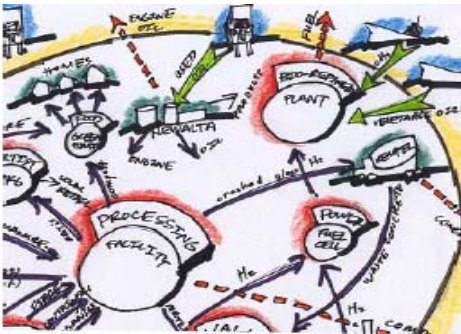


MAPLEWOOD COMMUNITY ECO-INDUSTRIAL PARTNERSHIP

SUSTAINABLE COMMUNITY PLANNING WITH EIN
DISTRICT OF NORTH VANCOUVER, BC, CANADA

Project Goal

The Maplewood Community Eco-Industrial Partnership Project (Maplewood Project) is a highly innovative and unique planning project within a mixed use waterfront community. The project integrated an Eco-Industrial Networking (EIN) approach with sustainable community planning through a participatory process that included significant technical analysis, integration of community, business and local government needs and a design charette.



The objective of the project was to develop ideas and identify practical steps to integrate and enhance all aspects of the community, increase the sustainability of the entire community and help Maplewood realize its potential in a more sustainable fashion.

Specific objectives included:

- Improve the overall quality of life by increasing walkability, safety, sense of community, and availability of services
- Protect the local ecology and reduce environmental impact
- Reduce demands on municipal infrastructure, such as roads, wastewater treatment, stormwater management, water supply, and solid waste management.
- Increase energy efficiency and support the DNV and local businesses in their community energy planning objectives.

A word about partnerships...

The core of the Maplewood Project was an extensive partnership network that took more than a year to build. Once relationships were established, more than 20 partners worked together to forge ahead on this innovative project. The majority of these partners also were represented on MAC – The Maplewood Advisory Committee, which met every four to six weeks to help guide the project.

Work Completed To Date

The consulting team worked with DNV staff and stakeholders to identify and investigate opportunities to integrate the residential, commercial, and industrial activities through management and/or physical linkages. Consultation with stakeholders and an extensive inventory of the community informed a design brief for the Maplewood Community Design Charette, an intense 3 day multi-stakeholder design workshop. Following the design charrette, the results were reviewed and screened for feasibility. Finally, an implementation plan was developed.



PROJECT SCALE

Neighbourhood, municipal

LOCATION

Maplewood covers 202 ha (500 acres) and is home to approximately 2,500 residents, more than 100 commercial and industrial businesses, a private college, a salmon-bearing river, and an ecological reserve. Industries include hipbuilding, chemical manufacturing, concrete batch plants, recyclers, and solid waste handlers, while commercial businesses cater to local residents.

PARTNERS

Maplewood Advisory Committee:

- Community association
- DNV planning, engineering and environmental staff
- Local businesses
- Port Authority
- Regional planning staff
- BC Real Estate Foundation
- Wildbird Trust
- Community and private college staff and students
- Individual residents

Consulting Team

- Eco-Industrial Group
- MVH Urban Planning & Design
- Jan Timmer Architects

TECHNIQUE / TECHNOLOGY

- Multi-stakeholder process
- Sustainable community planning

Achievements

The project's contribution to sustainable community planning was recognized by the Planning Institute of BC, which awarded the project its **Excellence in Planning Award** in the Comprehensive & Policy Plans category.

The Maplewood Project was a significant step forward in proving the economic, social, and ecological benefits of industry and community working together - there is significant mutual advantage through common efforts! As a result of the project, there were several opportunities for waste reduction at local businesses. As well, there were many ideas for renewable energy generation and energy conservation, both of which would support the DNV's community energy planning process. The projected incremental tax revenues are \$20-\$25 million per year at build-out. Some of the significant opportunities that could be pursued further include:

- New niche and sustainable business opportunities, especially around recycled materials and existing rail & barge infrastructure
- Co-ordinated energy management program that would save partners costs and reduce greenhouse gas emissions
- \$14 million per year energy cost savings by 2030, with short-term savings of \$500,000 per year from simple conservation measures over the next 5 years.
- Co-ordinated stormwater management, recovery, and re-use to displace potable water
- Sustainability centre that would provide services and help to network residents and businesses



What's Next?

The community and industry were fully supportive of the results and want to move forward with various initiatives recommended in the report. Some project updates include:

- **Waste hydrogen by-product synergy** projects are emerging. A pilot fuelling station for fuel cell vehicles is being built, and opportunities for H2-based co-generation are being explored.
- The owners of the **business park** are actively marketing their development as being part of the Maplewood Project, and will be encouraging new businesses to **"go green"** and participate
- The DNV will be supporting initiation of a **Co-ordinated Energy Management** program in 2005.

WHAT IS ECO-INDUSTRIAL NETWORKING (EIN)?

EIN embraces a systems approach and lessons from nature. In practice, EIN creates collaborative relationships (networks) between businesses, governments, and communities to more efficiently and effectively use resources, such as materials and energy, but also including land, infrastructure, and people.

In practice, this results in:

- "Waste = food" synergies
- Multi-objective infrastructure systems (utilities / services)
- Sustainable economic development;
- More efficient land use planning
- Green buildings, technologies & practices
- Greater returns for capital investment
- Leveraged partnerships between public and private organizations; and
- Integral consideration of ecological, social, and economic impacts