



# Sustainable Twin Ports Early Adopter Project

An early look at lessons learned in a year  
of training in The Natural Step framework

Webinar Presentation for The Natural Step Network US  
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# Sustainable Twin Ports

**Sustainable Twin Ports** is a nonprofit organization established in 2007 in Duluth, MN and Superior, WI.

## Our Mission:

*To further environmental, economic and social sustainability in the Twin Ports and western Lake Superior region through education, networking and action*



The Twin Ports are located at the westernmost tip of Lake Superior, halfway between Minneapolis/St. Paul and the Canadian border.

Industries include tourism, healthcare, financial/banking, mining, paper, communications, aerospace, education and shipping.

Our harbor welcomes over 1,000 ocean-going and Great Lakes freighters annually.



# The Early Adopter Project

Follow this link to view the 'trailer'  
of a documentary being filmed about the  
Early Adopter Project

<http://www.youtube.com/watch?v=hQ2BhfvjCWU>

Vignettes of the Early Adopters can be seen on our  
website or YouTube channel

# Early Adopter Project Participants

## Public



## Private



## Nonprofit



DULUTH SUPERIOR AREA  
COMMUNITY  
FOUNDATION

*Private giving for the public good.*



GLORIA DEI  
LUTHERAN CHURCH



*moving. business. forward.*



# The Project

## **Fourteen organizations committed to one year of training**

- Applications were announced for 10-12 team slots - 27 applied
- 3 Criteria were used to select participants:
  - leadership in the community
  - commitment to implementing sustainable practices
  - collective representation of the broad Twin Ports community
- Intentional mix of Duluth/Superior based teams and public/private/nonprofit teams
- An active, volunteer steering committee guided the process with one full-time Project Coordinator
- Inspired by similar work in Canmore Alberta and Chequamegon Bay WI
- Local foundations provided funding for 18 months
  - A. H. Zeppa Family Foundation
  - Duluth Superior Area Community Foundation
  - University of Wisconsin – Superior acted as fiscal sponsor



# The Training

## **Formal training contracted with The Natural Step Canada**

- 4 training sessions over 8 months, 2-3 months apart, (6 days total)
- 2 trainers      Mike Purcell, TNS-Canada Senior Sustainability Advisor  
                         Lisa MacKinnon, TNS Associate
- Coaching with trainers by conference call, between sessions
- Small group work with Coordinator between 2<sup>nd</sup> and 3<sup>rd</sup> sessions
- Team Homework to be completed between each session
- 3 months of bi-weekly face-to-face work with coordinator
- Public Showcase for outreach, education, celebration



# The Training Process

## **Session #1: Building a Shared Understanding of & Language for Sustainability**

- Basic science of the 4 sustainability principles
- Systems thinking
- Funnel metaphor
- ABCD process

Practiced with a generic transportation scenario

- Trainers intentionally used a 'generic' scenario to avoid getting sidetracked with issues related to specific businesses
- Firm grasp of the framework, principles and science was necessary for participants to be successful when considering their own organizational realities



# The Training Process

**Homework was assigned between each training session as the basis for the next.**

## **Homework #1:**

- B-C-D steps for your organization, high-level baseline analysis, compelling vision, brainstorm action steps
- coaching call with trainers
- small group sessions to compare B-C-D (before session 2)



# The Training Process

## **‘AHA’ moments following first session:**

- ‘Change will be slow, leading people will be the toughest (but most effective) part.’
- ‘Not everything that seems like a good idea will make it through the D-Step.’
- ‘Very happy to discover just how ‘do-able’ this process is.’
- ‘The fact that our “higher-ups” support us and give us free range to make decisions (within reason) is huge.’



# The Training Process

## Questions following first session:

- How do we motivate people to change?
- What are the tools that I can use to measure/know my impacts (electricity use, paper consumption)?
- How do we measure the larger picture?
- How long does The Natural Step process usually take from initial commitment to fulfillment?



