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## Sustainability Task Force

A Committee of the Chico City Council  
Vice Mayor Schwab, Chair

Meeting of May 29, 2007 – 3:00 p.m. to 5:00 p.m.

Council Chamber Building, 421 Main Street, Conference Room No. 1

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### **AGENDA**

1. **Task Force Update** – *Sustainability Efforts of Portland*
2. **Consideration of an Energy Audit Recommendation**  
  
*Presentations: Ruben Martinez, Director of Operations and Maintenance - City of Chico  
Representative from Johnson Controls*
3. **Consideration and Possible Recommendation Regarding a Sustainability Evaluation Conducted by SCORE** - information attached  
  
*Presentation: Jim Pushnik, SCORE*
4. **Future Meeting Schedule**
5. **Preliminary Discusson Regarding the Development of a Work Plan** - if time allows
6. **Business from the Floor** - Members of the public may address the Committee at this time on any matter not already listed on the agenda, with comments being limited to three minutes. The Committee cannot take any action at this meeting on requests made under this section of the agenda.
7. **Adjournment** - The meeting will adjourn no later than 5:00 p.m. The next meeting of the Sustainability Task Force is scheduled for June 11, 2007 from 3:00 p.m. – 5:00 p.m. in Conference Room No. 1.

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Distribution available in the office of the City Clerk:

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**Chico City Clerk's Office**  
**411 Main Street, Chico, CA 95928**  
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*Please contact the City Clerk at 896-7250 should you require an agenda in an alternative format or if you need to request a disability-related modification or accommodation in order to participate in a meeting. This request should be received at least three working days prior to the meeting in order to accommodate your request.*

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### Members:

Dr. Scott G. McNall  
Anthony Watts  
Lon Glazner  
Jim Stevens

Ken Grossman  
Jason Bougie  
Julian Zener  
Scott Wolf

Jim Pushnik  
Adam Hansen  
Jim Goodwin  
Tami Ritter

Kristen Cooper - Carter  
Tom DiGiovanni  
Jon Luvaas  
Ann Schwab, Chair



# SCORE

Sustainability Competency & Opportunity Rating & Evaluation

Results for CLIENT

August 22, 2006





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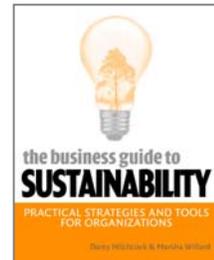


## Background on SCORE and Your Results

Welcome to SCORE, a powerful tool to assess your sustainable business practices and to plan future actions. We provide a short explanation of the tool below. For more information, see [www.zerowaste.org/score/](http://www.zerowaste.org/score/) or contact Darcy Hitchcock at [dhitchcock@zerowaste.org](mailto:dhitchcock@zerowaste.org).

### How SCORE Was Developed

SCORE was created by Darcy Hitchcock and Marsha Willard as part of their book, *The Business Guide to Sustainability*, in collaboration with members of the International Sustainable Development Foundation and the Zero Waste Alliance. They wanted to create a tool that would help organizations evaluate how well they were doing on their path toward sustainability but also help the organizations understand what they ultimately will need to do.



### How SCORE is Structured

SCORE is divided into two main sections, sectors and functions. The ones you took are checked below.

Sector Assessments	Functional Assessments
Service	4 Senior Management
4 Manufacturing	4 Facilities
Government	4 Human Resources
	4 Office Management
	4 Purchasing
	4 Environmental Affairs
	4 Marketing/Public Relations
	4 Finance/Accounting
	4 Sustainability Director or Coordinator



## How to Interpret your Results

As you may recall, you entered ratings for each practice on a 0-9 point scale. Your score was guided by three benchmarks of performance, the Pilot, Initiative, and Systemic levels. You had to have qualified under the lower performance score to qualify for a higher one. See the sample item below.

INTERNAL OFFICE OPERATIONS				
Points	Practice	Pilot 1 point	Initiative 3 points	Systemic 9 points
	Office Supplies and Equipment: Minimize impacts associated with office supplies, furnishings and equipment.	Identify a couple targeted purchasing categories and identified more sustainable options.	Have a system in place for routinely assessing the impacts of purchases and are working on finding better options.	80% or more of office supplies and equipment come from sustainable sources (i.e., from a certified sustainable source, 100% post-consumer waste, recyclable, product take-back)

As you review your results in this document, keep the following guidelines in mind:

- SCORE assesses your sustainability practices, the degree to which sustainability is embedded in your organizational practices.
  - 0=business as usual.
  - 1=initial, early actions; good first steps.
  - 3=formal initiative, significant steps have been taken.
  - 9=fully sustainable, sustainability is embedded in your organization and you are putting pressure on other stakeholders as well.
- Note that anything above zero is good and at this point in history, and a 3 is considered excellent. However, the bar will keep rising.
- Benchmark data lets you see how you compare to other organizations that have taken SCORE. You were benchmarked against all organizations in our database.

## How to Review your SCORE Results

It is usually best to review the SCORE results with the entire group that was involved with filling out the assessment. We recommend devoting a one-hour meeting for this. You can provide copies of the report in the meeting. We recommend following these steps to review this report:

- 1) Create a flip chart with two columns: Kudos (things we are doing well) and Areas for Improvement (things we might work on). Create another chart for Action Items.
- 2) Look at the charts summarizing your scores for Functions (not the individual charts for each function) and also your Sector (assuming you took all these assessments). First compare your ratings against yourself (rather than the benchmarks). Note which areas scored the highest and list these under Kudos on the flip chart. Note areas that got the lowest scores. Note these under Areas for Improvement. If some of your average scores for functional areas seem high or low, look at the individual charts for the functional area. Since each functional area is scored on roughly half-a-dozen items, one particularly high or low score can skew your averages.



- 3) Now examine how your scores compare with the benchmark. Where you are doing better than the benchmark and also significantly worse? Write these under the appropriate column on the flip chart. If an item is the same as one noted in #2 above, you may simply star or underline it instead of writing it again.
- 4) Identify strengths you can build upon. Under the Kudos column, are there areas where you are prime for taking the next step? If so, circle them. If specific ideas are mentioned about how to improve, note them on the flip chart as well.
- 5) Identify areas needing attention. Under the Areas for Improvement column, consider which areas would be best to work on next. Circle them. If specific ideas are mentioned about how to improve, note them on the flip chart as well.
- 6) Review the Kudos and Recommendations we provide in this report. Incorporate them against your own ideas as appropriate.
- 7) Consider these priorities. If you feel as if you can work on all of the items circled in the next year, then skip the next step.
- 8) If needed, prioritize or sequence the priorities you have circled. You can ask if certain items seem more important or timely. You can also do multi-voting (e.g., with dots). Or, if the items seem to follow a logical sequence, create a rough project plan to work on them all over a couple years.
- 9) Develop an action plan for each priority (or at least the ones you want to take on first). You may find it useful to review the SCORE benchmarks again for ideas of things you can do. You may also want to review the practice scores within each functional area to see which practices need most attention.
- 10) Discuss how to embed these new goals into your existing business planning process. How will you hold people accountable for making improvements in this area.
- 11) Decide when you want to take SCORE again to check your progress. (Note that we keep your results in our database so can easily compare your future results with these in this report.)



## Where You Are in Your Development

Based on what we can infer from your SCORE results, we place you along this spectrum of development. Organizations early in the implementation often fall into the Incubator stage, where efforts are ad hoc and they may be occurring with or without the knowledge and blessing of management. Once an effort is an official organizational initiative, the implementation is more intentional and spreads across the organization. Few organizations are yet at the Integrated stage where they have internalized and institutionalize sustainability, have a clear vision for what they must do to become fully sustainable and are influencing other stakeholders to do the same.

You are  
Here



Incubator	Initiative	Integrated
<p>Early ad hoc efforts</p> <p>Pilot efforts in isolated parts of the organization, instigated by people with passion for sustainability</p> <p>May or may not have top management support</p>	<p>A formal initiative with top management support</p> <p>Sustainability is being embedded into formal practice across the organization</p> <p>There are formal structures to support sustainability (e.g., a sustainability coordinator, a steering committee, etc.)</p>	<p>Sustainability is fully integrated into the organization and is part of the organization's public image and core values</p> <p>The organization is using its influence to encourage other stakeholders to pursue sustainability goals</p> <p>The organization is a leader, taking responsibility for its externalities</p>

Based on your data, it was difficult to pinpoint where you are on this continuum because you have done some things that are quite advanced including having a formal vision, engaging vendors in a discussion of sustainability, and training all employees on The Natural Step. However, you also describe yourselves as just beginning a formal initiative. Perhaps this is because organics are core to your mission and also an important part of sustainability.



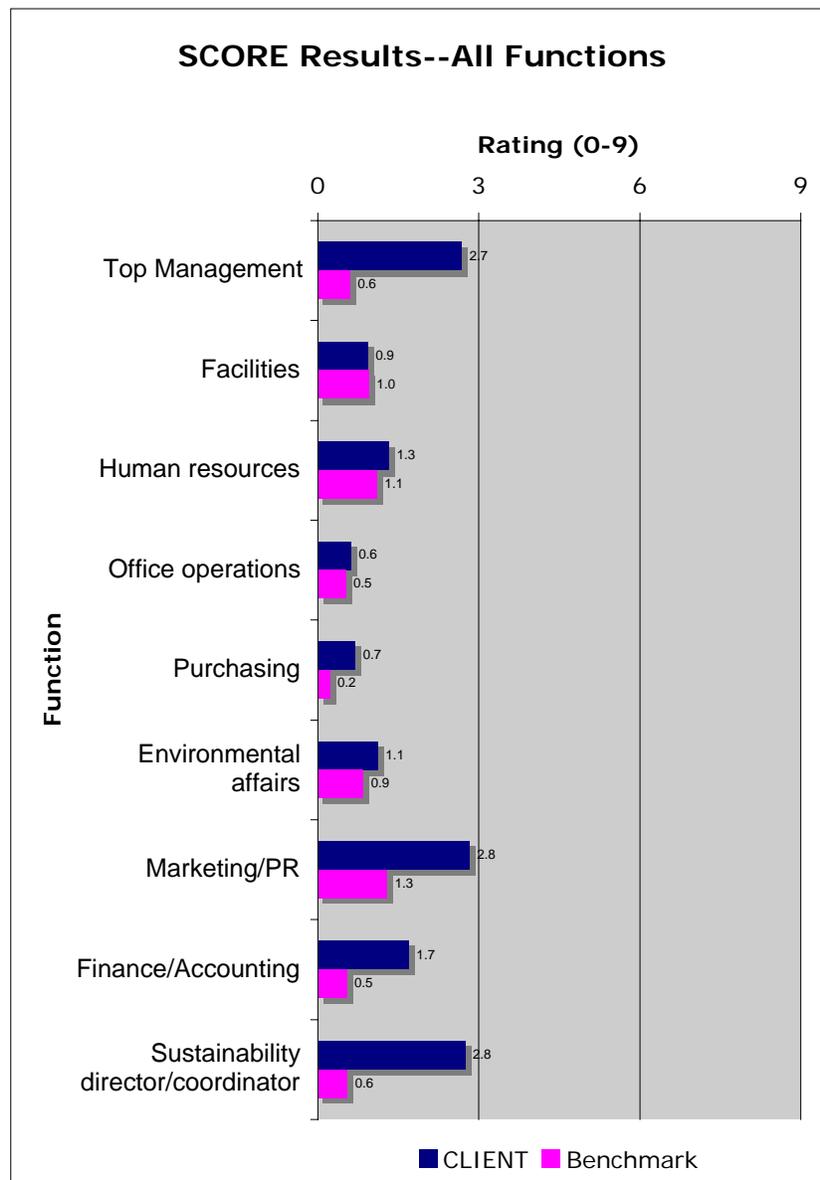
Typically, the major tasks or challenges organizations face at this point include:

- Determining point of entry—where to begin your efforts. In your case, this is better framed as what to do next.
- Developing transitional structures—how to manage the initiative. You have some teams in place to help manage this effort: the sustainability steering committee, an office team working on energy, etc. So you have pieces in place. Ask yourself if you are missing anything and if not, is there anything else you need to do to support these structures.
- Growing support—spread interest in and responsibility for sustainable thinking. Consider how to collect and manage ideas that come from employees as well as how to maintain interest in the sustainability initiative.
- Developing metrics/reports—find ways to track and report your results. You have begun this process of creating metrics and it would be helpful to complete this process so you have a way to measure your results.



## SCORE Results by Function (Summary)

The following chart shows your average scores for each functional area as compared with the benchmark. Note that these are averages of all the practices for each functional area. Since averages can hide important differences and skew your results, it is also important to review the individual charts for the functional areas.

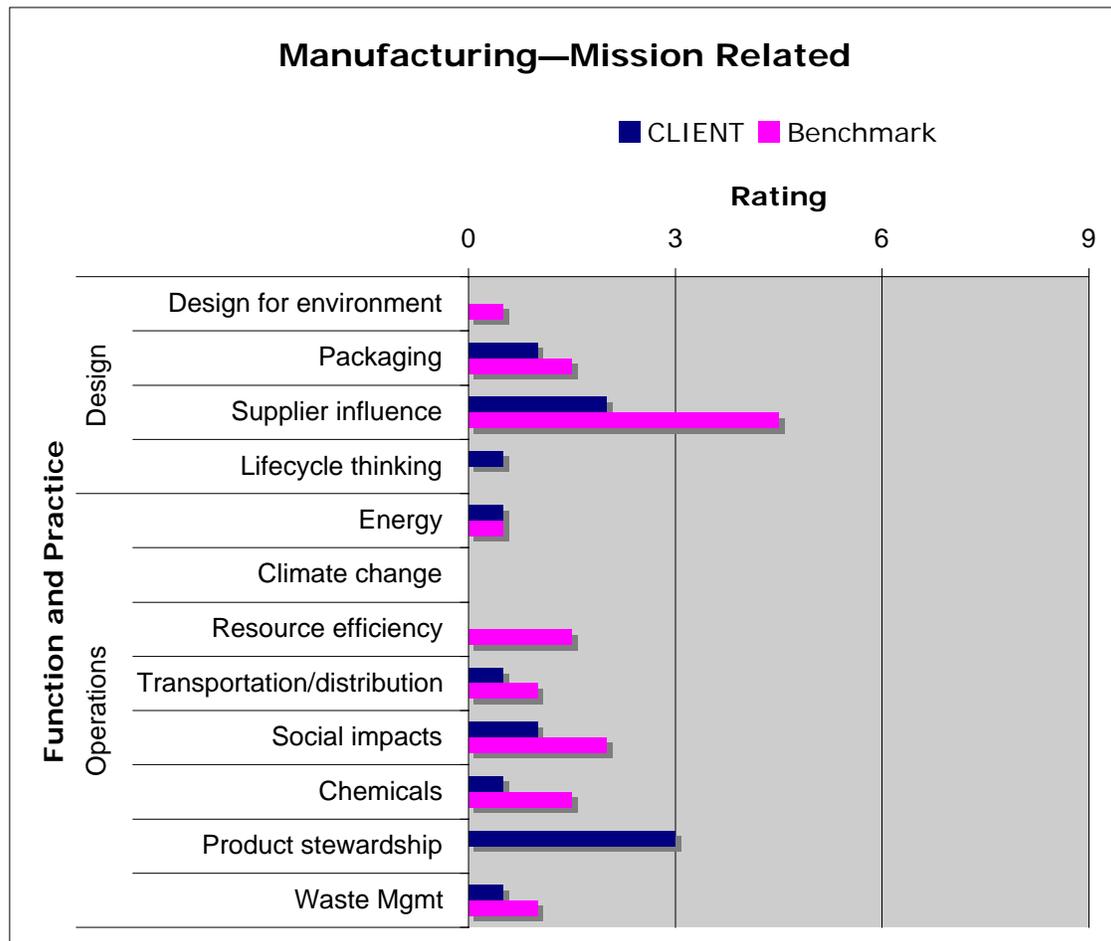




## SCORE Results for your Sector

The following chart shows your average scores for each practice for your sector as compared with the benchmark.

