



Advice & eXpertise In Sustainability

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Recommended Improvements to ENACT's Business Model

ENACT Report — April, 2007

Developed with assistance from AXIS Performance Advisors, Inc.

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Executive Summary

Background

The Business Model for ENACT has been the mechanism that Metro has used to manage their sustainability efforts. The Business Model was created in the 2000/01 timeframe by ENACT and included many of the goals contained in the Sustainability Audit Report produced by AXIS Performance Advisors. Then in May, 2003, the Council issued Resolution No. 03-3338 which formally directed the creation of the business model, including a vision, values, goals and supporting systems.

Since that time, many things have changed.

- The State of Oregon has adopted a definition of sustainability
- The Natural Step has updated its wording of the system conditions defining a sustainable society
- Metro has made good progress on many fronts
- Many municipalities in the Metro region have adopted sustainability and hired sustainability coordinators

Given these changes, ENACT decided it was time to reevaluate the Business Model. This report summarizes our findings, which are organized into two main sections:

Recommendations to Structure and Operation—This section explains the broad changes ENACT will need to make to increase the effectiveness of sustainability efforts at Metro

Comments on Existing Business Model—This section of the report contains comments and recommendations regarding the wording and structure of the business model itself.

There is also an appendix of related support material.

Major recommendations

Enhance the power of the ENACT Team—ENACT has made great progress as a voluntary team but it needs more clout to support further change

Incorporate some of the elements of an Environmental Management System (EMS)—An EMS can provide a more systematic way to set sustainability goals, track and report progress, and integrate lessons learned.

Incorporate the models within the Business Model more clearly into your decision making process—The existing business model has multiple sets of criteria which is confusing. These need to be narrowed down and then more explicitly used in decision making.

Find funds outside of solid waste—ENACT is limited by its funding source. To make progress in others areas, it needs access to more discretionary funds.

Improve the integration of sustainability into the everyday work of employees—While Metro has undertaken a number of worthwhile sustainability-related projects, sustainability is not yet fully integrated into the organizational practices.

Increase ENACT's outreach in the community—Metro can play a useful role in supporting the many initiatives underway in the local communities.

Create a Sustainability Coordinator position—In order to support all this work and to make future progress, Metro needs a full-time sustainability coordinator. Many municipalities in the area have sustainability coordinator positions and find that having someone dedicated to sustainability is crucial.

Recommendations to Structure and Operation

Enhance the power of the ENACT Team

ENACT is close to but not quite functioning as a full Sustainability Steering Committee. The purpose of the Steering Committee typically includes to:

- Set sustainability priorities and goals for the organization
- Help transmit best practices across the organization
- Lead (or act as a liaison to) green teams within Metro departments
- Get sustainability embedded into the organization
- Oversee a sustainability management system and associated metrics
- Build understand and enthusiasm for sustainability in the organization
- Provide a liaison to other sustainability-related groups in the area

ENACT may need to recruit a few different members to enhance its position authority in the organization. A more systematic process should also help. See EMS recommendation below.

Incorporate some of the elements of an Environmental Management System (EMS).

Metro may or may not need a full ISO-compliant EMS. However, there are a number of practices that ENACT could incorporate into its process:

- Develop a formal sustainability plan that is dovetailed with the other planning and budgeting management systems in Metro. See suggested format below. We often recommend that clients simultaneously work on a quick win and a big win for the organization over all and expect each department to undertake a department-specific sustainability project. Given Metro's role in the community, ENACT might also want to add to this a demonstration project, something with inspirational and educational value.
- Develop a Plan-Do-Check-Act process into ENACT's annual meeting structure. Have an annual planning meeting where goals and priorities are set and budget requests are determined. Develop implementation strategies for projects. Implement and monitor. Have a formal review at the end of the year and publish a formal Sustainability Report that shows trend data against key metrics and highlights different projects completed throughout Metro.
- Develop a balanced and complete set of sustainability metrics based on your preferred framework, The Natural Step system conditions. These likely will include:
 - SC1: Greenhouse gas emissions and trends by facility; energy use.
 - SC2: Toxics (perhaps quantities of chemicals purchased that are considered of high and moderate concern)
 - SC3: Waste (tons going to landfill, recycling rates); Water usage.
 - SC4: Employee satisfaction survey results

My recommendation is to refine this format (below) and fill in the blanks so that you have an 'at a glance' sustainability plan. ENACT will want to limit the number of priorities to 1-3 organization-wide priorities and 1-2 department-specific ones at any one time. There are many ways of doing this. For example, ENACT could:

- Pick one system condition to work on each year. Given the interest and importance of climate change, starting with system condition #1 would work fine. ENACT could use the next couple months to refine how you're going to track greenhouse gases and the associated sub-metrics (electricity, airline miles, gasoline, etc.) and produce a baseline. Then for the next year, really hammer on reducing energy and other related greenhouse gas producing actions (including waste reduction.)
- Rotate through each system condition per quarter, changing the focus.
- Pick one Metro-wide goal for each system condition per year.
- Form standing subcommittees/task forces to work on each system condition.

There are, of course, pros and cons to each of these approaches.

The sample sustainability plan format below can be supplemented with information about possible ways to improve your performance in each area. A tool like this could help workgroups think of actions they could take. This structure should also be reflected in your Sustainability Report as well. It can often be helpful to mock up your Sustainability Report first so that you can be sure that the data you do collect will flow neatly into it.

Sample Sustainability Plan Format

| Metrics | Sust. End Point & Preferential Guidelines | Current | Projects and Goals (Q=quick win; B=big win, D=demonstration) | | |
|---------------------|--|---------------------|--|--------|-----------|
| System Condition #1 | | | 1 year | 3 year | Long term |
| Greenhouse gases | Climate Neutral | X metric tons CO2-e | Metro-wide -5% | | |
| | | | Energy audits all facilities (Q) Depts: Zoo: ~~~~~ Finance: ~~~~~ | | |
| Metals | 100% recycled and recyclable | | | | |
| System Condition #2 | | | 1 year | 3 year | Long term |
| Toxics | Zero PBTs Zero off-gassing Biodegradeable Certified | | | | |
| System Condition #3 | | | 1 year | 3 year | Long term |
| Waste | Zero waste to landfill | | | | |
| Wood products | Certified sources, local, | | | | |

| | | | | | |
|-----------------------|--|--|--------|--------|-----------|
| | recycled/reused | | | | |
| Ag. Products | Local, certified. In season | | | | |
| System Condition #4 | | | 1 year | 3 year | Long term |
| Employee satisfaction | | | | | |
| Community well-being | Metro's regional values: Clean air and water Access to nature The ability to get from here to there Safe, stable neighborhoods Resources for future generations Strong regional economy Access to arts and culture. | | | | |

If you decide to work on only one system condition at a time, the following format might be more helpful. Remember, though, not to let people trade 'one bad for another.' In other words, if you work on one system condition at a time, be sure you are not just moving a problem into another system condition. Decisions should be made with all four system conditions in mind.

