1-1-2005

Sustainable Development Strategy for Springwater Community - Gresham, Oregon: Recommendations for Sustainable Development Incentives

Gary Albrecht  
*Portland State University*

Laurie Harris  
*Portland State University*

Steve Hansen  
*Portland State University*

Colin McConnaha  
*Portland State University*

Darren Nichols  
*Portland State University*

*See next page for additional authors*

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Authors
Gary Albrecht, Laurie Harris, Steve Hansen, Colin McConnaha, Darren Nichols, and Casey Nolan

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SUSTAINABLE DEVELOPMENT STRATEGY
FOR SPRINGWATER COMMUNITY – GRESHAM, OREGON

RECOMMENDATIONS FOR SUSTAINABLE DEVELOPMENT INCENTIVES

PORTLAND STATE UNIVERSITY
PLANNING WORKSHOP PROJECT
JUNE 2005

PREPARED BY
ECOSPING CONSULTING
GARY ALBRECHT
LAURIE HARRIS
STEVE HANSEN
COLIN MCCONNAHA
DARREN NICHOLS
CASEY NOLAN

FOR
THE CITY OF GRESHAM
ECONOMIC DEVELOPMENT DEPARTMENT
PLANNING WORKSHOP EXPLANATORY STATEMENT

The Planning Workshop, in the Masters of Urban and Regional Planning (MURP) program at Portland State University, provides students with professional planning experience. In teams, students develop consulting contracts with clients for planning services that address regional interests and their own personal and professional interests. The Workshop provides experience in planning constructive social and environmental change, while considering the planner’s ethical responsibility to serve the public interest.

The Sustainable Development Strategy for Springwater Community is completed for the Planning Workshop class of 2005.

ECOSPING CONSULTING

EcoSpring refers to the unity of two important elements for this project: ecology and the Springwater Community. Springwater represents a unique opportunity for the City of Gresham to put their commitment to sustainability in action. We have formed EcoSpring Consulting to help the City meet their sustainability goals by offering long term, healthy, and prosperous solutions for development in the Springwater Community.
ACKNOWLEDGEMENTS

EcoSpring Consulting would like to thank the following organizations and individuals for their support, time and resources in the development of the project:

City of Gresham staff
Kristy Lakin
John Pettis
Gary Miniszewski

Portland State University
Professors
Deborah Howe
Connie Ozawa
Sy Adler

City of Gresham staff interview participants

Local and regional development professionals

Fellow MURP students for their support and professionalism

Without your guidance and support, the work here would not have been possible.
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INTRODUCTION

This document represents the research and findings of a collaborative planning partnership between Portland State University, EcoSpring Consulting and the City of Gresham. The project considers alternatives for establishing an incentives-based sustainable development program in the Springwater Community. Figure 1 illustrates the planning study area, immediately to the south of the City of Gresham.

Springwater includes 1,500 acres in unincorporated Multnomah County. The area is part of a recent addition to the Portland metropolitan region’s urban growth boundary (UGB). Johnson Creek bisects the community, flowing westward past small rural farms, nursery facilities, historic homes and groves of Springwater’s native Hogan Cedars. The community is also home to the Springwater Corridor Trail and an historic northwest brick factory.

This project researches and recommends alternatives for implementing sustainable development patterns and practices into this largely undeveloped land. The objective of the research is to provide a range of strategies that the City can incorporate into an incentives-based program that facilitates sustainable development.

The project begins with an overview of sustainable development principles and an explanation of sustainability as it relates to Springwater. A successful strategy for sustainability includes clear understandings of sustainable development principles and available resources. A successful strategy also includes innovative incentives. This project aims to foster these understandings among all community stakeholders: city staff, community groups, individual citizens and development professionals.

The alternatives included here are based on information gathered during interviews with City staff, Gresham residents, local and regional developers, and local industries. The interviews identify the challenges and opportunities of sustainable development for each stakeholder group.

City staff recognizes that sustainable development practices are gaining public acceptance. The City also recognizes a growing need for educational opportunities for the public, for city departments and for community leaders. Among the primary objectives of the City is to identify sustainable development practices that lower infrastructure and utility costs while protecting natural resources and improving environmental quality in the greater community.

Local and regional developers stressed the importance of market factors and risk management in the development process. In order to alleviate risk, development professionals suggest a stronger commitment by the city. Part of the commitment to sustainable development is investment in public-private partnerships and in a more supportive environment for sustainable development. The more the
City is willing to invest in long-term community-oriented relationships, the better developers will be able to accommodate the long-term needs of Springwater and the Gresham community.

The opportunities and challenges for the community as a whole then lie in minimizing development risks and maximizing development quality within budget constraints of city departments.
BACKGROUND

The City of Gresham and Multnomah County are currently preparing a Draft Concept Plan for Springwater, which coincides with a growing regional interest in sustainable development. In doing so, the City hopes to create a model for the Metro region that will transform 1,500 acres of rural residential land into a mix of industrial, commercial and residential uses while protecting air and water quality and natural resources.

According to the draft Concept Plan, Gresham intends to encourage sustainability by encouraging businesses, industries and homes that are built with and practice good environmental stewardship. These sustainable practices include energy efficiency, water conservation and pollution reduction. The same practices also emphasize materials and processes that minimize environmental impact. The sustainable development plan for Springwater seeks to preserve and restore natural resources by meeting or exceeding local and regional development standards.

The term “sustainable development” generally implies a sense of responsibility to act in a manner that preserves or improves opportunities and quality of life for future generations. For Springwater, the concept of sustainability applies to a narrower set of expectations. In particular, the concept of long-term responsibility embodies Gresham’s desire to achieve a higher quality of urban development. The resulting long-term, high-quality development is intended to create a viable economic base while protecting natural resources and maintaining a high quality of life in the community.

The Springwater Plan incorporates the foundation for a sustainable development code, a model building code to guide those builders and developers investing in the Springwater community. The code establishes a baseline of development standards, which encourage local and regional investors to respect unique natural resources and the overall quality of life in Springwater.

In order to achieve these goals, the City of Gresham has outlined a three-pronged strategy that includes:
1) A regulatory framework conveyed through the land-use code;
2) A recruitment strategy to attract businesses and developers with a commitment to sustainability;
3) An incentives-based program for implementing sustainability.

This project addresses the incentives component of the City’s action measures described above.
SUSTAINABLE DEVELOPMENT

The concept of a sustainable community recognizes the interdependency of economic, environmental and social issues. Communities pursue economic development to increase standards of living. They also seek to protect and enhance the living environment for current residents and for their children. These community interests are often viewed as conflicting. That view, however, assumes that it is only possible to pursue one at the expense of the others. In reality, economic activity and the environment both affect the social quality of life. In fact, economic investment and environmental protection are often directly related to the social health of a community.

Economic Development

Traditional development patterns typically reflect market choices made to maximize financial profit from development. This profit maximization approach yields the smallest external costs and greatest short-term dividends to the developer with little or no consideration of long-term maximization of other scarce resources.

Most economic development creates an impact on the natural environment. Local and regional economies often rely on natural resources to produce goods and services in the creation of local jobs. The same economic production also generates pollution and waste streams, which impact the environmental health and livability of the community locally and beyond. Sustainable economic activity, however, can protect and enhance both community livability and the environment through increased energy efficiency, improved product design, waste minimization, improved use of land and buildings, and improved transportation efficiency.

The principles of “sustainable development” continue to rely on a benefit maximization approach. The difference is that sustainable development patterns emphasize long-term livability for the entire community. A long-term resource maximization approach encourages careful community investment and yields a healthier living environment.

Sustainable design features improve the performance of buildings, businesses and people. The casual observer may not immediately notice that a sustainable development uses only 25% of the energy and only 10% of the water consumption of a typical development. These fiscal benefits are advantages of sustainable development in part because of their noticeable impact on utility bills. The challenge of sustainable development is to promote an environmentally friendly economy while creating an attractive, productive environment in which to live and work.
Environmental Impact

Early environmental regulations were motivated by concern for the protection of public health. These concerns led to measures to curb air pollution, provide clean water and minimize the risks of waste disposal. Over the past 30 years, regulations and incentives have steadily improved environmental health.

A second concern focuses on the conservation of natural resources, which have certain economic value but which are also in limited supply. These resources include mineral and agricultural resources, air and water resources, and a diversity and abundance of wildlife. Moreover, perhaps the most finite of natural resources is the land itself.

Sustainable development is one way to ensure that future generations have the opportunity to enjoy the same quality of life and economic opportunities that we enjoy today. For example, a typical sewer and drain system usually handle stormwater runoff in a standard development. In a sustainable development, stormwater runoff may be handled entirely onsite. Instead of building a network of impervious surfaces and a large pipe system to deal with the runoff, permeable surfaces can be incorporated in strategic locations to manage all stormwater.

Clearly, sustainable development requires integration of economics and the environment. That integration cannot happen without also considering the social health of the sustainable community.

Social Health

A key objective of sustainable social development focuses on meeting basic community needs and creating equity in development ensuring that the environment and economy are appropriately considered in both public sector and private sector decisions. Ideally, sustainable development also considers the potential social impacts of community investment decisions and assesses inequalities between minority groups within the community.

Achieving Sustainable Development

It is often difficult to quantify environmental costs and benefits. Therefore, traditional methods of reducing environmental impact have simply placed regulatory restrictions on commercial and industrial users. However, the strict regulatory approach is not always the best means of achieving long-term community change. Local and regional developers repeatedly support a more collaborative development process over mandatory regulations.

Environmental and/or economic regulation may be required to implement sustainable development patterns. A market-based approach and cooperative development partners maximizes long-term benefits in the community. This approach promotes innovation and collaboration in the development of high quality, environmentally friendly communities.

Planning Context

Existing plans and polices support a framework for sustainable development in Gresham. These plans and policies are listed below:

State

The State of Oregon encourages sustainable practices in state agencies. The State Departments of Transportation, Agriculture, Energy, and Fish and Wildlife all work to integrate sustainability into their organizational operations and culture.

Oregon Sustainability Act of 2001

The Oregon Sustainability Act identifies a statewide commitment to sustainability and mandates that state government agencies integrate sustainability into their work plans and daily activities.
Executive Order EO-03-03
The Order supports the goals and the Oregon Sustainability Act of 2001.

Oregon’s economic recovery will be aided by establishing a commitment to lasting solutions that simultaneously address economic, environmental and community well being. We should not continue to trade one essential aspect of well being off against another, but we should take actions that will sustain Oregon’s assets and put Oregon on the path to long-term prosperity in all aspects of life.

Oregon Statewide Planning Goal 5: Natural Resources, Scenic and Historic Areas, and Open Spaces
The purpose of Goal 5 is to “protect natural resources, conserve scenic and historic areas, and open spaces.” The goal explains that local governments are to adopt programs that protect natural resources and conserve historic places and open space.

