

ROUNDTABLE ON GROWING THE LOCAL BIOFUELS INDUSTRY
MAYOR PIERCY'S SUSTAINABLE BUSINESS INITIATIVE
1:30-3:30 PM Thursday, October 20th, 2005
Eugene Downtown Fire Station, 13th and Willamette

AGENDA

1:30 PM	Welcome and introductions	Mayor Piercy
1:45 PM	Purpose, agenda, and expected outcomes of meeting Background on Mayor Piercy's Sustainable Business Initiative	Rusty Rexus David Funk
1:50 PM	Overview of status, trends and opportunities of the local biofuels industry	Bob Doppelt
2:00 PM	Discussion of potential opportunities for growing the local biofuels industry <ul style="list-style-type: none">• What is ideally possible regarding the production and use of biofuels in Eugene?• What is the closest approximation to that ideal that can be achieved in relatively short order (1-3 years)?• Which of the potential actions listed in Sections 7-10 of the background report, or other actions, have the greatest opportunity for growing the market, the supply, and retail availability of biofuels?	
2:45 PM.	Action Items <ul style="list-style-type: none">• What specific actions can those involved with biofuels production and use take to institute the ideas discussed above?• What specific actions can the City of Eugene, Lane County, The State of Oregon and other public institutions take?• What types of partnerships or other forms of assistance are needed?	
3:00 PM.	Next steps, including additional meetings	Bob Doppelt
3:15 PM	Comments from Observers	Rusty Rexus David Funk
3:30 PM	End	

This Roundtable Is Co-Sponsored By The Following Organizations:

Lane Metro Partnership; Lane Workforce Partnership; Lundquist School of Business, University of Oregon; Department of Planning, Public Policy and Management, University of Oregon;
Lane Community College

STATUS, TRENDS AND OPPORTUNITIES IN THE BIOFUELS INDUSTRY

Prepared for Eugene Mayor Piercy's Sustainable Business Initiative (SBI)

This document provides background material for the SBI Biofuels Roundtable. It was developed through interviews with local practitioners and research and will be finalized with the help of roundtable participants. (*Incomplete Working Draft 8/29/2005*)

I. Definition and Description of Sector:

Biofuels are alternatives or additives to fossil based fuels made from organic materials. The most widely used biofuels are biodiesel and ethanol, with more activity taking place locally surrounding biodiesel. Due in part to cost, limited supply, and some vehicle limitations, most biofuels are sold blended with petroleum-based fuels. Blends are represented by the first letter of the biofuel and the percentage of that biofuel (ex: 100 percent biodiesel is B100, 85 percent ethanol is E85). Biofuels are a move towards sustainability because they are a renewable resource, can be produced domestically, are biodegradable and non-toxic, and produce fewer emissions than fossil fuels. In addition, they contribute less to global warming than fossil fuels, thanks to the carbon sequestered in the growing of feedstocks for the fuels and decreased emissions.

Biodiesel is derived from vegetable or animal fats such as rapeseed (canola), soy, other oilseed crops, used cooking oil or animal tallow through a process called transesterification, in which alcohol is reacted with the oil to remove the glycerin. The fuel can be blended with or substituted for diesel fuel in compression-ignition (diesel) engines with no modification to the vehicle. However, the solvent properties of biodiesel may necessitate filter changes and other maintenance for vehicles, equipment, and storage devices previously used for older diesel as the biodiesel cleans out the petrodiesel deposits. Biodiesel is approved by the EPA when made to industry standards, (ASTM D6751).¹

Ethanol is made from converting the carbohydrate portion of biomasses such as corn, sugar beets, wood waste and straw into sugar, which is then fermented into ethanol, a form of alcohol.² More than 3 million Flexible Fuel Vehicles (FFVs) that can run on E-85 or higher have been sold in the United States, although many of their owners remain unaware of this option. Most gasoline powered vehicles can run on E10.

In Eugene, the biofuel sector is comprised of distribution, marketing, retail, and individual and fleet users. This industry as a whole, however, includes feedstock production, crushing and processing, distribution, marketing and wholesale/retail sales of both the fuels and the byproducts. Research and development plays an important role in regards to the processing of the fuel, the production of feedstocks and use of byproducts.

¹ National Biodiesel Board. "Frequently Asked Questions." Accessed July 24, 2005.
<<http://www.biodiesel.org/resources/faqs/>>

² Iowa State University, Office of Biorenewables Program. "Glossary." Accessed July 24, 2005.
<<http://www.biorenew.iastate.edu/resources/glossary.php>>

The economic value chain for biodiesel in Eugene involves distribution to card locks and to fleets with their own storage tanks. Biodiesel makes up less than one percent of Tyree Oil's sales.³

Our research found several driving forces in the sector including federal requirements, environmental concerns related to global warming and CO2 production, the desire for energy independence and security, and an economic opportunity for Oregon and the US.

A local partnership, Clean Lane Fuels Coalition, was initiated to create a steady demand for biodiesel and other low sulfur fuels. The Oregon Environmental Council has formed a statewide advocacy network, Biofuels for Oregon.