NOTE: You considered the first practice, Design for Environment, as not applicable. Also, given the vendor conference you completed, your score for Supplier Influence may have been low.





## Kudos—Assets to Build Upon

Based on our analysis of your results, we'd like to commend you on the following:

- **Leadership and management:** The vision and values of the organization have long incorporated aspects of sustainability and have been an integral part of both the mission of the organization as well as the planning process. This provides a strong platform for the expanding attention to sustainability. The executive team is well versed in the issues of sustainability.
- **Stakeholder relationships:** While not systemic, the history of close relationships with key suppliers and the already occurring conversations about aspects of sustainability will facilitate the development of more sustainable practices among these stakeholders.
- **Energy conservation:** You have already made gains in some high impact areas such as energy and fuel consumption.
- **Toxics:** You have already assessed and worked to reduce the use of toxic chemicals.
- **Structures:** You have in place structures that will help you manage the sustainability effort (e.g., the steering committee, sustainability coordinator/director, an office team focused on energy).
- **Systems:** You have or are working on important systems to manage your sustainability effort such as metrics and reporting.



## Areas for Improvement

Based on our analysis of your results, we'd like to suggest you focus on strengthening your performance in the following areas for the next year or two:

- **Internal sustainability:** Since you have already begun to influence your vendors, it's especially important to have your own 'house in order.' Obviously it's not possible to address everything at once but it is important from an integrity standpoint to be 'walking the talk.' We offer the following questions as a way to make sure you have done enough internally before pressuring others to change their practices:
  - If you were to take someone on a tour of your operation, do you have several good stories to tell about sustainability innovations you have already implemented where you can point to tangible results?
  - Is there anything that you'd be embarrassed for someone to see or point out?
  - Do you have exciting new projects you're currently working on that you could mention?
- **Management systems:** By your own admission, current efforts are uncoordinated and could benefit from a comprehensive management system with useful metrics and regular review of results. While you may not need a fully compliant ISO 14001-type management system, you will want to develop systematic processes for deciding what to work on, managing the efforts, monitoring results and integrating lessons learned. This is an important task for your Steering Committee. You should expect your system to become more sophisticated over time. We recommend picking a few corporate initiatives for each year to which all or most departments can contribute and then ask each department to pick one more goal specific to their own area. Please see the Resources section for one inexpensive resource to help you conceptualize how to develop a practical sustainability management system.
- **Waste management:** Based on your scores, it appears there may be significant opportunities for cost reduction if you conducted a waste audit and worked toward a zero waste goal. Many organizations have already achieved 'zero waste to landfill,' and they have discovered that it is quite profitable to do so. See the Resources section for low- and no-cost services and resources to conduct a waste audit.
- **Purchasing:** According to your scores, your purchasing practices might be a good place to work on next. This area can typically yield good results. If you don't already have one, develop a sustainable purchasing policy that helps guide employees on the selection of products and services. Specify whether a price premium is acceptable for environmentally preferable products (but don't assume that these products must cost more). Conduct a purchasing audit to determine the products/services you buy the most (by dollar, weight or other measure) and then pick a couple to work on.



## Recommendations for Next Steps

Based on our analysis of your SCORE results, we'd like to suggest the following as possible actions you could take for improvement. Please recognize that we are making these suggestions based on very limited information about your organization. Please use them as a source of ideas, not an edict.

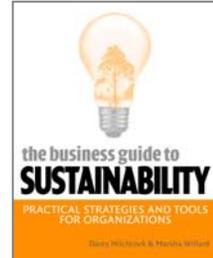
- Reconvene the group that took SCORE and review these results.
- Develop a set of priorities for 1-3 years. Assign responsibility and develop a mechanism for maintaining accountability (e.g., request semi-annual reports to the executive team from the Steering Committee).
- Develop a 'scoreboard' for your sustainability performance based on the framework. (You don't necessarily have to gather data on all the metrics but at least identify the metrics you are likely to need. For example, you may not be ready to work on greenhouse gases, but obviously some measure of them would be important to any business.)
- **BEFORE YOU IMPLEMENT ANYTHING NEW**, gather baseline data so that you can take credit for your improvements.



## Resources

The following resources should help you take action on your SCORE results.

- **General Resource.** *The Business Guide to Sustainability* (Hitchcock and Willard, Earthscan 2006) is the manual that accompanies SCORE. Look in the appropriate chapters for ideas and tools. A copy was mailed to [client] as part of this service.
- **Management Systems.** Regarding developing a more formal sustainability management system, you might find one of AXIS's *Sustainability Series™* how-to booklets particularly helpful: [Developing Effective Systems for Managing Sustainability](#). For a description of this series, go to [www.axisperformance.com/sust\\_series.html](http://www.axisperformance.com/sust_series.html). Dorothy Atwood, one of the authors, is considered a national expert on converting environmental management systems to sustainability management systems. You can reach her locally through the Zero Waste Alliance at [datwood@zerowaste.org](mailto:datwood@zerowaste.org).
- **Waste.** Regarding waste reduction efforts, the City of Portland through its Blue Works program offers free waste audits and advice to local businesses (Meagan Stein, 503 823-7037). Your Clackamas operations may be outside their jurisdiction, but if so Meagan could probably point you to other resources. They contract with a group at Portland State University to do at least some of these audits (Sheryl Bunn, Community Environmental Services, (503) 725-8442). Sheryl could arrange the work for a small fee. In Eugene, check with the local university to see if they have similar services. You might also find one of AXIS's *Sustainability Series™* how-to booklets particularly helpful: [Approaching Zero Waste](#). For a description of this series, go to [www.axisperformance.com/sust\\_series.html](http://www.axisperformance.com/sust_series.html). Two other resources include the Portland-based non-profit, the Zero Waste Alliance, and the GrassRoots Recycling Network ([www.grrn.org](http://www.grrn.org)).
- **Purchasing.** One of the best resources for sustainable purchasing is the Center for a New American Dream. Their website ([www.newdream.org](http://www.newdream.org)) is packed with examples and information. Look for the Institutional Purchasing part of their website.



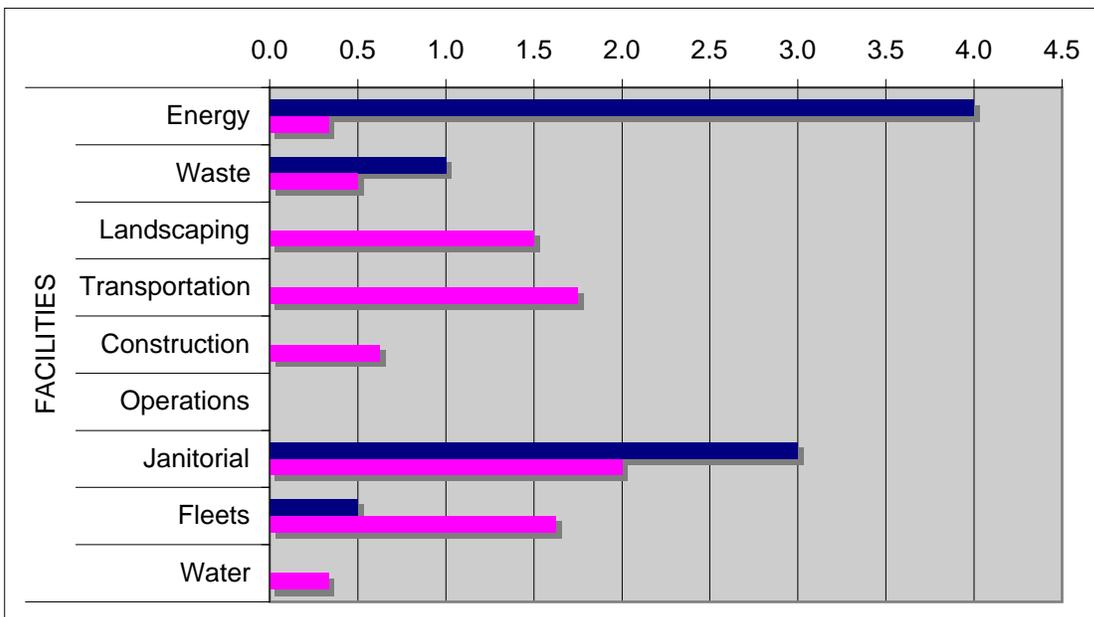
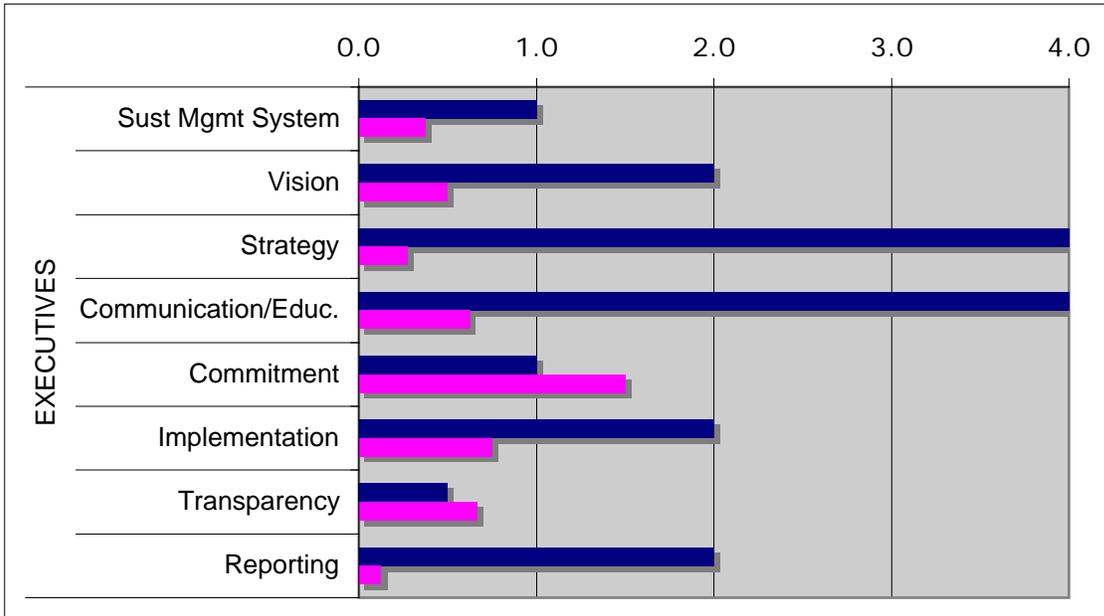


## Appendix—SCORE Results for Each Functional Area

These charts show your SCORE results for each functional area and its practices. Note that the scales on the charts vary.

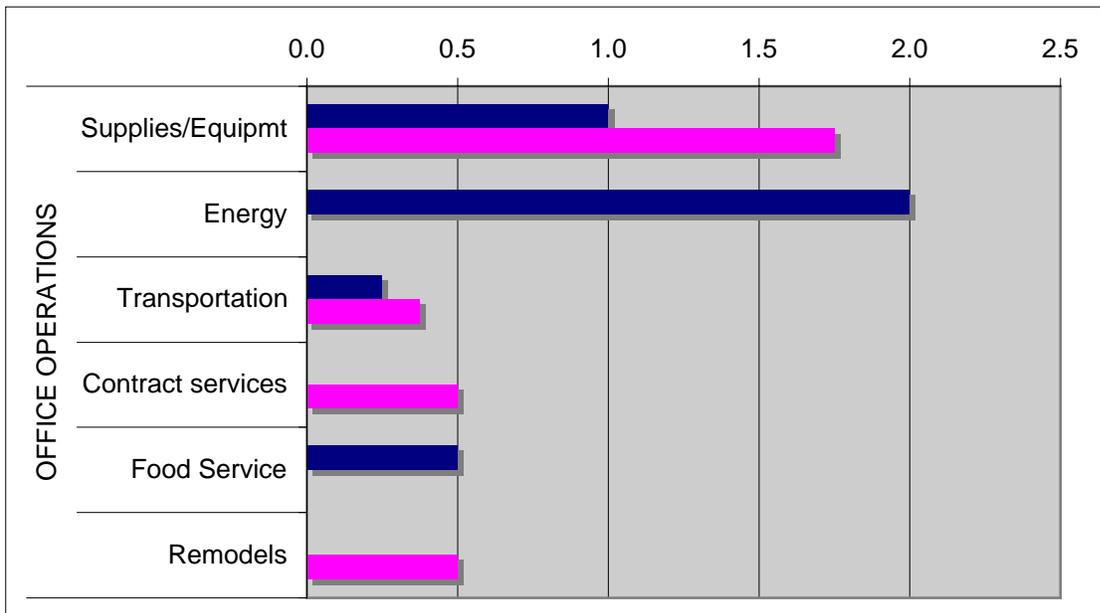
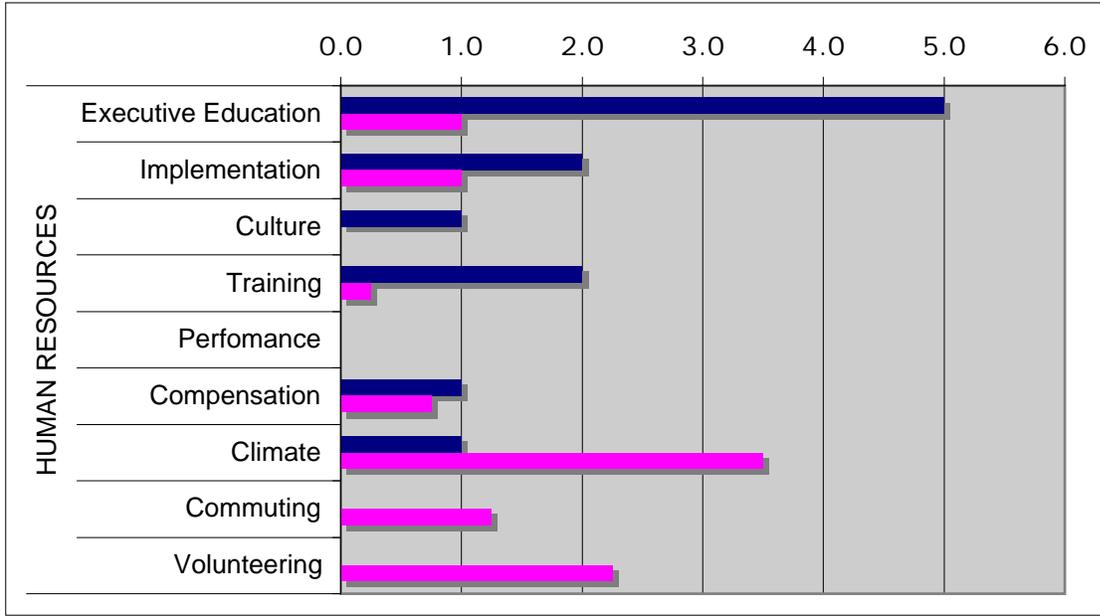