Region
The Portland metropolitan region has a unique regional governing body. Metro, the regional government, is tasked with protecting open space and parks, creating and implementing plans for land use and transportation, and managing solid waste disposal and recycling for 25 cities in the greater region. Metro provides unified leadership and a voice for the Oregon portion of the metropolitan area.

Metro’s authority over regional growth management also makes it uniquely suited to develop a natural resource plan for the region, as water, fish and wildlife, and the watershed functions that support them transcend jurisdictional boundaries. Cities within Metro’s governance have to meet or exceed the standards of these regional plans.

Water Quality and Floodplain Protection Plan
The region’s Water Quality and Floodplain Protection Plan require local jurisdictions to meet regional performance standards relating to water quality and floodplain management. The plan provides specific, quantifiable regional standards that local jurisdictions must meet for future development. The specific performance measures that the plan lays out include:

- Protect vegetation along rivers, streams and wetlands
- Prevent soil erosion and loose soil muddying streams
- Prevent uncontained uses of hazardous materials along rivers and streams
- Limit development in the floodplains of the region’s rivers and streams
- Require balanced cut and fill. If fill occurs, there needs to be a corresponding excavation to maintain flood storage capacity of the land.

Regional Fish and Wildlife Habitat Protection Plan
Metro also implements a Regional Fish and Wildlife Habitat Protection Plan to protect and restore...
regional habitat and connectivity for fish, wildlife, and people. As stated in the Vision Statement, the overall goal of the program is to “conserve, protect and restore a continuous, ecologically viable streamside corridor system, from the streams’ headwaters to their confluence with others streams and rivers, and with their floodplains in a manner that is integrated with the surrounding urban landscape.” The Regional Fish and Wildlife Habitat Protection Plan was recently replaced by a scaled-down Nature in Neighborhoods resolution, following the passage of Measure 37.

**PROCESS AND TOOLS**

**Background Research**

EcoSpring Consulting conducted research on available technologies, financial incentives, and technical assistance strategies in use locally and nationally. This research provides an overview of current sustainable products and techniques. Research also includes case studies of successful sustainable industrial development throughout the United States. EcoSpring also identifies state and national programs that provide financial incentives for sustainable development.

**Outreach and Community Involvement**

Public outreach, in the form of interviews and surveys with local community and developers, industries, and City of Gresham officials and employees informs the potential application of available technologies and incentives in the Springwater Community. EcoSpring used the results of this information-gathering stage to formulate a range of sustainable development alternatives, technologies and incentives.

Researchers administered a survey to department heads and key personnel responsible for development implementation. The survey, administered through email to Gresham staff and regional agencies, asked respondents open-ended questions about sustainable development.

**Springwater Community Open House**

EcoSpring participated in a community open house on April 16, 2005 at Hogan Cedars Elementary School. The open house began with a presentation that summarized the planning process to date. This presentation provided attendees with exposure to each element of the Springwater Community Plan. Participants gathered additional information about specific plan elements at six individual workshop stations. EcoSpring hosted the Sustainability station, where the team distributed a survey for interested participants to provide feedback on sustainable development priorities in the community.
RESULTS

Regional Agencies

Survey responses from agencies outside the City of Gresham indicate that barriers to sustainable development are diminishing, but are often still significant. According to the Portland Development Commission, sustainable practices continue to become more commonplace. For example, curbside recycling in the past was difficult to implement, and it is now routine practice for both households and businesses.

City of Gresham

Survey responses from Gresham staff indicate a confidence that incorporation of sustainable practices will continue to increase. The survey allowed staff to provide a definition of sustainable development, including the perception of challenges and opportunities for sustainable development, value of education, and the possibility of graywater use/re-use. Gresham staff was generally aware of the term “sustainable development”, although staff members offered varying responses when asked to define the term. A majority of the definitions focused on environmental sensitivity, low-impact design, energy and water efficiency, and conservation of natural resources. Few mentioned financial or economic sustainability.

Overall, responses to sustainable development concepts vary, ranging from developer’s lack of sustainable design knowledge to City staff contradictions about allowable practices. Despite these concerns, the survey of regional agencies and Gresham staff demonstrates optimism that sustainable development will eventually become mainstream.

Development

Regional development

Regional developers approach development projects from the same perspective as others in the business of land development. The motivation for developers is to create cash flow from the development of real property and the primary concern of regional developers is risk management. Local and regional development professionals are typically concerned about the feasibility of industrial development regarding location, site configuration and transportation challenges. At the same time, developers in the Portland metro area also demonstrate a keen sense for community needs and are open to meeting those needs as long as they can justify the additional investment.

A general openness to new ideas and the availability of other local resources all support the City’s efforts to establish a productive public/private collaboration on sustainable developments in Springwater. If the city is willing to invest in long-term, community-oriented relationships, developers will be willing to accommodate the long-term needs of the community.

Local development

If sustainable practices make sense in the market, then local developers will incorporate them into development programs. In this context, the definition of ‘market’ has to be place-specific. In addition, developers are interested in determining how both private and public interests can work together to make the development process smoother and easier.

Typical timeframes for entitlement and construction keep developers wary of any new regulations and processes. A “streamlined” process includes minimizing the time between concept and construction but doing so without compromising development quality.

Another public/private collaborative action includes the incorporation of innovative practices not currently allowed by City Code. The City is making positive gains in this direction by currently offering a systems development charge credit and one-on-one assistance to help developers overcome site constraints.

Industry

Representatives from different industries were asked to identify practices they believe require an incentive to implement and practices they could incorporate on their own. Each industry cited different practices for these two categories. The conclusion was that
cost-effective practices vary depending on the type of industry.

Sustainable principles often have an economic payback and do not typically require an additional financial incentive. Examples of such principles include energy conservation, water use reduction and efficient building design to minimize construction costs. Incentives should promote sustainability components that do not have a financial or business payback, but are desirable for the environment and/or community. Example incentives include project financing options, fee reductions, tax credits, streamlined permitting, staff assistance and positive public recognition.

**Key Findings**

Following a thorough review of interviews with local and regional stakeholders, EcoSpring finds that the ideal strategy for implementing sustainable development should include two primary components: an institutional framework for the program and strategic incentives for implementation.

**Institutional Framework**
An institutional framework provides a structure to incorporate sustainable development principles into government and private actions. The institutional framework is comprised of three broad program areas: Leadership, Streamlined development and Flexibility.

**Strategic Incentives**
The strategic incentives fall into one of two categories, described here as Financial and Technical Assistance. For simplicity, the incentives are found under the program area that best represents its role in facilitating sustainable development.
ALTERNATIVES FOR IMPLEMENTING SUSTAINABILITY

INSTITUTIONAL FRAMEWORK

Category 1 - Leadership

Sustainable development inherently requires additional consideration in the design process. The potential complexity of sustainable projects and the novelty of the profession require extra attention to detail to ensure performance and feasibility. The sustainable development process clearly requires additional communication and coordination between the public and private sectors.

The City of Gresham must provide leadership to facilitate the development of Springwater. The City’s leadership role includes three primary components:

1. Internal understanding of and support for sustainable principles and practices.
2. City staff and departmental assistance in the development process.
3. Internal and external communication regarding the options and the benefits of all aspects of sustainable development (efficiency, environmental and equitable = higher quality of life for the entire community).

The recommended leadership strategies are intended to incorporate these responsibilities into organizational processes already in place at the City of Gresham. The alternatives are also intended to incorporate, where necessary, additional incentives for sustainable development through the leadership of local government.

Incentive 1A: Political Support from Mayor and City Council

To forward a sustainable development initiative, the City must demonstrate a high level of political support. Strong political support is important because of the relatively new nature of green building projects and other sustainable development plans. Many developers and citizens are still apprehensive about projects with a “green” component, not because they are inherently against sustainability, but because they are not well acquainted with the details of such projects.

The Mayor and City Council can take a lead by explicitly stating a continuing commitment to sustainability in the cities strategic goals and objectives. A commitment to sustainability supports the city leaders’ already existing commitments to city identity and economic development. Specifically, the goal of enhancing community identity and pride, as well as the goal of supporting urban planning services would be complemented with a statement of commitment to sustainability.

Through political support, the City can take a proactive role to lay the foundation for high-quality sustainable development. Developers and the public in general will have less apprehension about get-
ting involved with sustainable projects because of the leadership role provided by the City. Moreover, strong support from the City sets into motion a synergy that the following components can built upon.

**Incentive 1B - LEED certified staff or department to facilitate sustainable development**

The higher standards of development in Springwater would likely add considerable time to many applications. A major reason developers resist new types of projects is due to potential delays in the development schedule. These potential delays can be offset by hiring a dedicated staff or department to facilitate sustainable development.

A dedicated staff member can assist developers in numerous ways. Primarily, such a staff member can be a contact person for a developer. By establishing a relationship between the developer and the City, many potential concerns can be mitigated early on, if not avoided all together. The dedicated staff member would be a resource for developers, providing answers to commonly asked questions about sustainable development, and more importantly, finding out who to talk to if the answer is unknown. Such time saving efforts can aid the developer throughout the process.

The dedicated staff member should have extensive knowledge of sustainable development and green buildings. A LEED Certified Professional is highly recommended; such training would ensure adequate knowledge of these issues. Depending on the timing and amount of development, the City should seriously consider expanding this resource into an actual Sustainable Development Department, which will not only provide adequate service, but also provide increased exposure and synergy to the sustainable development projects.

**Benefits**
- Knowledgeable staff member on sustainable development issues to field relevant questions and provide consulting services
- Facilitate timely and efficient review of development applications with sustainable aspects
- Serves as a primary contact resource for citizens and developers
- Strengthens the relationship between the City and developers

**Incentive 1C - Interdepartmental communication/collaboration**

The city can implement a framework for communication and collaboration that dissolves misperceptions about sustainable development. The framework should bring together staff members from many different departments to talk about issues relevant to sustainable development. For example, a monthly meeting could be implemented to address questions that developers have posed, “in the field” problems identified by city workers (i.e.: street cleaning crew has a question about permeable pavement), and other questions and concerns as they arise. Having this framework established early on will greatly improve the ability for the City to answer questions related to sustainable development in a timely manner.

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According to the Portland Development Commission, sustainable practices continue to become more commonplace. While once difficult to implement, curb-side recycling is now a routine practice for both households and businesses.

**Portland Office of Sustainable Development**

Portland’s Office of Sustainable Development (OSD) is a local example of a city providing trained staff for sustainable purposes. OSD aims to provide leadership and contribute practical solutions to ensure a prosperous community where people and nature thrive. OSD provides technical assistance, educational outreach, and policy research in order to increase the knowledge about renewable energy and resources, solid waste, pollution, and community health in general. Many of the staff at OSD are LEED Certified and are invaluable resources to the Portland sustainable development community.

More information about OSD is available in the Recommended Incentives section of this document, under Technical Assistance Programs.