Sample Sustainability Plan Format for System Condition 1

| Metrics | Sust. End Point & Preferential Guidelines | Current Performance (or Baseline) |
|--|--|---|
| Focus for 2007: Climate Change (System Condition #1) | | |
| Greenhouse gases <ul style="list-style-type: none"> • Total metric tons CO2-e • GHGs/employee • Percent green power purchased (divided by total electricity used) Facility metrics and sub-metrics: | Climate Neutral: No net increase in greenhouse gases. Can be accomplished through: <ul style="list-style-type: none"> • Energy conservation • Green power purchases • Fuel switching (e.g., biodiesel) • Carbon offsets • Waste reduction | Total X metric tons CO2-e <ul style="list-style-type: none"> MRC: X tons Zoo: Y tons Expo: Z tons PCPA: A tons Parks: B tons OCC: C tons [You could put a trend chart |

| | | |
|---|---------|-----------|
| <ul style="list-style-type: none"> • Metric tons CO2e • Electricity usage in Kwh • Natural gas usage in therms • Gasoline/diesel in gallons • Airline miles • Waste to landfill (in tons? Note I don't have a conversion factor for this to CO2-e) • Energy intensity/efficiency. GHG per (denominator that makes most sense for each facility such as per employee, per square foot, per event, etc.) | | here] |
| Goals and Projects | Big Win | Quick Win |
| Metro Wide: | | |
| Department-Specific: Dept A Dept B Etc. | | |

Incorporate the models within the Business Model more clearly into your decision making process.

Your business plan includes a number of different criteria sets and they become confusing (e.g., TNS, regional values, ENACT values). The result feels like a jumble of ideas. ENACT could probably drop the Regional Values since they are externally focused and don't seem to be as actively used by management as the Goals and Objectives. If ENACT wants to continue to use multiple criteria sets, the following criteria chart can be helpful when making decisions about what to work on. List potential projects down the left column. Then check or provide a rating for the project's ability to contribute to improvements in the TNS System Conditions and other Metro priorities.

Sample Project Selection Chart

| Project Ideas | TNS System Conditions | | | | Relates or contributes to | | | TOTAL |
|---------------|-----------------------|---|---|---|------------------------------|-------------------------|--------|-------|
| | 1 | 2 | 3 | 4 | Metro's Goals and Objectives | Metro's Regional Values | Other? | |
| | | | | | | | | |
| | | | | | | | | |

Find funds outside of solid waste

ENACT's funding source limits what it can work on. Perhaps there is an accounting mechanism whereby some of the savings that ENACT projects create can fund future ENACT projects. Certain projects should be incorporated into departmental plans and budgets.

Improve the integration of sustainability into the everyday work of employees

ENACT members want to incorporate sustainability into the performance appraisal system. This is a good idea; however, human resources systems can be slow to change. There are some other actions you could take that would also help.

- Find ways to provide refresher training on TNS and other important concepts. This may include brownbag presentations, lobby displays, newsletters, and standing agenda items at departmental or all-staff meetings.
- Incorporate sustainability into new employee orientation and other training.
- Work with executives to improve their ability to demonstrate their commitment both symbolically and in action. Often executives are supportive of an initiative but don't fully understand how to demonstrate this visibly in a way that is convincing to employees. Research indicates that employees take their cues from what management pays attention to, measures, controls, and rewards—not what they say or write. This includes modeling behavior, asking questions about sustainability-related projects, measuring progress, promoting people who have been leading the sustainability effort, taking symbolic action to stress the importance of sustainability, etc. We recommend doing the SCORE assessment (or something similar) with directors and ENACT to identify business practices that need attention. (See sidebar.)
- Develop a sustainability report format that will visibly show progress of each of the departments and facilities toward sustainability goals. Let everyone know that you will be reporting this data at the end of the year. Show individual department/facility results as well as overall Metro

SCORE

SCORE assesses the degree to which sustainability is embedded in your business practices.

It's organized the way organizations are structured (top management, purchasing, HR, finance, facilities, etc.) so it makes it easy to assign accountability.

SCORE would help Metro identify cross-organizational and department-specific goals and show Metro how to better integrate sustainability into your everyday work.

Please go to www.zerowaste.org/score for more information.

performance.

- Develop a process to help managers and employees understand how to integrate sustainability into their work. (See the article at the end of this report entitled Growing into Sustainability for a way to think about the barriers employees face to integrating sustainability and what to do about it.) It's often not obvious to employees how to translate sustainability into their everyday jobs. There are two tools we'd recommend. First, SCORE assesses the degree to which you've embedded sustainability into your business practices. This assessment would give Metro a sense of where you are doing well and where there are lagging practices or complete blind spots. (See sidebar on previous page.) Second, we'd recommend doing a 'bubble' or process diagram at the workgroup level can help them see the opportunities and come up with project ideas.
- In your sustainability planning and reporting process, ask each department to come up with at least one sustainability-related project.

If needed, adjust the structure of the ENACT team to ensure you have representation from all areas. Find the advocates in each area.

Increase ENACT's outreach in the community

So far, ENACT's role has been on improving the sustainability of it's own operations. This is a great place to start. However, Metro has a very important role to play in the wider community to support the sustainability of the metro area. While ENACT can't set policy—that's the role of Council—ENACT could do more to support burgeoning efforts in the area. This may include:

- Becoming a model of sustainable operations
- Participating in local public sector roundtable meetings
- Tracking other local sustainability efforts and look for synergies (e.g., joint purchasing arrangements, shared goals, shared research, etc.)
- Improving the visibility of Metro's sustainability practices as an educational tool
- Offering information and support to other organizations as requested (e.g., answering questions, speaking, etc.)
- Convening groups as appropriate to work on sustainability issues that cross over organizational or jurisdictional boundaries.

Create a Sustainability Coordinator position

To carry out these other recommendations, Metro needs to create a sustainability coordinator position. All organizations we talk to that have this position say that this is essential to maintaining momentum. Metro is probably large enough to justify a full-time position.

Sustainability coordinator positions typically contain these responsibilities:

- Chair or facilitate the ENACT Steering Committee—Plan meetings, manage the agendas, prepare materials for the meetings, facilitate the meetings.
- Manage and monitor the change process—keep a focus on sustainability, develop effective strategies for moving forward that fit the culture, priorities and constraints of the

Some of the local governmental organizations with sustainability coordinators

City of Corvallis
City of Lake Oswego
City of Portland
City of Vancouver
Multnomah County
Tualatin Valley Water District

organization; help departments overcome barriers and resistance; provide consulting assistance to those who need it; look for and act on 'teachable moments'.

- Be a resource—Have a general knowledge of sustainability concepts, frameworks, issues, tools and resources; provide minor technical assistance and refer people to appropriate resources for complex technical needs.
- Inspire others—Develop enthusiasm and support for sustainability at all levels of the organization; provide mechanisms for teaching staff about relevant concepts, methods and tools.
- Draft documents—Create 'strawdog' versions of sustainability-related documents. This may include Council and Administrative Policies, Sustainability Implementation Plans, Sustainability Management System elements, checklists and job aids, as well as language for job descriptions, contracts, and performance reviews.
- Facilitate progress— Develop processes and tools that the Steering Committee and departments can use to set goals, implement plans and institutionalize learning. Provide assistance in using them.
- Ensure the SMS is working—As the Steering Committee develops elements of a sustainability management system, ensure plans are completed, reviews are conducted, goals are enacted, etc.
- Communicate—This may include updating Metro's website, writing articles for internal newsletters, speaking to groups internally and externally, being the primary contact for sustainability issues, ideas, and requests.
- Prepare the annual sustainability report—Develop a template for the sustainability report, solicit content, track sustainability metrics, produce the report and communicate results.

