Practical Proactive Environmental Assessment Follow-up

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Environmental Assessment and Liabilities, Environmental Management

Presentation Outline

Background and Context

Infrastructure Canada – Alberta Program (ICAP) Projects

Follow-up Tools

Main Issues

Successes

Future Plans

ICAP Background

- Federal, provincial and municipal governments
- Over $508 million invested in municipal infrastructure
- 40% of funds directed to green infrastructure
- Federal funding triggers CEAA
- Follow-up is addressed under Sections 14(c) and 38 of CEAA

Sustainability

- The City of Calgary Environmental Policy
- Sustainable Cities Initiative
- Adaptive Management

EnviroSystem

- ISO 14001 registered EMS
- Follow-up of ICAP projects has been identified as significant aspect

➔ Objective: To ensure that project sites are in compliance with CEAA

➔ Target: All projects are assessed, monitored and reported

ICAP Projects

- 36 approved projects, to be completed by March 2006
- $125 Million in projects; the City's share is $44 Million
- Waterworks, Wastewater, Parks, Corporate Properties and Buildings, Civic Partners
- Over 30 EAs completed
- 23 projects monitored … so far

ICAP Projects

Northwest Storm Sewer Upgrade

ICAP Projects

Heritage Firehall

Why Do Follow-up?

- Ensure environmental impacts are minimized
- Ensure mitigations are effective
- Ensure corrective actions are taken, where necessary
- Meet requirements under CEAA
- Prevent loss of ICAP funding
- Avoid costly project delays

Follow-up Tools

- Communication of mitigations
  - Contractor awareness package, ECO Plans
- Full-time inspector visits sites biweekly
- Uses checklist of mitigations
- Reports non-compliance to Project Manager
- Issues final report and documents corrective actions

Checklist Example

Project X		
Date:	**Weather:**	**Project Contact:**
24-Mar-03	bright clear skies 3c	
31-Mar-03	95% overcast 7c	Harvie Page 268-1341
08-Apr-03	14c 50% cloudy nice day	Jake Heide of Lear 250-3818 cell 813-0213 site phone 242-2037
Potential Impact	**Mitigation Measures**	**Comments**
Terrain disturbance	Minimize area extent of disturbance	Mar 24-03 had large area of excavated mud from site piled on west side of project (30 st SW) cleared due to runoff from baseball field south of site
	Confine construction /operation to prescribed area	all other areas disturbed to a minimum; gravel hauled in to form roadway access at 30st to site lrs
		31-Mar-03 work area dried up lrs
		08-Apr-03 1506hrs attended site gravel off roadway holding up. Rest of area very muddy from snow. Lrs
		15-Apr -03 some pooling of water on low spots but all contained w/in site lrs
		24-Apr-03 area drying up. Lrs
		01-May-03 site clearly delineated still. Lrs
		20-May-03 extended construction site fencing to curb & more into playground. Jake not around to speak to. Lrs
		29-May-03 developing parking lot area. Lots of progress since last wk. Lrs
	Import clean fill material	23-Apr-03 bricks are piled up as they are being recylced by someone else. Lrs
		20-May-03 pallets being recycled from bricks & concrete blocks. lrs
		28-May-03 super save still on site. Materials being stockpiled & seperated for recycling. Lrs

Main Issues

- Erosion and sediment control
- Onsite fuel management
- Spill prevention
- Contamination discovery
- Tree protection
- Waste management

Erosion & Sediment Control

Catchbasin Not Maintained

Erosion & Sediment Control

Catchbasin Not Maintained

Erosion & Sediment Control

Good Storm Sewer Protection

Erosion & Sediment Control

BEFORE

AFTER

Storm Drain

Erosion & Sediment Control

Mud Tracking and Dust

Erosion & Sediment Control

BEFORE

AFTER

Mud Tracking and Dust

Erosion & Sediment Control

BEFORE

AFTER

Erosion Control

Onsite Fuel Management

- Mitigations proved impractical, so found compromise
- 100m refuelling setback from waterbody changed to 30m
- Onsite fuel storage allowed on impervious tarps
- New fuelling log sheets