Portland Office of Sustainable Development
721 NW 9th Ave, Suite 350
Portland OR 97209
503-823-7222
pdxosd@ci.portland.or.us
www.sustainableportland.org/
Another benefit that this framework will provide is collaboration between departments. Certain solutions may require more than one department to work together for an effective solution to be realized. As with most big projects, many problems can arise in the process of implementation. The project direction may change or goals may need modification. Continuous feedback from staff can help reduce these problems and many others that may arise. The notion of continual feedback is to build a rapport and a climate of trust in which performance can be openly and constructively discussed. Communication can ensure that there are no surprises during the implementation process.

Benefits
- Improves problem solving, especially in the context of new City-wide goals of sustainable development
- Promotes teamwork between departments; leads to more efficient solutions
- Places developers at ease because the City is more likely to be able to respond quickly and effectively to possible questions and concerns

_Incentive 1D – Periodic review to assess current sustainable technologies_
Once the City’s baseline of sustainable development standards has been adopted, it will be important to review and update the standards to ensure that the sustainable development envelope is continuously being pushed. Rapid growth in the sustainable development field is bringing new technologies to the marketplace, causing prices to fall on existing technologies, and causing many sustainable practices that are not currently viable to become viable in the future. As such, a review of technology and sustainable development practices is required every 1 to 2 years.

The review can also take the form of an ongoing, iterative process. The U.S. Green Building Council (USGBC) follows a similar review process for the Leadership in Energy and Environmental Design (LEED) rating system. Industry professionals are constantly providing feedback to help refine the LEED system, and technology professionals make recommendations as to when to “up the ante” for sustainable development. An extensive review is not required, but it is important to recognize the continual evolution of sustainable development possibilities and to incorporate new standards as appropriate.

Updated resources should be included in a Handbook for Sustainable Development. The handbook should serve as a quick reference guide to developers, citizens and staff and should guide and assist sustainable development. It should be easy to read and should answer fundamental questions about development objectives and processes in Springwater. The handbook should also incorporate a list of additional current resources.

Benefits
- Ensures that Springwater continues to be ahead of the curve with respect to sustainable communities
- Helps to push the envelope of sustainable development on a much large scale by showing that higher standards can be achieved

_Incentive 1E - Clearly established vision and standards_
The City has nine criteria that they will use to create a baseline for sustainable development. Table 1 below indicates whether Oregon or the Federal Government requires the criteria. If either the state or Federal Government requires the criteria, then the City must meet the requirement too. Flexible criteria (“yes” in the COG column) mean that the City has the option to waive the requirement. Gresham’s flexible baseline credits include the following numbers: 1.1, 5.1, and 7.1. Baseline credits that are not flexible include numbers: pre-requisite 1 & 2, 1, 6.1, 6.2 and 8.

Creating baseline criteria with high standards for development in Springwater is important to laying the foundation for sustainable development. It is critical that the baseline standards be flexible enough to accommodate the individual needs of developers and site-specific options.

A clearly communicated vision also serves to nurture community acceptance from stakeholders and the vision facilitates implementation of sustainable development practices. A clear vision will stem
from a program that has a practical definition of sustainable development, explains the standards for sustainable development, identifies benchmarks, produces annual progress reports, and offers educational opportunities.

Benefits
- Identifies a clear vision and flexible baseline standards provide Gresham with tools for incentives that they can offer developers who want to exceed the standards
- Modeling community for sustainable development

Incentive 1F – Educational opportunities
The City of Gresham can be a catalyst in providing stakeholders with the necessary knowledge and tools to meet the City’s standards for sustainable development. In order to accomplish this, the City can facilitate dialogue and knowledge transfer by providing workshops, trainings, speaker forums, and Charettes. Relevant topics might include:
- Identification of costs and benefits of traditional and sustainable developments
- Techniques for low impact development and best management practices
- Overview of the City of Gresham’s sustainable development program
- In-depth descriptions of the City of Gresham’s mandatory and advanced standards for sustainable development
- Trainings associated with third-party certifications such as Natural Step, USGBC’s LEED, and environmental management systems such as ISO14000

Incentive 1G - Community networking opportunities
The City of Gresham should promote synergies among stakeholders. Facilitating the sharing and discussion of ideas and potential partnerships among business, industry and government can achieve this. Networking opportunities enable the City and stakeholders to generate interest, share knowledge, and facilitate communication and public/private collaboration regarding sustainable development practices and issues. Networking may yield innovative opportunities and project ideas for sustainable development.

Examples of the benefits of networking include educational partnerships, working with stakeholders to re-evaluate the incentives to ensure their maximum potential, and providing opportunities for companies to leverage sustainable development practices. This advantage could consist of combining on-site stormwater management practices and identifying outputs of one company that are inputs of another.

Benefits
- Ensures that no one reinvents the wheel
- Will stimulate innovation

Educational Opportunities
One specific program that the City of Gresham should consider is The Sustainable Building Advisory Training Program. Seattle Central Community College has been offering this course for over 5 years and more than 200 professionals have been through this program. The course runs for nine months and the class meets once a month for daylong classes on Friday and Saturday.

The National Sustainable Building Advisory Program (NaSBAP) can bring this course to other community colleges outside of Seattle for a nominal fee. Therefore, there is an opportunity that the City of Gresham can work with Mount Hood Community College to bring this program to Gresham.

There is a significant benefit to bringing the NaSBAP to the City of Gresham. There are no up front costs for the City, and requires little of City staff because all of the course materials are provided by NaSBAP. This program prepares students for the national certification exam. Passing this exam allows students to use CSBA (Certified Sustainable Building Advisor) after their name.

One negative aspect of using the NaSBAP as a primary training tool for area professionals is that the course is not necessarily specific for Gresham or the Metro region. The City might be able to work with NaSBAP in order to modify the program to tailor it more specifically to Gresham and the Springwater community.
Incentive 1H – Third-party certification

Third-party certification acknowledges businesses that have a common characteristic. In this instance, a third party certification acknowledges businesses that promote and implement sustainable development practices. An awards program to further the image of a company can accompany a certification program. Benefits of third-party certification to a business include use as a marketing tool, access to trainings and events, and respect from the community.

Additional Resources for Third-party certification:

U.S. Green Building Council
1015 18th Street, NW, Suite 508
Washington, DC 20036
(202) 828-7422
www.usgbc.org/

Incentive 1I – Marketing Springwater and Springwater concepts

The City of Gresham is to market Springwater to developers, tenants and the community. Springwater presents a preferred alternative, offering shared resources, efficient buildings and higher environmental quality.

Together, these amenities present an attractive location in which to live, work and conduct business. The quality of life and sense of environmental responsibility are factors to be emphasized by City staff and other organizations in recruitment and marketing. The sustainable components of the Springwater community offer local sites a competitive advantage in a business climate that places increasing importance on environmental responsibility.

Incentive 1J - Market analysis to identify complementary sectors and firms

Complementary firms refer to companies that utilize the inputs and outputs of other companies as one larger efficient system. For example, Company A may yield plastic pellets as a byproduct of its production process. If Company B is a plastic container manufacturer, they could use the pellets from Company A as an input. Both Company A and Company B would be better off due to decreased materials and disposal costs, and the environment would be better off due to efficient use of resources.

The trick is to find firms that are complementary to each other. A market analysis of local firms can yield very positive results. A market analysis can take on many forms, but the main purpose is to figure out the inputs, waste streams, and transportation requirements of a large number of firms in a general region. After this information is collected, computer programs can be used to find “best fit” firms that would benefit from being co-located or located adjacent to each other. Sometimes the waste product of one company can be utilized as an input for another company. Piecing companies
together in this manner is referred to as Industrial Ecology, or Eco-Industrial Parks.

Students can serve as an excellent resource to compile the market analysis by administering and collecting surveys of local firms’ inputs and outputs. The information can then be used by the City to make strategic recruitments of compatible firms. The Triangle J Council of Governments used such a survey in the early stages of Research Triangle Park in North Carolina. The resulting eco-industrial park has been a tremendous success. The survey is extensive, and provides valuable information about potential firms to recruit. See sidebar and the website at right for more information.

A program that matches potential firms for eco-industrial developments is called FaST. The Facility Synergy Tool (FaST) is a decision support tool created to aid planners, communities, and facility personnel in identifying potential materials exchange, energy trading, and purchasing coordination opportunities among industrial and non-industrial facilities. See the The Londonderry Ecological Industrial Park case study (opposite page) for an example of the FaST software in use.

Free software is available at: www.smartgrowth.org/library/article.asp?resource=431

Benefits
- Provides one of the most sustainable outcomes for land use and resource use
- Shows highest level of commitment to sustainable development
- Places the project “on the map”
- Seizes advantage of existing, local firms

Additional resources for identifying compatible firms:
The Smart Growth Network
The International Society for Industry Ecology
www.is4ie.org/

_Incentive 1K - Educational research partnership_
Portland State University and Mount Hood Community College (MHCC) can help the City further their commitment to sustainable planning, sustainable economies, sustainable community health & development.

Mount Hood Community College is interested in pursuing educational partnerships with Portland State University, local developers and the City of Gresham. MHCC is currently in discussion regarding a project incorporating sustainable development at a site in Rockwood.

In September 2002, Portland State University and the City of Gresham entered into an agreement that allowed a student intern to work with the City’s GREAT Business Assistance Program. The pro-
gram allowed a PSU intern to provide resource efficiency assistance to businesses. By October 2004, the City hired a full time employee to operate this program, subsequently ending PSU’s contract. Overall, the project was a success for the City and for the university, and is useful as a model for future projects.

Benefits
- Improves sustainable practices in Gresham
- Healthier community
- Decreases office waste and reduces the amount of waste sent to the land fill

Incentive 1L - City development and/or management of parking resources
The challenges of modern development provide development professionals with increasing complexities in the development process. Efficient land use, environmental concerns and transportation issues combine with traditional site constraint issues to make even the simplest of developments more difficult.

One challenge is the provision of adequate parking. Surface parking is costly to construct and can contribute up to 50% of a site’s stormwater runoff. Parking lots also use valuable land that typically cannot be incorporated into the available building footprint. In addition, because parking needs vary between land uses, local jurisdictions often set minimum standards that encourage over-supplied parking in order to minimize future or seasonal conflicts.

Parking needs and stormwater impacts can be mitigated by utilizing parking strategies that minimize the overall parking supply. Alternatives include shared parking between complementary tenants to use parking areas more efficiently. The public may also provide parking for strategic land use types in order to encourage a greater level of sustainable operation within the community. A third alternative is shared structural (multi-level) parking to minimize impervious surface area, while maximizing the amount of land available for building development.

Each of these strategies can be facilitated by the City of Gresham in Springwater. The provision of parking also gives the City development leverage for achieving the greater goals of sustainability. Strategic shared parking can be used to encourage carpool use, to attract specific industrial uses or simply to minimize stormwater impacts at Johnson Creek. Publicly controlled parking also offers the City opportunity to collect parking fees from owners and tenants that choose not to implement sustainable practices, thereby offsetting the cost of providing a “parking incentive” to more responsible developments.