II. Triple Bottom Line Characteristics (To be completed)

When completed this section will describe the potential economic, social, and environmental make-up of biofuels producers and potential users, primarily by comparing it to other regions.

Economic Characteristics

- Total annual revenues of the national biofuels industry appear to be \$_____
- The national industry employs approximately _____X# of workers.
- Of this total, approximately ___X% are full time and ___x% are part time.
- The national industry also hires _____X# as contingent workers and _____X% as contract labor, or ___x% of the total.
- Currently, local revenues and employment statistics are \$_____

Social Capacity Characteristics

- Average wages in the national industry are \$_____. The high end appears to be \$_____ and the low end \$_____.
- Approximately _____X% of companies across the U.S. provide health care benefits for full time employees and _____X% provide health care for part time employees.
- Approximately ___X% of the companies offer retirement benefits to full time employees and _____X% offer them to part time employees.
- Approximately ___X% of the companies offers education and training for employees that may help with career advancement.

Environmental Characteristics

- Both biodiesel and ethanol are nontoxic, biodegradable, produce fewer emissions than petroleum based fuels, and can be produced domestically.
- Both biodiesel and ethano are also oxygenates, or substances which increase octane and reduce emissions by allowing fuel to burn more efficiently.
- Local production of biofuels would decrease our energy use by reducing energy used in transporting fuels.
- Biodiesel tailpipe emissions produce significantly less particulate matter, carbon monoxide, unburned hydrocarbons and sulfates than diesel does.
- Nitrous oxide levels, which contribute to smog, are higher for biodiesel, but the overall smog levels are less because of lower hydrocarbon emissions.⁴

³ Tim Reed, Tyree Oil. Phone Interview. July 12, 2005.

- Biodiesel contributions to global warming are also lower than diesels thanks to lower carbon dioxide (CO₂) and methane emissions. The U.S. Department of Energy reports that biodiesel contributes almost 80% less lifecycle CO₂ than diesel, due to lower tailpipe emissions and because of the CO₂ pulled from the atmosphere by plants used to make biodiesel.⁵

III. Systems Map of Sector

When completed, this “map” will graphically describe the current and potential flow of resources and interdependencies of local biofuels production.

IV. Local Companies and Organizations

Businesses

- SeQuential Biofuels
 - biodiesel processing at new Salem plant and future Portland plant
 - biodiesel marketing
 - future retail station in Eugene for biodiesel and ethanol
- Tyree Oil
 - biodiesel retail at card lock
 - distribution to fleets, Jerry Brown Company, Marshalls
- Jerry Brown Company, Marshalls - biodiesel distribution
- Automatic Heat
 - potential biodiesel distributor for heating and fleets
- Rexius - biodiesel users, promotion to other businesses
- Pepsi - biodiesel users
- World Energy -non-local biodiesel supplier of Midwestern biodiesel for distribution

Nonprofits

- Oregon Environmental Council – statewide advocacy for Biofuels

Government

- Lane Regional Air Pollution Authority (LRAPA), Lane Clean Diesel Project: growing the market by creating steady demand
- City of Eugene - user
- 4J School System- user
- Bethel School System- user
- University of Oregon- user, processing plans for future
- Lane Community College - small scale processing for LCC use

V. Vision for the Future

Our research uncovered a wide variety of views on the potential for growing the local biofuels industry. Almost all fell somewhere on the line of increasing the demand and supply in tandem so that neither one exceeds the other. Many involved with the industry (either as producers,

⁴ Oregon Environmental Council. Biodiesel for Oregon. Accessed July 5, 2005.

<<http://www.biofuels4oregon.org/biofuels>>

⁵ U.S. Department of Energy. “Biomass Program: About the Program.” Accessed July 5, 2005.

<<http://www.eere.energy.gov/biomass/environmental.html>>

users, or regulators) want to see the entire value chain present in Oregon, from the production of raw material feedstocks through processing and retail. The boldest visions revolve around energy independence for Oregon and Eugene by mainstreaming homegrown biofuels combined with the decreased consumption of fuel in general.

Energy independence does not seem feasible within the next 2-5 years, although it could be a vision that could energize people and which strategies and policies could be designed around. The closest approximation to the ideal of energy independence for Oregon or Eugene appears to be to provide somewhere between 10 to 50% of our energy needs with biofuels grown and processed in Oregon within the next number of years.

- Biodiesel: It seems likely that the supply of and market for biodiesel can increase substantially in the near future, with production of oilseed crops possibly taking place in Eastern Oregon before moving towards the Willamette Valley, where production could be taking place on a greater scale. How much local production could occur and how fast production could be scaled up still seems unclear.
- Ethanol: With the abundance of proximate feedstock for ethanol production, the potential for local production and increased demand also seem feasible, despite the minimal attention focused on ethanol so far as compared to biodiesel.
- The production of these products would need to be combined with significant upgrades in public understanding of the benefits of biofuels, some changes in equipment, significant increases in consumption by commercial, government, institutional, and household users, and major energy conservation and efficiency programs.