Comments on existing business model

NOTE: This section of the report includes the wording of the existing business model, followed by ideas from the ENACT team and then in a box, Darcy's additional comments and recommendations. In some cases, the handwriting of the ENACT team members was not legible so I have used question marks to indicate gaps.

Darcy's comments on the business model as a whole:

This document could benefit from formatting and editing. There are a number of different mental models or criteria mentioned (TNS, ENACT's values, Regional Values, etc.) I'm not sure you need all this. I would also suggest pulling some of these out as sidebars.

I would also suggest adding a plan and/or projects. The Goals are really sustainable end states and they are followed with some examples. What seems to be missing—if it doesn't exist in another document—is the plan. How are you going to get from here to there? How will you measure your progress? What are the timeframes for the interim goals/objectives?

Vision

Metro business practices shall be sustainable within one generation, by 2025.

Sustainability is to preserve and enhance the quality of life and the environment for ourselves and future generations.

Note: Preamble to Metro Charter states Metro's "most important service [is] planning and policy making to preserve and enhance the quality of life and the environment for ourselves and future generations..."

ENACT Team Suggestions:

Sustainable Business Model (I am using the words in the Council Resolution for now) elements are:

- Vision
- Mission
- Values
- Framework - Definition of sustainability and TNS.
- Goals - long term goals (20 year or within one generation) that are sustainable end points
Targets- 1,2,3,4 and 5-year targets that match our budgeting (1-3 years) and capital improvement projects (e.g. 5 years)
- Metrics
- Strategies
- Actions

Add "fully": Metro business practices shall be fully sustainable..."

Why within one generation?

Recommendations for ENACT Business Model

Timeline is relative to dollars that may be spent

Define business practices. Break into areas so plan can be built for each area.

Darcy's comments:

SCORE (our assessment) can help you understand business practices and give you a way to assess progress.

Need to define 'business practices.' Might be better to use the term 'internal operations' to distinguish between what Metro does internally and the function it plays in the community.

The 'one generation' is probably a hold over from Kitzhaber's Executive Order. Could be dropped. Can you set a specific date like 2025?

The State of Oregon has adopted a formal definition of sustainability. It might make sense to adopt their definition.

Mission

of Environmental Action Team: To provide leadership in extending Metro's sustainability mission to its business practices.

ENACT Team Suggestions:

Tie to Council's Strategic Goals and Objectives as well as individual goals

Goals that are universal with all facilities.

Education at all levels

Standard training across the board in all areas.

Have fun.

Darcy's comments:

"Provide leadership" could use some clarification. I find this format helpful for creating missions: We exist to [do what] for [whom]. We provide [these services] so that [why, what result]. You can then 'mush' this content around so it flows well. So the mission might be something more like:

ENACT leads Metro's efforts to become sustainable by 2025 and be a model in the community. The team sets sustainability goals, priorities and plans, elicits ideas and support from people in Metro, and spawns task forces as needed. ENACT also reports annually to Council and Metro Management Team on progress toward goals.

Values

to guide Metro's actions:

- **The Natural Step Principles (four system conditions) (A)**
- **Metro's regional values that define quality of life (B)**
- **Fiscal responsibility**
- **Cooperation and coordination with other public agencies**
- **Regional leadership**
- **Fun**

(A) The Natural Step's (TNS) four system conditions provide a framework for guiding Metro towards sustainability. TNS is founded on the premise that organizations can reduce their impact on the environment while enhancing their overall efficiency and effectiveness.

ENACT Team Suggestions:

Add the Precautionary Principle

Examine if the Council has revised regional values

May be worthwhile to write out TNS principles whenever referencing them because many people don't know them offhand.

OK as is (2)

Darcy's comments:

You need a way to keep TNS and other important principles front and center in people's minds. Sounds like you need to do refresher training. Then the system conditions can become an organizing structure for how you think about and report results. You might also use it as a structure for brownbags, newsletters and other informal communication/education efforts. This reinforcement will anchor the concepts.

See background info on the Precautionary Principle later in this document.

TNS System Condition 1

The Natural Step's four conditions in order for a society to be sustainable:

1. **Fossil fuels, metals, and other materials must not be extracted at a faster rate than their natural re-deposit into the Earth's crust.**

Examples:

- **Use renewable energy sources, such as solar and wind, rather than non-renewable fossil fuels.**
- **Use metals at a rate that won't exceed their slow re-deposit back into the Earth's crust.**
- **Avoid use of fossil fuels, which creates greenhouse gases.**

ENACT Team Suggestions:

I would suggest removing the Natural Step from the values and adding a new category to our plan called Framework, which is how we measure progress toward our vision of sustainable internal business practices.

Define specific strategies for our business operations to include to address this goal. (eg TDM program, transit pass, flex time)

Agree with concept. May be too far reaching

Feasibility issues? Solar, wind readily available, ensure that all green tag credits are valid.

Need to take more aggressive approach to transferring alter energy vehicles across all depts.

Darcy's comments:

For all the system conditions:

Since you have paraphrased the system conditions as worded you should either:

- say you've done that or
- go back to the original wording (see PowerPoint slide below)

For people who don't live and breathe sustainability, I often give them simple 'handles' to remember the system conditions. These lose some of the subtlety of the scientific wording but make it more likely that people can apply them: Move, Make, Take, Hurt.

- MOVE from the crust
- MAKE that nature can't handle
- TAKE faster than nature can regenerate
- HURT human dignity

Develop at least one metric for each system condition.

First and third examples seem to overlap and could be combined.

Add an energy conservation example.

Change the metals one to 'when purchasing products with metals, give preference to common metals and products with recycled content.'

Current wording of The Natural Step System Conditions

For society to be sustainable...

Nature must not be subject to increasing...

- ... concentrations of substances from the earth's crust
- ... concentrations of substances made by society
- ... degradation by physical means;
- and in that society, people are not subject to conditions that systematically undermine their capacity to meet their needs.

- *The Natural Step*

Oregon
NATURAL STEP
NETWORK

AXIS

TNS System Condition 2

The Natural Step's four conditions in order for a society to be sustainable:

2. **Human-made substances must not be produced at a faster rate than they can be broken down and integrated into the cycles of nature or deposited into the Earth's crust.**

Examples:

- **Avoid use of persistent bio-accumulative toxics, such as dioxin.**
- **Avoid the creation of ozone-destroying gases.**

ENACT Team Suggestions:

Perhaps Metro could/should define our specific role in helping meet this condition.

Anything we can do to put the responsibility more on the producer and less on consumer.

An analysis of existing situation of what we are/are not doing in this area so we know next steps.

Establish a base from which to work off of

Analysis

Use alternative products; avoid toxic products

Darcy's comments:

You have a chemical inventory. How are you doing on working off that list? There is also some effort underway to expand the number of product categories.

Seems like you need a plan to tackle the worst ones first. Do you have a 'black list' and 'grey list'?

TNS System Condition 3

The Natural Step's four conditions in order for a society to be sustainable:

3. The ecosystem must not be harvested or manipulated in such a way that productive capacity and diversity systematically diminish.

Examples:

- Use wood and paper that have been produced from sustainable forests.
- Reduce stormwater and pesticide run-off into rivers and streams that ruin habitat for salmon.

ENACT Team Suggestions:

First bullet needs clarification

Consider requirement that all wood products are certified if they are to be used on Metro building projects.

Implement more innovative stormwater designs at all Metro facilities (green street retrofits, rain gardens, etc.)