Benefits
- Gives City additional collateral for negotiating Springwater developments
- Enables shared parking and strategic use of locations to minimize the overall need for parking space in Gresham

Educational Partnership
Barry Messer is one of the key players to help explore new research partnerships between PSU and the City. For example, he mentioned that PSU could continue the established working relationship with the City of Gresham through a modified version of the GREAT program. The scope of work could provide business assistance and compile market analysis specifically in the Springwater area of sustainable planning, sustainable economies, sustainable community health and development.

Barry Messer, PSU Professor
E-mail: messerb@pdx.edu

Shared Parking
Shared Parking means that parking spaces are shared by more than one user, which allows parking facilities to be used more efficiently. Shared Parking takes advantage of the fact that most parking spaces are only used part time by a particular motorist or group, and many parking facilities have a significant portion of unused spaces, with utilization patterns that follow predictable daily, weekly and annual cycles.
• Introduces City control over amount and type of paved surface materials
• Presents the City greater control over tenant mix and mix of uses

Incentive 1M - Property management and strategic organization of development patterns to maximize economic and environmental capacity.

Among the more ambitious objectives of sustainable development is the maximal utilization of community resources. Maximal utilization of resources is the practice of maximizing efficient resource use while minimizing resource waste; in other words, making the most out of available resources. Achieving the most out of scarce community resources requires a more deliberate approach to all aspects of development, from infrastructure investment to stormwater management.

These finite resources include financial capital, political capital, land, utilities, natural habitat and quality of life. In order to utilize these community resources requires the careful coordination of investment and use. These efforts give the City of Gresham another leadership opportunity.

Achieving sustainable site development, energy-efficient structures, green business operations, and community awareness requires coordination between multiple tenants’ stakeholders to maximize resource utilization. Strategic co-location to share waste streams, maximize utilities or transportation infrastructure and energy resources requires a higher level of organization on the part of the community.

However, each of these input factors requires a higher level of coordination between members within the community. In order to facilitate shared resources and maximize production efficiency in Springwater requires the strategic organization of development patterns and the strategic placement of “sustainable anchor tenants”, which gives the City another important role as “property manager”.

The role of the property manager is twofold: to elevate awareness of the options and benefits of sustainable development and to assist in the management of locational placement. The responsibility of the City in this role is similar to a property manager selecting and placing a strategic mix of tenants; tenants that are not only compatible but also complementary one with another. The City’s departments hold a unique opportunity to combine the skills of Planning, Public Works and Economic Development strategically coordinate complementary land uses in a way that maximizes economic efficiency and environmental conservation. Gresham has an opportunity to maximize the investment returns to transportation facilities, site space and utilities.

The resulting network of “tenants” should be carefully orchestrated to coordinate local commercial/industrial opportunities with broad recruitment strategies in a manner that offers business interests and developers incentive to locate in Springwater. Notable incentives should include the availability of shared or byproduct materials that can easily be incorporated into the manufacturing process of

Eco-Industrial Park
By acting as a property manager, the city could facilitate and eco-industrial park. An eco-industrial park is a type of industrial park in which businesses cooperate with each other and with the local community in an attempt to reduce waste, efficiently share resources (such as information, materials, water, energy, infrastructure, and natural resources), and produce sustainable development, with the intention of increasing economic gains and improving environmental quality.

For more information on successful eco-industrial parks, see the following website: www2.ucsc.edu/gei/eco-industrial_parks.html
other companies. Inputs may include “waste” materials, “waste” energy or purified water used as inputs into a secondary production process.

Benefits
• Provides framework in which to promote resource sharing
• Grants assistance to willing partners interested in locating sources of materials

Category 2 - Streamlining the Development Process

The larger the project is and/or the more complex the development, the greater the risk for developers, business owners, lenders and, ultimately, for the community. As mentioned above, the novelty of sustainable development projects inherently includes a greater level of complexity. New materials and emerging technologies require a learning curve in order to gain necessary experience.

One of the best ways for Gresham to demonstrate the City’s commitment to sustainability is by respecting the development pressures of both timing and financing. The City can ease these pressures by establishing a development process that clearly outlines community expectations and timelines and then delivers the promised results. The City can also facilitate the appropriate type of development by engaging in the process early and often and helping to ease the transition from traditional development to sustainable development.

Incentive 2A - Expedited Review and Entitlement

Gresham’s Expedited Development process can be modified to offer premium service for complete, accurate, and straightforward sustainable development plans in the City of Gresham. This process can occur in a two-week period. Here is a brief description of how to accomplish this goal. Initial eligible review types and project scope will need to be determined later. Next, site designers participating in this process are required to make quality submittals that result in project approval within a maximum of two (2) submittals. Schedule plan reviews by appointment only. Require complete application information prior to schedule confirmation. Confirm appointments by email. In order for a project review to proceed within this process, require minimum submittal and plan requirements and strict scheduling limits. A sample schedule could consist of two reviews over a two-week period. In the first week staff will review the plans, make comments, and return the plans to the design professional for revisions. In week two, the project is re-submitted, review is completed, and plans are ready for pick up.

Benefits
• Shortens review process and creates lower risk for professionals and the community
• Replaces traditional development

Incentive 2B - Early assistance and project guidance

It is important for developers to know that there is a strong commitment from the City in helping to integrate sustainability into developments. One component of early assistance would be an educational component to convince developers of the merits of sustainable development so builders do not “get hooked on subsidies” (Center Oak). These seminars should include good hard data along with specific pathways to achieve more sustainable elements in design.

Another firm echoed the importance of early assistance and project guidance. They commented, “one of the biggest problems is actually adjusting pre-design schedules, allowing adequate time for the research and setting aside extra fees for architects, consultants etc. to accomplish the research” (Boora Architects). With early assistance and project guidance by the City of Gresham, scheduling adjustments would be minimized, and possibly some of the extra fees that would go towards consultants would not be necessary if the same research was available through the City.

One goal of a developer is to minimize risk. Early assistance and project guidance will help to make the development timeline, as well as costs more predictable, therefore reducing risk. Although most developers are aware of potential savings associated with sustainable development, if they need to invest too much time or money in determining the cost effectiveness of green building investments, they are likely to skip this step in favor of a safer investment.
Benefits

• Reduces developer’s risk by having predictable timeline and costs
• Advances opportunity for the City to collaborate with development firms and to influence the outcome of the development

Incentive 2C - Development Commission for Sustainable Site and Design Review

A development commission can be used to streamline the site and design review processes. This structure ensures that the sustainable development vision and elements are efficiently applied to the local development.

The commissioners should be nominated, or chosen by a City official, based on interest in the Springwater community, knowledge of sustainable development practices, and networking capabilities among stakeholders, among other characteristics.

A development commission functions properly when designed to guide specific types of development within a specific geographic area (i.e. Enterprise Zone). In the case for the City of Gresham, this would be promoting sustainable development among industries in the Springwater Community. While a development commission can work for an entire City, it would require initial department restructuring and code revisions to result in long-term benefits.

Benefits

• Dedications staff to development of the Springwater Community
• Oversees all development in the Springwater Community from dedicated staff committed to sustainability

Incentive 2D - Public/Private review for project compatibility with existing community

The review of sustainable projects for compatibility with community goals would be best accomplished by a joint project review by the community, private developer/business interests and City Staff. The joint review of sustainable development projects would ensure that projects are indeed sustainable and would ensure that every new development serves to meet the long-term needs of the community. Sustainable Project review could be conducted as part of the City’s Site and Design Review process or in addition to the existing permit process.

The dynamic nature of sustainability and sustainable development warrants a measure of flexibility on the part of all stakeholders in Springwater. Sustainable design, materials and construction techniques should be reviewed as often as possible to ensure that Springwater is utilizing sustainable development and sustainable practices to the best use in the community.

At a minimum, the joint public/private review process should engage feedback from knowledgeable

The Devens Enterprise Commission (DEC)

DEC is the regulatory and permit-granting authority for the Devens Development Project. DEC is empowered to act as a local planning board, conservation commission, board of health, zoning board of appeals, historic district commission, and in certain instances as a board of selectmen. DEC has developed a regulatory code for the seven industrial parks in Devens region of Massachusetts. The code creates a unified permitting system that streamlines local regulatory process. The Commission Representatives are comprised of 12 gubernatorial appointees (six of whom are nominated by the three 'host communities'); one alternative member from each host community (nominated by the host community). DEC began operation in 1995. Today’s staff includes a director, and director’s assistant plus a number of consultants that address inspection, legal, and engineering among others.

DEC is supported through a Mass Development tax base (2%) and unified permit fees.

For more information:
On-line: http://www.devensec.com
Contact: Peter Lowitt, AICP, Land Use Administrator & Director
citizens in a positive dialogue that seeks to improve awareness and implementation of sustainable practices in Springwater.

Benefits
- Dedicates staff, developers and citizens to high-quality development in the Springwater Community
- Possibly combines with existing Planning Commission responsibilities
- Facilitates additional community dialogue about the appropriate use of scarce resources

Incentive 2E - Pre-application process for early collaboration and Community assistance
The City of Gresham currently requires a pre-application conference with City staff prior to submittal of most land use and development applications. The City’s pre-application process offers two different types of conferences: Major application ($1155.00) and Minor application ($409.00). A Major development requires notice to the neighborhood association about the proposed project and site. If the neighborhood association feels that the project does not warrant a neighborhood meeting, the Association may sign a waiver, indicating a meeting is not necessary. Before submitting an application, the developer must submit a site design review and a land division’s application. Site and Design Review applications cost $1155.00. No fees are required for land division applications.

For the purpose of expediting applications and reducing design and development costs to encourage sustainable development, a developer may request a free pre-application conference. This opportunity will apply strictly to developers that exceed the City of Gresham’s sustainable development criteria. At this conference, qualified staff will offer general advice to the developer about the procedures and requirements for sustainable land use review and approval. In all developments, the developer is required to contact the neighborhood association in regards to the proposed site. A new pre-application process with no fees associated with sustainable development can provide an incentive for developers to build and businesses to relocate or locate in Gresham.

Benefits:
- Known expectations during the development process
- Developer learns early whether proposed projects can be approved as is, or if changes to the proposal are needed
- Includes a review to determine if your project meets the Springwater Community Plan and Zoning requirements
- Informed of all likely development fees project prior to substantial financial investments such as the development of construction drawings or purchase of real estate
- Developer is introduced to a contact person for clearances and permits needed to complete the permitting process and construction of projects in a timely manner
- Single meeting with all agencies present brings everyone to the table to address important questions and possible issues with projects

Category 3 - Flexibility
A baseline threshold of “sustainability standards” can be established by implementing the Leadership and Streamlining described above. More difficult implementation of sustainable development requires a more creative approach from the City of Gresham.

The city can encourage developers and citizens to incorporate more challenging aspects of sustainability by creating greater flexibility in the development process. A notion of flexibility may require that historical standards become negotiable in order to motivate new sustainable components and overall sustainability. The goal of a locally flexible development process is to maximize development quality by allowing developers and business owners to find unique, sustainable solutions with help from city staff and the greater community.