VI. Trends

National

- Federal regulations:
 - From September 2006 onward, Ultra Low Sulfur Diesel (ULSD) will be required as the standard highway fuel. Lubricity issues arising from ULSD can be resolved with a two percent biodiesel blend (B2). A West Coast move to B2 would result in a demand for 110 million gallons of biodiesel annually.⁶
 - The 1990 Clean Air Act Amendments mandated a certain percentage of oxygenated fuels in some areas, boosting demand for ethanol blends.⁷
 - The 1992 Energy Policy Act (EPA Act) required the use of alternative fuels in certain fleets. Both B100 and gasoline blends with at least 85% alcohol (including ethanol) are considered alternative fuels.⁸
- Minnesota: requirements for all diesel sold in state to contain 2% biodiesel once capacity reaches 8 million gallons annually.⁹

⁶ Oregon Environmental Council and Oregon Business Association. Renewable Energy: An Oregon Economic Opportunity. March 25, 2005.

⁷ U.S. Department of Energy. "What is Ethanol?" Accessed July 24, 2005.
<http://afdcwebv16.nrel.gov/afdc/altfuel/whatis_eth.html>

⁸ U.S. Department of Energy. "What is Ethanol?" Accessed July 24, 2005.
<http://afdcwebv16.nrel.gov/afdc/altfuel/whatis_eth.html>

- Promotion of biodiesel for heating oil in Northeast.¹⁰
- Ethanol fueling stations in the Midwest, with infrastructure spreading nationwide.¹¹
- Majority of biofuels produced in Midwest from soybeans (biodiesel) and corn (ethanol).

International

- Germany: Biodiesel available at 1 in 10 fueling stations.¹²
- Brazil: World's largest ethanol producer requires gasoline to contain minimum of 25% ethanol.¹³ About 40% of fuel used in Brazil is ethanol, as compared to 3% in US.¹⁴

Local State of The Sector In Comparison To The Global Sector

- Oregon/PNW is one of two regions in US with highest use of B100 and B99.
- City of Eugene, Lane County, Bethel and 4J use biodiesel blend in fleets.
- Marketing and promotion by SeQuential, Clean Lane Fuels, local businesses and individuals has contributed to use by businesses, fleets and individuals.
- Currently there is insufficient supply to reliably meet growing demand.¹⁵
- Tyree Oil's card lock in Eugene supplying biodiesel; no other public station in Oregon or Washington supplying E85.
 - SeQuential Biofuels plans to open public retail station with variety of biodiesel and ethanol blends at the pump, including E85 and B100 in winter 2005.
- Recent defeat of HB 3481 Biofuels package in legislature, which may slow expansion. New attempt likely in 2007.
- Major controversy over canola production (for biodiesel feedstock) in Willamette Valley, due to fears of cross-pollination and contamination of specialty seed industry.

VII. Possible Opportunities for Businesses Retention and Expansion From Practitioners

Biodiesel:

- Collection of waste grease for small-scale production, heating oil, or fleets.
- Scaling up large scale production with plants in major communities to supply Oregon and PNW
- Oilseed farming: Canola (with resolution of controversy) uses same equipment as grass seed, can be used as rotational crop, high oil content. Sunflower, Flax, Hemp, Meadowfoam, and Camellia are alternatives.
- Construct crushing facility, a key component needed for local production

⁹ Minnesota Department of Agriculture. Biodiesel Task Force. Accessed August 11, 2005. <<http://www.mda.state.mn.us/ams/biodiesel/taskforce.htm>>

¹⁰ Graham Noyes, World Energy Alternatives. Phone Interview. August 5, 2005.

¹¹ U.S. Department of Energy. "Ethanol Market." Accessed July 24, 2005. <http://eeredev.nrel.gov/afdc/altfuel/eth_market.html>

¹² Union for the Promotion of Oil and Protein Plants! Accessed August 11, 2005. <<http://www.ufop.de/3290.htm>>

¹³ Green Car Congress. "Japan and Brazil Cooperating to Promote Ethanol Use." May 26, 2005. <<http://www.greencarcongress.com/brazil/index.html>>

¹⁴ LA Times. "Homegrown Supply of Fuel Helps Brazil Breathe Easier." June 15, 2005. <<http://www.latimes.com/business/la-fi-ethanol15jun15,0,3313642.story?track=tohtml>>

¹⁵ Various conversations with local fleet managers

- Research and manufacturing with byproducts that could be produced with local production: polymers (plastics) from glycerin; animal feed from high-protein meal byproduct of crushing

Ethanol:

- Large scale production: As of March 2005, the demand for ethanol blended fuels in Oregon, Washington and California reached three billion gallons, while the production capacity for ethanol is only at 9.7 million gallons.¹⁶ Currently, Midwestern plants are filling the void in supply, but Oregon stands a good chance of leading the West Coast in this area. SeSequential is conducting a feasibility study for local ethanol production.
- Business opportunities for byproducts. e.g. paper products from fibrous biomass.
- The ethanol industry envisions ethanol as a fuel one day used to produce hydrogen for the use of fuel cell vehicles.¹⁷