# The Training Process

## **Session# 2: Going deeper with the framework; Practical application; and Creating a culture of sustainability**

- Assessed four initiatives from a strategic sustainability perspective using the D-step ‘3 strategic questions’
- Discussed organizational change towards sustainability
- Doppelt’s “blunders/interventions” to leading change towards sustainability
- Looked in-depth at Sustainability Principle #4: Human Needs



# The Training Process

## Homework following session #2:

### Revisit B-C step for your organization:

- Identify organization's key aspects and functions and work through baseline and compelling vision based on those aspects
- Apply the human needs aspect to baseline and compelling vision
- Apply the 7 sustainability blunders/interventions in organizations

### Goal for this homework assignment:

- To begin creating actionable, implementable strategies at next session



# The Training Process

## **Session #3: Pulling it together into a sustainability action plan**

- Organizational change
  - Rank organization's performance on the 7 organizational change interventions
- Stakeholder analysis
  - Determine key stakeholders affected by and influential in the success of organization's sustainability journey
- Develop a team action plan
  - Determine some key goals, strategies and actions



# The Training Process

## Homework following session #3:

- One Quick Win
  - an action that can be accomplished by the next workshop
- One Big Win
  - an action that will have big impact



# The Training Process

## Session #4: Looking beyond our organizations to the Broader Community

- Follow-up on team sustainability action plan
  - Highlights from sustainability action plans
  - Key elements of planning process
- Discussion: “Next Steps for the Broader Community”
  - Possibilities and high leverage opportunities for transitioning towards sustainability for various aspects (theme areas) of the broader community
- Webinar with Bob Willard
  - “The Sustainability Champion’s Guidebook: How to Transform Your Company”



# Early Outcomes – Quick Wins

## Initiatives Implemented:

- Added recycling facilities and reduced waste by 50%
- Changed to compostable/washable dinnerware
- Eliminated pop machines (\$900/yr/machine)
- Composting ‘thousands of pounds’ of food weekly
- Added educational signage for customers
- Switched to local, organic fair-trade coffee & produce
- Unplugged the arcade (\$440/month)
- Started urban garden site



# Early Outcomes – Big Wins

## Initiatives Underway:

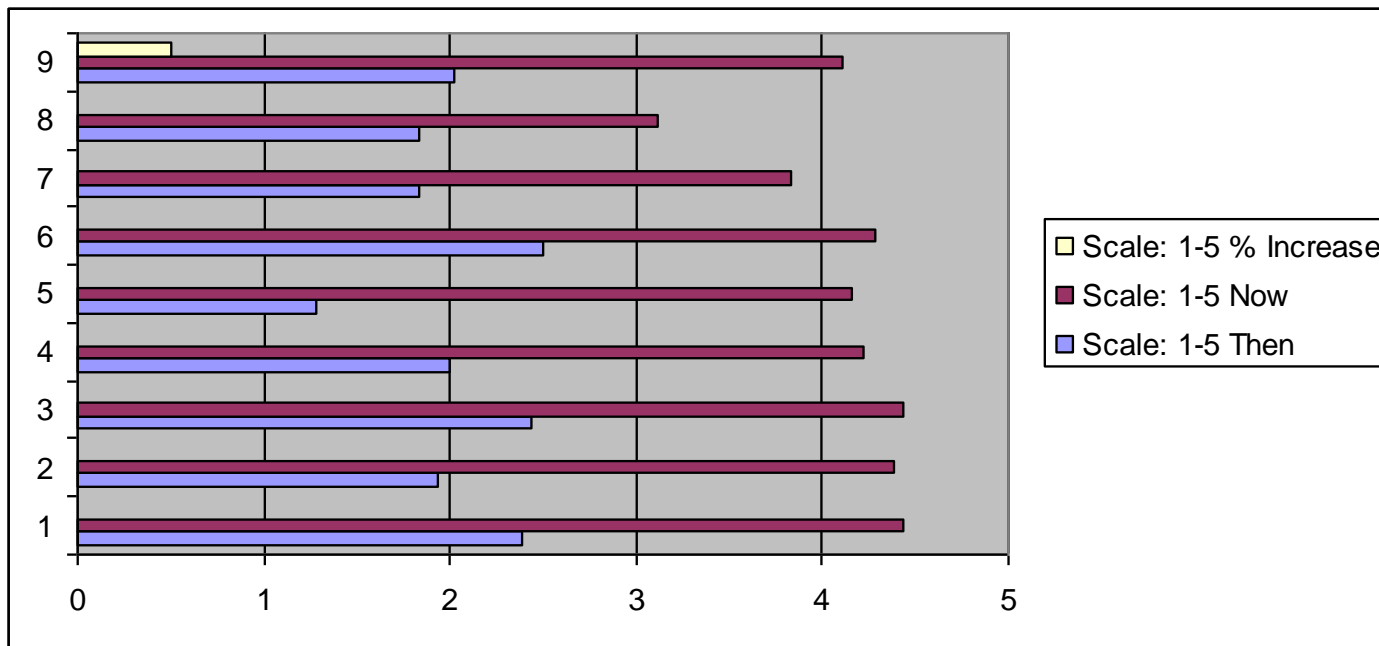
- Changing to eco-friendly cleaning products
- Began Energy Star program with audit
- Reusing all non-potable water in greenhouse
- Board/Company passed sustainability policy
- New Office of Energy & Sustainability (city)
- Green Conference for local businesses
- Active education in TNS for congregation
- Installation of a biomass burner/generator



