



# Noise

## A regional solution for Alberta's Industrial Heartland

NCIA to International Workshop  
on Environmental Nuisances  
November 30, 2009



# Purpose of Presentation

- Overview of NCIA;
- Noise Management Plan; and
- Regional Noise Model.

# NCIA General

- The Northeast Capital Industrial Association (NCIA) is a not-for-profit cooperative representing industry located in the municipalities of:
  - Strathcona County,
  - Sturgeon County,
  - the City of Fort Saskatchewan and
  - Lamont County.

# Who We Are

- Large integrated global chemical and petro-chemical industries, to industrial service companies.
- Employ approximately **4,500 people** (not including project construction contractors) and
- **\$700 million spent on goods and services** in the region annually, not including utilities and feed stocks.
- Current Industrial Investment **exceeds \$25 Billion.**
- \$20 to \$40 Billion in investment possible over the next 10 to 25 years.

# Who We Are

Agrium Fort Saskatchewan  
Agrium Redwater  
Air Liquide Canada  
Aux Sable Canada  
BA Energy  
BP Canada Energy Company  
Dow Chemical Canada  
Enbridge Pipelines  
Evonik Degussa Canada

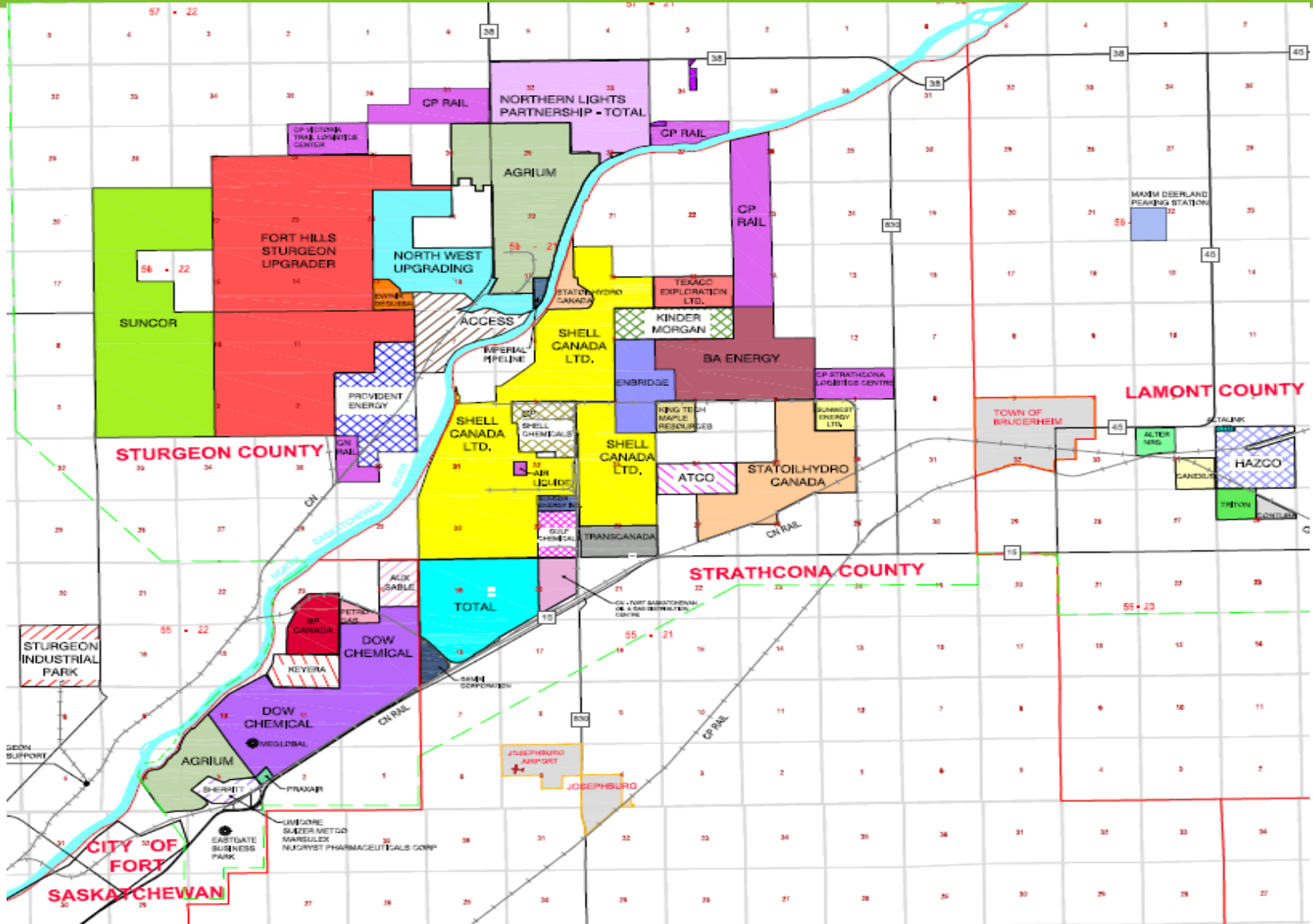
Gulf Chemical & Metallurgical  
HAZCO Environmental Services  
Keyera Energy  
KinderMorgan Canada  
Marsulex  
ME Global  
North West Upgrading  
Petro-Canada  
Praxair Canada