Zero tolerance use of petro-chemical fertilizers and herbicide/pesticide at all metro properties. Already in place?

Need to analyze this—current practice, best management practice, cost/benefit, and investment protection (ie 1 million trees and shrubs planted, how to efficiently manage)

Also state mandates on noxious weeds and impact on agriculture.

Darcy's comments:

Certification is only one criterion. It's not that simple. You may have to make trade-offs between transportation distance and forest practices, for example.

For paper, see EPAT.org. For electronics, see EPEAT.org.

What about agricultural products (e.g., for catering, etc.)

TNS System Condition 4

The Natural Step's four conditions in order for a society to be sustainable:

4. **Basic human needs must be met with the most resource-efficient methods possible, including a just resource distribution.**

Examples:

- **Use renewable materials.**
- **Reduce per-capita consumption of resources.**
- **Reduce energy consumption, increase conservation.**

For more information on TNS, go to www.ortns.org.

ENACT Team Suggestions:

Renewable materials: Our paper purchasing policy is working well; not so sure about other materials.

Per capita consumption of resources--we encourage commuting by other than SOV, double-sided copying and some energy reduction (computers shut off at 6pm, low flow toilets). We could still do a lot more with water (use in kitchens), office suppliers and possible other areas.

Energy consumption/conservation. Need to buy more renewable power, invest in PV or other systems.

Cost a major factor again.

Agree.

Darcy's comments:

This fourth system condition has been reworked a lot and no longer focuses on efficiency. You might considering updating it. See the proper wording on the Powerpoint slide pasted into System Condition #1.

Since ENACT is focused on internal operations, you might focus this on employee satisfaction, quality of worklife, work-life balance, diversity issues. Also fair labor practices related to purchases; perhaps give preference to local businesses to build the community.

Metro's regional values

were developed by citizen surveys and provide a working definition of the characteristics of livable communities. They are set out in the Framework Plan, Fall'97 newsletter. Sustainability is ensuring that the same opportunities and quality of life that define our region's livability for today's generation are available to future generations.

The seven values are:

- Clean air and water
- Access to nature
- The ability to get from here to there
- Safe, stable neighborhoods
- Resources for future generations
- Strong regional economy
- Access to arts and culture.

ENACT Team Suggestions:

[Metro's new framing of values]

- Safe and stable neighborhoods
- Transportation choices
- Resources for future generations and a
- Vibrant culture and economy.

This particular version of the list is from the "Nature of 2040" booklet. The Council Goals and Objectives re-framed "quality of life and the environment" as

- Great Places,
- Environmental Health,
- Economic Vitality and
- Smart Government

ENACT had adopted a definition of sustainability from preamble of the Metro Charter. However, we did that back in 2001. We now have an official definition of sustainability in Oregon Revised Statutes that should be inserted as an option for ENACT to consider.

ORS 184.421 (4) "Sustainability" means using, developing and protecting resources in a manner that enables people to meet current needs and provides that future generations can also meet future needs, from the joint perspective of environmental, economic and community objectives.

Add "using alternative transportation" to "The Ability to get from here to there.'

Add "that supports diversity" to 'Strong regional economy...'

Add new example. Provide community with opportunity for additional recycling (ie rigid plastics).

No comment. I think these are excellent in general values. The trick is relating these back specifically to ENACT and sustainability and Metro's operations.

Also tie to council goals and objectives. Need performance measures

Support employees who contribute to these values in their home lives. What, we have home lives?

Darcy's comments:

These are externally focused and it's not clear whether Metro is still using them actively. As such, I'd suggest either:

- a) dropping them
- b) translating them to internal operations
- c) using them as a filter or criteria for choosing projects
- d) expanding ENACT's role to include external sustainability (I don't think you have the support for this yet)

GOAL 1

Metro Environmental Action Team (ENACT) Internal Sustainability Goals for Metro Facilities and Operations

GOAL 1: Zero net increase in carbon emissions

Suggested changes:

Evaluate costs/opportunities to change power purchase (change to friendly power—wind)

Solar panels or wind turbines to capture energy for defined program (lights @OCC exterior or lights at MRC or Zoo, etc.)

Video conferencing ability vs having people constantly coming to M for meetings.

Strategies or projects you think METRO should undertake in the next year or two related to this goal:

Support more flextime for workers to come in at different hours and take better advantage of transit and reduce congestion and idling on freeway.

Continue strongly promoting biking commute challenge and other related activities increase walking, biking, transit and carpooling by employees.

Develop strategies, metrics, data on energy use by customers, employees and buildings.

Darcy's comments:

Comments related to all goals:

Need goals and objectives. These are really 'sustainable end points'. You need metrics and should report on these. At least identify what the metrics would be if you were to gather the data. Over time you can fill in the blanks. You need a process for setting priorities every year, for Metro overall and individual departments.

Climate neutral might be clearer. 'Zero net increase' could be interpreted as increase from current levels.

Need to do a greenhouse gas inventory each year and report the results. Set long-term goals for reduction and use the best available technology to reduce that.

Is there a way to start purchasing carbon offsets, ramping up over time? Not sure how you'd fund this.

GOAL 2

Zero discharge of persistent bio-accumulative toxins.

Suggested changes:

List toxics. Prioritize toxic levels and adjust procurement accordingly. Agreed.

Strategies or projects you think METRO should undertake in the next year or two related to this goal:

Have product lists on computer for input and findings. (Agreed)

Have our blood samples measured for toxins.

Adopt purchasing guidelines for products that minimize or eliminate toxic substances.

Require disclosure of inerts and other ingredients that may contribute to toxicity.

Darcy's comments:

It's not just PBT's that you should worry about. Those are just the worst. Perhaps there is a different way to word this: Zero discharge or emissions of any toxic chemicals in concentrations that could harm employees, members of the community or ecosystems.

GOAL 3

Zero waste disposed and incinerated.

Suggested changes:

Develop more prevention strategies that require upstream prevention, i.e. packaging.

Zero waste impossible.

Strategies or projects you think METRO should undertake in the next year or two related to this goal:

Measurement and reporting on this goal. Agreed (2)

More frequent reports to all staff as to gains/losses and what can be done to help.

Darcy's comments:

Zero waste is often referred to as 'zero waste to landfill.' This is achievable. Many have done it.

Why not do annual waste audits at each facility and report the results?
BlueWorks at Portland's OSD can help you with this.

GOAL 4

Fifty percent reduction in water consumption.

Suggested changes:

Water capture, and revise system, roof run, grey water gardens, etc.

Do we still need to establish baselines? Over what period?

Strategies or projects you think METRO should undertake in the next year or two related to this goal:

Develop baseline data related to roof run and building ??? water amounts.

Develop programs for residential? water conservation.

Low flow toilets at MRC. We do have! The #1 #2 kind.

Less purchase of bottled water! Ban.

Low flow showerhead in changing area?

Water efficient dishwashers? Run them only when full.

Efficient commercial dishwashers instead of incessant running water at sinks to clean dishes!

Darcy's comments:

This goal most likely comes from the estimate that we did for the Metro sustainability assessment several years ago. I wonder if we should state what the basis of these goals are, what they are derived from. It might help quell any pushback. This particular goal is more speculative than some of the others. Even the climate neutral one could be argued, both that we need to do more and remove excess CO2 to get back closer to pre-industrial levels or that we 'only' need to reduce by about 70% because the oceans and soils can take up some of it.