Onsite Fuel Management

Improper Onsite Fuelling

Onsite Fuel Management

BEFORE

AFTER

Spill Prevention

Fuel Leak

Spill Prevention

Tarped Fuelling Area

Spill Prevention

Good Refuelling Practices

Contamination Discovery

BEFORE

AFTER

Historic Contamination Discovery

Tree Protection

Tree Protection Issues

Tree Protection

ROOT COMPACTION

PROPER PROTECTION

Proper Tree Protection

Waste Management

No Waste Recycling

Waste Management

Recycling

Waste Management

Designated Wash Out Area

Waste Management

Envirosmart Streetlight Project – Old Streetlights For Recycling

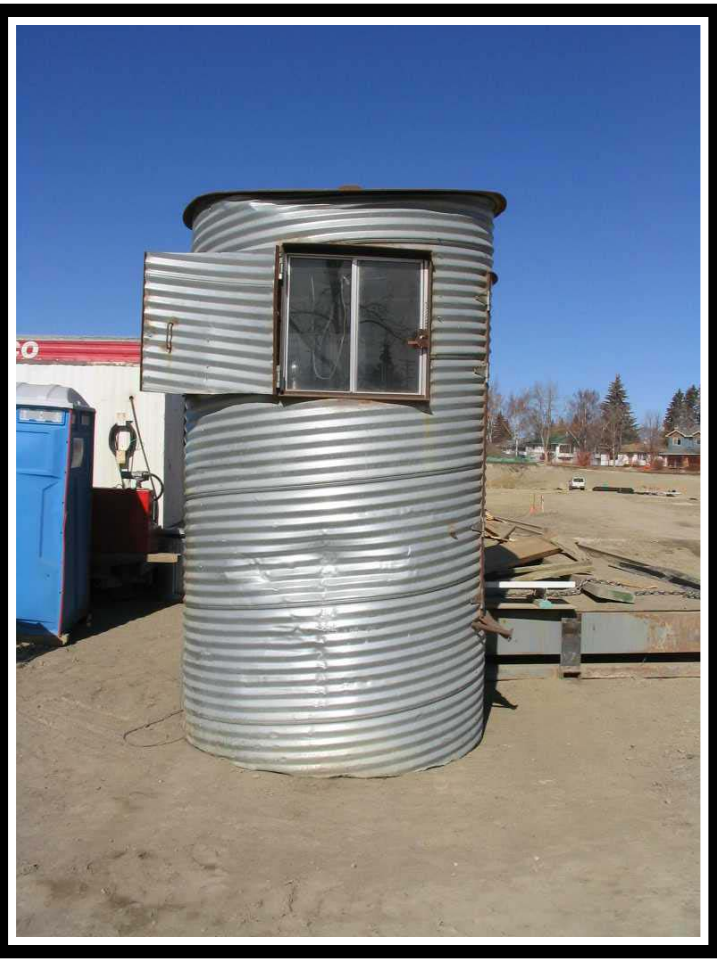
Waste Management

Envirosmart Streetlight Project – Old Streetlight Wire For Recycling

Waste Management

Envirosmart Streetlight Project – Mercury Bulb Recovery

Innovative Mitigations



Weigh Station

Successes of Follow-up

- Environmental impacts minimized
- Ineffective or impractical mitigations revised
- City is meeting EMS and sustainability commitments
- City is meeting regulatory requirements

Successes of Follow-up

- Contractor awareness of environmental responsibilities improved
- Contractors have begun to accept follow-up as part of their operations
- Contractors have applied mitigations to other projects

Future Plans

- **Future Follow-up Requirements for:**
  - **ECO Plans**
  - **Standard General Conditions**
  - **Municipal Environmental Assessment Process**
  - **Environmental Prequalification**

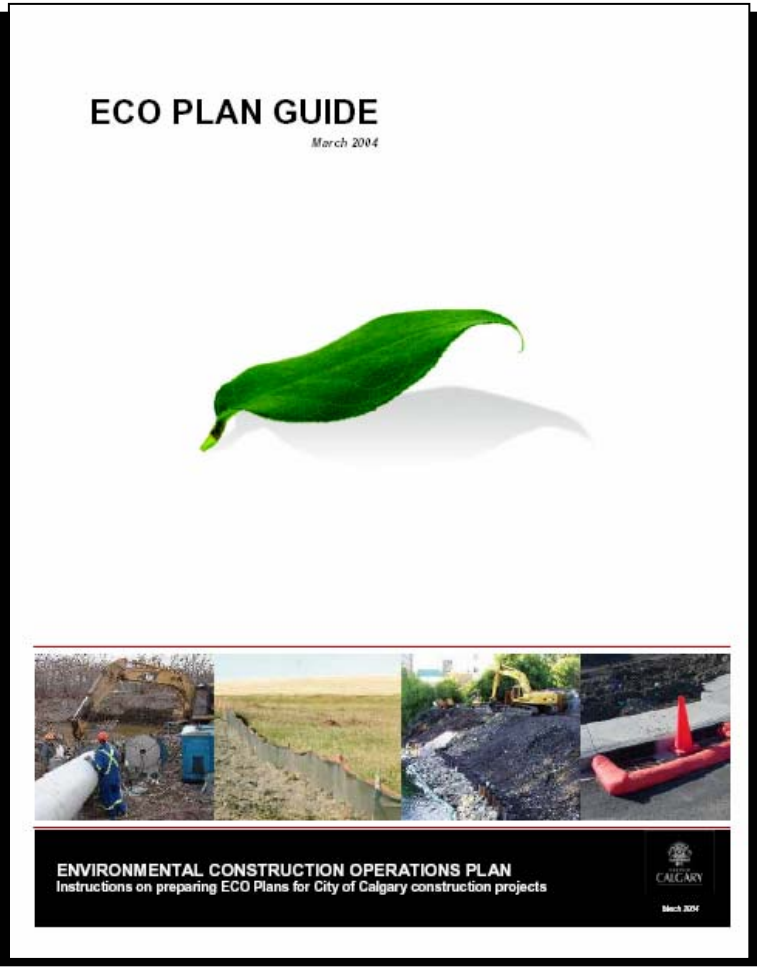
ECO Plan

- **The intent of the ECO Plan is to identify:**
  - **What the environmental issues are**
  - **Who is responsible to deal with the issues at the project site**
  - **What the control measures are to meet environmental requirements and minimize environmental impacts**

ECO Plan

- New issue date: **March 2004**

- Contractor prepares ECO Plan
- Guide is simple, provides clear direction
- Templates and examples are provided in the Appendices



ECO Plan Guide

Standard General Conditions

- Dust Control
- Erosion and sediment control
- Site drainage during construction
- Site management
- Waste management
- Tree and plant protection
- Release reporting and remediation
- Off-site disposal of excavated soil or material
- Contractor environmental responsibilities
- Subcontractor management
- Soil conservation and stockpiles
- Fuelling
- Spill prevention
- Contaminated ground
- Recycled and imported material
- Vehicle idling reduction

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