

## **The Eco-Municipality Model for Sustainable Community Change** *A systems approach to creating sustainable communities*

### **What is an eco-municipality**

An *eco-municipality* aspires to develop an ecologically, economically, and socially healthy community for the long term, using The Natural Step framework for sustainability<sup>1</sup> as a guide, and a democratic, highly participative development process as the method. An eco-municipality becomes the driving force for involving citizens and sectors of the larger community in the process of becoming a sustainable community. An eco-municipality collaborates with other communities regionally, nationally, and internationally both to learn from others and assist others in their change processes. An *eco-region* consists of several eco-municipalities in the same region working together toward these objectives.

The concept originated in Sweden in 1983 with the founding of the first such community, Övertorneå. That pilot project in a northern rural town of 5,000 people was such a success that it sparked what has become a network of more than 70 eco-municipalities across Sweden, ranging from villages of 300 to 400 residents, to the capital city of Stockholm, which has a population of over 700,000.

Now Sweden is in the process of sharing the eco-municipality concept with other parts of the world, such as the United States, Japan, Africa, New Zealand, Estonia and Argentina. Sustainable Robertsfors, an internationally-funded demonstration project led by Torbjörn Lahti, has been completed recently to show how to implement the eco-municipality model in a five-year period. This model has been designed to be applicable to municipalities of any size in any location and any country.

### **What is different about this model?**

Many communities in the United States and around the world have initiated and are carrying out sustainable development projects. Green building programs, affordable housing, open space preservation, recycling, climate change initiatives, and smart growth initiatives are just a few examples of these. While these initiatives have made progress toward sustainable goals, they are occurring largely on a project-by-project or issue-oriented basis. Frequently these efforts, as laudable as they are, are unconnected and un-integrated throughout municipal governments and the larger communities.

In contrast to this “silo approach” to sustainable development, the eco-municipality model uses a *systems approach*. Key ingredients of this systems approach are widespread community awareness and integrated municipal involvement, using a common “sustainability language” based upon The Natural Step framework. Using this common language brings about a shared understanding of what sustainability means and

---

For more about The Natural Step, see <[www.naturalstep.org](http://www.naturalstep.org)>

how to achieve this throughout all sectors of municipal government and the wider community. The likelihood of conflict and competition among resulting actions is therefore minimized since all sectors are using the same “sustainability playing rules.”

### **The Natural Step approach to sustainability**

The Natural Step approach to sustainability was developed by a group of international scientists in Sweden, led by pediatric cancer researcher Dr. Karl-Henrik Robèrt, during the late 1980s. The Natural Step approach involves the use of a clear framework of sustainability principles based upon science and natural law, coupled with a four-step strategic change process. Businesses and communities around the world are using this approach to reorient their practices toward sustainable directions.<sup>1</sup> The guiding objectives of the American Planning Association’s *Planning for Sustainability* policy are based upon The Natural Step framework.

Comprised of a set of four guiding principles, the Natural Step framework describes how we can develop our individual lives, our society, and our economic enterprises in a way that restores and replenishes the Earth’s life-supporting resources, rather than depleting or destroying them. In other words, these four principles provide a set of rules for how we can create both short-term and long-term prosperity and health -- or sustainability -- in our society. These principles, based on natural science, can be interpreted more practically as guiding objectives for how we design, develop and manage our communities (see sidebar).

And the third and final key tool that is used in developing an eco-municipality is the “Compass” method, comprised of four steps:

#### **1. Learn and understand the Earth’s game rules**

– i.e., The Natural Step Framework and what it means for meeting human needs within nature’s limits.

**2. See where we are** -- Ask ourselves, “To what extent are we living within the boundaries defined by The Natural Step guiding principles or guiding objectives?”

**3. Take a bearing** – We envision the future we want – a future in which we can enjoy well-being without contributing to injustice or environmental problems.

**4. Find a smart route** -- We make plans on the basis of the vision we have created, and take well-measured strides on the right road, which may be crooked, but which leads to the right goal.

#### **GUIDING OBJECTIVES FOR A SUSTAINABLE SOCIETY, BASED ON THE NATURAL STEP FRAMEWORK**

##### **DEVELOP POLICIES AND PRACTICES THAT ULTIMATELY:**

1. Reduce dependence upon fossil fuels, extracted underground metals and minerals.
2. Reduce dependence on chemicals and other manufactured substances that can accumulate in Nature.
3. Reduce dependence on activities that harm life-sustaining eco-systems.
4. Meet the hierarchy of present and future human needs fairly and efficiently.

*Objectives of American Planning Association’s Strategy for Planning for Sustainability, adopted April 2000.*

## **Track record of success**

Communities ranging from small villages of 300 people to urban centers of over 700,000 have officially become eco-municipalities by adopting a common set of sustainability objectives as official municipal guiding policy and implementing these widely throughout their governments and larger communities. Over seventy municipalities in Sweden are official eco-municipalities and have formed a national association of eco-municipalities that assist each other and work to influence national policy. They have educated thousands of municipal employees and citizens about what sustainability means and why it is important so that they have the opportunity to contribute to the process.