GOAL 5

Zero net loss of biodiversity and productive healthy habitat for forests and riparian areas.

Suggested changes:

Track. Agree. Agree.

Strategies or projects you think METRO should undertake in the next year or two related to this goal:

Meeting with all concerned orgs to dialogue.

Limit all operational impacts pertaining to 'net loss of bio-diversity', etc.

What does this mean? Biodiversity is a broad, all encompassing term. Have to have baseline data. So you can measure.

Is this for land that Metro owns?—or has jurisdiction over?

Agree.

Darcy's comments:

This goal definitely could use some explanation, both in terms of what it means and what it applies to. Does it apply to purchasing practices or just land you own? How do you offset the biodiversity you've already displaced? How is it measured?

New Goals:

Provide access to all waste haulers to sorting facilities. (Good)

Incorporate sustainability into performance evaluation process, at all levels, based on Council-approved goals and strategies.

Strategies or projects you think METRO should undertake in the next year or two related to this goal:

Collaboration.

Meet all concerned orgs to develop.

Waste haulers give figures as to pick up and type.

Clearer definitions and programs that all levels of staff can participate in.

Standards throughout Metro.

Analyze best practices in sustainable procurement.

Darcy's Comments:

I would suggest some process-related goals related to my earlier comments and recommendations:

- Create a more robust measurement and reporting process.
- Provide refresher training on sustainability concepts, especially TNS.
- Develop a formal planning process
- Review the current membership and authority of ENACT and make appropriate changes to enhance your effectiveness.
- Conduct a greenhouse gas inventory by facility to estimate your climate impacts.
- Consider conducting the SCORE sustainability assessment and use our 'Bubble Diagram' process as a way to help departments see how to integrate sustainability into what they do.

Other Ideas

(e.g., how ENACT operates, implications related to Council and resolutions, relationship to an EMS/SMS, relationships with other organizations, etc.)

Difficult for ENACT to see long projects through to completion because all volunteer, with other job responsibilities.

EMS/SMS needs structure and for specific people to be responsible for it as part of their normal job responsibilities.

Agree with comments.

Agree at some point dedicated FTEs.

Agree.

We need a sustainability coordinator to do a lot of the work that has been outlined in our plans. One person whose job it is to coordinate efforts, as we all have other jobs to do.

We need more 'teeth' in our policies and procedures: that require sustainable actions..senior management performance evaluations and evaluations of other key individuals; more centralized purchasing; IPM everywhere, not just at some facilities, etc.

Need 1 FTE

Do an annual report.

Darcy's Comments:

You do need at least a half-time, if not full-time, coordinator. Everyone says this is key to long-term success. This person can chair the ENACT team and support efforts underway.

The ENACT team needs to evolve further into an empowered steering committee.

Appendix A—The Precautionary Principle

Background

Excerpted from the Business Guide to Sustainability (Hitchcock & Willard, 2006)

The Precautionary Principle to some degree switches the burden of proof. In most locales, the government has to prove that something is unsafe to stop it. The Precautionary Principle instead asks manufacturers to prove that their products are safe. The Precautionary Principle Project defines the concept as ‘acting to avoid serious or irreversible potential harm, despite lack of scientific certainty as to the likelihood, magnitude, or causation of that harm.’ While it is not feasible to prove that a product is safe in every situation for every organism on earth, it is possible to invoke the Precautionary Principle when evidence begins to suggest there is a negative impact. At least in the United States, the usual protocol is for the corporate attorneys to fight it out with government officials for years while they continue to sell their product. The Precautionary Principle, if it is part of your public policy, instead can stop or phase out a product’s use until the manufacturers can prove it is safe.

The Precautionary Principle was used in the Montreal Protocol, an international agreement to phase out ozone depleting substances. Because it was believed that the ozone hole would cause serious cancer risks, the Precautionary Principle was made the decision rule. Why wait for more data when the effects could be so catastrophic? The Montreal Protocol was quickly adopted for several reasons. There was a media-capturing event when the ozone hole was discovered, creating a sense of urgency. It was framed as a human health issue, making it more personal than vague threats to the environment. It also didn’t hurt that duPont had declared they could manufacture alternatives if a market could be assured.

Municipalities and nation states are adopting the Precautionary Principle as public policy, San Francisco, California, Hungary, and Brazil among them. Jacques Chirac has recently added an environmental charter to the French constitution whose 10 articles include the Precautionary Principle.

RESOURCES

The Precautionary Principle Project <http://www.pprinciple.net/>.

The Precautionary Principle in Action: A Handbook, First Edition, This was written for the Science and Environmental Health Network by Joel Tickner, Carolyn Raffensperger and Nancy Myers <http://www.biotech-info.net/precautionary.html#defining>

Appell, David (2001) ‘The New Uncertainty Principle’ *Scientific American*, January 2001.

For the dissenting view (from an AXIS Newsflash)

Goklany, Indur M (2001) The Precautionary Principle: A Critical Appraisal of Environmental Risk Assessment. Washington DC: Cato Institute.

Goklany accepts the basic premise of the Precautionary Principle (“When an activity raises threats of harm to human health or the environment, precautionary measures should be taken even if some cause and effect relationships are not established scientifically” –Wingspread Declaration). However he feels that in practice, it’s important to take into the risks of following the Precautionary Principle on human health and the environment.

He recommends using the following criteria:

--Public health (morbidity and mortality). He feels that human well-being outweighs the needs of any other species.

--Immediacy. More immediate threats should be given more priority, all other things being equal.

--Uncertainty. Threats with higher probability of harm (having higher probabilities of occurrence) should take precedence)

--Expectation-value. For threats that are equally certain, give priority to those with a higher expectation value (e.g., lives saved).

--Adaptation. If there are technologies that could help us adapt to or deal with adverse consequences, then that impact can be discounted.

--Irreversibility. Impacts that cannot be reversed or are likely to be persistent should be given a higher priority. (p. 9-10)

In the book, he chronicles three examples of this: the use of DDT, genetically modified organisms and climate change. Regarding DDT, Goklany’s analysis determines that DDT should be allowed as a spray in households in developing countries in malaria zones, arguing that eliminating its use in agriculture dramatically reduces its concentration in the environment. GMOs, he feels, should be pursued because to feed the world’s exploding population would otherwise require gobbling up even more land. Working on climate change comes out low in his equation because of the uncertainty principle.

While Goklany’s basic premise seems sound: we should understand the whole system and looks at risks of action and inaction, I bridle at some of his findings. It helps to realize that this was published by the Cato Institute, the libertarian think tank. To follow his approach, it matters what factors you consider and ignore. That’s where, in my estimation, Goklany goes awry.

I’m not that well read on DDT, so I could probably go along with his approach to using DDT in small quantities in homes. However, without a threat of phasing out this cheap chemical, where is the incentive to invent alternatives?

With GMOs, Goklany doesn’t distinguish between various approaches to genetic engineering. They span the spectrum, in my estimation, from justifiable to lunacy.

I had hoped, by the time he reached the chapter on climate change, he’d use this as an example where the risks of doing nothing far outweigh the costs of doing something. No luck. Instead, he draws in part on some theories, over a decade old and since discounted. He claims for example that higher CO₂ will increase agricultural productivity.