Provident Energy  
Shell Scotford\*  
Sherritt International  
StatoilHydro Canada  
Sulzer Metco (Canada)  
Total E&P Canada  
Umicore Canada

\*Includes Shell Refinery,  
Upgrader and Chemicals

## NCIA Vision

- To be recognized and respected as an association that promotes sustainable industrial growth and high quality of life through environmental, socio-economic, and public safety programs.



# Regional Projects/Partnerships in the Heartland

- Cumulative Effects Management (with AENV)
  - Air, focus on SO<sub>2</sub> and NO<sub>x</sub>
  - Water, focus on NSR from Devon to Pakan
  - Land, focus on elemental sulphur management
- Fort Air Partnership
  - Focus on monitoring and reporting of ambient air quality
- Groundwater Management (with AENV)
  - Focus on protection of the Beverly Channel in the Heartland area
- Odour complaints (with AENV)
- Noise Management (with ERCB)

# General Overview of Regional Noise Management Plan (RNMP)

- It has taken 4 years to develop the scope and elements of the RNMP.
- The ERCB embraced the concept of a noise management plan (NMP) as a means of managing noise issues where the sources are multiple and impacts cumulative.
- To do this Noise Control Directive 038 was amended enabling the concept of a NMP as a compliance requirement.

# What is it?

- NCIA member companies adopt best practices principles in noise management.
- Each member company to implement independently.
- Basis of **“what is achievable and practical”**.
- Implement management systems to demonstrate continuous improvement.
- As a minimum adopt IH/OHS.
- Address categories of noise management, namely;
  - Normal operating conditions
  - Event/Planned event strategies
  - New facility standards

# Regional Noise Management Plan

- The RNMP is designed with the intent of minimizing, to the extent practical, the noise levels impacting on the environment from member companies and their associated industrial facilities.
- NCIA and the ERCB have been working together on finding a practical approach to ensuring that industrial noise levels comply with the ERCB's Noise Control Directive 038.
- NCIA is developing a RNMP in collaboration with the ERCB to address noise control.

# RNMP - Background

- In keeping with the provisions of the ERCB Noise Monitoring Directive D-38, NCIA is developing a RNMP.
- There are several elements to this plan:
  - Development of an RNMP Compliance Framework - **completed**
  - Acknowledgement by ERCB that the Compliance Framework is acceptable - **completed**
  - Development of a Noise Equipment Database Tool – **completed**
  - Regional Noise Model RFP and selection of vendor – **completed**
  - Development of Regional Noise Model – in process (completion in 2010)
  - Roll out of plan with orientation package for NCIA member companies - **completed.**

# RNMP - Framework

## Overview

- There are 6 main elements to the plan.
- A component of the plan will include public engagement;
  - NCIA proposes to use the established Community Advisory Panels (CAPs) to provide that input/feedback.

# RNMP - Framework

NCIA members are required to implement the following framework:

## 1. NOISE CONTROL COMMITMENT STATEMENT:

- NCIA member-company senior management sets clear expectations for management of noise compliance at their site(s).

