

Current RIOA Process

1. TOR
2. RFP
3. MCA
4. Assessment Work

## Remedial Investigation Options Analysis (RIOA)

Project Approval Process  
Remedial Investigation  
Options Analysis (RIOA)

- ▶ Prepare Terms of Reference (TOR)
- ▶ Issue Request For Proposals (RFP) to complete assessment/study work
- ▶ Prepare Minor Capital Application (MCA) for funding approvals
- ▶ Conduct Assessment work

# Design Phase – Steps

Once site assessments have been completed  
Funding needs to be secured for Design Phase

1. TOR, RFP and selection of Professional Project Management services (PPM)
2. TOR, RFP for Design Consultant
3. Evaluate and Review Design Proposal
4. Preliminary Project Approval (PPA), now Design Approval Request (DAR)
5. Develop Design and Remedial Action Plan (RAP)

# Sampling and Monitoring Events

Often in this process when phases are delayed for several years, AANDC requires additional sampling and monitoring events.

- ▶ to confirm data and assist consultants in determining next steps and costing models for design and or remediation.

Many projects have been known to have more than 5 year delays between assessment and design and design and remediation.



# Contract Tendering

Once Design and Tender specifications are completed;

- ▶ and no further sampling or monitoring is required,
- ▶ using data and cost estimates from the completed Design,
- ▶ Project Approval Request (PAR) is prepared and submitted for funding approval.
- ▶ Project is tendered, by public or invitational bid process, sometimes in phases.

# Remediation and Treatment

Remediation of the contaminants can be designed and carryout in a number of ways;

- Ex-Situ
- In-Situ
- Combination
- Other technologies



Contaminated soils are either relocated and treated in a contained facility, or left in place and treated in ground with the use of additives.

Plenty of opportunity for local involvement and jobs at this stage.



## BIOCELL Treatment Facility >>

Water flows to end of cell where it treated and eventually discharged



# Completion/Closure

When the soil and/or water is determined clean and free of contaminants.

- ▶ Sampling is ongoing during treatment and reports are normally prepared annually.
- ▶ Or maybe fill for roads or non residential areas.
- ▶ Once soil conditions meet parameters, soil is most often transferred and used as landfill cover,
- ▶ Treatment can take anywhere from 2 to 8 seasons, pending regular operation and maintenance.

# Remedial Techniques

Stu Finn, SFNC

# Local Involvement

On-site Training Opportunities

Lindsey Jupp, MFNM



# Successes and Challenges

- ▶ Several projects started and completed to date, at various stages of process
- ▶ Enhanced capacity and training in FNs
- ▶ Better fuel handling practices
- ▶ Due Diligence
- ▶ Less Spills!
- ▶ Timing of approvals vs seasonal work requirements
- ▶ Status of FN owned equipment – ability to complete projects. Mechanical fitness Audits
- ▶ Status of existing treatment facilities and permitting

SUCCESSSES

CHALLENGES

# QUESTIONS?



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