## Executives & Facilities



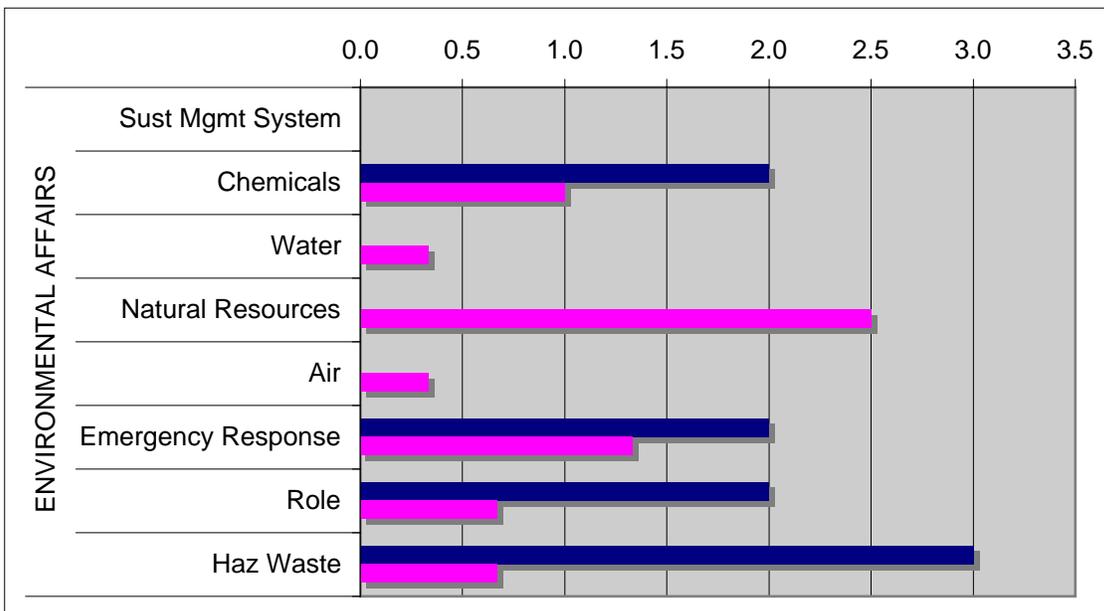
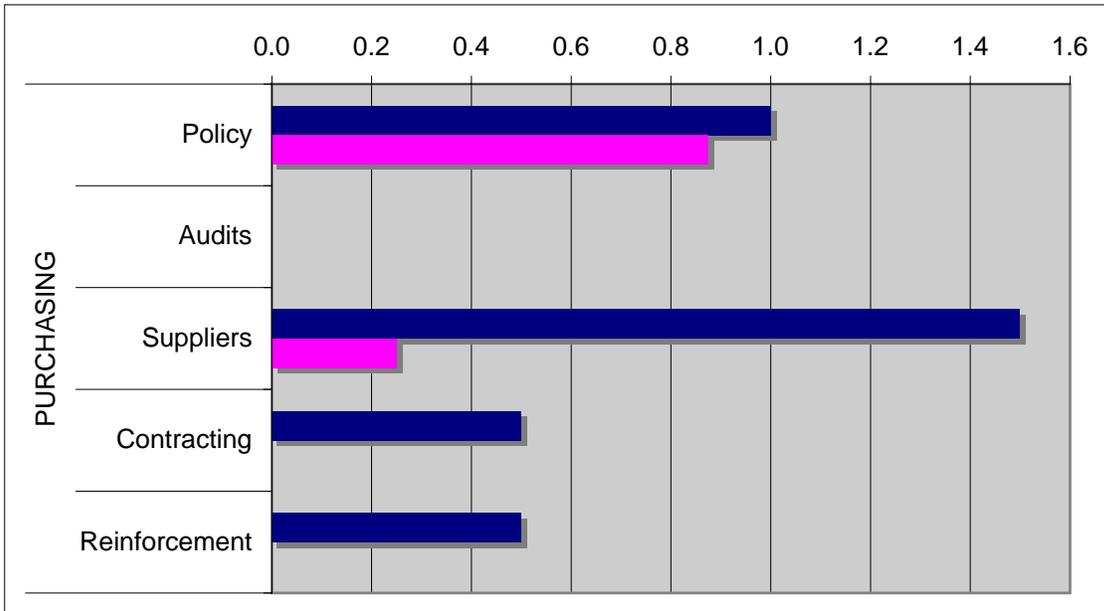


## Human Resources & Office Operations



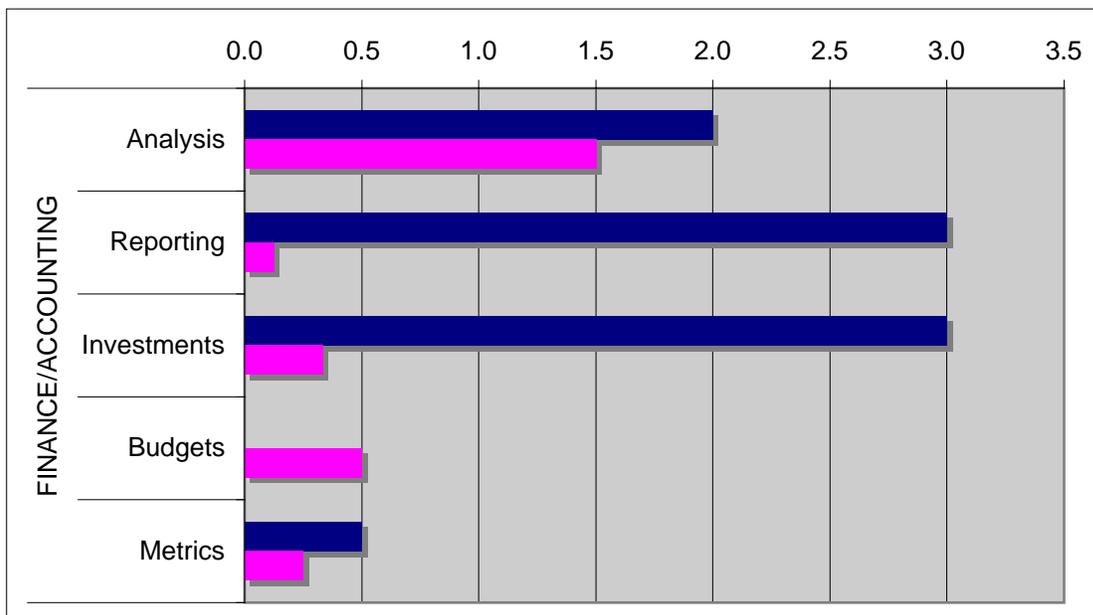
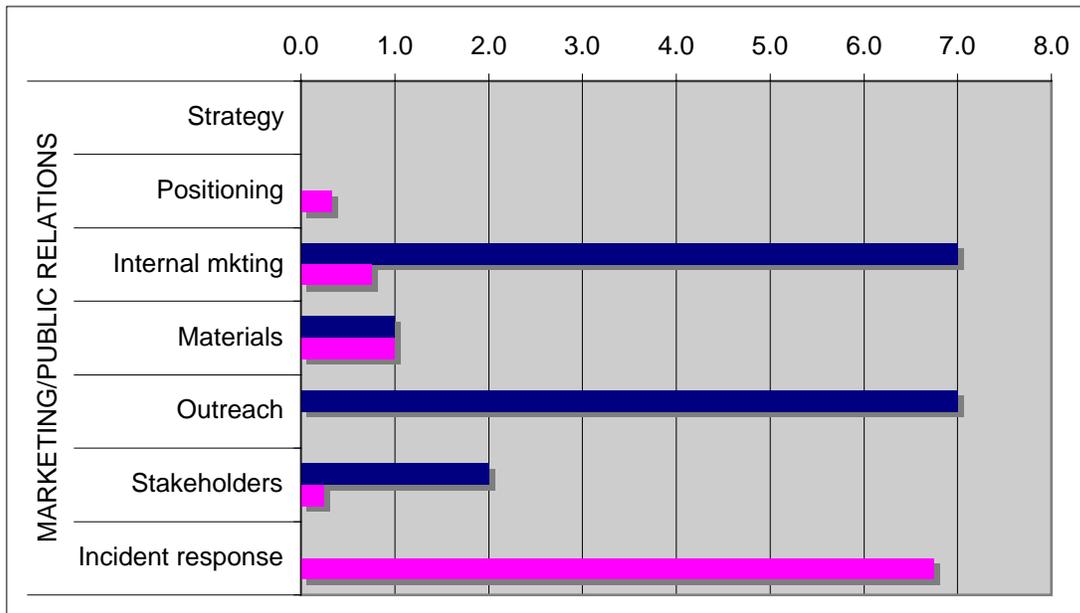


## Purchasing & Environmental Affairs



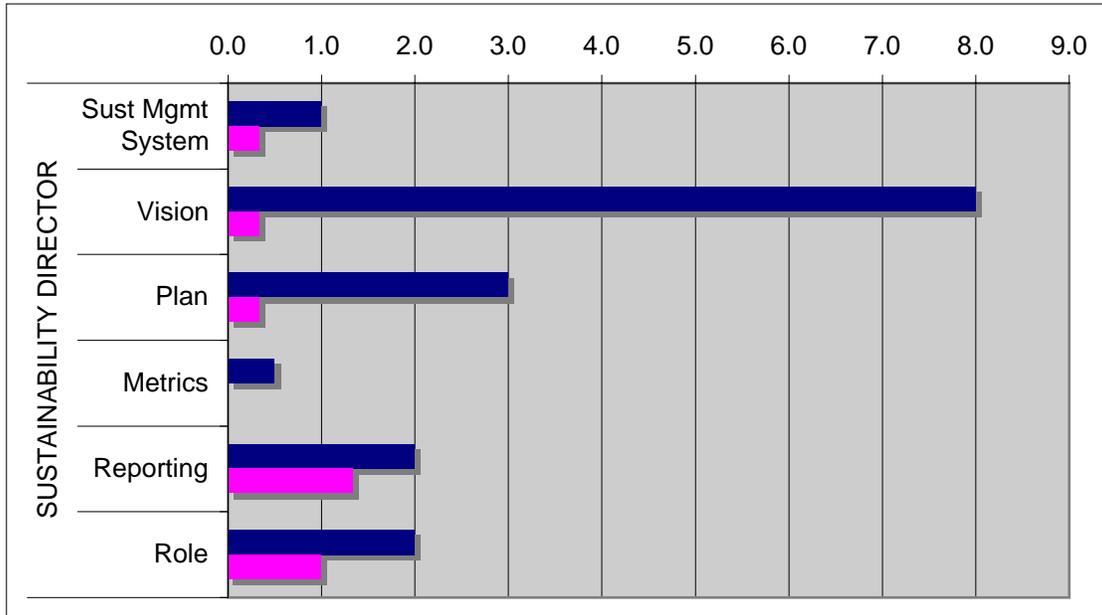


## Marketing/Public Relations & Finance/Accounting





## Sustainability Director/Coordinator



City of Corvallis - Phase 1 Report

# **Assessment of Sustainability Performance**

#PW-05-16  
December 2005



*Zero Waste Alliance*

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# Executive Summary

*This report summarizes our findings for Phase 1 of the Sustainability Assessment. It includes the assessment of current sustainability-related actions by the City of Corvallis. For information on our recommendation results, please see the Phase 2 report.*

The Zero Waste team, with significant input from Corvallis staff members, has evaluated Corvallis's sustainability actions to date. We looked at sustainability action from four different perspectives:

- The six policy areas defined by the City
- Organization function using our proprietary assessment tool, SCORE
- Action by each of the eight City departments
- Other Oregon municipalities and sustainable leaders

With our limited time, we asked the Steering Committee to direct our attention to those areas they felt most warranted an assessment, areas where they were most proud and areas they felt needed more attention. These two reports, then, should be viewed as an incomplete snapshot of Corvallis' sustainability activities and opportunities, an outsider's perspective of progress to date and certain opportunities for the future. Our recommendations should in no way limit what the City can or should work on. We assume that Corvallis will take our observations and recommendations, assess their worthiness and feasibility, and make appropriate decisions about what actions to pursue.

In general, we found Corvallis has four main assets that position it well to pursue sustainability:

1. Employee commitment. In every department we found passionate, committed individuals who were pursuing sustainability-related goals.
2. Executive support. The City Council has sustainability as a goal and approved a Sustainability Policy. In addition a number of the City's top management, most notably, Jon Nelson, City Manager and Steve Rogers, Public Works Director, are actively encouraging this agenda.
3. On-going efforts. The City has already undertaken a number of sustainability projects, particularly those related to recycling/reuse, energy conservation, renewable energy, and green building.
4. Existing systems. Corvallis has a number of excellent existing systems (e.g. purchasing manual, performance review system, budgeting/performance measures and internal meetings) that can be used to integrate sustainability effectively into the organization.

These assets position Corvallis well to go to the next level:

1. Be more intentional. Up to this point the projects have been done on an ad hoc, opportunistic basis. Corvallis needs to develop structures, processes, and plans that ensure the City works on the highest priority impacts and learns from its experience.
2. Clearly stated end-points. There is a difference between being 'less bad' and being sustainable. Corvallis needs to set audacious goals that reflect ultimate sustainable performance. These can unleash innovative thinking and create clarity around what sustainability means and how it can be implemented.
3. Create a common understanding. To date there has been no formalized effort to provide City-wide staff awareness of what sustainability is and the City's efforts.

Some of the outstanding examples of projects and sustainability efforts include:

- Sustainability policy was approved by Council
- 750 blocks of green energy representing 7% of the City's total energy needs are met with renewable energy
- Alternative transportation - The City was awarded a Gold Level Bicycle Friendly Community by the Bicycle Transportation Alliance. Corvallis has been recognized as a national leader in promoting alternative transportation. Bicycle lanes are on 95% of arterial and collector streets.
- Elimination of chlorine gas in waste water treatment plant. Chlorine gas is both a severe health/safety hazard, but also an environmental threat as well. This is a great step towards reducing toxics within the City's operations.
- Integrated Vegetation and Pest Management program reduces the use of synthetic pesticides through a variety of methods.

Part of the scope of work was to benchmark Corvallis with respect to other communities. We chose to look at similar Oregon municipalities as well as some sustainability leaders. The diagram below shows generally where Corvallis benchmarks with respect to other similar Oregon communities and some inspirational sustainability leaders.

Springfield	Ashland	Lake Oswego	Corvallis Bend	Port of Portland	Whistler	Ft Lewis
<i>No apparent formalized sustainability program</i>		<i>Pilot efforts underway; ad hoc without guiding framework</i>		<i>Formal initiative; well managed</i>		<i>Integrated; leading the charge</i>

The next big steps are to solidify the City's framework and develop robust and integrated systems to keep the sustainability efforts focused and effective.

# Project Background and Methods

Zero Waste Alliance was hired to conduct an assessment of Corvallis' sustainability actions to date and to recommend future actions. The focus was to be on internal City operations, not the impact that City practices have on the wider community. This was achieved through a variety of methods, including facilitation of a Steering Committee, paper-and-pencil assessments, interviews and onsite visits. Combining the ideas of City employees with the perspectives of the Zero Waste team provided the best chance of uncovering high-value projects while ensuring the commitment of internal staff.