# RNMP - Framework

## 2. SITE NOISE MANAGEMENT PLAN:

- NCIA member-company develops and implements a documented SITE NOISE MANAGEMENT PLAN (NMP) that integrates occupational and environmental objectives.
- The plan uses an auditable management system model and includes the following elements at a minimum:
  - Source Identification
  - Assessment (routine and planned)
  - Abatement strategies

# RNMP - Framework

## 2. SITE NOISE MANAGEMENT PLAN (continued):

- Source Identification
  - Formal gap analysis of hearing conservation (noise control) programs against the Alberta OH&S standard.
- Assessment (routine and planned)
  - Noise baseline at plant to reflect normal operation.
  - Complaint management process.

# RNMP - Framework

## 2. SITE NOISE MANAGEMENT PLAN (continued):

- Abatement strategies
  - Engineering control practices for selecting new equipment and for abatement of existing noise sources. The following references, prepared by the Best Practices Subcommittee, will serve as benchmark tools.
    - “General & Equipment Specific Engineering Control Noise Reduction Strategies” documents as prepared by HFP.
    - Database Tool with engineering & costing tools for evaluation of noise mitigation strategies for both new and existing equipment.
  - Work processes such as “Management of Change” to incorporate noise impacts assessment.
  - Procurement Practices to assure quality in specified equipment and to promote continuous improvement in design by setting expectations for contractors and manufacturers.

# RNMP - Framework

## 3. SELF AUDITS

- NCIA member-company
  - Planned equipment monitoring surveys to confirm program effectiveness.
  - Verification process to track and report on site implementation progress.

## **RNMP - Framework**

### **4. DISCLOSURE OF IMPROVEMENT INITIATIVES TO NCIA**

- NCIA member-company shares results of annual NMP implementation with NCIA on annual basis.
- This information is included in an annual summary report to the ERCB.

## **RNMP - Framework**

### **5. REGIONAL NOISE MODEL**

- Support the development of a Regional Noise Model or alternate noise tracking program for region.
- A contract has been awarded and work has begun on this element of the framework.

## **RNMP - Framework**

### **6. PUBLIC COMMUNICATION**

- Utilize existing community advisory panels in the “communication of” and “engagement in” the RNMP.

## RNMP - Compliance

- Compliance with D-38 is to be demonstrated through conformance with the RNMP.
- Compliance to the RNMP will be determined on the basis of “Due Diligence”.
  - Due Diligence – taking all reasonable steps to reduce a given impact (including best industry practices).
  - Compliance will be based on:
    - Regional Model baseline (work is currently underway)
    - Receptor impact
    - RNMP conformance

# RNMP - Conformance

- The RNMP framework calls for member industries to conform with specific actions that will demonstrate due diligence for control.
- Key expectations are as follows:
  1. Conformance with individual facility programs
    - Including implementing best practices in monitoring, abatement, self audit, annual reporting and other program details.
  2. Complaint Resolution
    - Partnership with regulator to determine adequate resources to manage complaints to a “workable resolution”.

## RNMP - Conformance

- Key expectations (continued):
  3. Readiness for potential management system audit from regulator (ERCB) similar to other regulated activities under current monitoring and enforcement rules.
    - e.g. Management system documentation and review, Management of Change documentation, etc.

# RNMP - Conformance

- Key expectations (continued):
  4. Participation in development of a Regional Noise Model
    - Using the model as a baseline for industrial noise to include ERCB regulated, non-regulated, non-NCIA industry, as well as non-industrial sources (e.g. Road and Rail).
    - Baseline would allow for empirical assessment of potential problem areas and sources. Within these problem areas and sources the baseline information would be used to develop site control plans, and companies would work directly with the ERCB to resolve issues.
    - Compliance would be based on following the site's continuous improvement plan.
    - New sources coming into the area would use the model to establish their incremental impact.

## **RNMP - Conformance**

- Key expectations (continued):
  5. Companies that do not demonstrate conformance with the plan would default to Permissible Sound Level (PSL) compliance under Directive 038 (for those regulated by the ERCB).
  6. Tracking noise management initiatives and providing an annual status to NCIA to facilitate a comprehensive annual report to the ERCB.

# RNMP – Summary & Conclusions

- Good progress on the RNMP for Alberta's Industrial Heartland is being made.
  - Development of an RNMP Compliance Framework - **completed**
  - Acknowledgement by ERCB that the Compliance Framework is acceptable - **completed**
  - Development of a Noise Equipment Database Tool – **completed**
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# QUESTIONS

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