VIII. Constraints on Business Expansion

- Availability of feedstocks:
 - Restrictions on canola production in Willamette Valley and many other parts of Oregon.
 - Quantity of waste grease – estimated one gallon, per person, per year.
 - Infrastructure for collecting biomass.
- Lack of local crushing facility
- Premium pricing for biodiesel too high for some entities, forcing them out of the market
- Lack of understanding, knowledge, and misinformation (e.g. problems with diesel vehicles) around biofuels among consumers (commercial users and individual buyers)
- Lack of infrastructure for biofuel tanks in retail stations
- Engine warranties typically only cover the use of up to B5

IX. Suggested Strategies/Tools

- Education/Marketing:
 - Highway signs for biofuel retail stations
 - State maps with biofuel stations
 - Free city parking for biofuel powered vehicles
 - Public talks from outside experts from Minnesota, Germany, Brazil
 - Biodiesel radio promotion
 - Public recognition to recognize businesses using biofuels for heating and/or transportation (like Lane Clean Diesel)
 - Debunk myths around diesel vehicle use of biodiesel
- Expanding the market
 - City contracting preference for businesses using biofuels
 - City tax levy for biodiesel subsidy

¹⁶ Oregon Environmental Council and Oregon Business Association. Renewable Energy: An Oregon Economic Opportunity. March 25, 2005.

¹⁷ U.S. Department of Energy. “Ethanol Market.” Accessed July 24, 2005.
<http://eeredev.nrel.gov/afdc/altfuel/eth_market.html>

- Incentives or requirements for low level biodiesel blends at retail stations, thus postponing the need for additional infrastructure.
- Create more steady demand – city, businesses
- City tax exemption for biofuels
- Incorporate biofuels into existing retail stations – blends in all fuels or separate tanks
- City matching funds for federal grants to subsidize biofuel use for schools, etc.
- Production:
 - Incentives to restaurants, etc. that give their waste grease to processors – free collection, reduced rate on biodiesel for donors
 - UO/City lab for biofuel analysis
 - Hospitable/tax free zone for biofuel plant
 - Individual production for small businesses, ex: 200 gallon processors
 - Small, possibly mobile crushers
 - Explore other crops for oil
 - Capitalize on availability of biomass for ethanol production

X. Possible Initial Actions

- Increase education/marketing efforts
- Organize consortium to encourage heating oil market
- Encourage expanded retail access for biofuels
- Assist producers to scale up production

XI. Resources

The following resources provide general information about biofuels, nationwide and local news, technical assistance for fleets, and a link to Minnesota’s Biodiesel Task Force. This list is not comprehensive and many of these pages have links to other resources.

- Oregon Biofuels Network (Oregon Environmental Council advocacy group): <http://www.biofuels4oregon.org/>
- National Biodiesel Board (trade association for biodiesel): <http://www.nbb.org/>
- Green Car Congress (news on sustainable transportation): <http://www.greencarcongress.com/topics.html>
- “E-85 Fleet Toolkit” U.S. Department of Energy. Alternative Fuels Data Center. <http://www.eere.energy.gov/afdc/e85toolkit/>
- Minnesota Biodiesel Task Force: <http://www.mda.state.mn.us/ams/biodiesel/taskforce.htm>

MAYOR PIERCY’S SUSTAINABLE BUSINESS INITIATIVE
ROUNDTABLE ON RENEWABLE ENERGY
1:30-3:30 PM Thursday, October 27, 2005
Bascom/Tykeson Room, Eugene Public Library

AGENDA

1:30 PM	Welcome and introductions	Mayor Piercy
1:45 PM	Purpose, agenda, and expected outcomes of meeting Background on Mayor Piercy's Sustainable Business Initiative	Rusty Rexius David Funk
1:50 PM	Overview of status, trends and opportunities for solar energy in the local area.	Bob Doppelt Steve Still
2:00 PM	Discussion of how to expand the use of renewables and grow the local renewable energy industry: <ul style="list-style-type: none"> • What would be the ideal level of use of renewables and make up of the renewable energy industry in Eugene? • What is the closest approximation to the ideal in the renewable energy industry that can be achieved in relatively short order (1-3 years)? • Which of the potential actions listed in Sections 7-10 of the background report, or other actions, have the greatest opportunity for enhancing the use of renewables and growth of the renewable energy industry in Eugene? 	
3:45 PM.	Action Items <ul style="list-style-type: none"> • What specific actions are or can the renewable energy industry take to institute the ideas discussed above? • What specific actions can the City of Eugene, Lane County, The State of Oregon, or other public entities take? • What type of partnerships or other forms of assistance are needed? 	
3:00 PM.	Next steps, including additional meetings	Bob Doppelt
3:15 PM	Comments from Observers	Co-Chairs
3:30 PM	End	

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STATUS, TRENDS AND OPPORTUNITIES IN RENEWABLE ENERGY IN EUGENE

Prepared for Eugene Mayor Piercy's Sustainable Business Initiative (SBI)

This document provides background information for the SBI Renewable Energy Roundtable. It was developed through interviews with local practitioners and research and will be finalized with the help of those participating in the roundtable. (*Incomplete Working Draft 8/31/2005*)

I. Definition and Description of Sector

Renewable energy can be defined as: Energy derived from sources other than fossil fuels that can be continually produced without drawing down or impacting key natural resources or people, e.g. wind, waves, tidal, solar electric production, solar hot water, and passive solar, small-scale hydro, and biomass.