**Steering Committee**—We formed a Steering Committee to make decisions and recommendations. This group received basic training on sustainability concepts and frameworks. Then the committee:

- Conducted an impacts analysis to identify priorities for the City as a whole and the individual departments.
- Decided on the best frameworks to use to evaluate sustainability performance and organize the data.
- Developed sustainable targets and goals for these priorities.
- Completed a paper-and-pencil assessment on organizational functions.
- Developed a process for managing the sustainability efforts, called a sustainability management system.

**Expert Assessment**—The Zero Waste team, in addition to leading the effort above, also conducted follow-up interviews, gathered and reviewed documents, and visited sites

## **Steering Committee Members**

### **City Manager's Office**

Jon Nelson, City Manager  
Ellen Volmert, Assistant City Manager and Personnel

### **Department Directors**

Ken Gibb, Community Development  
Nancy Brewer, Finance  
Dan Campbell, Fire  
Carolyn Rawles-Heiser, Library  
Julee Conway, Parks & Recreation  
Gary Boldizar, Police  
Steve Rogers, Public Works

### **Sustainability Contacts**

Carrie Mullens, City Mgr Office  
Jay Yaich, Community Development  
Janet Chenard, Finance  
Andy Loudon, Fire  
Carol Klamkin, Library  
Steve Deghetto, Parks & Recreation  
Patricia Neet, Police

### **Sustainability Coordinators**

Mary Steckel, PW Admin Manager  
Tony Krieg, PW - Franchise Utility Specialist

### **Others who participated**

Mark Worden, Parks & Recreation  
Curtis Kiefer, Library  
Roy Emery, Fire  
Deb Dyner, Police  
Mark Button, Public Works  
Judy Somes, Community Development  
Gordon Andersen, Finance  
Jon Katin, Public Works

to supplement the ideas flowing from the Steering Committee. We simultaneously searched for information on past accomplishments, as well as ideas for future action.

Zero Waste Team—The Zero Waste team included two levels of team members. The Core Team did the majority of the work and attended meetings in Corvallis. The Support Team of technical experts provided advice and analysis behind the scenes.

<b>Zero Waste Alliance Core team</b>			
<p><b>Darcy Hitchcock</b> <i>Project manager</i></p> <p><u>Expertise: Implementation of sustainability in organizations</u></p>	<p><b>Dorothy Atwood</b> <i>Core Team Expert</i></p> <p><u>Expertise: Sustainability management systems</u></p>	<p><b>Pamela Brody-Heine</b> <i>Core Team Expert</i></p> <p><u>Expertise: Toxics (including air and water emissions) and waste reduction</u></p>	<p><b>Kim Hughes</b> <i>Core Team Expert</i></p> <p><u>Expertise: Green building, energy, land use planning, and funding sources</u></p>
<b>Support team</b>			
<p><b>Larry Chalfan</b> <i>Project Director</i></p> <p>Executive director of the Zero Waste Alliance</p>	<p><b>Wayne Rifer</b> <i>Technical Expert</i></p> <p>Expert in <u>solid waste management</u> and practical diversion solutions</p>	<p><b>Bruce Hecht</b> <i>Project Advisor</i></p> <p>Knowledge of Corvallis sustainability efforts and facilities engineering</p>	<p><b>Other</b> <i>Technical Experts</i></p> <p>As needed, we contacted other experts (e.g., Energy Trust, Solar for Schools)</p>

## Major Milestones

Oct. 5, 2005—Meeting with Mary Steckel, Tony Krieg, Jon Nelson and Steve Rogers to review the project and refine the approach.

Oct. 28, 2005—Steering Committee Meeting #1. The purposes included:

- Provide a common language/mental model for sustainability: terms, concepts and frameworks
- Choose a framework and structure to manage sustainability
- Analyze City operations to identify the biggest impacts and opportunities
- Conduct an internal SCORE assessment by organizational function
- Plan the on-site assessment day

Nov. 7, 2005—Assessment team conducted meetings, interviews and site walk-throughs.

- Morning meetings with department representatives around sustainability areas defined by the Corvallis Sustainability Policy (purchasing/toxics; solid waste; green buildings/greenhouse gases/energy). We also conducted a walk-through of City Hall.
- Afternoon site visits to the following: Fire, Library, Police, Public Works Maintenance, Wastewater Treatment Plant, Parks Maintenance (Avery Park), Aquatic Center and Senior Center.

Nov. 30, 2005—Submitted drafts of both the Assessment Report and Recommendations Report to the Steering Committee for review

Dec. 7, 2005—Steering Committee Meeting #2. The purposes included:

- Resolve issues associated with the reports
- Develop critical elements of a sustainability management system
- Review sustainability-related trends to improve understanding of the business case for sustainability (why it's not just a nice thing to do but to identify the specific, compelling reasons Corvallis needs to pursue it)
- Recommend changes to the Sustainability Policy and framework

Dec. 14, 2005—Conducted a public meeting to present the results.

Dec. 20, 2005—Presented the reports to the Urban Services Committee.

Jan. 3, 2006—Presented the reports to the City Council.

## **Map to Sustainability**

In the first Steering Committee meeting, we introduced the following 'Sustainability Map.' This is intended to show what a mature, successful sustainability program usually entails.

- The Compass defines where you are going and why.
- The Plan provides a process for setting priorities and completing projects.
- The Support Systems that need to be aligned with sustainability.

We presumed that some sort of business case had been completed since Corvallis already has a Sustainability Policy. So we focused our efforts on helping the Steering Committee fill in many of the remaining boxes on the map. Through this process, we intended not only to assess the condition of Corvallis' sustainability effort but also to move Corvallis measurably forward. We helped Corvallis develop systems, structures and processes for managing sustainability. In the recommendations report, we also provide ideas for how better to embed sustainability into the City's existing support systems.



## Compass

<p><b>Business case</b></p> <p>Why should we pursue sustainability</p>	<p><b>Policy</b></p> <p>What is our intent and our commitments</p>	<p><b>Frameworks, metrics and terms</b></p> <p>How do we think about sustainability and know if we're making progress</p>	<p><b>Vision</b></p> <p>What does sustainability look like for us</p>
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## Plan

<p><b>Set priorities</b></p> <p>How do we choose what to work on</p>	<p><b>Launch projects</b></p> <p>How do we start projects</p>	<p><b>Make improvements</b></p> <p>How do we develop and implement ideas</p>	<p><b>Synthesize learning</b></p> <p>How do we evaluate results and institutionalize lessons</p>
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## Support Systems

<p><b>Education/Training</b></p>	<p><b>Idea collection</b></p>	<p><b>Procedures</b></p>	<p><b>Reports/ Reviews</b></p>
<p><b>Stakeholder engagement</b></p>	<p><b>Decision tools</b></p>	<p><b>Recognition/feedback /rewards</b></p>	<p><b>System evaluation</b></p>

## Assessments by Policy Area

A primary focus of the assessment was to evaluate the City's sustainability activities according to the six sustainability policy areas:

- Sustainable Purchasing and Reuse Practices
- Land Use Planning
- Green Building Practices
- Greenhouse Gas Emissions
- Solid Waste Management
- Toxics and Persistent Biotoxins

The following sections for each policy area provide background information (including a description of what sustainable looks like and overlap with other areas), kudos and opportunities.

### Sustainable Purchasing and Reuse Practices

Sustainable purchasing means purchasing materials and services that meet specific sustainability criteria such as recycle content and recyclability. Purchasing is the point of input for the City. It is one of the most powerful sustainability leverage points both from the value it can bring to the City and the message it sends to vendors. The chart below illustrates what sustainable purchasing would look like when put into the triple bottom line categories (i.e., social, economic and environmental, a common sustainability framework). Purchasing includes materials, services and capital assets.

PURCHASING	Social	Economic	Environment
Materials <ul style="list-style-type: none"> <li>• Consumables</li> <li>• Durables</li> </ul>	Supports local economy.  Locally produced	Good value  Low total lifecycle costs	100% Recycle content Zero toxics Sustainably-harvested End of life – no waste
Services (labor and materials)	Sustainable producer practices	Price preference to sustainable purchases	<ul style="list-style-type: none"> <li>• Take back</li> <li>• By-product</li> <li>• Recyclable</li> </ul>
Capital assets			Sustainable packaging Sustainable transportation

Purchasing and reuse practices affect all of the City operations. It is decentralized at the City and is held together with procedures outlined in the purchasing manual. The City's major routine purchases are energy, vehicles, fuel, chemicals for the wastewater and water treatment plants, paper and computer equipment. Services include janitorial, engineering, landscaping, and consulting.

The purchasing part of the policy overlaps with the other policy areas because of the universal nature of the purchase function. (E.g: energy is purchased; building services are purchased; and toxic materials are purchased.) The reuse part of this policy area overlaps with the Solid Waste policy area. Items that are reused are diverted from solid waste.

### **Kudos**

Corvallis has already made progress in the area of sustainable purchasing. It is the one policy area where all of the departments have taken and reported some action in the 2005 sustainability report. Some of the particularly notable sustainable purchasing and reuse practices in the City to date include:

- Purchase of 750 blocks of renewable power from Pacific Power.
- Purchase low-sulfur 20% bio-diesel fuel for City fleet.
- Revised purchasing manual to include disposal and replacement costs in total cost consideration.
- Use of life-cycle cost analysis for vehicle purchases.
- Reuse of rip-rap, soil, and asphalt grindings in operations.
- Purchase of paper with recycle content on a case by case basis—unwritten policy.
- Allow a 5% cost differential to buy recycled through purchase manual.
- Purchase reused/recycled toners in some departments.
- Extend the use of products (including vehicles) past stated 'replacement' dates.
- Repair rather than replace equipment (for example, CD cleaning machine).

### **Opportunities**

- Sustainable purchasing is ad hoc and opportunistic - done on a case-by-case basis.
- Many practices are unwritten policies and not formalized or intentional.
- Employees don't know which vendors or products are the best with respect to sustainability.

### **Land Use Planning**

Land use planning at the City attempts to achieve a balance between developed and natural areas and reduce the environmental impact from development both on and off the site. This requires an integrated approach to planning, development and

public improvement projects to include consideration of economic, environmental and community needs. A sustainable community requires land use planning practices that create and maintain efficient infrastructure, ensure close-knit neighborhoods and sense of community, and preserve natural systems. Principles of sustainable land use planning include:

- Build on existing assets and infrastructure
- Protect important environmental, historic and natural features
- Provide transportation choices
- Encourage pedestrian-friendly communities
- Provide diversity in housing
- Plan mass transit systems that link neighborhoods, employment centers and other “nodes”

This category overlaps with *Green Buildings* and *Greenhouse Gases* as they relate to site and transportation issues.

### **Kudos**

This is no doubt one of the strongest category areas for the City sustainability efforts, demonstrated by the integrated policies, programs, plans and standards in place. The following are some of the more noteworthy accomplishments:

- Natural Features Inventory
- Development code implementation, encouraging compact urbanization and efficient use of resources
- Endangered Species Act (ESA) Response Plan for salmon recovery efforts
- Integration of ESA Response Plan, Stormwater Master Plan and Land Development Code
- Bicycle lanes on 95% of arterial and collector streets
- Integrated Vegetation and Pest Management Plan (IVPM) in park and urban stream maintenance

### **Opportunities**

These efforts demonstrate a strong commitment to sustainability and the ability to work through a complex assessment and recommendation process involving City staff, stakeholders and the public. There are some opportunities to leverage the work that has been done and make improvements:

- There is an existing ESA response plan framework and results that could be used to support sustainability efforts in other areas of the City.
- The City has no formally adopted operations and maintenance manual for the parks system to provide guidance for all site operations and maintenance activities. Ideally, these plans would specify mowing

schedules, pesticide use, fertilizer use, and other maintenance and operational procedures to minimize the negative consequences of these activities.

- The water conservation program that has worked extensively to reduce water use at Parks and Recreation associated with irrigation, could be expanded to other City service areas.
- Current wastewater re-use projects could be expanded.

## **Green Building Practices**

The built environment has a profound impact on our natural environment, economy, health and productivity. In the United States, buildings account for 36% of total energy use, 65% of electricity consumption, 30% of greenhouse gas emissions, 30% of raw materials use, 30% of waste output or 136 million tons annually, and 12% of potable water consumption. Structures also affect watershed, habitat, air quality and community transportation patterns.

Green building incorporates principles, techniques and materials that conserve natural resources and improve environmental quality throughout a building's life-cycle. Priorities for green building include resource conservation (energy, water, materials), ecosystem protection (air, water, soil) and indoor environmental quality (daylighting, operable windows). Green Building practices include new construction, remodeling and operation and maintenance of existing buildings. This category of sustainability has overlap in Land Use Planning, Greenhouse Gases, Solid Waste Management and Toxics. Green building practices affect internal operations of the City as well as external. Internally, the City is responsible for a variety of structures including office space, library, senior center, aquatic center, treatment plants and maintenance buildings, to name a few.

Fully sustainable building practices would not only meet current LEED (Leadership in Energy & Environmental Design) standards but also go beyond them. They would include social considerations for locally sourced materials and labor; zero toxics in building materials; energy systems that are not dependent on fossil fuels, but flexible and run on renewable energy sources. Materials would come from sustainably harvested or recycled sources. Building designs would be flexible to allow for easy modification into alternative use. Deconstruction would replace demolition and make building practices zero-waste activities.

### **Kudos**

- Effective organizational structure— Public Works department oversees coordinated management of City buildings and facilities, including retrofits, remodels and new construction.
- Administrative policy to reduce energy consumption in City-owned vehicles, buildings and facilities.

- Public Works has a designated person as the Franchise Utility Specialist who is responsible for implementing the objectives of the policy and coordinating energy conservation activities within the organization.
- City Council policy to endeavor to meet the LEED Silver level on new construction and renovations.
- The ESA response plan encourages sustainable construction, development and transportation planning practices. The plan encourages striving to meet LEED standard specifications for City buildings
- Integrated Vegetation and Pest Management Plan (IVPM) in park and urban stream maintenance.
- The City has designed and constructed a Fire Station to LEED Silver standards.
- The remodel of the Madison Avenue building is being completed following LEED standards where appropriate.
- Proactive in the area of energy conservation, the City has implemented many lighting and HVAC upgrades.
- Many projects have taken advantage of the services provided through the Energy Trust of Oregon and the Oregon Department of Energy as well as incentives and rebates.
- Dedicated staff have investigated some very complex projects and worked through the process and details in order to make these projects a reality or determine that the justification is not sufficient to pursue the project (e.g.: lighting upgrades, process improvements at wastewater and water treatment plants, upgrades to high-efficiency pumps in pumping stations, high-efficiency HVAC units, a thermal pool cover and outdoor lighting).
- In the area of indoor environmental quality, City Hall is a wonderful example of daylighting, outdoor views and operational windows, which provide an excellent indoor environmental quality for occupants and visitors. (This is different from temperature control and associated air quality issues, which have received complaints.)
- In the area of transportation, Corvallis has a 9% commuter rate and has been awarded a Gold Level, Bicycle Friendly Community by the Bicycle Transportation Alliance.