3A - Iterative sustainability/quality/performance assessment
Sustainable development is not a static idea. It is constantly changing as new technologies are developed and become more accepted in the marketplace. The City of Gresham could constantly adjust their sustainability goals accordingly. Our research has shown that many of the federal grant programs available five or ten years ago
are no longer active programs. A main reason for this, aside from political changes, is that these programs were designed to prove that energy efficient design components could be successfully implemented into developments. Now that certain green development practices are more accepted in practice, programs must be revised to push the standards higher.

One example of a current innovative program is the High Performance Building program through the Department of Energy (DOE). DOE works with a limited number of private sector partners committed to achieving a 70% energy savings above the existing code requirements. This goal is more stringent than the requirements of previous programs. However, it can lead to financially feasible projects with greater energy savings currently being realized.

The City of Gresham should be aware of the constantly changing world of sustainable development, and adjust their regulations and incentives accordingly to ensure that they are also raising the bar for sustainability without discouraging development.

Benefits
- Always pushing towards increased sustainability
- Requires that all sustainability programs, requirements and incentives be analyzed for effectiveness
- Identifies ineffective programs discontinued

3B - Matrix of options to achieve overall quality and sustainability
A matrix of options is one method of requiring high quality, sustainable development while providing flexibility for developers to adapt to individual site characteristics. This method allows developers to exceed some requirements in exchange for relaxed standards in other areas.

Consideration of site characteristics is particularly important in an area with diverse topography and environmental constraints such as Springwater. Rewarding developers that take advantage of site characteristics by exceeding requirements encourages ingenuity and clever solutions that ultimately achieve the underlying goals of sustainable development. For example, a site with challenging slopes may not allow cost-effective onsite stormwater management.

Instead of meeting this requirement, a developer might propose incorporating photovoltaic cells that will provide all necessary power for the site. The sidebar shows a sample matrix of options that would allow Gresham to accept the developer’s proposal because it exceeded requirements for efficient energy use in exchange for relaxing the standard requiring onsite stormwater management.

3C - Performance Zoning
Traditional zoning dictates the land uses allowed on all parcels within a particular zone area. Performance zoning does not restrict specific uses, but focuses rather on the allowed type and intensity of use. Intensity of use is generally measured as the overall impact of a particular land use on surrounding areas. This method allows far more flexibility for both developers and municipalities since land uses are not categorically restricted. Instead, this system encourages creative solutions that reduce or mitigate real and perceived impacts to neighboring parcels.

Restricting uses based on intensity is particularly effective at limiting damage to natural resources since this method evaluates development proposals directly on impact instead of secondarily through specifying allowed land uses. In Springwater, performance zoning could be used to limit intensity of uses along riparian corridors and other valuable natural resources. Additionally, pairing of land
uses generally not allowed under traditional zoning (i.e. industrial and residential) would be possible if developers made proper accommodations. This is an important step toward inducing cooperative between parcels, such as “eco-industrial parks”.

Benefits
- Increases accuracy by restricting incompatible land uses
- Mitigates real and perceived development effects on neighbors in exchange for allowances that would not be possible under traditional zoning

3D - Design Review Commission
Formation of a commission to review and permit or not permit development removes the constraints of a zoning code while allowing a jurisdiction to seek higher quality development that meets community goals. Though often paired with the skeletal framework of a basic zoning code, a design review commission has the authority to grant permission or deny development proposals based.

Rather than force developments to meet specific criteria in a complex zoning code, a citizen commission (often appointed by the City Council) has the ability to grant approval to projects deemed worthy. This greatly speeds the development review process for proposals that clearly meet the needs of a community, and introduces far more flexibility and creative potential than traditional zoning. This process relies heavily on the sensibilities of commission members and their abilities to determine whether and how developments meet the vision of their jurisdiction.

Design review commissions are often focused on architectural elements, but Gresham could appoint a commission to review proposals for a variety of criteria. A commission could be established to review all proposals in Springwater based on their ability to meet the goals of this community. In this case, environmentally sensitive design features (i.e. energy and water use efficiency) and ability to attract high-quality jobs would be weighed heavily.

Benefits
- Potentially introduces far more development flexibility and creative solutions that meet goals of Springwater
- Improves possibility to permit development that clearly meets criteria

3E - Conditional Uses
Most municipal zoning systems consist of three levels of uses: allowed, not allowed, and conditional. The last category is designated for uses that are not allowed as a matter of right within a zone. If the proposed land use meets the criteria, and is deemed appropriate by the discretionary decision of public officials, the use may be permitted. Generally, conditional use permits are used by jurisdictions to include some flexibility in an otherwise rigid zoning code and to control certain uses known to be troublesome or controversial if not properly designed. A conditional use permit process introduces
an element of negotiation between a jurisdiction and prospective developer, potentially producing higher quality development.

Applying conditional uses more extensively, or exclusively, allows a municipality to receive more of the flexibility accrued through the conditional use permit process. For example, since Gresham has ambitious job targets for Springwater, one method of achieving this goal is to make all industrial or job creating uses conditional in the office and industrial.

One disadvantage of expanding conditional use designations within a zoning code is the added administrative process incurred on both the developer and the municipality. Imposing the conditional use process for developments in Springwater would likely add considerable time to the application process, thereby requiring more staff time, possible delays to developments, and possibly increasing the costs of development.

Benefits
• Advances the possibility of creative mix of land uses that facilitate “eco-industrial parks”
• Provides more room for the City and developers to work together to meet community goals

3F - Strategic mix of uses for sustainable compatibility
Parking, while necessary for successful development, can be a very inefficient use of land and can unnecessarily increase the amount of impervious surfaces. In some cases, a strategic mix allows for shared parking opportunities, thereby decreasing the amount of parking necessary. The City should be mindful of such opportunities, and plan accordingly.

Traditional zoning separates differing uses and are not necessarily competing uses. There should be the opportunity to mix uses, if appropriate.

Benefits
• Maximizes productivity with a strategic mix of uses
• Minimizes infrastructure redundancy and environmental impacts

3G - Design standards including sustainable performance measures
The City of Gresham should ensure that the sustainable development that they require actually helps accomplish sustainability goals. In order to achieve this, the City should create performance measures. The City should monitor the energy savings, stormwater runoff, and wastewater treatment to ensure that the sustainability development incentives are achieving their purpose.

Benefit
• Realizes positive results by careful monitoring
RECOMMENDED INCENTIVES

The incentives are categorized into financial programs and technical assistance programs. These programs exist at the local, state, and national levels.

Category 4 - Financial Programs
Financial incentives are monetary benefits offered by non-profit organizations and government agencies to compensate or offset the costs of certain sustainable development components. Financial incentives vary widely in size and availability.

Incentives typically include grants, tax credits, reduced development fees. Additional financial incentives are available and should be reviewed for applicability to specific aspects of individual projects (see also Resources for Implementing Sustainability).

State Incentives

Oregon Business Energy Tax Credit (BETC)
The Business Energy Tax Credit (BETC) program is offered by the Oregon Department of Energy. It is available to trade, business, or rental property owners who invest in energy conservation, recycling, renewable energy resources and less-polluting transportation fuels.

The tax credit is 35 percent of the eligible project costs. Project costs eligible for the tax credit are the incremental costs of the investment beyond what is considered standard practice. The credit is typically taken over five years. An eligible property owner can take up to 10 percent of the project cost as a tax credit in the first and second years and 5 percent in the third, fourth and fifth years. If the property owner is unable to take the full tax credit each year, he or she can carry the unused credit forward up to eight years. For project costs under $20,000, the property owner may take the tax credit in a single year.

BETC for Sustainable Buildings
The above program describes the tax credits available for retrofitting existing buildings. Tax credits are also available for new construction, although the system is different from the above program. The sustainable building tax credit is based on the square footage of the new building, rather than the increased cost of the building above industry standard or energy code. To be eligible for tax credits, a building must achieve a LEED-Silver rating. In addition, at least two credits must be earned for energy efficiency, and one credit must be earned under Energy and Atmosphere Credit 3 (Additional Commissioning). A project report that calculates the building’s annual solar income must also be included in order to be eligible for the tax credit.
The eligible tax credit amount is calculated from Table 2.

### Table 2: Tax Credits Available per Square Foot for LEED Certification

#### New Construction: LEED-NC

<table>
<thead>
<tr>
<th>Building Area</th>
<th>Silver</th>
<th>Gold</th>
<th>Platinum</th>
</tr>
</thead>
<tbody>
<tr>
<td>First 10,000 sq.ft.</td>
<td>$10.00</td>
<td>$13.57</td>
<td>$17.86</td>
</tr>
<tr>
<td>Next 40,000 sq.ft.</td>
<td>$5.00</td>
<td>$5.71</td>
<td>$9.29</td>
</tr>
<tr>
<td>&gt;50,000 sq.ft.</td>
<td>$2.00</td>
<td>$2.86</td>
<td>$5.71</td>
</tr>
</tbody>
</table>

#### Commercial Shell: LEED-CS

<table>
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<tr>
<th>Building Area</th>
<th>Silver</th>
<th>Gold</th>
<th>Platinum</th>
</tr>
</thead>
<tbody>
<tr>
<td>First 10,000 sq.ft.</td>
<td>$7.00</td>
<td>$9.50</td>
<td>$12.50</td>
</tr>
<tr>
<td>Next 40,000 sq.ft.</td>
<td>$3.50</td>
<td>$4.00</td>
<td>$6.50</td>
</tr>
<tr>
<td>&gt;50,000 sq.ft.</td>
<td>$1.40</td>
<td>$2.00</td>
<td>$4.00</td>
</tr>
</tbody>
</table>

#### Commercial Interiors: LEED-CI

<table>
<thead>
<tr>
<th>Building Area</th>
<th>Silver</th>
<th>Gold</th>
<th>Platinum</th>
</tr>
</thead>
<tbody>
<tr>
<td>First 10,000 sq.ft.</td>
<td>$3.00</td>
<td>$4.07</td>
<td>$5.76</td>
</tr>
<tr>
<td>Next 40,000 sq.ft.</td>
<td>$1.50</td>
<td>$1.71</td>
<td>$2.79</td>
</tr>
<tr>
<td>&gt;50,000 sq.ft.</td>
<td>$0.60</td>
<td>$0.86</td>
<td>$1.71</td>
</tr>
</tbody>
</table>

LEED-CS and LEED-CI are only available for projects in which the developer only has control over the commercial shell and interiors respectively. If the developer has control over both parts of the project, then LEED-NC must be used.

**Oregon Energy Loan Program**

The purpose of the Energy Loan Program (also known as SELP) is to promote energy conservation and renewable energy resource development. The program offers low-interest loans for projects that:

- Save energy
- Produce energy from renewable resources
- Use recycled materials to create products
- Use alternative fuels

The Energy Loan Program can loan to individuals, businesses, schools, cities, counties, special districts, state and federal agencies, public corporations, cooperatives, tribes, and non-profits. As of the December 2004, 643 loans had been closed totaling $363 million.

