Sustainability Findings & Recommendations
Regional District of Nanaimo
Industrial Land Supply and Demand Study
Presented by James van Hemert
Introduction
Development Constraints and Industrial Zones

1 - Bellevue/Church Road
2 - Parksville/NanOOSE
3 - Lantzville
4 - North Wellington
5 - Nanaimo Central
6 - Duke Point
7 - Nanaimo S./S. Wellington

Development Constraints & Industrial Zones
- Green: Constraints
- Pink: Industrial Zones

Scale: 0 2 4 6 8 10 KM

Date: October 19, 2012
Eco-Industrial Networking

1. Formally recognize EIN opportunities.
Construction on Harmac Pacific’s new electrical-generation plant is well underway
Principles of industrial ecology:

1) Nature can serve as a model, wherein nothing is “wasted.”

2) “Systems” perspective: Communities are examined in the context of the broader natural ecosystems on which they depend.
Eco Industrial Network

- Taiga Nova: greenfield site in Fort McMurray, AB
- Staff used *Industrial Ecology* as a framework for ‘eco-industrial’ initiatives:
  1. Planning
  2. Servicing
  3. Buildings
  4. Operations
Eco Industrial Network
Eco Industrial Network

Land Use Bylaw

- Interesting uses added: aquaculture, private utilities, R and D uses
- Side setbacks used to reduce energy consumption
- Increased height/size to allow for office on top of warehouse
- Infrastructure design: Low impact stormwater
- Habitat protection, native landscape
- Reduced pavement via innovative cross section
- Trails with solar lighting approved locations for district energy piping
Savings in infrastructure consumption can range from 20 to 25%

Savings predicted for Tilbury Industrial Park (Delta)

- Wastewater – 25%
- Potable water – 25%
- Gas – 25%
- Electricity consumption - 35%
- Truck trips – 20%
Eco Industrial Network

- Tilbury Industrial Park, Delta, BC
Eco-Industrial Networking

- Collaborative networks
- Efficient use of resources
  - Infrastructure
  - Economic diversification
  - Recovery and recycling of “waste”
  - Partnership
  - Triple bottom line
Eco-Industrial Networking

- Scalable
- Industrial ecology
  - Nature as a model
  - Systems perspective
Eco Industrial Network

1) Recovery and cycling of “wastes”
2) Efficient and ecological infrastructure systems
3) Increased economic diversification and value-added manufacturing opportunities
4) Leveraged partnership opportunities
5) Integral consideration of ecological, social, and economic impacts
Recommendations

Eco-Industrial Networking

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Recommendations

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Recommendations

- Eco-Industrial Networking
- 2. Information and networking
- 3. Web site
Recommendations

- Eco-Industrial Networking

4. Policy and regulations:
   a. Enhanced industrial zoning
   b. Shelf ready EIN district zone
      a. Increased height for office
      b. Setback/height exemptions for renewable energy
      c. Expanded uses
      d. Green infrastructure & incentives
## Sustainability Analysis

<table>
<thead>
<tr>
<th>Area</th>
<th>Servicing</th>
<th>Population Density</th>
<th>Transportation</th>
<th>Future urban residential development (bonus adjustment)</th>
<th>Sustainability score</th>
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Population Density and Industrial Zones

1. Bellevue/Church Road
2. Parksville/NanOOSE
3. Lantzville
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6. Duke Point
7. Nanaimo S./S. Wellington

Population Density Per Hectare & Industrial Zones:
- 0 - 0.9
- 1 - 4.9
- 5 - 9.9
- 10 - 19.9
- 20 - 28.4
- Industrial Zones

Data Sources:
- Regional District of Nanaimo (RDN) and Statistics Canada
- 2011 Census of Population

Note: White areas show Electoral areas and text labels show electoral areas (capitalized and community names).

Population density is based on the mean density of Census blocks.

Scale: 1:50,000 (Imagery: 1:50,000)
Projection: UTM Zone 10N
Author: Ginger Associates
Date: October 19, 2012
Sanitary and water Servicing map
**Policy Analysis of the Regional Growth Strategy**

**Industrial Objective 7.7**

Limit the potential for retail and office commercial development on lands intended for industrial development.

- Clarify with priority protection for areas with high sustainability score and areas suited for heavy industrial use.
Policy Analysis of the Regional Growth Strategy

Industrial Objective 7.8
Encourage the development of renewable energy facilities.

- Facilitate partnerships
- Provide tax and development cost charges incentives
- Zoning changes to support and incentivize renewable energy infrastructure
Recommendations

Policy Analysis of the Regional Growth Strategy

Green Business Policy 7.17
Green business in appropriate locations

- strengthen by recognizing green business’ important role as a component of eco industrial networks
Recommendations

Policy Analysis of the Regional Growth Strategy

Green Business Policy 7.18

- Highlight sustainable locations
- Redraft as sustainable business park

EIN and business parks in appropriate locations
Recommendations

Policy Analysis of the Regional Growth Strategy

Goal 4. Concentrate Housing and Jobs in Rural Village and Urban Growth Centres

- Enhance policy by recognizing industrial activity as a component of a “live, work, play and learn” aspiration.
Thank you
Exercise 2: Prioritizing Opportunities

- Prioritizing opportunities to sustainably advance a healthy industrial economy
- What incentives can RDN or member municipalities provide to attract new business or industry, especially light manufacturing, high tech etc.
- How does RDN compare (advantages and disadvantages) to CRD, especially as it relates to IT and technology industry
- How can RDN help improve industrial lands
- Do you believe that environmental issues, including brownfields, pose a significant impediment to industrial development?
Land Use Plan

- Resource Protection (ALR)
- Nature Park
- Community Park
- Urban Node
  - City Commercial Centre
  - Regional Commercial Centre
- Neighbourhood Commercial
- Light Industrial
- High Density Residential
  - Neighbourhood
- Medium Density Residential
  - Neighbourhood
- Low Density Residential
  - Neighbourhood
- Estate Lot Residential
  - Neighbourhood
- Transit Exchange
- 5 & 10 Minute Walking Circle
- Trail & Sidewalk Connections
Exercise 1 –Confirming challenges and opportunities

- Review eco-industrial-networking opportunities
- What are your views on the future of different type of industrial uses in the region?
- What are the benefits of locating in the RDN?
- What are the disadvantages of locating in the RDN?
- What types of industries are more likely to locate in the RDN?
Goal 10: Provide Services Efficiently – Provide efficient, cost-effective services and infrastructure
Goal 4. Concentrate Housing and Jobs in Rural Village and Urban Growth Centres – Establish distinctive activity centres and corridors within growth containment boundaries that provide ready access to places to live, work, play and learn.
Goal 3. Coordinate Land Use and Mobility – Ensure land use patterns and mobility networks are mutually supportive and work together to reduce automobile dependency and provide for efficient goods movement.