# Progress Measures

An average of 50% increase reported in:

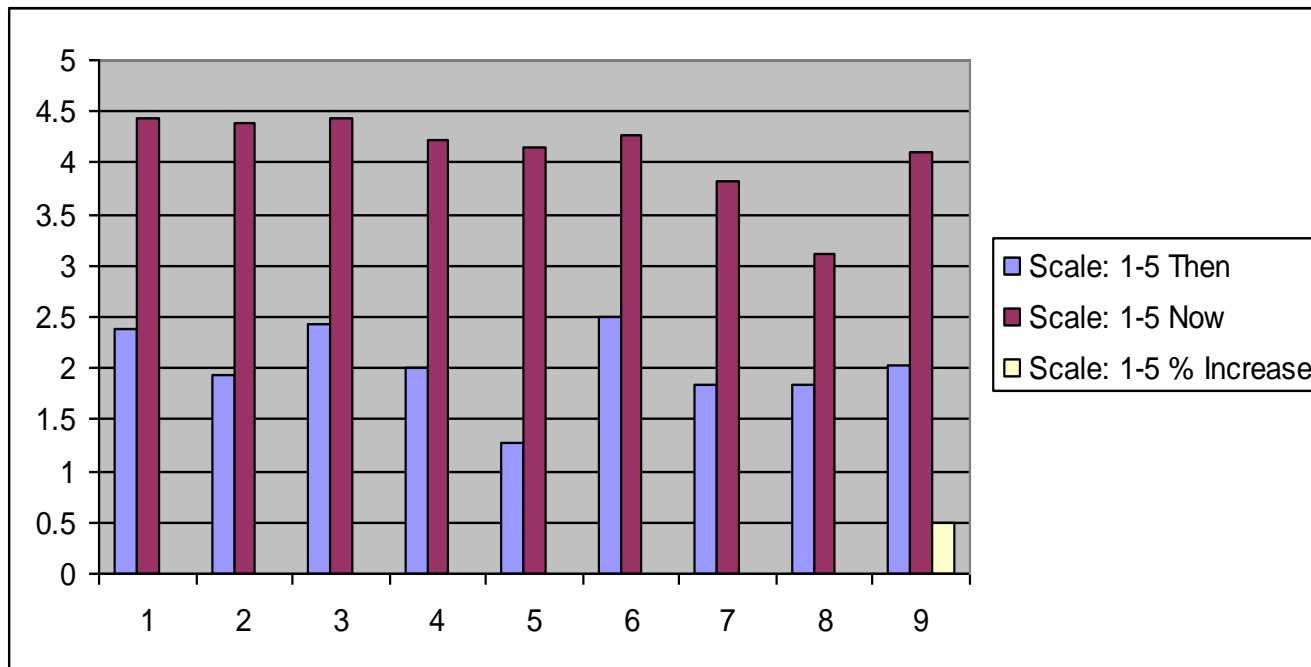
- Understanding of the definition of sustainability
- Understanding of scientific principles behind sustainability
- Ability to explain sustainability to others
- Understanding the difference between 'green' and 'sustainable'