In the end, it’s his worldview that undermines the credibility of this book in my eyes. He says human well-being trumps all species; but humans are not separate from Nature. He says that increases in global temperature are likely to be small in this century; but climate change is not likely to be gradual or predictable, and the effects will be complex and long-lasting. This book could have been a useful and thoughtful look at how best to

apply the Precautionary Principle. Instead, it comes across as a justification for business as usual.

San Francisco's Precautionary Principle

Where there are reasonable grounds for concern, the precautionary approach to decision-making is meant to help reduce harm by triggering a process to select the least potential threat. The key elements of the Precautionary Principle approach to decision-making include:

1. **Anticipatory Action:** There is a duty to take anticipatory action to prevent harm. Government, business, and community groups, as well as the general public, share this responsibility.
2. **Right to Know:** The community has a right to know complete and accurate information on potential human health and environmental impacts associated with the selection of products, services, operations or plans. The burden to supply this information lies with the proponent, not with the general public.
3. **Alternatives Assessment:** An obligation exists to examine a full range of alternatives and select the alternative with the least potential impact on human health and the environment including the alternative of doing nothing.
4. **Full Cost Accounting:** When evaluating potential alternatives, there is a duty to consider all the reasonably foreseeable costs, including raw materials, manufacturing, transportation, use, cleanup, eventual disposal, and health costs even if such costs are not reflected in the initial price. Short- and long-term benefits and time thresholds should be considered when making decisions.
5. **Participatory Decision Process:** Decisions applying the Precautionary Principle must be transparent, participatory, and informed by the best available science and other relevant information.

(Added by Ord. 171-03, File No. 030422, App. 7/3/2003)

Multnomah County's Precautionary Principle Resolution

Type: Resolution, Order or Proclamation

Date: 09/23/2004

Number: 04-140

Title: RECOGNIZING NATIONAL POLLUTION PREVENTION WEEK AND DIRECTING DEVELOPMENT OF A TOXICS REDUCTION STRATEGY JOINTLY WITH THE CITY OF PORTLAND USING THE PRECAUTIONARY PRINCIPLE

Text: BEFORE THE BOARD OF COUNTY COMMISSIONERS FOR MULTNOMAH COUNTY, OREGON

RESOLUTION NO. 04-140

Recognizing National Pollution Prevention Week and Directing Development of a Toxics Reduction Strategy Jointly with the City of Portland Using the Precautionary Principle

The Multnomah County Board of Commissioners Finds:

a. On April 20, 2004, the Sustainable Development Commission of Portland and Multnomah County (SDC) and the Oregon Center for Environmental Health sponsored the Precautionary Principle Workshop: A New Approach for Protecting Human Health and the Environment, about toxic pollution prevention.

b. The Precautionary Principle is an effective policy framework for decision-making to prevent harm to human health and the environment, and states that “Where threats of serious or irreversible harm to people or nature exist, anticipatory action will be taken to prevent damages to human and environmental health, even when full scientific certainty about cause and effect is not available, with the intent of safeguarding the quality of life for current and future generations.”

c. The attached SDC report, Precautionary Approaches for Health and the Environment, finds that every Multnomah County resident has an equal right to a safe and healthy environment; but considerable evidence suggests this right is compromised, including the following:

- o An estimated 700 contaminants are present and accumulate within the human body, many of them toxics that have known health risks.

- o Cancer, asthma, birth defects, developmental disabilities, autism, endometriosis, and infertility are becoming increasingly common and are linked to toxic exposures from the environment.

- o Children suffer disproportionately from environmental health risks and toxic pollution.

- o Low income and politically marginalized communities are disproportionately exposed to toxic substances and pollution.

d. Toxic substances have a profound negative impact on the indoor and outdoor environment, as shown by SDC report findings that:

- o A section of the lower Willamette River is listed as a Superfund site, designating it as one of the most polluted rivers in the country. River sediment is polluted with unsafe levels of toxics, including mercury, PCBs, dioxins, DDT, as well as pesticides and herbicides.

- o Fish from the Willamette and Columbia Rivers are contaminated with toxic pollutants at high levels resulting in consumption advisories from the Oregon Department of Health and Human Services.

- o Fourteen air toxics in Multnomah County exceed health-based benchmarks, with six pollutants more than ten times national health standards.

e. Several regional governments have taken precautionary approaches to reduce toxic pollution, including the City of San Francisco, City of Oakland, City of Seattle, and the State of Washington.

f. The Oregon Department of Environmental Quality has been directed to develop a plan to eliminate persistent bioaccumulative toxics in Oregon by 2020, and local governments in Oregon are encouraged to participate.

g. Multnomah County has made progress in the area of toxics use reduction by including green building strategies, initiation of a pollution prevention program, eco-certification of fleet shops, and promoting best practices for pollution prevention through a water quality program.

h. The County has adopted that support pollution prevention, including the Local Action Plan on Global Warming (Resolution 01-052), Sustainable Procurement Strategy (Resolution 02-058), and Sustainability Principles (Resolution 04-019) The Sustainability Principles state that Multnomah County will “Take necessary precautions to prevent toxic pollution and waste through proactive measures.”

i. Preventing toxic pollution is economically sustainable; and as indicated in the SDC report:

- o Toxic substances have negative impacts at all stages of the product life cycle, including manufacture, use, and disposal.

- o Pollution prevention lowers business costs related to pollution control, liability, and worker safety.

- o Quality of life, a key reason businesses locate in the Portland Metropolitan area, is associated with social, economic and environmental indicators.

- o Costs to society for diseases related to toxic substances such as loss of wages, increased expense for special education and medical treatment can be reduced.

- o A Toxics Reduction Strategy would initiate economic development by creating new opportunities for local business to provide safer alternative products, processes, and technologies.

j. Multnomah County considers prevention of toxic pollution a high priority for action to reduce risk to public and environmental health, and intends by this resolution to encourage the reduction of use of toxic substances through pollution prevention and by utilizing the precautionary principle.

The Multnomah County Board of Commissioners Resolves:

1. The Board, in honor of National Pollution Prevention Week, recognizes the work that has been done to date by Multnomah County and the City of Portland to support reduction and elimination of public and environmental exposures to toxic pollutants.

2. The County, under the leadership of Commissioner Maria Rojo de Steffey, will participate in a workgroup to create a Toxics Reduction Strategy for government operations using the precautionary principle. The workgroup will include delegates from the City of Portland, Multnomah County, SDC and the community. The Sustainability Division of the Department of Business and Community Services will work with the workgroup, SDC, appropriate County departments, and the City of Portland to support this effort.

3. This Toxics Reduction Strategy should identify short-term and long-range goals for toxics reduction in government operations, actions to support those goals and be completed within one year of adoption of this resolution.

ADOPTED this 23rd day of September, 2004. BOARD OF COUNTY COMMISSIONERS FOR MULTNOMAH COUNTY, OREGON

Diane M. Linn, Chair

REVIEWED:

AGNES SOWLE, COUNTY ATTORNEY FOR MULTNOMAH COUNTY, OREGON

By Matthew O. Ryan, Assistant County Attorney

Appendix B—Overcoming Barriers to Integration

Growing into Sustainability

From Baby Steps to High Performance

Reprinted from the *AXIS Advisory*, Summer 2003, Vol. 13, No. 3

I included this article to help you think about what barriers are standing in the way of workgroups adopting more sustainable practices. First you need to diagnose why this is happening. Then it will be more obvious what to do about it. It may be helpful to map the various workgroups and key individuals against these barriers.