Renewable energy projects accounted for 215 loans and 428 loans were for conservation projects.

**Energy Trust of Oregon - New Building Efficiency Program**

The New Building Efficiency program offers technical design assistance and financial incentives to help improve the energy efficiency of new construction. Assistance is provided through:

- Incentives to purchase high efficiency equipment
- Energy modeling and design assistance
- Commissioning oversight assistance
- Oregon BETC application assistance
- K-12 high-performance schools assistance

Assistance is offered through three different program tracks – the standard track, the custom track, and the high-performance track.

**The Standard Track**

The standard track provides incentives for equipment upgrades, including lighting and controls, motors, drives, HVAC and gas equipment. Up to $25,000 is available through this track.

**The Custom Track**

When a project is beyond the schematic design stages, the custom track is appropriate. It is also used in projects where a systems based approach is appropriate. Financial incentives of up to $100,000 are available through this track. Incentives are available to purchase high efficiency equipment. In order to qualify for funding, the applicant must document the planned investments in energy saving equipment along with an estimate of energy savings.

In addition to financial assistance, energy design advisory assistance is available to aid in the decision-making process. Assistance is also provided for feasibility studies and building energy-use models. For all tracks, program approval must be received before the project design is finalized or before equipment is purchased.

**The High-Performance Track**

When a project is still in the concept, schematic or early design stages, the high-performance track is appropriate. In this stage of the development process, equipment choices and building design...
decisions can still be influenced through incentives. Unlike the custom track, which uses a systems-based approach, the high performance track uses a whole building approach. Funding provided through this track, as in the custom track, is available for feasibility studies and building energy-use models. Up to $200,000 is available through the high-performance track.

**New Renewable Energy Resources Grants**

In order to provide opportunities for Oregonians to take advantage of incentives for innovative applications of renewable technology, the Energy Trust of Oregon, created the Open Solicitations program in May 2002. This program is designed to support renewable energy projects that do not already have an established incentive program developed and launched by the Energy Trust of Oregon. They expect to reserve 10% of the Renewable Energy program budget, or about $1 million annually for open solicitation incentives. Projects will generally be awarded in the areas of small wind, solar photovoltaic, biomass, biogas, small hydro and geothermal electric. The program does not fund R&D or pre-commercial activities. It is likely to fund projects that follow certain guidelines, such as New, commercial technologies in established applications, Old technologies in new applications, Projects that can be implemented quickly, and Market defining demonstrations. So far, 27 requests for funding have been received through the program: four projects are installed and operating, five more have been approved but are not yet installed and four more are under review. Funded projects include municipal hydro, net-metered wind for orchards and photovoltaics on industrial plants (including the NW’s largest array).

**Oregon Solar Electric Buy-down Program**

The Solar Electric Buy-down Program is available to customers of Pacific Power and PGE who install new photovoltaic (PV) systems on their new or existing homes, commercial and community buildings, farms, and municipal facilities. As of January 2005, 188 PV systems have been installed, 171 of which were residential systems. The average cost of residential systems installed under the program is $6.77 per watt DC. Note that although this cost is lower than that experienced in most other states with buy-down programs, Oregon has no sales tax. Buy-down amounts for residential customers are currently $3.00/W DC installed for Pacific Power customers and $3.25/W for PGE customers, with a $10,000 cap per site. The maximum incentive is $15,000 per site with a maximum of 25 kW.

**Oregon Solar Water Heating Buy-Down Program**

The Energy Trust of Oregon offers incentives to customers of Pacific Power, PGE, and NW Natural Gas who install solar water or pool heating systems on their homes, office buildings, community buildings, agricultural, and municipal facilities. The buy-down incentive will be paid to the solar contractor and deducted from the customer’s final cost as follows:

For Electric Customers:
- Residential domestic water heating $0.40/kWh rated savings for the first year ($1,500 cap)
• Residential pool/spa water heating $0.15/kWh rated savings for the first year ($1,000 cap)
• Commercial domestic water heating $0.40/kWh rated savings for the first year, up to 35% of system cost
• Commercial pool/spa water heating $0.10/kWh rated savings for the first year, up to 35% of system cost

For Gas Customers:
• Residential domestic water heating $0.20/kWh rated savings for the first year ($1,500 cap)
• Residential pool/spa water heating $0.05/kWh rated savings for the first year ($1,000 cap)
• Commercial domestic water heating $4.00/therm, up to 35% of system cost
• Commercial pool/spa water heating $1.00/therm, up to 35% of system cost

Oregon Renewable Energy Systems Exemption
Oregon's property tax exemption states that the added value to any property from the installation of a qualifying renewable energy system would not be included in the assessment of the property's value for property tax purposes. Qualifying renewable energies include solar, geothermal, wind, water, and fuel cell or methane gas systems for the purpose of heating, cooling or generating electricity. This exemption does not apply to property owned by anyone directly or indirectly involved in the energy industry.

Bonneville Environmental Foundation
Renewable Energy Grant
Revenues generated from the sales of Green Tags, Bonneville Environmental Foundation (BEF), a not-for-profit organization, accepts proposals for funding for renewable energy projects located in the Pacific Northwest. Any private person, organization, local or tribal government located in the Pacific Northwest may participate. Projects that generate electricity are preferred. Acceptable projects include solar photovoltaic, solar thermal electric, solar hot water, wind, hydro, biomass, and animal waste-to-energy. BEF may deliver funding through various means, including grants, loans, convertible loans, guarantees, and direct investments in renewable energy projects. BEF renewable energy grants and investments may range from a few thousand dollars for small installations, to significant investments in central station grid-connected renewable energy projects. If a BEF grant is requested for a generating project, the BEF share will not exceed 33% of total capital costs, and 0% of operating costs.

Solar Starters
The Bonneville Environmental Foundation (BEF) and the Northwest Solar Cooperative have joined to help reduce the costs of small (5 kW system sizes approved automatically and larger sizes may be acceptable) residential and commercial photovoltaic systems in parts of Oregon and Washington. The Northwest Solar Cooperative will sign 5-year agreements with the owners of new photovoltaic systems and will pay them an annual amount equivalent to 10¢/kWh for the environmental attributes - or Green Tags - produced by the solar systems. System owners will be paid annually. BEF will then purchase the Green Tags from the Northwest Solar Cooperative and sell them to its wholesale customers and on its web site, www.GreenTagsUSA.org. The first phase of the project is projected to include 30 to 50 small photovoltaic systems. There are currently 36 participants in the program. The amount of funding available is 10¢/kWh for the environmental attributes (green tags) of the power produced by the PV systems.

Bonneville Power Conservation and Renewables Discount Program
The C&R Discount Program is Bonneville's means of fostering conservation implementation and renewable electric energy generation development during the 2002 to 2006 Rate Period. Discounted utility rates are available for power users who implement conservation and renewable energy.

Federal Incentives
Department of Energy Building Technologies Program
High Performance Buildings Initiative
The High Performance Buildings Initiative (HPBI) is a government research program sponsored by the U.S. Department of Energy that improves the energy efficiency of commercial buildings in the United States. The goal of this initiative is to aid in producing the lowest energy consuming commercial buildings in the United States.
In order to be eligible for HPBI, the project must be a commercial building in the pre-design stage or earlier. The project must be available for one year after occupancy in order to evaluate the energy efficient and renewable energy features.

The HPBI is highly selective in the application process. One of the goals of the initiative is to select projects that are in a variety of climates throughout the country. The project leaders must be committed to achieving a 70% energy savings in their buildings based on current building code. Additionally, the building team is expected to incorporate building features that are of current research and not yet fully accepted in the marketplace.

HPBI staff is available to help review project goals, and ensure that the energy performance goals are being met. Staff is available to perform engineering analyses when necessary to make appropriate decisions about building technologies.

**Federal Investment Tax Credits**

The 10 percent investment tax credit, otherwise known as the Business Energy Tax Credit, has been permanently extended as part of the passage of the Energy Policy Act of 1992. Any company that invests in or purchases qualified solar energy property can take the credit -- up to 10 percent of the investment or purchase and installation amount -- when income tax forms are filed. Only commercial entities can take the credit.

**Federal- Modified Accelerated Cost Recovery System (MACRS)**

Under MACRS, businesses can recover investments in solar, wind and geothermal property through depreciation deductions. The MACRS establishes a set of class lives for various types of property, ranging from three to 50 years, over which the property may be depreciated. For solar, wind and geothermal property placed in service after 1986, the current MACRS property class is five years.

**Community Development Block Grant**

The Economic Development Department at City of Gresham can apply for a grant in the 2006 Community Development Block Grant funding cycle. This grant could be offered through the Economic Development Department to business moving into the Springwater area. The funds can provide credit, including but not limited to, grants, or low interest loans to businesses that create or retain at least one full time equivalent, permanent job offered to a low- to moderate-income person per $35,000 of CDBG funds.

For additional information, please contact the Community Revitalization Department, City of Gresham.
Private and Public-Private Programs

Green Communities
Green Communities is a five-year, $550 million initiative to build more than 8,500 environmentally healthy homes for low-income families. The Enterprise Foundation / Enterprise Social Investment Corporation created the program in partnership with the Natural Resources Defense Council. The initiative provides grants, financing, tax-credit equity, and technical assistance to developers who meet Green Communities criteria for affordable housing that promotes health, conserves energy and natural resources, and provides easy access to jobs, schools, and services.

Green Communities is a five-year program. $1 Million was available in 2004, the first year of the program. Over the final four years of the program, $4 Million will be available each year. These funds go towards grants, low-interest loans, LIHTC Equity Investments, and educational conferences.

Green Grants
Green grants help cover the cost of planning and implementing the green aspects of the development, as well as tracking the effectiveness of the investments. Grants are typically available to non-profits, but for-profit developers are eligible if they collaborate with a non-profit organization. Homeownership projects should include at least 15 units and be sold to buyers with incomes below 80% of median income.

Funds should be used for planning expenses related to integrating green design into the project, green construction items, certification that Green Communities Criteria have been met, tracking the cost of the individual items. Generally, grant amounts will not exceed $50,000. The portion of the grant allocated to planning costs should not exceed $25,000, or $500 times the number of low-income units, whichever is less.

Loans
Enterprise Housing Financial Services, Inc. (EHFS), the interim lending arm of The Enterprise Foundation, offers acquisition, predevelopment, and construction loans to support housing developments that adhere to the Green Communities guidelines.