# Progress Measures

An average of 50% increase reported in:

- Organizational access to necessary tools
- Organizational use of strategy for making sustainable decisions



# Most Useful Tools & Skills

- Baseline measurement & tools
- Backcasting from principles
- Strategy for evaluating ideas (3 strategic questions)
- Process of developing & implementing action plans
- Ability to articulate measurable value to decision makers
- Having educational tools to educate others (slides, videos)
- Building the 'filter' into the decision-making process
- Networking with a diverse group



# What Worked?

## 1. Higher Goals are More Motivating

‘Being ‘first’ in your industry – leading the pack competitively toward such an important goal is more motivating than just competing for dollars.’

## 2. Shared Language builds Ownership

‘Creating a shared language caused others to take ownership, question practices, and create new ways to approach old practices.’



# What Worked?

## 3. Principles are Empowering

‘When people understand the principles clearly, they feel empowered.’

## 4. Behavior Change needs a Catalyst

‘Encouraging behavior change is crucial – and habits are the hardest thing to change. Learning the principles can be the catalyst to begin that behavior change.’



# Biggest Challenges & Barriers

## 4 Common Threads: Money – Time – Change – Systems

- Money

- to implement action plans; savings allocated to next action steps

- Time

- to do the planning, education, measurement, coordinating team schedules to continue the work

- Change

- fear of letting go of the ‘way we’ve always done things’; organizational acceptance; facing change in large bureaucracy; getting buy-in from decisions makers; change management

- Systems

- still using the ‘old’ ways, haven’t made the switch to sustainable products/services/supply chains; vendors are key



# Barriers Faced & Overcome

1. Decision makers needed to hear from an outside ‘expert’  
‘(They) weren’t convinced by our explanation regarding energy savings. When (they) agreed to the free energy audit and heard the same report we had given them from the consultant, (they) understood.’
2. Decision makers needed bottom-line figures  
‘It took bottom-line financial data to convince (them) to move forward with the changes. (They) needed to see beyond the up-front costs to understand the bigger picture (ROI & long-term savings).’



# Barriers Faced & Overcome

## 3. Decision makers needed to value Intangibles/Non-Financials

‘Initially, (they) didn’t see value in training until we received good PR and saved money. Following a year of implementing our action plans, (they) have embraced sustainability and written policy requiring all (properties) to implement these actions.’

## 4. Current systems aren’t aligned with sustainable practices

‘Changes that seem simple often aren’t because systems haven’t been adapted to this way of thinking. We made a huge recycling effort which left our dumpsters nearly empty but our costs went up. We had to research their system and changed haulers to bring costs back in line.’



# Barriers Faced & Overcome

## 5. Vendors must be educated to provide sustainable products

‘We are finding that we can put pressure on our suppliers to find the products/provide the services we want. We are creating market demand, and can almost name our price because they don’t want to lose our business. We’re also educating them in the process.’

## 6. Company-wide goals became a priority

‘We had ‘departmental disorganization’ – now we have shared goals. We always talk now about sustainability in meetings and have seen a huge increase in overall planning company-wide.’



# Barriers Faced & Overcome

## 7. Show tangible outcomes with tangible value

‘You have to show real ‘value’ - tangible things that can be done with tangible outcomes.’