Through our research we found that Eugene has a number of resources that support the use and development of solar and other renewable energy production and use. EWEB, the local utility, provides support and resources such as incentives, zero interest loans, public education and free technical support for businesses and individuals who are interested in investing in renewable energy. Although EWEB has a strong program for renewable energy their primary focus has been on energy conservation. Lane Community College offers professional training in solar technology installation and design for passive solar. The University of Oregon has a number of research initiatives on solar technology, passive solar, and energy efficient design. A number of new buildings in the area have either passive or active solar technology incorporated into their design. There are a number of local contractors who provide consulting and installation services for renewable energy, including solar PV, ground source heat and other.

Need and Potential

Our research found that the need and potential for increased use of renewable energy in Eugene is great. However, currently there is a lack of demand for solar of all types. Many practitioners believe the lack of demand is related to a misconception that solar cannot work in Eugene because there is not enough sun. An educational campaign to raise public awareness about solar potential could have a major impact on the industry. Despite the federal, state tax credits and incentives offered by local utilities, the up front costs of installing solar also remain high. Only solar hot water can appear to pay for itself in a reasonable amount of time. Finding a way to reduce the up front financial burdens may help catalyze interest. Practitioners also feel that another way to grow the local renewable energy industry is by attracting a major technology manufacturer to the area. Currently Eugene must buy all renewable energy technology from external manufacturers, which generates a net loss of dollars for the community.

II. Triple Bottom Line Characteristics (To be completed)

When completed this section will describe the economic, social, and environmental make-up of the local renewable energy industry.

Economic Characteristics

- Total annual revenues of the local renewable energy sector appear to be \$_____
- The local industry employs approximately _____X# of workers.
- Of this total, approximately ___X% are full time and ___x% are part time.
- The industry also hires _____X# as contingent workers and _____X% as contract labor, or ___x% of the total.
- A good rule of thumb is that for each job associated with landfilling, ten are associated with recovery.
- The use of locally generated renewable energy allows money that was formerly spent on the purchase of energy from outside entities (e.g. BPA, private utilities) to recirculate in the local economy.
- The local production of renewable energy decreases the risks of power outages in the regional power grid, thus increasing the economic security of the local area.

Social Capacity Characteristics

- Average wages in the industry are \$_____. The high end appears to be \$_____ and the low end \$_____.
- Approximately _____X% of the companies provide health care benefits for full time employees and _____X% provide health care for part time employees.
- Approximately ___X% of the companies offer retirement benefits to full time employees and ___X% offer them to part time employees.
- Approximately ___X% of the companies offers education and training for employees that may help with career advancement.

Environmental Characteristics

- Our current economy is dependent on large inputs of energy, mostly in the form of fossil fuels. Switching to renewable energy can decrease or eliminate many of the environmental impacts associated with the extraction, use and disposal of fossil fuels.
- The use of renewable energy reduces dependence on fossil fuels such as coal and petroleum, which are responsible for a large percentage of carbon and other greenhouse gas emissions that are causing global warming. Burning fossil fuels produces a number of pollutants such as sulfur dioxide, which are released into the water and air and can cause many health problems such as Asthma.
- As the petroleum becomes scarcer, the impacts of extraction in the form of habitat destruction, water pollution and air pollution are becoming greater.
- Use of solar hot water reduces the overall energy needs of a facility and the community as a whole.

III. Systems Map of Sector (to be completed)

When completed, this “map” will graphically describe the flow of materials and resources and interdependencies in the renewable energy industry in Eugene.

IV. Local Companies and Organizations Offering Information, Installation, Maintenance, or Training in Renewable Energy

Businesses

- Energy Design Co.
- Solar Assist
- Solarc
- Advanced Energy Systems
- Energy Service Company
- Solar Design and Construction
- Smart Source Product Company (Lane Electric Coop)
- AM Solar Inc.
- Oregon Solar and Water Inc.

Government

- The Energy Outlet
 - Information clearinghouse for solar and renewable energy in Eugene
- Lane Community College
 - Energy Management Program
- Emerald Peoples Utility District (EPUD)
- Lane Electric Coop (rural areas around Eugene)
- Springfield Utility District
- Eugene Water and Electric Board (EWEB)
 - Loans and rebates for renewable energy
 - Free energy audits
 - Free technical assistance for renewable energy
 - Public education and awareness programs
- University of Oregon
 - Energy Studies Lab (Architecture department)
 - Solar Radiation Monitoring Laboratory
 - Environmental Design Center
 - Many initiatives on renewable energy for school

V. Practitioner's Vision for the Future

Our research found a number of different visions for the future of renewable energy in Eugene. Many practitioners feel that Eugene should take advantage of its solar capacity. Nearly every building with solar access has the potential to use a solar hot water system. Many of the commercial buildings, such as those in west Eugene and elsewhere with excellent solar access, as well as many residential homes could install effective solar PV systems. In addition to retrofitting buildings to install solar hot water and PV systems, practitioners would like to see a renewable power generation plant in the area.