Mainstay Energy Rewards Program - Green Tag Purchase Program
Mainstay Energy is a private company offering customers who install, or have installed, renewable energy systems the opportunity to sell the green tags (also known as renewable energy credits) associated with the energy generated by these systems. These green tags will be brought to market as Green-e® certified products. Through the Mainstay Energy Rewards Program, participating customers receive regular, recurring payments. The amount of the payments depends on the type of renewable energy technology, the production of electricity by that system, and the length of the contract.
period. Mainstay offers 3-, 5-, and 10-year purchase contracts. Their philosophy is longer the contract period, the greater the incentive payment on a $/kWh basis. Payments are made quarterly ranging from $1-$100 per MWh total production. Payments also vary by technology and contract length.

**Million Solar Roofs Initiative**
The Million Solar Roofs (MSR) Initiative is a unique public-private partnership, aimed at overcoming barriers to market entry for selected solar technologies. The goal of the Initiative is to facilitate the sale and installation of one million “solar roofs” by 2010. Eligible technologies include photovoltaic solar water heating, transpired solar collectors, solar space heating and cooling, and pool heating. MSR is helping increase the market for solar energy. At the same time, the Initiative is offering consumers an affordable, clean-energy option, creating new U.S. high-technology jobs, and playing an important role in reducing emissions. Activities typically include consumer education, professional workshops, and other outreach activities to help individuals and organizations who are considering installing a solar system.

**Category 5 - Technical Assistance Programs**

Technical Assistance is often overlooked as an incentive that can make or break large-scale sustainable projects. Developer interviews confirm that, they want technical assistance to help them work within unfamiliar territory. This can be in the form of actual assistance with sustainability issues or by providing information and resources on education and training for sustainable development.

Developers appreciate technical assistance programs and find them helpful. It is imperative that the City of Gresham coordinates their sustainable development programs with those of Metro and the statewide assistance programs (such as the Oregon Energy Trust and Oregon Department of Economic Development). In addition, developers are interested in determining how both the developer and the City can make the development process smoother and easier.

**Portland Office of Sustainable Development**
The Office of Sustainable Development (OSD) aims to provide leadership and contribute practical solutions to ensure a prosperous community where people and nature thrive. OSD provides technical assistance, educational outreach, and policy research in order to increase the knowledge about renewable energy and resources, solid waste, pollution, and community health in general.

There are four departments within OSD: Energy Division, Solid Waste & Recycling, Green Buildings, and Sustainable Technologies & Practices.

The Energy Division seeks solutions to important issues like how we can use less energy and how we can find new, cleaner, energy sources. OSD offers information and incentives that encourage Port-
land residents and businesses to conserve energy. For businesses, they have a Telework program and the Green Office Guide. The Telework program offers a how-to guidebook, training videos and materials, and free on-site training for employees and managers that are seeking to reduce employee travel needs by allowing them to work from home. The Green Office Guide contains information to help businesses cut their office operating costs. This 40-page booklet is aimed at “greening your bottom line through a resource-efficient office environment.” Useful tips, case studies, and a directory of resources highlight ways a company can achieve these goals.

The Energy Division also helps the residential sector by offering “Fix-It Fairs”, and guides homeowners to a variety of state and local resources pertaining to energy audits and financial incentives and educational materials for energy conservation.

The Solid Waste & Recycling department works with Metro to promote reductions in our solid waste stream. Major components of this program include residential and commercial recycling programs, as well as a food-composting program.

The Green Building department, or G/Rated, offers preliminary consultation and information specific to a developer’s green building project. G/Rated is accelerating the adoption of cost effective green building practices as the standard of development in Portland. They have well-written and extensive case studies for both residential and commercial green building projects.

The two main goals of G/Rated are:
1. Expand market demand by educating building industry professionals and the public about the benefits of green building.
2. Make green building practices easier to implement by reducing regulatory and financial barriers while developing technical services and resources for building industry professionals.

The main services of the G/Rated department include:
- Green building technical assistance- consultations work with developers to provide practical ideas, recommendations and information on a range of green products and services
- Large and small group presentations about the benefits of building green
- Trainings for commercial and residential design and construction professionals on integrated design, improving a building’s environmental & economic performance, Portland LEED, and local and state building codes and land use regulations
- Access to extensive green building research, resources and project-specific publications to aid green building developers
- Assistance with loans, tax credits, rebates, other financial incentives

The Sustainable Technologies & Practices Division advances the development of new technologies, community partnerships, market transformation strategies, education programs and project evaluation. They award the BEST Awards (Business for and Environmentally Sustainable Tomorrow), work as the Food Policy Council to build institutional support for a healthy regional food system, and make available a list of businesses and agencies that promote sustainable development.

**PGE Earth Advantage**

There are two aspects to the Earth Advantage program. The first is the Earth Advantage National Center, which is in itself a cutting-edge energy efficiency and sustainable design resource. The facility is designed to help homebuilders, architects, contractors and homeowners design houses that use energy and resources wisely. The in-house team of green building consultants can assist building professionals with a range of energy efficiency and sustainable design needs.

The second aspect of this program is the Earth Advantage home certification, which is a tool to measure and award environmentally friendly homes. Following in the footsteps of the USGBC’s LEED system, Earth Advantage is a much more home-friendly tool to promote sustainable home construction. This website has ample information about environmentally friendly flooring, framing, insulation, landscaping, lighting, and ventilation. The four focal points of an Earth Advantage Home include energy efficiency, indoor air quality, environmental responsibility, and resource efficiency.
Energy efficiency
An Earth Advantage home is designed to improve energy efficiency by at least 15 percent over a conventionally built home. The incorporation of products such as energy-efficient windows, appliances, mechanical systems and light fixtures can add up to lower energy usage and greater comfort year round.

Indoor air quality
Air inside your home makes a difference in how you feel every day, and indoor air quality is a high priority in the construction of an Earth Advantage home. An Earth Advantage home may allow you to breathe a little easier with options like air filtration systems, controlled ventilation and low-toxic building materials.

Environmental responsibility
The same building materials in an Earth Advantage home that improve indoor air quality also contribute to a cleaner environment, as less toxic products reduce atmospheric pollutants. Earth Advantage homes may also employ site measures that minimize environmental impact such as recycling job site waste, preserving topsoil and trees, and adding native plants to the landscape.

Resource efficiency
Highly efficient appliances save energy and conserve our region’s resources. Many items can be made with a high-recycled content, such as carpet constructed from plastic pop bottles, ceramic tile, paint and insulation. Flooring made from bamboo can make a big difference by minimizing the use of timber. Construction techniques such as steel framing, use of concrete foam blocks and brick will save wood in the home’s structure.

**The Natural Step & The Oregon Natural Step Network**
Since 1988, The Natural Step has worked to accelerate global sustainability by guiding companies, communities and governments onto an ecologically, socially and economically sustainable path. The underlying goal of The Natural Step is to instill a true sense of responsibility for sustainability in conjunction with business growth.

The Natural Step has local affiliations throughout the world. The Oregon Natural Step Network supports organizations interested in using The Natural Step framework for sustainability. It is founded on the principle that businesses and organizations can reduce their impact on the environment while enhancing their overall efficiency and effectiveness. The Network seeks to align business and government practices with natural cycles that support sustainability.

The Oregon Natural Step Network offers the following programs:
- Introductory workshops about The Natural Step framework
• In-depth workshops, conferences on sustainability, and special learning events such as Sustainable Purchasing and Eco-indicators
• Breakfast presentations highlighting leaders and issues in sustainable practices
• Peer learning groups on topics such as building construction practices, eco-indicators, and investments
• Support for organizations moving toward sustainability such as coaching, briefings, a tool kit, case studies, and up-to-date information on best practices

U.S. Green Building Council
The U.S. Green Building Council is the nation’s foremost coalition of leaders from across the building industry working to promote buildings that are environmentally responsible, profitable and healthy places to live and work. The USGBC created the popular Leadership in Energy and Environmental Design (LEED) rating system to measure and award green buildings. In the last 6 years, LEED has taken off and is growing rapidly.
LEED was created to:
• define “green building” by establishing a common standard of measurement
• promote integrated, whole-building design practices
• recognize environmental leadership in the building industry
• stimulate green competition
• raise consumer awareness of green building benefits
• transform the building market

The original LEED system was crafted for new commercial development projects (LEED- NC). Since then, the system has been expanded to incorporate existing building operations (LEED-EB), commercial interiors projects (LEED-CI), core and shell projects (LEED-CS), homes (LEED-H), and neighborhood development (LEED-ND).

The LEED system is based on points in the various categories. More points are awarded for more innovative and sustainable aspects of a development. A project can earn LEED Certification, or the higher Silver, Gold, or Platinum Certifications. The more points earned, the higher the level of certification. Moreover, the point system is continually being refined as building green becomes easier, thereby raising the standards of sustainability with each revision of the LEED system.

The USGBC website has links to a plethora of useful information pertaining to green buildings, as well as case studies on LEED certified projects throughout the country.

BetterBricks
The goal of BetterBricks is to help business professionals understand the power of energy efficiency in order to make buildings work harder and smarter. It is a network of information and services designed to accomplish three objectives:
1. Build awareness and demand for energy efficiency in buildings.
2. Provide pragmatic and comprehensive information about energy efficiency and its benefits.
3. Support the marketplace’s capability to deliver efficient products and services.

BetterBricks is an initiative of the Northwest Energy Efficiency Alliance, a non-profit supported by electric utilities throughout the Northwest. Through the BetterBricks initiative, the Alliance wants to see energy efficiency incorporated as part of normal business practice.

The main services that BetterBricks provides are Lab Network, Education & Training, and Advisor Network. The labs provide free analysis and consultation to help Northwest design professionals create sustainable, high performance buildings with more productive and comfortable work environments. The Advisor Network provides technical assistance and analysis for design teams developing sustainable, high performance commercial buildings. The Education & Training component includes opportunities to learn about high performance building features, earn an Energy Management Certification, and research the latest building codes for specific areas.

**U.S. Department of Energy: Smart Communities Network**
This website offers a variety of useful information about sustainable development. They include overview articles, slide shows, links to other sources of information, recommended books and videos, and educational materials and programs that are intended to help a community in its sustainable development efforts. The website also has a list of possible funding mechanisms for sustainable developments, many of which are specialized for a certain locality and have short windows of opportunity. It is recommended that the City periodically revise the list of active funding opportunities.

The three main resources of the website are
- Case Studies: read about other communities that have discovered the benefits of sustainable development;
- Resources: locate technical and financial resources that can help a community plan and carry out sustainable development projects; and
- Code Review: access model codes and ordinances other communities have used to implement sustainable development.

**Business and Sustainable Development: A Global Guide**
This website from the Canadian International Institute for Sustainable Development is dedicated to explaining strategies and tools that individual companies can draw on to incorporate sustainability into practical, effective solutions. Case studies from around the world are provided as an example of each measure. The website’s six sections cover current issues, strategies and tools, markets, banking and investment, working with NGOs and training opportunities. Companies that are looking to incorporate sustainability into their business practices best use this resource.

**Cool Companies**
Cool Companies is a project of the non-profit Center for Energy & Climate Solutions. The Center helps companies to design and implement reduction strategies for both energy use and pollution. This website serves primarily businesses and environmental organizations that are seeking to develop the technological, financial, and regulatory tools to adopt clean business operations. The Cool Companies website is devoted to news, information, and resources about the companies that are leading the way to energy efficiency and greenhouse gas reduction.