### **Opportunities**

The following represent areas we saw as opportunities for improvement:

- The City has not been able to justify the cost to taxpayers associated with getting a LEED Certification on a building, but rather is choosing to follow the guidelines and not pursue the third party certification. Many experts believe that this often undermines the effectiveness of LEED. However, we acknowledge that the City may find other ways to compensate for these risks without going to the expense of certifying.

- City Hall and Public Works administrative offices have several older HVAC units to heat and cool the buildings.
- It is not always possible to measure the performance of a project, due to many variables affecting the energy savings or when expanding capacity is part of the project goal.
- The City provides water service internally, yet departments are not charged for water use or given feedback on the amount of water consumed.
- There are no goals for water conservation.
- The materials used in new construction, remodels or upgrades are just beginning to be examined in terms of the LEED Standard. There may be opportunities to purchase materials that are more sustainable in terms of recycled content, reuse opportunities, local source, and low toxic content.
- Indoor environmental quality can be affected by paint, furniture, flooring, adhesives, ventilation, natural light and outdoor views. The current purchasing policy doesn't incorporate standards and criteria that could maintain and enhance indoor air quality.

## **Greenhouse Gas Emissions**

Some greenhouse gases occur naturally in the atmosphere while others are a result of human activities. Population growth, fossil fuel burning and deforestation are all affecting the mixture of gases in the atmosphere. Carbon dioxide is released to the atmosphere when solid waste, fossil fuels, wood and wood products are burned. Sources of methane include landfills, natural gas and petroleum systems, agricultural activities, coal mining, stationary and mobile combustion, wastewater treatment, and certain industrial processes. Methane is over 20 times more effective in trapping heat in the atmosphere than carbon dioxide. Nitrous oxide is emitted during agricultural and industrial activities, as well as during combustion of solid waste and fossil fuels. Nitrous oxide absorbs 270 times more heat per molecule than carbon dioxide. Often, estimates of greenhouse gas emissions are presented in units of millions of metric tons of carbon equivalents (MMTCE), which weighs each gas by its GWP value, or Global Warming Potential.

To be truly sustainable, greenhouse gas emissions need to be reduced to pre-industrial levels. Depending upon on the source referenced, our society needs to be carbon neutral or at least reduce our greenhouse gases to 75% below 1990 levels.

### **Kudos**

Reduction of greenhouse gas emissions can be categorized into three main areas: energy-efficiency/green building, renewable energy and transportation. We have already discussed some of the City's efforts in energy-efficiency and Green Building earlier in this report. The City has significant accomplishments in these areas:

- Participating in Pacific Power's Blue Sky Program and the Environmental Protection Agency's (EPA) Green Power Partnership. The City is also encouraging the community to participate in these programs.
- The wastewater treatment plant is using waste bio-gas to power a Stirling Engine to offset a portion of the wastewater plant electrical needs.
- To reduce natural gas use, the Aquatic Center has purchased a thermal blanket for the smaller indoor pool and is currently evaluating the benefits of a thermal cover for the larger indoor pool.
- In the area of transportation the City has increased transit ridership, purchased hybrid vehicles, improved pedestrian and cycling infrastructure and retimed traffic signals to improve traffic flows.
- The City is using 20% biodiesel fuel in fleet vehicles.

### **Opportunities**

The following represent areas we saw as opportunities for improvement:

- Because Public Works takes care of the buildings, the other departments are not as aware of energy conservation. For example, when we completed the 'bubble diagrams', most departments did not identify building energy as a major impact. However, a significant amount of energy is often wasted based on human behavior.
- The City doesn't have any overarching energy-related goals to focus its efforts.
- There are opportunities to expand use of methane gas at the wastewater treatment plant. (Public Works already has a project budgeted to do this.)
- There are opportunities to expand the transit ridership program for large organizations.

### **Solid Waste Management**

Solid Waste is intertwined with Purchasing so our team examined these two policy areas together. Solid waste management at the City encompasses the three "R's" of waste reduction (reduce, reuse and recycle) and the management of waste to the landfill. A truly sustainable system would be a system with zero waste. Though this seems daunting, there are many organizations that use the goal of zero waste as a long-term vision. In fact, some organizations, such as Epson Portland, have actually achieved a 'zero waste to landfill' goal.

Elements of an effective solid waste management system, along the "journey of sustainability", include:

- Long term and short terms goals of reducing waste disposed to a landfill and increasing the amount of material diverted from the landfill .
- Tracking of waste generated and quantity diverted (recycled, composted, etc.) over time.
- Conducting periodic waste audits.
- Programs to encourage employees to recycle and reduce waste generated.
- Communications to employees on how the City is performing on waste reduction goals.
- Logistics that make it very easy for employees to recycle (assessable containers, food composting containers, education and outreach, etc.)
- Contractual arrangements with janitorial service providers, waste haulers and construction contractors that align incentives to reduce waste.
- Finding markets for the City's waste streams.
- Purchasing products with take-back options.

Solid waste management impacts all of the City operations. A single hauler collects solid waste from all of Corvallis.

Solid waste management is an area of opportunity for the City. City staff is notably passionate and committed to waste reduction. Staff takes individual responsibility for recycling a wide array of items. Give this level of interest, the City's waste reduction efforts would greatly benefit from developing systems such as information collection systems and coordinated education and outreach programs.

### **Kudos**

The following are some of the more noteworthy accomplishments:

- Office paper and other paper products are, for the most part, collected and recycled at City facilities with office paper recycling bins located in nearly every cubicle/workspace (City-wide)
- Wood waste and metal are collected for reuse or recycling (Public Works)
- Over 120 aluminum traffic signs have been reused (Public Works)
- Building materials have been reused through a used building material store (Benton Habitat for Humanity) with the proceeds used to build housing for low-income families (Public Works)
- Food composting containers are available for employees at City Hall and Public Works (City Manager's Office and Public Works)
- Hand-held field inspection units have been purchased to eliminate up to 20,000 paper forms annually (Community Development)
- In the next couple months the Senior Center will be testing mandatory recycling for leasees/renters of space (Senior Center).

- Library offers used paper and plastic bags to patrons needing help carrying books (Library)
- Library photocopier toner and printer cartridges are recycled (Library, Public Works and Parks)
- Motion sensors paper towel dispensers have been installed in Library restrooms (Library)
- The Parks and Recreation Department recycles woody material that is chipped for mulch and pathway covering and shares it with the community a few times per year (distributing over 150 cubic yards to the public to date) (Parks and Recreation Department)
- Recycling/composting mega-trash containers have been installed in parks (Parks and Recreation Department)
- Batteries are collected and taken to an approved drop-off site for battery recycling (Police and Public Works)

### **Opportunities**

The following represent areas we saw as opportunities for improvement:

- **Waste Data Collection**—Currently the City is not tracking data on quantity of waste disposed and quantity and percentage of material recycled. The primary barrier to collection of this information is that the single waste hauler in Corvallis picks up waste from most City facilities as part of their route, and weights of individual bins are not collected. There are, however, opportunities to work with haulers on collection of some data such as frequency of collection and fullness of containers. (City-wide)
- **Waste Composition**—Assessing the City's waste composition is done in an informal manner with staff doing "waste bin snooping." Assessing waste reduction and recycling opportunities can be greatly enhanced by conducting a formal waste audit. (City-wide)
- **Education and Outreach** - Education and outreach, similar to information collection, is done in an ad hoc and informal manner. Not all employees know what can be recycled. Waste reduction efforts would be substantially enhanced with a City-wide coordinated outreach and education program. Some potential components of the program include developing an Intranet page or a "Read and Recycle" article incorporating recycling and waste reduction information into procedures and policies to be shared with new employees; and creating a mechanism for sharing information between departments. (City-wide)
- **Collection of Recyclables**—Currently the janitorial service does not include collection of recyclables from the interior of City buildings and facilities. Demonstrating a high degree of motivation, individual staff take the initiative to bring recycling bins from around their building to central locations for pick

up. Additionally, several staff that we interviewed transport recyclable items such as batteries (that are not formally collected by the City) to facilities where they will be recycled. Formalizing these efforts would honor those who have done so much already and ensure the programs would continue should any of these employees leave. (City-wide)

- Battery Recycling—There does not appear to be a formal system for collection and recycling of batteries. One employee at the Police Department collects batteries from her department and takes them to BiMart for recycling. One of the Public Work Department's Objectives for FY 05/06 is to work with Corvallis Disposal to establish a consumer battery recycling location. The City has an opportunity to do this first in-house. (City-wide)
- Logistics and Ease - Most departments throughout the City have extensive and convenient office paper recycling containers. However, many departments and facilities would benefit from additional small "red bins" for commingled recycling in both staff and public areas. Some organizations have actually removed trashcans except in hallways and common areas and placed recycling containers in every cubicle/work space to encourage recycling. (City-wide)
- The Public Works garage and meter shop and the fueling station lacked adequate recycling containers. (Public Works has since put out containers at the fueling station.) (Public Works)
- Labeling of Recycling Bins—Labeling and signage around recycling bins provides information and reminders about recycling protocols such as not including ream wrappers in the paper recycling bins. If a container contains "contamination" of non-recyclable material, often the entire contents of the bin becomes garbage. (City-wide)
- Contractual Arrangements - The City's contract with its waste hauler (Corvallis Disposal) and janitorial service provider do not currently include provisions and/or incentives for waste reduction, data collection or education and outreach. Inclusion of these kinds of contractual requirements can significantly improve a waste reduction program by aligning incentives. Requirements for recycling of demolition debris can also be added in construction and capital improvement contracts.
- Corn-Based Take-Away Containers—Meals on Wheels uses the Senior Center as distribution point for meals. Currently they use Styrofoam containers for their delivered meals. It may be possible to replace the Styrofoam containers with corn-based take-away containers that are now available. (Senior Center)
- Reuse of Library Books—Two times a week OSU picks up dumpsters full of books for recycling. These are books that are either unusable (donated) or did not sell at the Friends of the Library books sales. While many of these books are truly unusable (moldy, severely damaged, etc.), one of our team members reached into the dumpster and pulled out a novel in almost new condition. The

Library already attempts to distribute usable books and is providing a service to the community by recycling the books. However, based on our cursory search, we believe that some of the books being destroyed are in fact usable and more might be done to divert these to better use. Ideas include sending them to poorer communities in Oregon, making them available to English as a Second Language programs, letting military families ship books to their family members stationed overseas, and sending them to local prisons. (Library)

- Metal Recycling—The Parks and Recreation Department generates some metal that could be recycled. Currently, this metal waste needs to be transported to Public Works for recycling, making it inconvenient. Collection of metal materials at a more convenient place for the Parks and Recreation Department would greatly encourage the recycling of these materials. (Parks and Recreation Department)
- Donation of Colored Plastic Backing—The Sign Shop is looking for a recycling opportunity for colored plastic backing manufactured by 3M. Another alternative, and a higher beneficial use, is donating the material for school projects or to "SCRAP" - the School and Community Reuse Action Project located in Portland. Another resource is FreeCycle. (Public Works)
- Management of End-of-Life for Electronics—There are currently a wide-ranging set of practices in the City for handling electronic waste and outdated computers. The City has an opportunity to develop a clear policy regarding the end-of-life management of electronics. (Finance)
- Partnering with Local Nonprofit Groups for Recycling in Parks—At City parks, a lot of recyclable materials are being tossed in the trash and a lot of trash is contaminating the recyclables. There may be an opportunity for local non-profits that are in some way stakeholders of the park, to manage these recyclables for the Parks Department for potential income generation. (Parks and Recreation)

SCRAP's website is [www.scrapaction.org](http://www.scrapaction.org).  
Your local chapter of FreeCycle is at <http://groups.yahoo.com/group/albanycorvallisfreecycle/>.

## **Toxics and Persistent Biotoxins**

Toxic substances are substances that have an adverse impact on human health and/or the environment. For the City of Corvallis, the policy area of toxics includes bulk chemicals, products containing chemicals, and hazardous and remediation waste. For the category of products containing chemicals, there is considerable overlap with the Purchasing policy area. The sustainable purchasing chart in the Purchasing section of this report illustrates not only what sustainable purchasing would look like when put into triple bottom line categories, but also what a sustainable toxics program would look like.

Although the City has accomplished much in the area of toxics, this remains another area of opportunity for the City. The Public Works and Parks and Recreation Departments appear to have the largest impacts, as well as the greatest opportunities. Likewise, both departments have already undertaken efforts to reduce toxics, most notably the switch from chlorine gas at Public Works and the Integrated Vegetation and Pest Management program at Parks. However, a lot more could be done to reduce hazards and potential exposures.

Some elements and tools of a toxics reduction/elimination program include:

- Tracking of chemical product purchases.
- A "gate-keeper" process for purchases of supplies containing potentially harmful chemicals (e.g., an online catalog with approved products, an approval process).
- Conducting a chemical product inventory and assessment.
- Developing a chemical management system.
- Black, grey and white list for materials and services, defining what chemicals are not allowed, to be phased out, or accepted.
- Policies for toxics (i.e. no products containing carcinogens will be purchased or used in City facilities without prior approval).
- Review of selected chemicals for environmentally preferable alternatives.
- Contracts with service providers to reduce/eliminate toxics (janitorial, landscape, etc.)
- Provide incentives to product suppliers to provide the least toxic option.