In Swedish eco-municipalities community recycling rates have shot up, in some cases as high as 90 percent of all solid waste. Some of these municipalities have reduced fossil fuel use by 40 percent or more in just five years. One town of 5,000 inhabitants has been almost 100 percent free of fossil fuels for all of its municipal operations since 2001. Depressed communities have used this process to bring about economic and social revitalization in an ecological way. New democratic processes have focused on involving more citizens in municipal and civic affairs. The eco-municipalities demonstrate that the model can work in almost any community regardless of size, geography, or circumstances.

Canada has implemented a similar systems approach. Over the past three years, The Natural Step in Canada has pioneered award-winning work in sustainable communities with world-class results. The resort community of Whistler, British Columbia, recently was awarded first place in a United Nations-endorsed international competition for its long-term comprehensive sustainability plan, “Whistler 2020”. The Natural Step Canada also has conducted community sustainability training and capacity building programs with a variety of other communities including Canmore, Wolfville, Halifax and Yukon, as well as with the Federation of Canadian Municipalities. The team has developed a range of tools and materials to build capacity in communities committed to long-term sustainability.

## **Who is involved**

Modeled after the established Swedish eco-municipality effort, a strong and growing network of organizations supporting emerging eco-municipality efforts in the United States has formed the “North American Eco-Municipality Network” (the “Network”). The Network includes an impressive list of academic institutions and non-profit organizations at the local, state, national and international level with a broad range of expertise to share with one another.

The Network includes representatives from SEkom (National Association of Swedish Eco-Municipalities), The Natural Step International, The Natural Step Canada, Tufts University, 1000 Friends of Wisconsin, the Wisconsin Chapter of the American Planning Association, University of Wisconsin Extension, Sustain Dane, Alliance for Sustainability, University of Wisconsin – Superior, Sustainable Lawrence, Vandergrift Improvement Program, Sustainable Pittsburgh, Portsmouth Listens and Sustainable Sweden.

The North American Eco-Municipality Network was formed at a gathering of representatives from several organizations and emerging eco-municipalities in Madison, Wisconsin in June 2005. The group has set up a listserv to exchange information and resources and has held three two-hour teleconferences to discuss the further development of the Network. Funding from the Heinz Foundation is pending for a sustainable development training and a capacity-building meeting in Pittsburgh, anticipated to occur in November 2006. Key leaders for this training include TNS Founder, Dr. Karl-Henrik Robèrt; David Cook, TNS International CEO; Kelly Baxter, Chad Park, and Mike Purcell of TNS Canada; and Sarah James and Torbjörn Lahti, authors and world leaders of sustainability.

As of summer 2006, several on-the-ground initiatives are taking place with what may be the emerging first generation of eco-municipalities in the United States.

### **Chequamegon Bay Region: Ashland and Washburn, Wisconsin**

- A representative from the Alliance for Sustainability participated in the 2004 Sustainable Sweden tour. Upon return, she gave several dozen presentations throughout the region and state.
- Washburn and Ashland passed resolutions to become the first eco-municipalities in North America based on this model.
- Over 110 people have participated in study circles in the Chequamegon Bay area.
- Alliance for Sustainability and other supporting local entities hosted events featuring Torbjörn Lahti, Dr. Karl-Henrik Robèrt and Mayor Rocky Anderson with over 800 total attendees.
- Chequamegon Bay communities adopted the “Sustainable Chequamegon Initiative Strategic Plan: 2005 – 2011” developed by the planning committee of the Sustainable Chequamegon Initiative, a Project of the Alliance for Sustainability.
- Eight community members attended the June 2006 Sustainable Sweden Study tour.
- Advocates raised \$14,000 to open a staffed office for the Sustainable Chequamegon Initiative with a goal to hire a full-time director.

### **Vandergrift, Pennsylvania**

- Three representatives of the Vandergrift Improvement Program and one representative of Sustainable Pittsburgh participated in the 2004 Sustainable Sweden Study tour.
- The non-profit, citizen-based Vandergrift Improvement Program (VIP) voted to adopt The Natural Step framework guiding objectives in all their revitalization efforts.
- VIP drafted a 5-year “Eco-Municipality Strategy and Plan” to serve as a framework for a 5-step Main Street redevelopment plan.
- VIP held visioning sessions for Vandergrift to identify and achieve community-wide consensus on priorities and implementation plans for Vandergrift’s downtown redevelopment master plan.
- VIP developed a partnership with University of Pittsburgh School of Engineering Mascaro Sustainability Initiative, Sustainable Pittsburgh, the Pennsylvania

Department of Community and Economic Development, and the Pittsburgh History and Landmarks Foundation to incorporate energy-saving and cost-saving concepts into historic buildings.

