



# The Green Door

September 2004

The Green Door is a monthly newsletter of sustainable living and real estate geared to present and future homeowners.

We are pleased to announce the grand opening of our new office on Phinney Ridge, at 7406 Greenwood Avenue. We will be holding an Open House on Sept. 23rd from 4-7pm for all our friends and fellow green people!! Please come and enjoy a drink, an appetizer or just good company.

## The Natural Step

The Natural Step is a process and framework for decision making based on four systemic sustainable truths. It was developed by Dr. Karl-Henrik Robert, a Swedish Oncologist, with input from over fifty scientific colleagues. Dr. Robert's premise is that the ecosphere, the 14 mile strata that surrounds the earth, is the source of society's health and wealth. The Natural Step distills the issue down to four principles that establish sustainability utilizing systems thinking and the laws of thermodynamics and energy. These principles can be used to "question" any process including design and construction.

One principle identifies the need to maintain life on earth creating a sustainable society in order to meet human needs worldwide. The other three principles focus on the interaction of humans with the planet's ecosystem. In particular, these three principles look at methods that will limit further degradation or even restore our eco-system.

## The Natural Step System Conditions

*In the sustainable society, nature is not subject to systematically increasing:*

1. concentrations of substances extracted from the Earth's crust.
2. concentrations of substances produced by society.
3. degradation by physical means.

*And, in that society,*

4. human needs must be met worldwide. (Source: Natural Step US, 2002)

We are mining and using materials from the earth's crust at a much higher rate than they can be replaced. In addition to the obvious fossil fuels, we are also over-utilizing scarce metals as well as inappropriately "spreading" other metals like mercury and lead within our biosphere.

We are also producing toxic substances and leaving them around. Many of these toxic substances cannot be broken down by natural processes. Some of the worst of these include dioxins, DDT, PBDEs and PCBs, which are accumulating in the food chain and our bodies.

We are depleting resources faster than they can be replenished. Consider the over-harvesting of world fish stock and forests, the loss of topsoil and unchallenged development worldwide, not too mention fossil fuels!!

We need to allocate and use our resources fairly and efficiently for the good of all mankind. If we do not do this, a portion of society "without" will resort to violating the natural step principles solely for survival.

The laws of thermodynamics tell us that all real-world processes involve transformations of energy, and that the total amount of energy is always conserved...so **nothing is really created or destroyed!!**

## September Websites

[http://  
www.naturalstep.org/](http://www.naturalstep.org/)  
The Natural Step

[http://www.mtm.org/  
iasa/tnsathome.html](http://www.mtm.org/iasa/tnsathome.html)  
The Natural Step at home

[http://  
www.whistleritsour  
nature.ca](http://www.whistleritsournature.ca)  
Whistler and  
Sustainability

[http://  
www.billingsms.org/  
aboutus.html](http://www.billingsms.org/aboutus.html)  
Billings Middle School

In the end , our society will be defined not only by what we create but by what we refuse to destroy.

- John Sawhill/The Nature Conservancy

The law of entropy tells us that the world is inherently active, and whenever an energy distribution is out of equilibrium the world acts spontaneously to dissipate or minimize this imbalance...**and it may, in fact, be spread to places not intended!!**

The Natural Step also includes a four step process for improving the sustainability of organizations, industrial processes and construction projects.

### Natural Step Methodology

Phase 1. Build Awareness and Understanding. Gather the stakeholders and decision makers. Use science and a whole systems approach with the Natural Step Principles.

Phase 2. Do a baseline assessment. Look at the major flows and impacts of products, energy, human resources and capital.

Phase 3. Create a vision and Strategic Plan. Create a compelling long term vision. Seek the optimum future. Innovate, free yourself from existing limitations. Develop a strategy and action plan. Consider backcasting.

Phase 4. Support step by step implementation. Provide training, techniques and tools. Don't expect immediate ultimate success. Create near term success that fits with your long term vision.

In order to see the whole picture in any process, one may also implement **backcasting**. In building, the backcasting process identifies a flowchart of all materials, energies and fuels used in a construction project from it's natural state through manufacture, construction and demolition. Are the choices of materials, energy and fuel violating any of the Natural Step principles? Visualize a process that meets the principles. With these visualized goals, create a plan to manifest the vision.

### The Four Sustainable Housing Objectives

- Reduce wasteful dependence upon fossil fuels, scarce metals and minerals that accumulate in nature.
- Reduce wasteful dependence upon chemicals and synthetic substances that accumulate in nature.
- Reduce encroachment upon nature and ecosystems.
- Meet human needs fairly and efficiently.

Derived from the Natural Step principles.

### A Greener Seattle-Highlight: Billings Middle School

A sustainable school? Well maybe. This middle school on Woodlawn in Greenlake, has certainly taken the first steps. Students can boast about creating their own Biodiesel to run their school busses, they can engage you energetically in discussions of dangerous phosphate levels in Green Lake, their Principal talks proudly about a possible solar program and they all join in for a day of fun at their first annual Green Lake Green Day. With small class sizes and a focus on preparing children for the rapidly changing world around them, Billings Middle School seems an intriguing community to grow up in.

### Whistler and the Natural Step

In 2000, Dr. Karl-Henrik Robèrt, was on a snowboarding holiday in Whistler, where he combined business with pleasure. Dr. Robèrt is a powerful speaker and he spoke passionately on a subject that concerns many-how we each might help to create a sustainable society. A number of things combine to make Whistler an ideal place for the first community-wide implementation of The Natural Step Framework. Whistler is renowned and is a natural attraction. The 2010 Winter Olympic Games are being held in Whistler and will be an excellent worldwide venue for sustainability and the Natural Step. What Whistler does around economic and environmental sustainability will almost certainly attract attention. Whistler's success as a resort community depends on its ability to provide a quality experience.

### Seattle Sustainable Residence Diary-Entry #4

We now have offer and acceptance on a lot in Capital Hill. Yeah!! JR is currently drawing up the site specific house plans and wrestling the problem of getting a driveway past a huge old Maple that takes up the entire front end of the lot. How can a Maple be that big? Well actually the lot is that small, only 40' x 105', so we'll have an Arborist come out and assess the situation. Meanwhile the main dilemma is designing a house within our budget and determining the price/sqft.



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