By Marsha Willard

Darcy and I recently found ourselves working with a client who was experiencing a very common problem. The organization had been talking about sustainability for some time; most people within the organization were knowledgeable about the issues and many were serious about taking the organization into a sustainable future. Still they were stuck. People didn't know what to actually *DO*; how their daily jobs should be different. Like many organizations they assumed that once a critical number of people "got it," that suddenly things would start to happen; processes would change, job tasks would evolve, and innovations would result. That this wasn't happening after a couple of years of talking about sustainability had our clients scratching their heads.

We all wish there was a magic sustainability wand that could transform an organization and all its members with one wave. But there isn't. In reality, the road to sustainability involves many steps with plenty of potholes along the way. To help our client get their organization moving, we began by describing our own evolution toward sustainability. Our story, as it turns out, is fairly common and illustrates the developmental growth people commonly go through in getting from here to "there." The story generated a number of ideas and strategies that we were then able to match to the stages of development our client's employees exhibited.

Our Story

AXIS is proud of its evolving and expanding efforts toward becoming a sustainable business. Though we are a small organization, we have made commitments to resource reduction, alternative transportation, green power and carbon credits. We have been a "climate neutral" business for over three years. The Oregon Natural Step Network recently added a case study on AXIS to its Tool Kit. We also transformed our business to help others make this same transition. Six or seven years ago, however, we were scratching our heads, just like our client, wondering what role we could play in the sustainability movement and what we could start doing differently. Our own experience has helped us develop create a diagnostic model that now helps organizations identify where in this developmental process they are and what they might do to move to the next stage.

While we acknowledge that no two organizations take exactly the same route to sustainability,

we have discovered that there are three developmental stages that most organizations go through. Like toddlers learning to walk, there are three key stages. You must first build your muscles and coordination to stand up. Then you have to learn to navigate from a whole new position before you finally get to really cut loose in your environment. Within each stage are two or three particular hurdles that have to be negotiated before you can move to the next phase. The hurdles are expressed as the questions we grappled with in our own development. The story of how we answered these questions has helped us frame solutions for other organizations.

Developmental Stages and Associated Hurdles

| Stage 1: Standing for sustainability | Stage 2: Taking the first steps | Stage 3: Running with sustainability |
|---|---|---|
| I don't understand what sustainability is | I don't know how to apply sustainability to what I do | I don't have the latitude within my job to apply it |
| I don't see a match to what I do | I don't have the tools or technologies to apply it. | I don't see the "market" for my ideas |
| I don't trust that this is real or lasting | | |

Stage 1: Standing for sustainability

Long before an infant learns to walk, he has to learn to steady his legs beneath him. For organizations in this early stage of implementing sustainability the obstacles to full adoption have mostly to do with learning about something very new and unfamiliar and trusting that it is real. It requires, to some extent, a whole new orientation to the world. The basic strategy to help an organization through this stage is education and reassurance.

I don't understand what sustainability is

When we first heard the term six or seven years ago we were intrigued, but confused. We hadn't a clue what it meant so we started poking around, reading a lot and attending workshops and conferences. For many organizations a lack of familiarity with the terms and concepts of sustainability presents an initial obstacle. The normal starting place for most organizations is an introductory presentation or workshop on the basic concepts of sustainability. Sustainability is a vague term and one that is still assumed to mean financial or market sustainability to the uninitiated business person. How many people in your organization are at least generally conversant with concepts like Triple Bottom Line, Zero Waste, Natural Step or other common sustainability models and ideas?

What to do

Education and exposure is the obvious strategy here. There are a multitude of approaches for bringing the concepts to people in your organization. The Natural Step Network offers free briefings to members to help them get started and several introductory full day public workshops throughout the year as well. Sustainable Northwest sponsors an annual three-day conference on sustainability in Portland. If you have the expertise in-house, you can conduct your own

trainings or invite guests in for presentations.

- Conduct or attend workshops on sustainability.
- Conduct "brown bag" presentations or learning sessions on pieces of sustainability.
- Publish reading lists and distribute them among employees.
- Disseminate readings and research reports.
- Send people to conferences.
- Develop or subscribe to a "newsflash" service (e-mailed summaries of books, articles, case studies, etc.) AXIS offers a free one. To sign up just send an email to axis-newsflash-subscribe@yahoogroups.com.
- Include sustainability training as part of new employee orientation.

I don't see a match to what I do

After getting excited by the concepts of sustainability we found ourselves asking, "We're organizational consultants. What role can we play in the sustainability movement?" We began to realize that implementing sustainability initiatives would not be that different from implementing any of the other organizational change efforts we had been working on for the last 13 years.

The connection between your existing role or function and sustainability is not always self-evident. People may need help seeing the links. Sometimes others in your own organization can be models or you may want to look outside your company for examples. Last fall we orchestrated a series of site visits for the Oregon Economic and Community Development Department so that their regional developers could see the connection between sustainability and competitive advantage and pass that perspective along to the struggling industries in their areas.

What to do

- Publish, present or otherwise share examples of what peers are doing and the connections they have made for themselves (For example, Darcy will be presenting a paper at this year's national Organizational Development Network conference to help our own peers see the link between sustainability and OD work.)
- Benchmark against other organizations who is doing great things and what can you learn from them?
- Conduct job review sessions. Examine day-to-day tasks in light of sustainability; envision a sustainable version of the job; assess the gap between what you are doing now and what you would be doing in a sustainable future and identify short and long term strategies for moving toward the sustainable job.
- Create an organizational vision of sustainability that illustrates the "pathway" to sustainability for your organization.
- Identify short and long term expectations, projects, tasks etc. that will take the organization toward the sustainable vision

I don't trust that this is real or lasting

While this wasn't an issue for us at AXIS (we are totally convinced that sustainability is here to stay), members of your organization may be cynical members of the "flavor of the month" club and assume that sustainability is a fad that will go the way of whatever initiative was launched last year. Usually this attitude is rooted in a lack of faith that leadership is sincerely behind the effort. Or perhaps the members of your organization suffer from "change fatigue" and are simply

resistant to anything that looks new or like something else they have to take on. These symptoms will take concerted effort to overcome. Consider the following strategies to breathe energy into your employees.

What to do

- Draw the link between sustainability and previous initiatives to underscore the notion of continuous improvement and dispel the perception of fad hopping. Explain why sustainability is the next natural step for your organization.
- Identify symbolic management actions that will demonstrate leadership's commitment to the efforts. For example the leader of one of our client organizations began biking to work in support of her organization's alternative transportation initiative.
- Build expectations regarding sustainability into the performance management system (i.e. department plans, individual plans, measures, rewards, reviews, etc.)
- Publicize the organization's successes and publicly acknowledge those who contributed to those successes.
- Reinforce an organizational vision of sustainability that illustrates the "pathway."
- Continuously review and revisit the short and long term expectations, projects, tasks etc and report on their progress.

Stage 2: Taking the First Steps Toward Sustainability

Karl Henrik Robert, primary author of The Natural Step framework for sustainability, understood from the very beginning that no one can achieve sustainability all at once; "It's called the natural STEP, not the natural LEAP," he is fond of saying. You get there one step at a time. Like a toddler taking his first steps, there are plenty of things to trip over. Our own experience and the experience with many of our clients have uncovered two primary obstacles. As people in your organization come to understand sustainability they begin to puzzle over how to apply it. They are like children who have learned to ambulate vertically, but haven't yet mastered the intricacies of their environments. Getting the principles of walking is very different from navigating stairs or slippery linoleum. In this stage it is important to give people opportunities to try out new things in a safe environment and to provide them the tools and support they need to do them.