### **Lawrence Township, New Jersey**

- Advocates sponsored a “Greening Lawrence” presentation about eco-municipalities. Approximately 200 community members attended, including citizens, local officials and staff from Lawrenceville School.
- Advocates hosted a full-day TNS and eco-municipality workshop with approximately 100 attendees and a next-day follow-up session. Several task forces formed to bring sustainability to the school system, major employers and other key institutions, and municipal government activities.
- Advocates incorporated Sustainable Lawrence, a community based non-profit.
- Sustainable Lawrence conducted a three-day Future Search Conference for 120 local citizens representing government, education, faith communities, business, neighborhoods, local farmers, and others. The group formulated a 12-point sustainability agenda rooted in The Natural Step framework. Task forces of volunteers began immediately to implement action steps developed during the conference.
- The Municipal Land Use Center at The College of New Jersey provided a two-year \$40,000 grant to Sustainable Lawrence.

### **Madison, Wisconsin**

- Sustain Dane hosted workshops and presentations about eco-municipalities with over 450 community members in attendance.
- 1000 Friends of Wisconsin ( a statewide organization based in Madison) gave multiple presentations on The Natural Step and the Swedish Eco-Municipality model to the Madison Sustainable Design and Energy Committee, the Mayor of Madison’s office and Dane County committees.
- The Madison city council approved recommendations that the city of Madison adopt The Natural Step (TNS) as its guiding framework for sustainability and also to allocate funding for training city of Madison employees in TNS.
- Six community members participated in the June 2006 Sustainable Sweden Study tour. [The U.S. Coordinator/Promoter for the June 2006 Sustainable Sweden Tour works for 1000 Friends of Wisconsin in Madison]
- Sustain Dane developed the manual for The Natural Step study circles.
- Over 130 people have participated in The Natural Step study circles in the Madison area.
- Sustain Dane launched Sustain Action Teams that actively influence others through example, by engaging in dialogue, by becoming an advocate, and organizing to promote change.

### **Portsmouth, New Hampshire**

- The Portsmouth Listens group and the city held a day-long training session on sustainable practices. The training session was designed for roughly two dozen key city staff members such as the city manager, deputy city manager, city engineers, public works director, school department personnel, and planning department staff.

- The mayor established a seven person Blue Ribbon Committee on Sustainability to advise him and the city council on issues relating to sustainability.
- The Portsmouth Listens group held its third workshop on The Natural Step. This was a community-wide sustainability workshop attended by over 50 participants from the community at large. Many practical initiatives were generated at the end of the workshop to be activated over the coming months.

### **Duluth, Minnesota**

- Five Duluth citizens participated in the “Sustainable Sweden” conference in Ashland, Wisconsin and then initiated the formation of study circle groups in Duluth.
- Citizen group “Sustainable Duluth” worked with the Duluth City Council to endorse the guidelines for sustainable community development, including the four Natural Step conditions (referred to as guidelines in the resolution and as objectives by the American Planning Association) and agreed to apply those guidelines whenever possible in its planning, policy making, and municipal practices.
- The city provided an allocation of \$5,000 to train city staff on sustainability practices.

### **Village of Johnson Creek, Wisconsin**

- On August 14, 2006 the Johnson Creek Village Council passed a resolution adopting The Natural Step sustainability framework to help guide them to a more sustainable future.
- They are the 4th municipality in Wisconsin and the 5th in the nation to pass such a resolution.

### **Additional communities**

Citizens and elected officials from several other communities have inquired or are taking steps to follow the steps of their predecessors committed to becoming eco-municipalities. The list of communities includes:

- Marshfield, WI - The Marshfield city council in central Wisconsin has formed a committee to explore the eco-municipality concept and the possibility of becoming an eco-municipality
- Jefferson County, WI – Citizen advocates held several study circles and community presentations about eco-municipalities and had two individuals participate in the June 2006 Sustainable Sweden tour
- Evanston, IL – Two members of the Network for Evanston's Future attended the June 2006 Sustainable Sweden tour
- Newport, OR – Several study circles and several community presentations about TNS
- Portland, OR – Home office of the Oregon Natural Step Business Network
- Menomonee, WI – TNS study circles occurring
- Houghton, MI – TNS study circles occurring
- Port Washington, WI – TNS study circles probable

- Traverse City, MI – TNS study circle inquiry
- South Bend/Mishawaka, IN – TNS study circle inquiry
- Boise, ID – TNS study circle inquiry
- Viroqua, WI- TNS study circle inquiry
- Chicago, IL – TNS study circle inquiry

### **Resources Available**

The North American Eco-Municipality Network (NAEMN) has developed or is developing several resources for member communities, including:

- Three-hour e-learning course on sustainability produced by TNS Canada and based on The Natural Step Framework.
- Study circle and facilitators’ guide based on the book, “The Natural Step for Communities,” by Torbjörn Lahti and Sarah James, prepared by Sustain Dane.
- Community Sustainability Toolkit prepared by several TNS Canada staff.
- Community Sustainability Toolkit prepared by UW-Extension and 1000 Friends of Wisconsin.
- Thirty-minute production video of Sustainable Sweden Tour and TNS-General Overview, and a 10-minute trailer of Eco-Municipality Tour prepared by Greg David.
- American Planning Association’s “Planning for Sustainability” Policy Guidelines based on TNS
- A listserv for participants of NAEMN to exchange resources, updates and information
- Comprehensive tour notes from various participants in the June 2006 Sustainable Sweden Tour (pending)