**Northwest EcoBuilding Guild**
The Northwest EcoBuilding Guild is an association of builders, designers, homeowners, trades people, manufacturers, suppliers and others interested in ecologically sustainable building. Members of the guild have years of on-the-ground practical experience with green building techniques. The mission is to function as an educational forum to facilitate building practices that:
- protect human health
- encourage sustainable resource usage
- foster long-term economic vitality

Activities of the Guild include monthly chapter meetings, workshops on green building techniques, annual retreats, and publishing of the Green Pages, a directory of members and their environmentally sustainable building projects.
friendly services and products.

In the Portland region, meetings generally occur monthly on the third Wednesday. Meetings are held at 7pm at the CenterRing, 5339 SE Foster Rd in Portland.

SustainableOregon.net
SustainableOregon.net communicates developments in Oregon state government and connects you with local agencies, organizations and businesses taking leadership roles in sustainable development. This website’s primary purpose is to provide information on Oregon’s government with respect to sustainability initiatives.

Oregon Department of Energy
The Oregon Department of Energy (DOE) ensures that Oregon has an adequate supply of reliable and affordable energy and is safe from nuclear contamination, by helping Oregonians save energy, develop clean energy resources, promote renewable energy, and clean up nuclear waste. Oregon DOE encourages sustainable development through investments in conservation and renewable resources by offering tax credits, loans, rebates, and grants. They also provide information, technical advice about renewable energy. For more information about DOE financial incentives, see the Financial Incentives section.

NW Energy Efficiency Alliance
The Northwest Energy Efficiency Alliance is a non-profit corporation supported by electric utilities, public benefits administrators, state governments, public interest groups and energy efficiency industry representatives. These entities work together to make affordable, energy-efficient products and services available in the marketplace.

Projects funded by the Northwest Energy Efficiency Alliance support products or services that help Northwest consumers and businesses use electricity more efficiently. The projects target residential, commercial, industrial, and agricultural sectors. A number of projects also provide information and training resources across sectors.

Some of the Alliance projects are themselves resources that can be tapped for information and technical assistance, like BetterBricks. They also produce numerous technical reports about energy efficiency in the commercial and residential sectors.

Energy Trust of Oregon
Energy Trust of Oregon, Inc., is a nonprofit organization dedicated to changing how Oregonians use energy by promoting energy efficiency and clean renewable energy for Oregon customers of Pacific Power, Portland General Electric and NW Natural. Energy Trust offers Oregonians cash incentives for energy-efficient improvements to their homes and
businesses. The Energy Trust’s renewable energy programs offer financial assistance for the generation of electricity using wind and solar energy. They also have a network of energy and building specialists who work on energy-saving projects and assist customers.

**US DOE Energy Efficiency and Renewable Energy (EERE)**
This website is full of useful information about energy efficiency and renewable energy. Essentially this site functions as a searchable database and provides links to information, news, key contacts for sustainable energy issues. EERE offers access to DOE’s national laboratory databases on a host of topics, such as solar access and wind regimes. There is also a form to submit energy-related questions and lists of discussion groups on various energy-related topics.

**Sustainable Sources**
Sustainable Sources provides information sources and the tools to create information sources. The tools they utilize include web sites, search engines, list servers, FTP access, bulletin board services, and online databases.
The website has a directory for green building professionals, searchable by profession and/or location. There is also an extensive sourcebook of information about efficient energy and water use, building materials, and solid waste.

**Green Communities Assistance Kit**
Developed by the U.S. Environmental Protection Agency as a systematic guide for identifying and resolving community needs, and planning and implementing sustainable actions. Also identifies useful tools, case studies, and other resources.

**Green Map System**
The Green Map System is a globally connected, locally adaptable framework for community sustainability. Green Maps chart the sites of environmental significance in urban places around the world. Each map is created locally in a unique way, and the mapmakers are of all ages and backgrounds.

**Green Restaurant Association (GRA)**
GRA is a national non-profit organization that provides services in research, consulting, education, marketing and community organiz-
Communities 21 program provides US local governments with technical assistance in moving towards sustainable communities. Tools for a Sustainable Community: One-Stop Guide for Local Government identifies resources from the federal government and other agencies and contains references for technical assistance, funding sources, publications, and Internet sites.

The Local Government Commission
The Local Government Commission provides peer-networking opportunities, acts as an interface between City and county officials, and provides practical policy ideas for addressing serious environmental and social problems. Major program areas include Pedestrian and Transit Oriented Land Use Planning, Waste Prevention and Resource Conservation, Resource Efficient Land Use, and the Center for Livable Communities.

Renewable Energy Policy Project - Center for Renewable Energy & Sustainable Technology (REPP-CREST)
The REPP website provides extensive information on numerous aspects of renewable energy and energy efficiency, at levels from introductory to advanced technical. The site includes a calendar, discussion groups, data, and listings of employment opportunities in the field. Renewable energy information on hydro, solar, biomass, wind, and geothermal is offered, as well as micropower options and energy efficiency.

Resource Renewal Institute (RRI)
RRI, a nonprofit organization, promotes the use of Green Plans to achieve a sustainable environment and economy. According to RRI, Green Plans are “dynamic programs by which all elements of society agree on long-term environmental goals and take responsibility for achieving them.” This Web site serves to educate and inform its users about Green Blocks, as well as to provide information on other resources and updates about what is new at RRI. Access the Environmental Atlas for information on which communities across the world are implementing Green Plans and how they are doing it. To access documents and speeches about Green Plans, visit the Green Plan Archive, or join the Green Plan Forum mailing list to share comments and new information about Green Plans.

Sustainable Communities Network (SCN)
Developed by the Sustainable Communities Network Partnership, this site encourages the exchange of information to help make communities more livable and increases the visibility of successful community projects. A wide range of issues related to community sustainability are addressed, including: creating communities, smart growth, growing a sustainable economy, protecting natural resources, living sustainably, and governing community. Within these topics, you can locate case studies, resources, related Web sites, links to databases, events calendars, and suggested reading lists for specific subtopics.
REFERENCES

In addition to the above technical resources, the following resources were used throughout the research phases of this project:


Portland State University, Green Guide.

Williams, Brian. “Designing a Downtown”, Planning Magazine, December 2004

(http://www.metro-region.org/library_docs/about/chap307.pdf)
(http://www.metro-region.org/article.cfm?ArticleID=2821
(http://www.ci.gresham.or.us/Cityprojects/springwater/sw_faqs.asp#4)
APPENDIX A: CITY OF GRESHAM SURVEY FORM

Please provide your thoughts on the following questions:

1) What is your understanding of “sustainable development”?

2) What are your general concerns about sustainable technologies/practices?

3) What are the challenges for development to use non-potable water for uses such as landscaping?

4) What are some foreseeable issues with implementing the following practices?
   a. Design building with transportation amenities such as cycle racks and shower/changing facilities
   b. Refueling stations and vanpool/carpool programs
   c. Minimize parking lot/garage size. Share parking facilities with adjacent buildings

5) What are the best methods of reducing water use for new industrial and office developments?

6) What is the potential for new development in Springwater to use materials from local sources?
APPENDIX B: INDUSTRY SURVEY FORM

Survey Questions

1. How do you define sustainable development?

2. Does your company incorporate elements of sustainable development? If so, please specify.

3. What are the benefits of sustainable development?

4. What are the challenges of sustainable development?

5. What incentives have been provided to you? Who offers these incentives?

6. If not specified in question 5, do you utilize any of Gresham’s services for industrial and/or sustainable development? (i.e. the GREAT business program or the Rapid Response Team services) If so, please specify which ones, whether they are helpful, and if they can be improved.

7. What assistance and/or incentives would you like to see?

8. Is there anything else you would like to add?
APPENDIX C: DEVELOPER SURVEY FORM

Survey Questions

1a. What does sustainable development mean to you? To your firm?

1b. What are important elements of sustainable development (this can include elements for the site, building, and/or tenant operations)?

2. Have you incorporated sustainable components into your projects? If yes, skip to question 6.

3. If you answered no to question 2, have you ever considered incorporating sustainable components into your development project(s)?

4. If you answered yes to question 3, what prevented you from following through on the sustainable development project(s)? What were the challenges and constraints? (Continue to question 7)

5. If you answered no to question 3, would you consider sustainable development in the future? What would encourage you to consider it in the future? (Continue to question 7)

6. If you answered yes to question 2, please answer the following questions:
   A. What prompted you to incorporate sustainable development components?
   B. What were the biggest challenges and constraints?
   C. What were the biggest incentives (i.e. transfer of development rights, streamlined permitting process, tax credits, etc)?
   D. Do you prefer additional incentives? If so, please identify.
   E. Was the project LEED-certified? (Please identify to what standard and what components were incorporated)
   F. If not previously mentioned, what can cities provide/offer to your development firm to encourage sustainable development?

7. Which of the following positively or negatively influenced your decision to undertake/not undertake a sustainable development project? Please provide specifics.
   A. Permits
   B. Zoning
8. Please discuss the relative feasibility of sustainable development in the following products:
   Industrial, Commercial, Residential

9. What are your thoughts on mixed-use development and sustainable development?

10. Does a mixture of product types make sustainable features more feasible or less feasible?

11. Is there anything else that you would like to add?
APPENDIX D: SURVEY RESPONDENTS

CITY OF GRESHAM

Jon Dorst
Guy Graham
Lynne Kennedy
Matt Korot
Niel Nicholas
Steve Meckel
Carrie Pak
Ron Papsdorf
Eric Schmidt

OUTSIDE AGENCY

City of Ashland
Greg Acker, City of Portland, Office of Sustainable Development
Emile Hough, City of Portland, Bureau of Environmental Services
Rob Fussell, Multnomah County Economic Development
Ann Griffin, Portland Development Commission
Mark Hagget, City of Portland, Bureau of Planning
Lori Hennings, Metro

Dennis Jurries, State of Oregon, Department of Environmental Quality
Peter Lowitt, Devens Economic Commission
John Van Landingham, DLCD, Lane County Affordable Housing Advocate
Thomas Osdaba, City of Vancouver British Columbia

GRESHAM AREA DEVELOPERS AND INDUSTRIES

Jessica Black, Microchip Technologies, Inc.
Linda Gee, LSI Logic
Robert Miller, Trailblazer Foods
Ron Putz, Mutual Materials
Mike Rossman, Peak Development
Robert Silverman, Mount Hood Community College
REGIONAL DEVELOPERS

Jim Brown, Architect, OPUS Northwest
Kyle Bertelsen, Developer, OPUS Northwest
Ed McNamara, Developer
Fred Bruning, Center Oak Developers
Heinz Rudolf, Boora Architects
Michael Sestric, Campus Planner - Lewis & Clark College
Dan Hoyt, Costa Pacific