Eugene Water and Electric Board (EWEB) currently has an aggressive energy conservation program. However, practitioners believe there is room for improvement. Changing building

codes to require more passive solar design and installing better weatherization systems could decrease local energy consumption dramatically and pay for itself very quickly.

Practitioners would also like to see a major effort to increase consumer awareness of the benefits of renewable energy. Our current system is highly dependent on cheap fossil fuels, which is a highly subsidized system that does not reflect the true cost of extraction, production, distribution, and use. For energy consumption to be more sustainable the true costs to society need to be reflected in the price consumers pay, or at least understood by consumers. Practitioners said a shift to reflect the true price would make the decision to use renewable energy easier and more cost effective and shift consumption away from fossil fuels.

The ideal vision held by many practitioners is for Eugene and the Lane County area in the long term to become energy independent. To do this, a suite of renewable energy sources would need to be pursued. For example, a major weatherization and energy conservation program would be need to be combined with a large increase in the use of solar hot water and solar electric systems, and the use of biomass – which is a plentiful resource due to the large agricultural economy in the area. Other alternatives that could be considered include wave power – a very low impact way of harnessing the power of the ocean (a study is underway for the Gardiner area)--and possibly small-scale hydro on streams without salmon. Hydrogen production from local dams could also conceivably be used to power hydrogen fuel cells that power local buildings and other large electrical users.

VI Trends

National

- Municipal Solar Development
 - Sacramento PV Pioneers¹⁸ - the utility leases residential roof space for solar panels and the energy is fed back onto the grid.
 - City of Ashland Oregon energy programs – Installation of solar technology on many city-owned buildings along with the purchase of “green tags” to offset emissions.¹⁹
- US Department of Energy “Million Solar Roofs” program – a public-private partnership that aims to install solar technology on one million roofs by 2010²⁰
- New federal energy bill offers 30% tax rebate on the installation of solar technologies for the next two years.
- The US had installed over 6740 Mega Watts of windpower as of January 2005²¹
- The current installed biomass capacity of the United States is estimated at about 7000 Mega Watts.²²

International

- Germany has passed a renewable energy law (EEG), which is a very aggressive renewable energy program they plan to double the production of renewable energy from

¹⁸ <http://www.smud.org/green/solar/>

¹⁹ <http://www.ashland.or.us/Page.asp?NavID=1532&JSEnabled=True>

²⁰ <http://www.millionsolarroofs.org/>

²¹ <http://www.awea.org/projects/>

²² <http://www.sustainableenergy.org/resources/technologies/biomass.htm>

2000 to 2010 and they hope to cover 50% of their energy needs with renewable energy by 2050.²³

- Japan is looking to develop hydrogen fuel from seawater extraction using windpower²⁴
- Japan in the leader in photovoltaics market with over 40% of the market share.²⁵

Local Status of the Sector in Comparison to National and Global Trends

- EWEB places major focus on energy conservation and some on renewable energy
- Eugene has the largest per capita use of solar how water heaters this far north.
- Eugene does not have a viable climate for wind; however, there is a surplus of biomass as a resource for alternative energy generation.
- Lane Community College offers professional training programs such as the Energy Management program to help increase the number of skilled workers in the renewable energy industry.
- Germany and Japan use a much larger percentage of solar and renewable energy even though they receive less exposure to the sun than Eugene and Lane County.
- Eugene has a very low demand for solar energy partially due to this misconception that there is not enough sun.

VII. Possible Opportunities for Expanding Renewable Energy From Practitioners

- Examine programs such as Sacramento's PV Pioneers²⁶ to see the feasibility for local utilities to lease residential roof space for solar panels and feed the excess energy back to the grid.
- Examine the City of Ashland's emphasis on installing solar technology on many city-owned buildings along with the purchase of "green tags" to offset emissions for application in Eugene.²⁷
- Consider participating in the US Department of Energy "Million Solar Roofs" program by setting goal such as installing 25,000-50,000 solar systems on roofs by 2010.
- Educational initiatives to raise public awareness about environmental impacts of fossil fuels (e.g. global warming) as well as the benefits of renewable energy.
- Change building code and permitting process to encourage energy efficiency and renewable energy use.
- Establish funding pool to offer loans and grants to decrease up front cost and risk to consumer of investing in renewable energy alternatives.
- Attract of help establish a major renewable energy product manufacturer to reduce costs for local retailers and service companies and highlight the areas as center of excellence.

VIII. Constraints on Renewable Energy Use in Eugene

- Consumers have the misconception that solar does not work in Eugene and therefore there is very little demand.