I don't know how to apply it to what I do

So, at AXIS we got that sustainability was important and were convinced we had a role to play, but wondered exactly what that role would look like? We wondered what services or products would we could offer that would make sense to our clients? We conducted dozens of interviews and created a mind map relating our services and expertise to various issues of sustainability. We began to retool our products and realign our services. One of the first results was our *Sustainability Series* of how to booklets. They were a result of our asking ourselves, if we got a call tomorrow to help a client implement a sustainability initiative, what *would* we do? The question focused us, helped us expose our knowledge and skills gaps, pointed us to the people with whom we should form strategic alliances, AND resulted in a marketable product. We think everyone stuck at this step could benefit from a similar analytical approach. If you can envision a sustainable version of your job, then you can begin to see the actions necessary to move you toward it.

What to do

- Conduct job review sessions (examine day-to-day tasks in light of sustainability; envision a sustainable version of the job; assess the gap and identify short and long term strategies for

- moving toward the sustainable job).
- Interview people in other organizations who do similar work or are applying sustainability concepts to their existing jobs.
- Share case studies of what others are doing.
- Brainstorm new products, services, and processes and then figure out how to deliver them.
- Identify and prioritize sustainability projects and fold them into existing job duties.
- Give people an opportunity to reshape their own jobs and evolve them toward new and more sustainable ways of doing things.

I don't have the tools, methods, technologies, etc. to apply this to my work

When the task is clear, then the tools and technologies you need become evident. It was clear to us after writing the *Sustainability Series* that we needed either to learn about or link up with people who could conduct energy audits, perform life cycle assessments, do eco-charettes and the like. Information resources and references regarding sustainability are propagating like rabbits. If your Google search results in an overwhelming number of hits, try starting at our own web site for a manageable sized list of good books and other resources.

www.axisperformance.com/publications.html. (Click on suggested reading list and download a file organized by topic.)

What to do

- Benchmark against other organizations that are doing interesting or innovate things.
- Train staff to conduct impacts assessments on their part of operations.
- Broadcast information about what others in the organization are doing.
- Create an information database or resource center where people can go for information.
- Feature a new technology or methodology in each issue of your internal newsletter.

Stage 3: Running with Sustainability

Even after developing a level of sophistication around sustainability, employees can get frustrated by the limits of their internal and external environments. Imagine an active child who is ready to run, jump and climb, but can't get to the playground. In this stage the most helpful thing and organization can do is to break down the barriers to performance and support the creative ideas employees generate.

I don't have the latitude within my job to do what I think needs doing

When your organization has only two people in it like ours, you can be pretty nimble. Likely yours has more employees and is a little harder to redirect. This was the case with our recent client. People wondered how they could pursue their ideas about sustainability when their job descriptions and performance expectations made no mention of it. Would their managers really allow them to reprioritize their responsibilities so that they could begin to reshape their jobs? This obstacle absolutely requires leadership support. This is where management's walk has to match the talk.

What to do

- Hold managers accountable for results related to sustainability by incorporating these expectation into *their* plans and performance reviews.

- Expect managers to continuously address sustainability and regularly review progress on sustainability projects.
- Re-evaluate individual job descriptions and incorporate duties related to sustainability.
- Build expectations regarding sustainability into the performance management system (i.e. department plans, individual plans, measures, rewards, reviews, etc.)

I don't see the "market" for my ideas

Once we at AXIS got clear about what we were offering, we started looking around for the clients with whom we could work. Let's just say that in the first year or two customers didn't exactly break down our doors. But over time, we built our reputation. Now the sustainability portion of our work takes up the majority of our time. You may find yourself in a similar situation. What if your customers aren't asking for a greener product? What if they don't care that you are a carbon neutral service organization? How do you justify your efforts if there is no apparent pay off?

Every market leader has faced this dilemma at one point or another. The good news about getting out ahead of your competition is that you are primed to be an industry leader. The bad news is that you get there often before the customer does. But the smartest companies don't wait for their customers to ask for something, they anticipate their needs and then sell the customers on the benefits.

What to do

- Develop "sales" skills among staff to enable them to talk persuasively about sustainability to others.
- Help people understand the "1st mover advantage." The organization that gets an innovation to market second never quite captures the same advantage. When Burger King saw the good relations MacDonald's was building with customers in Sweden through its environmental practices, it quickly followed suit but never earned the same positive image.
- Train staff to build business cases for their ideas and to identify financial returns related to sustainability.
- Discover the potential return on learning. Sometimes it's hard to sell an idea that has a large capital price tag attached. But learning comes much cheaper and can reap just as much pay back.
- Conduct public presentations to "pre-sell" sustainability to customers or constituents. Twenty years ago we didn't know we needed special shoes for running or antibacterial soap to really clean our hands. Teach your customers to see the value in the sustainability features you can offer.
- Create the financial incentive to pursue or buy sustainable options. Traditional accounting practices mask the real costs of some unsustainable practices (like health and training costs associated with certain material uses) and over inflates the price of sustainable ones. Look for these accounting perversions to find the financial backing for your ideas.

Identifying Your Stage of Development

We're guessing that as you read this article you recognized members of your own organization at one or more of the stages described. Diagnosing the point in your development is important to choosing the strategies necessary for moving forward. Doing the right thing at the wrong time will have little positive impact. Training people over and over again doesn't help them if they are at one of the later stages. While each situation and organization is different, we think many of the strategies we've shared here are a logical starting place. Adapt these as needed to fit your situation or use them as a jumping off place to generate other ideas.

If you have other ideas, we'd love to hear them. Or if you want feedback on something you'd like to try, we'd be happy to chat with you about them.

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Appendix C—Simple Greenhouse Gas Calculator

We use this spreadsheet to track our greenhouse gas emissions at AXIS Performance Advisors. The conversion factors come from a variety of sources. If you have better sources, feel free to change them. The main one that tends to change is electricity since the source of electricity varies quite a bit from one part of the country to another. I don't have a conversion factor for waste. Instead of columns for Darcy and Marsha, you'd most likely list your departments. Note there is an internationally recognized standard for reporting greenhouse gas emissions, the Greenhouse Gas Protocol. Following this would be important if you want to make public claims.

Carbon Calculator

| Source | Pounds CO2 | Conversion Factor | Darcy | Marsha | Instructions |
|-----------------|-------------|-------------------|-------|--------|---|
| Auto gal. | 2182.078261 | 19.4 | 33.4 | 79.00 | Enter # gallons gas (miles/mpg) |
| Air miles | 16155.9 | 0.9 | 9900 | 8051 | Enter roundtrip miles |
| Mass transit | 597.5 | 0.5 | 800 | 395 | Enter miles |
| Electricity | 0 | 1.2 | 0 | 0 | Enter KWH for usage that is NOT green power |
| Fuel oil/diesel | 0 | 22.2 | 0 | 0 | Enter gallons |
| Nat gas | 2923.2 | 12 | 54.6 | 189 | Enter therms |
| Total | 21858.67826 | | | | |
| Metric tons | 9.917730608 | | | | Divide lbs by 2204 to get tons |

Note: Factors for natural gas, gasoline, electricity, diesel are from Climate Trust
Others are from Co-Op America article.

