

The Eco-Industrial Development Guidebook and Case Studies for North America

This Guidebook is produced by Peter Lowitt, AICP of the Devens Enterprise Commission and Andreas Koenig, of Eco-Industry.org with assistance of the Environment, Natural Resources and Energy (ENRE) and Economic Development (ED) Divisions of the American Planning Association.



The APA's 2008 Policy Guide on Climate Change specifically endorses Eco-Industrial Development:

- **Specific Policy # 6.3: Eco-Industrial Development**

Planners should support the efficient use of resources through encouraging collocation to enable by-product exchanges so that one firm's waste stream is another firm's source of raw materials. Planners should review their regulations to enable and encourage this type of industrial development. Planners should encourage the more efficient use of materials, water and energy through discussing with developers the need to cascade these resources and arranging development to take advantage of this approach.

- **Reasons to support:**

Harmonizing economic development and climate change is crucial for a prosperous future for humanity. Integrating economic development opportunities into our future is important and encourages a shift toward a more efficient use of resources throughout society.

- **Specific Policy #13.7 Energy Generation**

When siting energy generation facilities, planners should encourage the power generation plant to become an anchor of an eco-industrial park. By cascading energy resources through the combined production of electricity, heat and steam, energy generation facilities can be made more efficient and collocating industries which benefit from the use of these resources, more competitive in the world marketplace.

The Guide includes Eco-Industrial Park Development: A Guide for North America originally adapted by Andreas W. Koenig for Chinese officials and industrial park managers in 2005 and adapted for a North American audience in 2009. It includes a number of case studies as follows:

Devens:

- **Comparing Devens Sustainability Efforts to the Cohen-Rosenthal Matrix** by Peter C. Lowitt, AICP; Neil Angus, AICP; and Dona Neely 2009
- **Something in the water? The emergence of a successful eco-industrial park in the US** by Peter C. Lowitt, AICP 2008. reprinted with permission for the Journal of Industrial Ecology, Volume 12, Issue 4, August 2008, Pages 497-500
- **A Map of Sustainable Devens** compiled by Neil Angus, AICP 2008.

Minnesota:

- **Minnesota's Foundation for EID** by Tim Nolan, 2009.
- **Sustainable Industrial Development Concepts & Definitions Appendix 1** by Tim Nolan
- **What is EID** by Tim Nolan, 2005.
- **A Template for Planning an Eco Park: Appendix II** by Tim Nolan
- **Undertaking EID Flowchart: Appendix III** by Tim Nolan.
- **Baseline Assessment Report for Duluth Superior EID** by Corey Brinkema and Tim Nolan 2007
- **The Greater Duluth-Superior Area Eco-Industrial Development Initiative Report to the John S. and James L. Knight Foundation, 2007.**

US Business Council for Sustainable Development:

- **By-product synergy networks, driving innovation through waste reduction and carbon mitigation.** by A. Mangan* and E. Olivetti** 2008. reprinted with permission of the authors.

Canada:

- **EIS Case Studies 2009 APA Guidebook: The Pivotal Role of Planning in the Success of Canadian Eco-Industrial Parks.** By Jaspal Marwah, BA MPlan; and Tracy Casavant, MES, PEng 2009. Eco-Industrial Solutions, Vancouver, BC. Canada
- **Taiga Nova Amendments and bylaws**
- **Innovista Zoning and Guidelines**