²³ <http://www.tatsachen-ueber-deutschland.de/563.0.html>

²⁴ Japan Times Online, <http://www.japantimes.co.jp/cgi-bin/getarticle.pl5?nn20030114a6.htm>

²⁵ <http://www.solarserver.de/solarmagazin/artikelseptember2001-e.html>

²⁶ <http://www.smud.org/green/solar/>

²⁷ <http://www.ashland.or.us/Page.asp?NavID=1532&JSEnabled=True>

- Renewable energy such as solar is still more expensive—especially the upfront costs--and therefore not the first choice of most consumers.
- Despite the incentives offered by the federal, state and local governments and utilities, the amount of financial incentives is limited.
- The public is not aware of the impacts of non-renewable energy, such as climate change, and therefore are not moved to choose renewable alternatives.
- The “business as usual” mentality makes a shift in behavior difficult.
- The number of low income residents and growing income disparity in Eugene make it difficult for the majority of the population to spend time and or money on renewable alternatives.
- Energy efficiency is not a priority for many building contractors.

IX. Suggested Strategies/Tools

- Increase public awareness of impacts on fossil fuels and benefits of renewable energy through workshops, public forums, newspaper articles and more.
- Provide more incentives and tax breaks for businesses and individuals interested in investing in solar and other renewable energy.
- Attract more solar contractors to the area to make the process of solar installation and maintenance run more smoothly.
- Publicize practical examples of successes in the use of renewable energy to demonstrate effectiveness and attract more customers.
- Create a Pay-A-You-Go program for solar alternatives so that consumers do not have to shoulder the entire initial cost or risk of installing active solar or solar hot water heaters.
- Create a renewable energy cluster in Eugene, which would attract solar manufacturers to the area.
- City government could make renewable energy a priority and invest in the technology for public buildings.
- Look at ways to redesign transportation system to decrease the use of fossil fuels (e.g. biodiesel, public transportation)

X. Possible Initial Actions

- Organize a consortium including the City of Eugene, EWEB and other utilities, LCC, UO, local school districts, local hospitals, large commercial energy users, neighborhood associations and others to discuss the possibility of establishing the goal of energy independence and/or the adoption of programs such as the “50,000” roofs program and others.
- LCC and EWEB could offer more public workshops to educate consumers about the impact of different energy alternatives (such as global warming impacts of fossil fuels) as well as the potential for solar energy use in the area. This will help increase demand for renewable energy.
- City Club and other public forums could have speakers on benefits of renewable energy and or impacts of fossil fuels.
- Create a green building permitting system similar to Boulder Colorado (a system where contractors have to compete for building permits and the more green the building the better the chance of getting the permit). This would help encourage green design.

- City could require that all new houses be minimally wired and plumbed so that they are ready for active solar and solar hot water heaters.
- Increase the number of community gardens to decrease the amount of energy needed to produce food.
- Increase support for organizations like the Energy Outlet that provide free information and consulting on renewable energy alternatives.

XI. Resources

Rocky Mountain Institute: Is an entrepreneurial non-profit that has a focus on energy policy as well as the development of alternative energy technologies. They work with communities, individuals, businesses and governments to create more sustainable solutions, form of energy efficiency and renewable energy alternatives.

www.rmi.org

Sacramento PV pioneers: A Sacramento Municipal Utilities District program that leases roof space from customers to install solar panels, which then provide the utility with clean renewable energy. It is a good example of success in residential solar.

<http://www.smud.org/green/solar/>

Green Points Program, Boulder Colorado: An incentive program for incorporating solar and renewable energy into the design of new buildings. Due to a high demand for building permits in the Boulder area, this system creates a point system for green building design, which gives preference designs that incorporate energy efficiency and alternative energy use.

http://www.ci.boulder.co.us/environmentalaffairs/green_points/

EWEB: Eugene Water and Electric Board (EWEB) provides a number of support programs for renewable energy and energy efficiency such as free energy audits, incentives for renewable energy in the form of loans and rebates, free energy efficiency consulting and more.

<http://www.eweb.org>

Ashland Solar and Renewable Programs: The city of Ashland has a number of initiatives to encourage solar and renewable energy use in the area. These programs include the purchase of green tags to offset emissions, the installation of solar on a number of the city-owned buildings, and an educational program that provides students with hands-on experience with alternative energy.

<http://www.ashland.or.us/Page.asp?NavID=1532&JSEnabled=True>

Information Source: Provides the latest information on the development of renewable energy worldwide. www.renewableenergy.com

ROUNDTABLE ON GROWING THE ORGANIC AND NATURAL FOOD TRADE
MAYOR PIERCY'S SUSTAINABLE BUSINESS INITIATIVE
1:30-3:30 PM Tuesday, November 1, 2005
Eugene Downtown Fire station, 13th St. and Willamette