### **Kudos**

The following are some of the more noteworthy accomplishments in the area of toxics reduction:

- Most facilities are using Coastwide's janitorial products. Coastwide has a line of Sustainable Earth Certified products and is working to develop a full line of these products for all janitorial uses.
- All diesel vehicles at the City now use bio-diesel B20, including the bus system. (City-wide)
- The Combined Sewer Overflow treatment facilities have been completed. (Public Works)
- Ascorbic acid is now used, instead of sodium thiosulfate, as a de-chlorinating agent in water line flushing to eliminate lower dissolved oxygen content in drinking water. (Public Works)
- Citrus based cleansers and soybean oils are used to minimize use of diesel fuel for cleaning equipment. (Public Works)

- Water based painting material has replaced lead based paint with high volatile organic compounds for all applications on streets, parking lots and bike lanes/paths. (Public Works)
- An improved sodium bisulfite analyzer has been installed at the Taylor Water Plant to allow much tighter control of the chemical feed, reducing chemical consumption by 30%. (Public Works)
- The Wastewater Treatment Plant has worked closely with local businesses on pre-treatment of wastewater, including working with dentists and schools to reduce mercury in the wastewater. (Public Works)
- The Taylor Water Treatment Plant has switched from chlorine gas to a safer alternative and they have been keeping their eye on alternative treatments including UV and ozone. (Public Works)
- The Parks and Recreation and Public Works Departments use an Integrated Vegetation and Pest Management Plan (IVPM) in coordination with Benton County and the School District. The goal of the plan is "To keep Corvallis on the cutting edge of environmentally responsible, cost-effective vegetation and pest management techniques." (Parks and Recreation and Public Works)
- The Parks and Recreation Department has also identified and uses a few alternative fertilizer carriers (e.g. alfalfa pellets for roses and compost tea). (Parks and Recreation Department)

### **Opportunities**

The following represent areas we saw as opportunities for improvement:

- Hazardous Waste—Although we did not get an opportunity to visit the individual departments' hazardous waste collection areas, it is our understanding that the City generates a relatively small quantity of hazardous waste. However, to further reduce the amount generated, the City could review the types and sources of hazardous waste that have been generated over the last few years to identify opportunities for reduction. (City-wide)
- Management of Material Safety Data Sheets—OSHA requires that MSDS sheets be kept up-to-date and available to employees. This can be a very challenging task without a system in place to track chemical purchases and update inventories. Different departments at the City seem to have different approaches for managing Material Safety Data Sheets. A coordinated, systematic approach to purchasing and inventory updating could assist with compliance and also provide cost savings by reducing the number of similar products and no-longer-used products. (City-wide)
- Toxics Reduction Outreach and Education—As the City learns about alternatives to toxic products, the entire community could benefit through sharing of information. (City-wide)

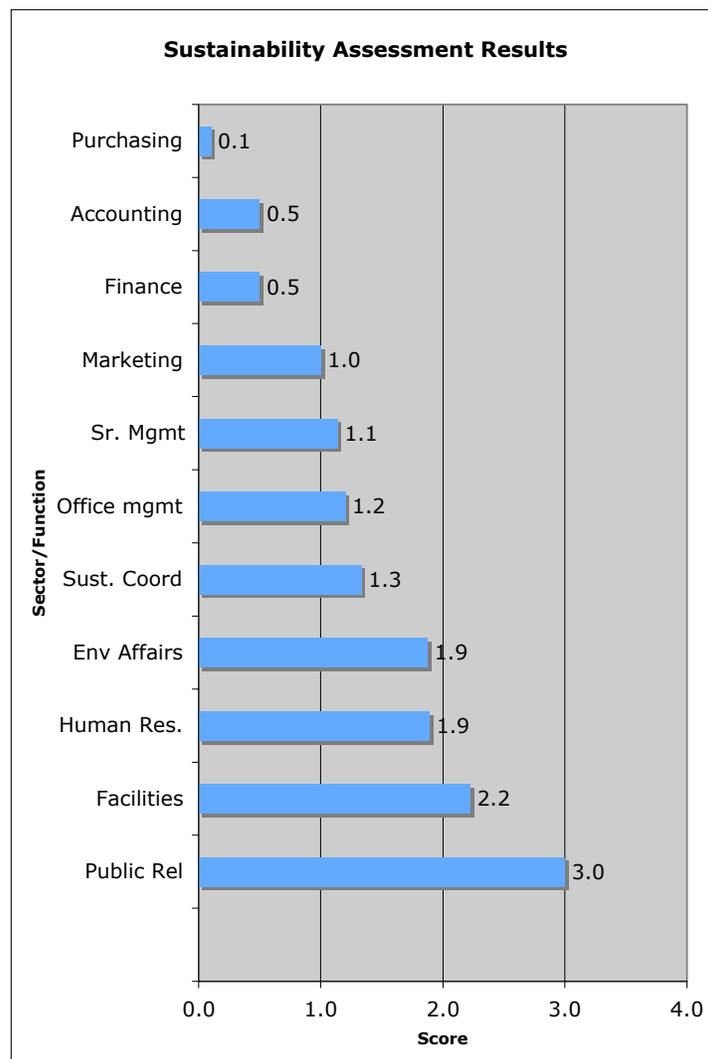
- Water Treatment - As described above in "Kudos", the Taylor Water Treatment Plant has already switched from chlorine gas to sodium hypochlorite. As people in Public Works have been doing, keep abreast of emerging technologies and consider working on emerging pollutants. (Public Works)
- Environmentally Preferable Lubricants and Antifreeze—At the City Shops area, chemical product purchases include lubricants, greases and antifreezes. Many bio-based lubricants and greases are available and could potentially be used (as long as the warranty on the equipment is not jeopardized). There is also a less toxic antifreeze available on the market. (Public Works)
- Housecleaning of Chemical Products—Both Parks and Recreation and Public Works shops had what appeared to be old and potentially concerning chemical products, such as a container of toluene and shelves of old paint in the carpenters shop, many gallons of herbicide at Parks and numerous rodenticides at Public Works. If these products are no longer being used, they should be disposed of in an appropriate manner. If they are still needed, safer alternatives may be available. (Parks and Recreation and Public Works)
- IVPM Plan—The Integrated Vegetation and Pest Management Plan (IVPM) was developed over 3-1/2 years ago in March 2002. In the spirit of continuous improvement, Parks seems ready to explore opportunities to move beyond their existing IVPM Plan. (Parks and Recreation Department)
- Ball Field Lines - Currently Parks uses latex paint to mark ball field lines. Parks in some communities provide chalking machines and make this a task for volunteers. (Parks and Recreation Department)
- Landscaping Outreach and Education - As described above in "Kudos", the Parks and Recreation Department uses some alternative fertilizer carriers. This is great information that could be shared with City staff and the community. (Parks and Recreation Department)

# Assessment by Function

Functional areas were assessed using SCORE (Sustainability Competency & Opportunity Rating & Evaluation) developed by AXIS Performance Advisors, Zero Waste Alliance and the International Sustainable Development Foundation. (More details on SCORE are in Appendix A). The Steering Committee completed all of the functional assessments. The following chart shows the results for each functional area (an average of the scores for each practice). Note that the maximum ('sustainable') score possible is 9 but scores 3 or above are considered an excellent practice at this point in time. The individual functional area survey results are in Appendix B. These results reinforce our impressions of the current state of Corvallis' sustainability efforts.

## Kudos:

Public relations—Public relations got the highest score, largely due to the transparency and communications associated with incident response. This is an important element in maintaining the public's trust.



Facilities—Public Works has done a lot with facilities (especially energy conservation).

Human Resources—HR scored high largely because of the commitment to volunteering in the community. As the City makes sustainability more of an intentional effort, HR can play an important role in supporting that effort.

Environmental Affairs—This area scored high in one particular item: considering natural resources in decision-making. This high score obscures the fact that the City could benefit from better methods of choosing and managing products with toxic chemicals.

Sustainability Coordinator—The de facto sustainability coordinators (Mary Steckel and Tony Krieg) have done a lot to position the organization for its next steps. That said, the City would benefit from making a formal sustainability coordinator position to help manage the implementation.

**Opportunities:**

Purchasing—Purchasing is a major opportunity area. While it has been hard for Corvallis to focus on purchasing because they have no one with that full-time role, we believe there are a number of resources and existing models that could be used to develop sustainable purchasing policies and practices without a lot of time or effort. The City has a number of good purchasing systems in place; sustainability just needs to be embedded.

Finance and Accounting—This score is not surprising given where Corvallis is in its sustainability efforts; this area often lags. There was a robust discussion about whether life cycle costs were the basis of decisions in the City. While many do use this method, it is not a formal practice. This score also revealed the need for sustainability metrics and better reporting. Improving these two areas will make it easier for Corvallis to know how much their sustainability performance is improving.

Senior Management—The Steering Committee rated senior management's practices at a 'pilot' level, indicating that sustainability is still an ad hoc effort. This should not be interpreted as a lack of support on the part of senior management for sustainability; we found no evidence of that. Instead, we would interpret this to mean that senior management needs to embed sustainability into its existing management systems so that sustainability becomes intentional and planned.

## Assessment by City Department

In 2004, the City issued its first annual report on organizational sustainability practices for the 2003/2004 fiscal year. The 2004 report and the successive 2005 annual report list a number of actions taken by departments to improve their sustainability performance. As is often the case with emerging sustainability programs, these reports do not appear to be based in a fundamental understanding of sustainable targets, and instead are a potpourri of actions.

A simple comparative assessment was performed by taking the reports and categorizing the actions by department and policy area. This is only a crude reflection of the relative impacts of the actions taken but may reflect effort and attention to sustainability. The charts help to identify areas of activity and potential holes (both in terms of departmental participation and also policy areas). We have used darker shading to indicate greater activity so that at a glance, it is easy to see which of the policy areas have gotten the most attention by the departments versus the ones that have gotten relatively little attention.

The most striking observation is the overall increase of activity throughout the City. In 2004, only half the departments reported any activity. In 2005, every department had some activity with respect to sustainability. Also, from 2004 to 2005, the number of actions increased by over 50%. The Public Works Department is the clear leader within the City with respect to number and breadth of actions. The other departments are making rapid progress in many of the policy areas.

### 2004 Sustainability Report Action Summary

	Purchasing	Land Use	Green Build	Green-house Gas	Solid Waste	Toxics	Misc.	TOTAL
Public Works	6	3	1	11	11	8	3	43
Parks and Recreation	2		3	9	10	1		25
Finance	1			1	4	2		8
Community Development		1	1			1		3
City Manager's Office								0
Police								0
Fire								0
Library								0
TOTAL	9	4	5	21	25	12	3	79

## 2005 Sustainability Report Action Summary

	Purchasing	Land Use	Green Build	Green-house Gas	Solid Waste	Toxics	Misc	TOTAL
Public Works	11	3	12	11	9	4		50
Parks and Recreation	2		1	2	2			7
Finance	5							5
Community Development	2	3	4	3	3	1		16
City Manager's Office	1			1	5	1	2	10
Police	1				3			4
Fire	1				3	1		5
Library	1		1	5	19		2	28
TOTAL	24	6	18	22	44	7	4	125

### Public Works

This department represents some of the biggest potential impacts of internal City operations as they are responsible for water and wastewater treatment, vehicle maintenance, street maintenance, capital projects, development review and other functions. Fortunately, Public Works has also been at the forefront of making sustainable improvements. In particular, they have spearheaded energy reduction efforts and green-building practices, researched best available technologies for water treatment, and reduced the toxicity of chemicals used on site. We believe they are poised to pilot more rigorous sustainability management practices (e.g., a more formalized management system including internal assessment audits), and develop better chemical/toxics management practices.

### Police

This department is fortunate to have someone who is passionate about recycling. Bins are readily available in most areas and an informal audit of recycling is being done. They have been struggling with whether to pay significantly more for dry cleaning uniforms to use a less-toxic process. We believe they could switch to washable uniforms to solve the dry cleaning dilemma.

### Fire

The downtown Fire Station represented initial efforts on green building practices, and as such, included a number of good features. However, there are no educational signs in the building for employees and visitors to appreciate those features. Some

offices have lighting controls and occupancy sensors, however they are missing in the Council meeting room or public meeting rooms. The Walnut Fire Station building was designed and constructed to LEED Silver standards. This could be a wonderful green building showcase for the City, especially since the Fire Stations include public meeting rooms that bring citizens into the building. We encourage the Fire Department to follow-through on their ideas to purchase more fuel-efficient non-emergency vehicles, combine trips for errands, and reassess the replacement schedule for everything they buy.

### **Library**

The Library is very conscientious regarding recycling and use of resources (energy, water, etc.). For example, motion sensor faucets and paper towel dispensers have been installed in the bathrooms. Lower energy lights, qualifying for the state rebate program have been installed. The Library's biggest opportunity is in developing reuse opportunities for the large quantities of books that are recycled every week. Reuse is a much higher beneficial use than recycling and could provide significant social and community benefits. The Library does divert a large amount of books from recycling but, based on our cursory examination, we believe a bit more could be done.

### **Parks and Recreation Department (also includes Senior Center and Aquatic Center)**

The Parks and Recreation Department has implemented best management practices such as maintenance and selection of plant species, "right plant, right location." They have also developed an Integrated Vegetation and Pest Management Plan (IVPM) for park maintenance. Woody materials are recycled and used for mulch and pathway covering and offered to the community a few times per year. The next challenge for the Parks and Recreation Department will be to go a step further than the existing IVPM and look for opportunities to further reduce use of toxic materials.

The Senior Center is a crucial community resource, receiving more than 250 visitors per day. The Center is sensitive to the special needs of its patrons such as providing adequate lighting levels and disposable plastic coffee cups, and it is looking for other ways to reduce waste. For example, the Center is planning to pilot a mandatory recycling requirement for all leasees and renters of the facility.

The Aquatic Center has been looking at a number of ways to reduce energy use, a significant annual expense. These include a solar thermal hot water system to preheat water and pool covers. In addition they are investigating adding an ultra violet (UV) water treatment system to reduce the chemicals needed to disinfect the water.

### **City Manager's Office, Finance and Community Development**

City Hall is a beautiful, three story renovated church that was erected in 1924. Most of the lighting has been updated, however there are only a few sensors or controls for dimming or occupancy. There is plentiful daylighting and views as well as operable windows. There were large recycling containers in two or three areas on each floor and individual recycling containers in cubicles.

# Benchmarking Against Other Communities

Part of our task was to compare Corvallis to similar organizations in the Northwest. We wanted to choose organizations that were of similar size and were aware of sustainability but not necessarily the US leaders like Santa Monica, that had dramatically greater resources. As fair benchmarks, we chose Bend, Springfield, Lake Oswego and the Port of Portland. However, we also wanted to share information about some of the regional leaders. They are not intended as benchmarks, but instead sources of inspiration. We chose Whistler and Fort Lewis for this purpose. They can provide Corvallis insights for long-term action.

Springfield	Ashland	Lake Oswego	Corvallis Bend	Port of Portland	Whistler	Ft Lewis
No apparent formalized sustainability program		Pilot efforts underway; ad hoc without guiding framework		Formal initiative; well managed	Integrated; leading the charge	

## Oregon Municipalities

### Springfield and Ashland

We conducted an Internet search for sustainability actions in the cities of Springfield and Ashland. No public information was found about sustainability. This doesn't mean that they aren't doing anything but that it's not apparently a formal enough initiative to have become evident in publicly available materials.

Rank	City	Population
8	<b>Bend</b>	62,900
9	<b>Springfield</b>	54,700
10	<b><u>Corvallis</u></b>	52,950
13	<b>Lake Oswego</b>	35,850
23	<b>Ashland</b>	20,450

2003 Population data, League of Oregon Cities

### Lake Oswego

Lake Oswego's City Council adopted sustainability as one of its goals several years ago. One of its first actions was to produce a sustainability plan for City operations at City Hall. This 2003 document provides great baseline data for the six categories that it chose (energy, water, office supplies, building materials, building maintenance and vehicles) and a plan to move forward. Action has been ad hoc and opportunistic since 2003. There hasn't been a framework for action or a system in place to provide the infrastructure to move it along.

#### **Key Actions**

Lake Oswego has a half-time sustainability coordinator

Recently there have been two actions that will re-energize their efforts and significantly move it forward. First, they have hired a sustainability coordinator. This half-time position will provide the focus and time to devote to moving the plan to action. Second, they are participating this fall in the Oregon Natural Step Network sustainability planning workshop series. Five City staff are attending four  $\frac{1}{2}$  day sessions, at the end of which the City should have a framework and vision (complete with measurable sustainable end-points), baseline assessment of selected parts of the City and some prioritized direct action.

Like Corvallis, Lake Oswego, to date, has only taken ad hoc actions. To its credit, it has recognized the need for a sustainability coordinator position to focus its future action. For more information: [www.ci.oswego.or.us](http://www.ci.oswego.or.us).

### Bend

In 2003, Bend adopted a work plan to promote sustainability initially in City operations then move toward community efforts. They formed a sustainability committee with representation from each department. In 2003/04, all departments were asked to assess their sustainability performance. Bend is conducting a strategic visioning process looking 25 years into the future around four focus areas (environment, economy, land use and community).