## 8. TNS provides an approach to a daunting task

‘Green’ is everywhere these days, but it can be daunting to know what it means or where to begin. With TNS, we have a way to approach it.’



# Is Buy-In Necessary?

‘On a municipal level, internal buy-in is everything.’

It was the combination of timing with other funded sustainability opportunities and the commitment of the Early Adopter team members that kept the momentum going and capitalized on the collaborative synergy of these related initiatives.

Now the Mayor and CAO have approved the action plans proposed by the team.



# Keys to Getting Buy-In

## Departmental diversity on the team

‘Because we had a diverse team made up of people from different departments, the administration saw our action plans as having more credibility, which led to their support of our action plans.’

## Bottom-line credibility

‘The critical turning point that created buy-in from our CAO and CFO was our presentation of Bob Willard’s DVD on the ‘Business Case for Sustainability’.’

## Recognizing the input of all players

‘We realized that it’s not only ‘us’ or upper-level buy-in that’s needed. We need to give ownership to our employees and customers to create buy-in. That’s the only way it’s going to work.’



# Lessons Learned

‘The training helped us regain focus and clarity on what we do and why we do it. We know these are the ‘right’ things to do; now we can tell you ‘why’ they’re the right things to do.’

‘We had already started doing ‘green’ things, but without any plan or method. Now, it has had a trickle-down effect from the basics like recycling and composting to educating our customers, purchasing locally produced food, and engaging other business owners to take better care of our neighborhood.’



# Lessons Learned

‘Some of the actions we took prior to training were haphazard; they wasted money and time. Now we’re strategic and make better decisions and action plans.’

‘This has really helped us prioritize our list of ideas, and having a tool to evaluate the ideas is the key (3 strategic questions).’

‘Don’t preach sustainability. No one will listen. You have to let people ease into it at their own pace.’



# Outcome Example: Twin Ports Testing

## Install Biomass Burner

### Goal:

Maximize use of renewable resources and become more energy efficient

### Action:

Install a biomass burner/generator to replace or piggyback with existing HVAC system

### Outcome:

Reduction of carbon emissions, production of electricity and heat using renewable, in-house fuel

### Bottom-line:

Eliminate the expense of natural gas and electricity

**Represents a new way to utilize waste as a resource**

A Biomass Burner would generate 100% of our heat and 100% of our Electricity with no (or minimal) fuel costs



# Goal ~ Action ~ Outcome ~ Bottom line

## Lighting Retrofit

### Goal:

Use sustainable practices for maintaining facilities and property, and when upgrades are needed

### Action:

Lighting retrofit for our main building and replacement of Exit signs with LED Exit signs

### Outcome:

Reduced energy use, less maintenance, overall energy savings

### Bottom-line:

40% Energy Reduction

Replace existing Exit signs with LED Exit signs  
= \$56/yr in energy savings

Replace 8 foot, T12 fluorescent light bulbs with T8's  
= 40% energy reduction



# The Bottom Line

<u>Energy usage:</u>	<u>kWh/yr</u>
<b>Before:</b>	128,342
<b>After lighting retrofit:</b>	77,006
<b>Biomass Burner output:</b>	118,260 (an excess of over 40,000 kWh/yr)

Cost of Biomass Burner: \$25,000 (\$15,000\*)

Cost of Lighting Retrofit: \$ 9,500 (\$ 8,000\*)

*\*Actual cost based on WI Focus on Energy Incentives*

**Energy (Natural Gas & Electricity) Savings per Year: \$14,000**

Cost for lighting retrofit + Cost of biomass burner – State Energy Incentives =

**Return On Investment = 20 months**



# Quotable Quotes

“The Natural Step addresses issues we all need to be aware of. It isn't a process on how to be 'green', it is a process on how to live life.”

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“When you know better, you do better.”





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[www.sustainabletwinports.org](http://www.sustainabletwinports.org)