



# 12<sup>TH</sup> CANADIAN POLLUTION PREVENTION ROUNDTABLE

June 10-12, 2008  
Edmonton, Alberta

Crowne Plaza- Chateau Lacombe





**10.1 “Beyond Construction ECO Plans:  
challenging site construction contractors to  
surpass best practices in materials management  
and energy conservation”**

Emilie Ouellet, Eco-Industrial Solutions Ltd.

*Canadian Pollution Prevention Roundtable  
Edmonton, June 11-12, 2008*

# **Beyond Construction ECO Plans**

Towards better energy conservation and  
resource management  
during construction

Emilie Ouellet  
Eco-Industrial Solutions Ltd

# Outline

- EI approach to industrial development
- Planning for better construction
- Measuring performance

# Eco-Industrial???



- Greening the project life of a development, for infrastructure & buildings



- Municipal Zoning & Policies
- Subdivision & Concept Plans
- Design Guidelines

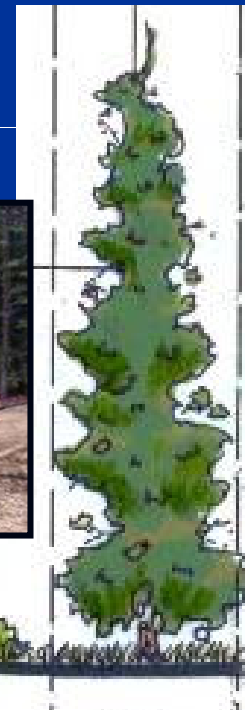
Plan

Design

Build

Operate

- Green, integrated infrastructure  
Water, sanitary, parks & trails, roads, energy, corridors
- Green buildings



Plan

Design

Build

Operate

- Hiring green contractors
- Construction practices
  - Environmental protection
  - Energy conservation
  - Resource management



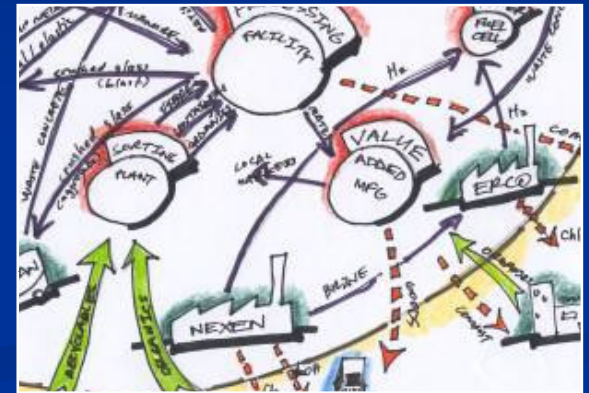
Plan

Design

Build

Operate

- *Thinking like an ecosystem...*  
Physical & virtual networking
- Efficient and ecological developments
- Sustainable community economic development



# “Eco-Industrial” Parks

**Coordinated  
eco-business activity  
in an industrial park.**

- *New or*
- *Retrofit*



# EIP Construction

- Mandating sustainable practices
  - Tender
  - Standard contract frameworks
- Environmental management?
  - Construction ECO plans in AB
- Construction Sustainability Plans (CSPs)
  - Energy – Water – Materials

# Ex. #1 – Innovista (Hinton)

## Canada's 1st greenfield EIP

- Leading edge site servicing: On-site WW treatment; Alternative SW management
- Protected areas, trails, wildlife corridors
- Design guidelines, eco-industrial zoning



# Ex. #1 – Innovista (Hinton)

- Approach
  - Basic CSP requirements in tender
  - Development of CSP with contractor
  - Feedback – refine logs
- Goals
  - Performance reporting as per funding
- Results
  - Data & Reports

# #2 – TaigaNova (Fort McMurray)

- Alternative SW management / trails / habitat
- Design guidelines
- Sales: Lot buyers expected to be green
- Standard schedule



# #2 – TaigaNova (Fort McMurray)

- Approach
  - CSP framework in tender
  - Develop plan with contractor
- Goals
  - Do the right thing
  - Get credits for green achievements
- Results – to come

# CSPs – Lessons Learned

- No standard CSP
- Adapt to context and people
- Tender framework
  - creativity onus on our side
- Ensure tender documents cover the requirements with enough details

# Construction Performance Measurement

- Why?
  - Evaluate impact of strategies
  - Funding requirement
  - Benchmark
- What?
  - Energy
  - Materials / Water
  - GHG emissions

# Construction Performance Measurement - PPRS

- Project Performance Reporting System
- Challenges
  - Framework
  - Data
  - Timeline

# Lessons Learned

- Importance of QUALITATIVE results 😊 😞
- Access to QUANTITATIVE results #####
- Availability of benchmarking info for conventional industrial parks.

# Acknowledgements

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# Thank you

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