#### **Key Actions**

Have a work plan  
Have an existing sustainability committee  
Are undertaking a strategic visioning process with the community

It is ahead of Corvallis in its visioning process in that it has set City-wide goals in many areas. In specific project areas Corvallis leads Bend. For example, Bend has budgeted the purchase of 10% green energy for City operations in 2005-06 budget. Corvallis already has 7% of its energy coming from renewable sources. Bend is investigating bio-diesel options, whereas, Corvallis already has B20 available for all City diesel vehicles. Other notable activities in Bend include:

- Combining City Zoning Ordinance, Land Division Ordinance, and Procedures Ordinance into one comprehensive code and incorporating principles to further the ideas of sustainability
- Fire station has a solar hot water heater
- City plans to pursue LEED certification for new construction
- Purchasing only non-toxic cleaners throughout all its facilities.
- Implemented Integrated Pest Management program

For more information about City of Bend's sustainability efforts go to [www.ci.bend.or.us](http://www.ci.bend.or.us)

## Port of Portland

The Port of Portland is not a City, however, it has many of the same issues and the direct experience of our core team member, Pamela Brody-Heine. The Port has an environmental policy but not a sustainability policy. It has chosen to go down the path of sustainability implementation without using the word. They have a very strong environmental program and convened a Sustainability Business Advisory Group for about one year to learn about

sustainability and recommend where the Port should go with it. The combination of training high level department managers and having an award-winning environmental management system (EMS) has helped the Port put together objectives that are leading it down the path of sustainability without formally calling it that.

Notable activities include:

- Currently working with Portland State University to develop long term sustainability goals
- Implemented measures that have saved more than 1,500,000 kilowatt hours of electricity
- Have in place an EMS which won American Association of Port Authorities Environmental Improvement awards in both 2002 and 2004
- Implemented a Food Waste Diversion project at the Portland International Airport recycling more than 10 tons of food waste per month

### **Key Actions**

Environmental management system

High-level managers met to deepen the understanding of sustainability

They don't use the term 'sustainability'

For more information about the Port's environmental programs go to [www.portofportland.com/Env\\_Home.aspx](http://www.portofportland.com/Env_Home.aspx). For an electronic copy of the Port's annual environmental report: [www.portofportland.com/Env\\_AnnualRpt\\_Intro.aspx](http://www.portofportland.com/Env_AnnualRpt_Intro.aspx).

## Sustainability Leaders

### Whistler, British Columbia

The resort town of Whistler has decided to brand themselves as sustainable. They have not focused on internal City operations but instead have worked to make the entire community sustainable. They use The Natural Step Framework to clarify what sustainability entails. Using the 'backcasting' process (where you imagine a fully sustainable state and work backward to determine how to get there), they created the Whistler 2020 Framework that contains the resort community vision, values, priorities and directions along with 16 detailed strategies that cross City internal and external functions.

Whistler convened a group of community leaders and businesses to create the Whistler: It's Our Nature program. The members included the municipality, Whistler-Blackcomb, the Fairmont Chateau Whistler, Tourism Whistler and the Association of Whistler Area Residents for the Environment. With the help of Brian Natrass and Mary Altomare, they developed four toolkits: a household kit, a small business kit, a kit for schools and a community sustainability kit. These were funded in part by foundations and were sent out in the community to build awareness. According to the five-year financial plan, the top priority for each department is to adopt The Natural Step strategies.

For more information, go to [www.whistler.ca](http://www.whistler.ca).

### Fort Lewis

Fort Lewis is an army garrison located just south of Tacoma, Washington. It provides all the functions of a City, the major difference being that the army owns all of the property. When Ft Lewis started down the path of sustainability in 2002, the public works department already had a third-party certified environmental management

#### **Key Actions**

Outreach: Developed toolkits to educate the public and local businesses.

Land use: Award winning pedestrian-oriented village and clustered neighborhoods.

Transportation: From 5 to 24 buses and 2.2 million riders in 9 years—the highest per capita in British Columbia.

Energy/Greenhouse gases: A geothermal heat exchange system that heats and cools a community building and resident housing project. Goals of renewable energy and conservation for 2010 Olympics.

Toxics: Boast pesticide-free parks and village, employ biological methods and anaquacide/steam system.

Waste: Goal of zero waste. Used 1000 cubic meters of bio-solids from WWTP to re-vegetate a gravel pit.

Water: Water conservation program includes a computer-controlled irrigation system that waters only as needed based on plant and direct weather station rainfall data

#### **Key Ft. Lewis Goals**

- Cycle all material use to achieve Zero Net Waste by 2025.
- Zero discharge of wastewaters to Puget Sound by 2025.
- Reduce traffic congestion and air emissions by 85% by 2025.
- All facilities adhere to LEED Platinum standards by 2025.
- Reduce potable water consumption by 75% by 2025.

system (EMS). The EMS gave the garrison an excellent tool to launch sustainability projects and a mechanism to embed it directly into the working systems of the organization. This system, now combined with 12 long-range visionary goals (see examples in sidebar) has made Ft. Lewis a leader in sustainability in the military and with non-military organizations.

The goals make it clear where the garrison is going and when it plans to get there. These goals are translated into direct action with 5-year plans and 1-year work plans. The plans are supported with training and embedding the process into the day-to-day operations.

The primary focus initially has been on environmentally related areas. They have adopted a modified triple bottom line: mission, community, and environment. Currently they are launching a large stakeholders process to bring in the community component.

Notable activities include:

- Began the composting/bioremediation demonstration project. This project will determine the feasibility of composting and bio-remediating installation-generated waste streams such as grass clippings, wood chips, class B sewage sludge from the Waste Water Treatment Plant, fuel and oil contaminated soil, and organics such as food waste generated at troop dining facilities.
- On November 2-3, 2004, the award winning Green Procurement Seminar was presented to more than 180 personnel from Fort Lewis and other Department of Defense agencies from the Puget Sound Region.
- Rainwater harvesting cistern completed in major new barracks project; rainwater will be used to irrigate during the summer months beginning in 2005 and is currently being used for flushing toilets, which accounts for a significant reduction in potable water usage.
- Incorporated LEED principles into new project designs including ground source heat pumps, use of recycled materials, day lighting, lighting controls and under floor air distribution systems.
- Established CO<sub>2</sub> dry-cleaning service at no additional cost to soldiers.
- Incorporated contract language into Fort Lewis Design Standards requiring all future construction and demolition work to increase diversion and recycling efforts to divert 75% of waste from the landfill.
- Reclaimed water pipe has been incorporated into all new whole barracks renewal projects since FY 2002, allowing reuse of rainwater for facility non-potable water needs.

## **Appendix A-Glossary of Terms and Abbreviations**

**Backcasting**—A planning process that involves working backward from a sustainable state rather than forecasting which begins from your current state.

**Biodiesel**—Diesel made from plant rather than fossil fuel sources.

**Bubble diagram**—A form of a process diagram used to identify sustainability impacts and actions.

**Building Operator Certification (BOC)**—Training for people who operate buildings.

**Business case**—Justification for taking a particular action that makes common business sense. Usually involves assessment of financial benefits, risk avoidance and intangible benefits.

**Daylighting**—Designing buildings to make the best use of natural light.

**EMS**—Environmental Management System, a method for creating continuous improvement in environmental performance.

**IPM**—Integrated Pest Management, a set of methods that minimizes but does not completely eliminate the use of synthetic pesticides.

**IVPM**—Integrated Vegetation and Pest Management Plan. See IPM.

**LEED**—Leadership in Energy and Environmental Design, an internationally accepted scoring system for buildings to assess their environmental features. Usually refers to new construction.

**LEED-EB**—LEED for Existing Buildings, a process and scoring system for operating and remodeling existing buildings.

**MSDS**—Material Safety Data Sheet, a document that must accompany products with human health risks. These provide information about the contents of the product, risks, proper use and emergency/spill response procedures.

**SMS**—Sustainability Management System, a process for managing and institutionalizing the sustainability effort.

**Sustainability**—The practice of working toward a society where humans live well within the limits of nature, simultaneously providing for a healthy society, economy and environment.

**The Natural Step**—A sustainability framework based on science.

**Triple bottom line**—A sustainability framework based on United Nations sustainable development models (e.g., Agenda 21); sometimes referred to as social, economic, environment or people, planet, profits.

**UV**—Ultra-violet light, used to treat water by destroying DNA in water-borne microorganisms.

## Appendix B—Assessments by Function

Functional areas within the City were assessed using SCORE (Sustainability Competency & Opportunity Rating & Evaluation), a proprietary self-assessment developed by AXIS Performance Advisors, Zero Waste Alliance and the International Sustainable Development Foundation. It will be published in *The Business Guide to Sustainability* (Earthscan, August, 2006). This assessment is organized by sector (government, manufacturing, services) and then by common organizational function (senior management, finance, human resources, etc.) Each sector and function are provided a handful of practices to evaluate and then three levels of performance.

Below, in the left-hand column, are the scores given by the Steering Committee members for each of the functional areas based on the benchmark descriptions for each practice. The sector assessment for Government was not administered because it focuses on external impacts and this assessment focuses on internal operations.

SUSTAINABILITY COORDINATOR/DIRECTOR OF SUSTAINABILITY				
Points	Practice	Pilot 1 points	Initiative 3 points	Systemic 9 points
0	Sustainability management system: Have in place a process to routinely set priorities for sustainability improvements, monitor the results and institutionalize best practices. (See related practices under Sr Mgmt and Env Affairs)	Implement a parallel structure and process to identify and make sustainability improvements (e.g., a Steering Committee)	Implement an environmental management system equivalent to ISO 14001	Implement an ISO-compliant EMS with sustainability policies, criteria and targets embedded
1	Vision: Have a clear vision for how sustainability relates to your organization's mission (See related practices under Sr Mgmt)	Develop a business case for pursuing sustainability; obtain executive support for pursuing sustainability initiatives	Have conducted a backcasting-like process to develop a clear long-term vision of sustainability and interim goals. Get support of leadership to communicate these audacious long-term goals.	Help the organization develop a long-term vision of your organization's role in a fully sustainable society. Question basic assumptions of your mission or business model and engage in long-term efforts to transform your organization and sector
1	Implementation plan: Develop a realistic plan for implementing sustainability in the organization	Develop and implement a plan for a pilot-level initiative	Develop and implement a plan to spread sustainable thinking and actions across the organization	Develop and implement a plan to embed sustainability into the fabric of the organization and into other strategic relationships
0	Performance metrics: Develop and track a set of sustainability metrics (See related practices under Sr Mgmt and Finance/Accounting)	Develop and track metrics to show return on investment and other benefits of sustainability projects	Develop a holistic set of sustainability performance metrics to track the performance of the organization	Develop metrics and methods for tracking sustainability performance of strategic partners (e.g., major suppliers) and major externalities associated with the operation
4	Reporting: Regularly report on the results of sustainability efforts (See related practices under Sr Mgmt and Finance/Accounting)	Report to management at least annually about the benefits and costs of sustainability projects	Report to management on progress toward sustainability performance metrics. Develop and publish an internal sustainability report	Report to management and other stakeholders on sustainability performance via a publicly available sustainability report

2	Role shift: Evolve the role of sustainability coordinator over time so that responsibility for sustainability is spread throughout the organization	Lead the sustainability effort	Show senior management how to lead the sustainability effort	Educate others outside your organization how to lead the sustainability effort (e.g., through public speaking, writing, supplier site visits, etc.)
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ACCOUNTING				
Points	Practice	Pilot 1 point	Initiative 3 points	Systemic 9 points
1	Budgets: Modify your systems so that people are encouraged to optimize the sustainability performance of the entire organization rather than their own budgets.	Provide a method of accounting for benefits that accrue to different budgets (e.g., capital versus O&M; operations versus customer service dept.	Include sustainability as one of the criteria that should be assessed before money is spent.	Where significant systemic barriers exist, provide a way to return some of the savings to the departments that created them
0	Metrics: Develop a set of sustainability metrics	Develop a set of metrics to assess the benefits and costs of pursuing sustainability	Develop a complete set of sustainability metrics for the organization and report on them at least annually.	Regularly conduct sustainability best-practices studies with other organizations to uncover opportunities for improvement

FINANCE				
Points	Practice	Pilot 1 point	Initiative 3 points	Systemic 9 points
1	Financial analysis: Use tools to provide a more complete assessment of options which take into account sustainability	In addition to traditional financial methods for determining a return on investment, include an assessment of risks and intangible benefits when assessing options	Use total cost of ownership (not first cost) and identify externalities related to life-cycle of the product or capital investment	Make life cycle analysis available and take responsibility for all identifiable externalities when making major decisions; avoid discount rates that unfairly impact on future generations
0.5	Sustainability Reporting: Make available and use qualitative and quantitative data on your progress toward sustainability.	Produce an internal report highlighting accomplishments and areas for improvement	Include sustainability reporting as part of existing public reports	Publish a separate, detailed and audited sustainability report
0	Investments: Factor in sustainability when making investment decisions (e.g., pension plans, stock purchases, bonds, etc.)	Employ negative screens for such criteria as tobacco, arms, child labor, etc.	Give preference to investments that demonstrate a commitment to sustainability practices	Only invest in sustainability-related investments

PUBLIC RELATIONS				
Points	Practice	Pilot 1 point	Initiative 3 points	Leader 9 points
0	PR/outreach strategy: Educate stakeholders about your sustainability efforts	Assess your stakeholders opinions of sustainability	After the organization has shown significant internal progress on sustainability, promote sustainability as part of your image to those stakeholders or markets that will care	Produce a publicly available formal annual sustainability report which honestly portrays your progress as well as your areas for improvement.
0	Stakeholder engagement: Provide mechanisms for stakeholders to express their expectations, priorities and concerns.	Identify your major stakeholders and actively assess their trust, perception and ideas for improvement	Conduct formal stakeholder audits and involve key stakeholders in major, sensitive decisions	Partner with key stakeholders on projects to shift the sustainability performance of your industry (e.g., aggregating purchasing power, setting standards, create political pressure for change, etc.)

9	Incident/ emergency response and media communications	Provide timely, accurate and complete information to authorities and the public when a crisis does occur. Give higher priority to protecting public health and the environment than protecting your short-term financial interests and image.	Provide ready access for the media and public about incidents and responses (e.g., via website)	Operate with transparency, avoiding the temptation to spin bad news in your favor. Take full responsibility for your actions and move quickly to solutions.
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MARKETING				
Points	Practice	Pilot 1 point	Initiative 3 points	Systemic 9 points
0	Marketing strategy: Have a strategy in place that encourages all your customers to choose the more sustainable options	Assess market segments for their understanding and opinions about sustainability to identify messages that will resonate with each segment	Develop a message that will resonate with each market segment such that it encourages them to make the sustainable choice (e.g., take-back opportunities as a marketing strategy)	Develop an aggressive customer education campaign around sustainability to build demand for sustainable products and services
1	Product positioning	Assess all your major product lines for their sustainability impacts	Eliminate or redesign lines with the worst sustainability performance	Seek credible eco-labeling or certification for your products
2	Internal marketing: Educate all employees about the organization's sustainability efforts	Incorporate sustainability into employee communications on ad hoc basis	Communicate at least quarterly via at least two types of media	All employees are fully aware of sustainable activities
1	Marketing materials and give-aways	When printing, use high-recycled content paper and soy-based inks. Reduce the use of give-aways and choose products that exemplify sustainability. Make it easy for customers to eliminate duplicate mailings or get off your mailing list. Honor do-not-call lists for telemarketing.	Minimize the use of print marketing materials through the use of technology where life cycle assessment indicates this would be preferred	Promote the concepts of sustainability in you marketing materials to educate your customers

Environmental Affairs				
Points	Practice	Pilot 1 point	Initiative 3 points	Systemic 9 points
0	Sustainability management systems: Convert your existing environmental management system (EMS) into a Sustainability Management System. [Note: If you don't have an EMS, see Sustainability System Management under Sr. Mgmt.]	Have an ISO 14001-conformant EMS.	Actively promote industry-wide practices and standards that protect public health and the environment. Sustainability clearly shows up in the policy and targets. A long-term plan is in place to reach sustainable levels of all significant impacts. The SMS includes goals associated with customer and supplier impacts.	The SMS has become part of the overall management of the organization and is no longer a discrete, separate system. The SMS takes responsibility for the full life cycle of your product or service.

3	Chemicals and toxics: Eliminate exposure and emissions of chemicals that adversely impact human health and the environment	Complete a chemical inventory. Eliminate all use of persistent bioaccumulative toxins (PBT's)	Reduce use of hazardous materials to below the level needed for permits. Complete a "gray" and "black" list of chemicals to eliminate from the workplace and your products. If appropriate, implement a chemical pharmacy.	Use precautionary principle for purchasing, processing and products. Have phased out all gray and black listed chemicals. Have implemented a cradle to cradle system for technical and biological nutrients.
1	Water quality and conservation: Minimize the use of water, keep water on sight, and treat outflows	Assess water outfalls and develop a conservation plan	Provide onsite water treatment of a majority of stormwater	Water discharged is as clean or cleaner than the source; no discharge of stormwater off the site.
5	Natural resources: Protect natural resources on our properties	Conduct an assessment of natural resources and act on the results	Consider natural resource impacts in decision making	Restore habitat to replace natural resources lost by development
1	Air quality: Protected the air-shed inside and outside your facilities	Have conducted air quality testing in all work areas and taken appropriate action to bring them within all government regulations.	Switched to low-VOC (volatile organic compounds) products for all coatings, solvents, paints, adhesives, etc.	Switched to benign alternatives (e.g., plant based, biodegradable)
3	Emergency response: Have effective plans in place for all serious contingencies	Have effective crisis response plans for any foreseeable problem. Give higher priority to protecting public health and the environment than protecting your short-term financial interests and image.	Actively engage stakeholders in identifying ways to prevent and deal with foreseeable crises.	Actively promote industry-wide practices and standards that protect public health and the environment.
0	Role: Redistribute responsibility for environmental and sustainability across the organization	Are the main source of sustainability leadership	Sustainability leadership is fully integrated into management	Role has evolved to one of disseminating sustainability outside the organization (e.g., lectures, supplier workshops, etc.)
2	Hazardous waste: Manage hazardous waste to protect human health and the environment	Have an inventory plan that is fully compliant with all government regulations and OHSAS 18000	Systematically find replacements for hazardous chemicals	Eliminate all hazardous chemicals on site.

PURCHASING				
Points	Practice	Pilot 1 pt	Initiative 3 pt	Systemic 9
0.5	Policy: Have a purchasing policy related to sustainability	As a matter of practice, evaluate major purchases based on sustainability and other criteria but have no formal policy to do so	Have a formal sustainable or environmentally preferable purchasing policy and waste reduction	Have a formal policy and have systems to measure progress toward sustainable purchasing
0	Audits: Conduct purchasing audits against goals to assess the impacts of your purchases, including items with a short lifespan, toxic materials, and social impacts.	At least every 5 years, conduct an assessment against sustainable criteria on the largest categories of purchases and acted on the results	Conduct an assessment on most or all purchases and routinely seek out more sustainable options	Use life cycle assessments or life cycle thinking to determine the impacts of major categories of purchases
0	Supplier influence: Choose suppliers based in part on their sustainability performance	Send out letters and/or surveys to suppliers to express your commitment to sustainability and your intent to give preference to sustainable suppliers	Actively work with suppliers to develop most sustainable solutions	Engage in processes to transform the industry

0	Contracting: Include sustainability criteria in the selection of contract services	Include sustainability criteria and language in RFP's as a minor selection criterion (<15%)	Include in contracts requirements to perform sustainability-related functions or tasks (e.g., construction waste recycling, green cleaning products, etc.)	Transform your relationship with major suppliers to provide incentives for sustainable performance.
0	Reinforcement: Have meaningful systems for assessing progress toward sustainable purchasing	Have purchasing systems that automatically give preference to more sustainable options (e.g., the first choice presented in your online purchasing system is the preferred one) but do not prevent people from purchasing less sustainable options. No feedback is provided on their choices.	Measure and report progress toward goals and targets on major categories of purchases, broken down by individual or group so as to provide meaningful comparisons	Provide employee incentives (via compensation, performance appraisals or other formal means) to encourage purchasers to seek out sustainable options.

HUMAN RESOURCES				
Points	Practice	Pilot 1 point	Initiative 3 points	Systemic 9 points
3	Executive education: Provide executives education on sustainability	Expose executives to sustainability through articles, speakers and other methods	Provide executives formal training on sustainability and incorporate discussions of its relevance in planning meetings	Make sustainability knowledge and commitment a selection and performance criterion for executives
3	Implementation strategy: Develop a plan to support implementation of leadership vision and strategy	Launch a sustainability pilot initiative	Help to manage a formal, organization-wide sustainability initiative	Helped the organization embed sustainability into all business systems (planning, budgeting, reviews, rewards, etc.)
0	Culture: Make sustainability "how we do things here"	Develop an empowered culture where employees routinely come up with ways to improve our performance; sustainability is one of the areas employees focus on	Have a formal system for recognizing employee contributions to sustainability	Demonstrate through word and action that sustainability is a core value of the organization.
0	Employee Orientation and Training: Provide ongoing sustainability education for all employees	Provide training to employees involved with sustainability efforts	Train the entire staff on sustainability concepts and appropriate frameworks	Routinely offer training on advanced sustainability practices
0	Performance systems: Embed sustainability into job descriptions, selection criteria, and performance reviews	Have a formal process to help employees discover how to apply sustainability into their everyday work reviews	Rewrite job descriptions and selection criteria to include sustainability for all appropriate employees.	Incorporate sustainability into performance evaluations.
1	Compensation: Link rewards and compensation to sustainability performance.	Provide a fair living wage to all employees	Provide an award or reward program to encourage sustainability innovations	Maintain a fair ratio between the highest and lowest paid employee
2	Organizational climate: Provide a respectful and productive workplace	Conduct an employee survey at least every two years and act on the results (including such elements as employee involvement, diversity, work/life balance, living wage jobs)	Actively recruit from and provide jobs for people from disadvantaged populations (e.g., people with disabilities, minorities, at-risk youth)	Be listed as one of the best places to work in the state, province or country
3	Commuting: Provide effective incentives to encourage the use of alternative transportation and/or reduce the need to commute	Do not provide paid parking except for carpoolers. Promote the use of alternative transportation. Site the office such that it can be easily accessed by at least one alternative transportation method.	Provide assistance for alternative commuting including subsidized bus passes, bike facilities, showers, etc.	Provide financial incentives to encourage alternative transportation including bonuses, carbon offsets, etc. And/or provide financial assistance for employees to purchase the most environmentally responsible car models available.
5	Volunteering and charities: Support the communities in which you operate or affect	Have systems that encourage employees to donate to charities and to volunteer.	Allow employees to volunteer during paid work time	Select certain charities or social/ environmental issue(s) that are strategic to your organization and provide at least 40 hours per person of pro bono services per year.

FACILITIES				
Points	Practice	Pilot 1 pt	Initiative 3 pt	Systemic 9
1	Energy: Reduce environmental and social impacts associated with energy use through conservation, renewables, and production	At least every 5 years, conduct energy audit and act on results	Have in place systems for monitoring and reducing both from equipment and human behavior	Purchase or produce at least 50% renewable energy
1	Waste: Move toward a zero waste facility	Conduct waste audit and act on results. Have systems in place for waste reduction (e.g., recycling is more convenient than trash receptacles, monitoring and feedback systems, signage, etc.)	Provide incentives for employees and haulers to divert resources from the waste stream	Achieve zero waste (at least 90% reduction in solid waste going to the landfill) while directing residual products to the "next best use" whenever practical
3	Landscaping: Provide landscaping that maximizes ecological benefits	Conduct chemical assessment of landscape products and eliminate any that qualify as "high concern" in the Washington state list or equivalent. Use no persistent bioaccumulative toxins (PBTs)	Minimize use of synthetic chemicals. Design landscaping to minimize water and pesticides and maximize ecological value (e.g., xeriscaping, native plants, etc.)	Restore or replace natural features of significant ecological value on your property (e.g., daylight a stream, provide habitat on an ecoroof, etc.)
3	Parking and transportation facilities	Provide free parking for carpoolers. Provide bike parking and shower facilities.	Subsidize bus passes and/or provide other incentives for alternative transportation	Choose sites that permit commuting choices, including convenient alternative transportation
2	New construction and remodels: Use green building principles and practices	LEED certified or equivalent. Use life cycle costs, not first costs, as the basis of decision making	LEED Silver or equivalent	LEED Platinum or equivalent
0	Building Operation: Use green building principles and practices in building operation and maintenance	Achieve LEED EB (existing buildings) or equivalent	Achieve LEED EB Silver or equivalent	Achieve LEED EB Platinum or equivalent
3	Janitorial: Use cleaning and pest control products and methods that minimize toxics	50% or more by volume are green cleaning products (Green Seal, Green Cross, UGCA or equivalent). For janitorial paper products, source ones with high recycled content	75% of the cleaning products are green/sustainable and non-toxic pest control methods are used. Apply integrated pest management practices.	100% of the cleaning products are green/sustainable and non-toxic pest control methods are used
6	Fleets: Minimize the impacts of the fleet through the selection, maintenance and use of vehicles	Implement a maintenance program that minimizes hazardous waste, maximizes recycling and uses bio-based and non-toxic alternatives (e.g., the EcoLogical certification program)	Assess the needs of the drivers and select vehicles with the best fuel efficiency and emissions that will meet the needs. Develop systems to minimize driving distance.	Use alternative fuels (biodiesel, ethanol, hydrogen) for all fleet vehicles.
1	Water: Minimize the use of water and reduce stormwater run off	Conduct a water audit and act on the results. Eliminate any wasteful uses of water (e.g., single pass cooling towers).	Have a formal system in place for reducing water use and have methods for capturing and treating some of the stormwater that falls on the property	Eliminate the need for water other than what falls as precipitation on the property (e.g., through recycling, water treatment) and keep 90% stormwater runoff on site in normal rain years.

SENIOR MANAGEMENT				
Points	Practice	Pilot 1 points	Initiative 3 points	Systemic 9 points
0	Sustainability management system: Have in place a process to routinely set priorities for sustainability improvements, monitor the results and institutionalize best practices	Have a parallel structure and process to identify and make sustainability improvements (e.g., a Steering Committee)	Have implemented an environmental management system equivalent to ISO 14001	Have an ISO-compliant EMS with sustainability policies, criteria and targets embedded
1	Vision: Have a clear vision for how sustainability relates to your organization's mission	Establish vision and framework for sustainability that clearly defines the business case for pursuing it	Have conducted a backcasting-like process to develop a clear long-term vision of sustainability and interim goals	Have a long-term vision of your role in a fully sustainable society. Question basic assumptions of your mission or business model and engage in long-term efforts to transform your organization and sector
0.1	Strategy: Integrated sustainability into the strategy and mission	Create a strategy to spread sustainable thinking throughout the organization	Embed sustainability into the strategic and business planning process of the organization	Actively working to transform your industry or supply chain.
0.5	Communication and education: Clearly communicate the importance of the vision and strategy to all affected employees.	Explain the need for pursuing sustainability and take symbolic action to back up the rhetoric.	train all employees in sustainability and your chosen framework(s). Provide frequent updates and ways to reinforce sustainability thinking.	Speak regularly to other groups about your efforts, encouraging them to adopt sustainable practices and learn from your experience
4	Commitment: Demonstrate commitment to sustainability through accountability and resources	Form a Steering Committee and/or create sustainability coordinator position	Require each department work on sustainability initiatives and goals	Build sustainability into budgets, reviews, selection criteria, and compensation.
2	Implementation: Embed sustainability into the organization	Implement pilot efforts and achieved some measurable results	Embed sustainability in business processes (planning, budgeting, appraisal, rewards, SOP's, etc.) and is part of every department's and person's responsibility	Undertake efforts to move sustainability into your suppliers, customers, and other stakeholders' operations
1	Transparency and Stakeholder Involvement: Operate in a transparent and involving manner	Provide ready access to complete and accurate performance data to investors, regulators and the public	Provide mechanisms to solicit input from all major stakeholder groups	Conduct regular, formal assessments of stakeholder expectations and satisfaction levels.
0.5	Sustainability reporting: Annually produce and review a sustainability report reflecting your goals and progress.	Produce an internal document used by managers and employees	Produce reports available to the public	Produce reports that meet standards such as the Global Reporting Initiative, Greenhouse Gas Protocol

OFFICE MANAGEMENT				
Points	Practice	Pilot 1 pt	Initiative 3 pt	Systemic 9
3	Office supplies and equipment: Minimize impacts associated with office supplies, furnishings and equipment	Identify a couple targeted purchasing categories and identified more sustainable options	Have a system in place for routinely assessing the impacts of purchases and working on finding better options	80% or more of office supplies and equipment come from sustainable sources (i.e., from a certified sustainable source, 100% post-consumer waste, recyclable, product take-back, etc.)
0	Energy: Improve energy efficiency and transition to renewables (See related practices under Facilities)	At least every 5 years, conduct an energy audit on office operations and act on the results	Have a system in place for monitoring and communicating energy efficiency, including behavioral changes. Purchase 10% or more renewable power (or the equivalent carbon offsets)	Achieve climate neutrality for electricity, heating and cooling (e.g., via generating energy, purchasing 100% green power and/or purchasing carbon offsets.)
1	Transportation: Actively promote the reduction of climate impacts associated with transportation of people and documents/materials (See related practices under Human Resources)	Encourage alternative transportation for commuting through incentives and other means (e.g., paid parking, car-share, etc.). For correspondence freight and business travel, use the lowest impact carrier that will meet the needs of the parties involved.	Offer incentives to contractors and customers to reduce fossil fuel use.	Be climate neutral for all organizational transportation and for at least 25% of commuting impacts.
1	Contract services: Use contractors that share a commitment to sustainability (e.g., banks, janitorial, landscaping, courier, catering, etc.). (See related practices under Purchasing)	Notify all major contractors/suppliers of your commitment to sustainability	Implement a tool for evaluating contractors on their sustainability practices. Write sustainability criteria and requirements into contract language for all contractors.	Actively influence contractors not hired directly (e.g., work with building owner or create collaborative purchasing programs with building tenants)
NA	Food Services: Ensure access to healthy, sustainable food and minimize waste (cafeterias, vending machines, etc.)	Use non-disposable tableware and energy-saving devices.	Label and promote the sale of healthy foods (organic produce, low-fat, etc.). Use green or sustainable cleaning products.	Only provide locally-sourced, in season, sustainable food items. All food waste is composted.
1	Remodels: Employ green building principles when choosing a new site or remodeling an existing one. (See related practices under Facilities)	LEED certified or equivalent	LEED silver or equivalent	LEED platinum or equivalent