AGENDA

1:30 PM	Welcome and introductions	Mayor Piercy
1:45 PM	Purpose, agenda, and expected outcomes of meeting Background on Mayor Piercy's Sustainable Business Initiative	Rusty Rexius David Funk
1:50 PM	Overview of status, trends and opportunities of the local organic and natural foods trade	Bob Doppelt
2:00 PM	Discussion of potential opportunities for growing the local organic and natural foods trade: <ul style="list-style-type: none">• What would be the ideal size and scope of the local organic and natural foods trade?• What opportunities exist to take major steps toward that ideal state in the next 1-5 years?• What do local farmers, food producers, distributors, and retailers need to maintain and expand their businesses?• What actions can be taken to help local organic companies understand and adopt sustainability measures related to transportation, energy use, packaging, labor and other factors that go beyond organic?	
2:45 PM.	Action Items <ul style="list-style-type: none">• What specific actions can the organic and natural foods trade take to institute the ideas discussed above?• What specific actions can the City of Eugene, Lane County, The State of Oregon, or other public bodies take to support or foster the items discussed above?• What type of partnerships or other forms of assistance are needed?	
3:00 PM.	Next steps, including additional meetings	Bob Doppelt
3:15 PM	Comments from Observers	Co-Chairs
3:30 PM	End	

This Roundtable Is Co-Sponsored By The Following Organizations:

Lane Metro Partnership; Lane Workforce Partnership; Lundquist School of Business, University of Oregon; Department of Planning, Public Policy and Management, University of Oregon; Lane Community College; The Oregon Department of Economic and Community Development

STATUS, TRENDS AND OPPORTUNITIES IN THE NATURAL AND ORGANIC FOODS INDUSTRY IN EUGENE

*Prepared for the Natural and Organic Foods Roundtable
Eugene Mayor Piercy's Sustainable Business Initiative
Working Draft, Not for Public Citation (10/1/2005)*

I. Definition and Description of Sector:

The organic and natural foods trade is probably the oldest local business sector that addresses issues of sustainability. It grew out of the “back-to-the-land” movement of the 1960’s & ‘70’s with the purpose of providing whole grains, fresh produce and local products to consumers by way of small, family-run enterprises. Many of the leaders in the organic and natural foods trade have been early adopters and proponents of recycling, composting, green building, social and economic justice issues. The organic and natural foods industry began by addressing personal health through the idea that we are only as healthy as the food we eat.

As the industry grew, that philosophy was equally applied to the health of the agricultural systems upon which we grow our food and the rise of organic standards. As the industry continues to evolve, the next step beyond organic appears to be the application of sustainability measures and standards throughout the value chain. This includes protecting whole farm ecosystems, addressing transportation choices and fuels, fair-labor policies particularly as it relates to farm labor, packaging, and more.

The organic and natural foods trade in Eugene includes many types of enterprises. These include farmers, food producers/manufacturers, distributors, retailers, restaurants, institutional users, and technical assistance organizations. The latter includes those that provide business assistance, clarity regarding organic standards and how to apply an understanding of sustainability issues to farms, the base of the food chain. Most of the people involved in the early growth of the industry were health advocates first, business people second. Farmers, retailers, producers all gradually learned to maintain a viable business. Many successful local businesses started in family kitchens or on small family farms and now provide goods for regional, national and international natural and organic food markets.

The people that now make up the trade have a wide range of skills and expertise that includes cashiers at a grocery store, herbologists, organic farmers, MBAs, scientists and more. All are a very important part of the trade as it grows.

Our interviews found a number of driving forces behind the organic and natural foods industry. Like any successful business enterprise, financial opportunity is a key driver as local products are distributed nationally and national natural foods enterprises seek a “home” within the Eugene community. The primary driver, however, remains the desire to provide food choices that are fresh, local, organic, and healthy for the consumer and the earth.

Partnerships within the sector tend to be informal and social over formal and business-oriented. The Provender Alliance is a regional natural foods association that many, but not all local businesses, are members of. Many years ago there was also a Lane County Natural Foods Association that provided business support to members. Although the group no longer exists, it may be in a fledgling state of re-growth.

II. Triple Bottom Line Characteristics (To be completed)

When completed this section will describe the economic, social, and environmental make-up of the local organic and natural food trade.

Economic Characteristics

- The local industry employs at least 334 workers.²⁸
- Annual payroll appears to be at least \$8.39 million.²⁹
- The lowest level of annual sales reported was \$76,000; the highest was \$16 million.³⁰
- The industry hires approximately ___X# as contingent workers and ___X% as contract labor.
- Approximately ___X% of the firms sell to local or regional markets and \$___X% of revenues are generated locally or regionally.

Social Capacity Characteristics

- Average wages in the local natural and organic foods industry are \$____. This is one of the areas the industry is most concerned with.
 - Approximately ___X% of the companies provide health care benefits for full time employees and ___X% provide health care for part time employees. This is another important issue for many businesses. It is difficult for many firms to even provide full time employees with health care benefits, with the exception of the largest businesses.
 - Approximately ___X% of the natural foods companies offer retirement benefits to full time employees and ___X% offer them to part time employees. This is another issue the industry is concerned with as few can afford to provide retirement benefits to any but the longest employed personnel.
 - Approximately ___X% of the companies offers education and training for employees that may help with career advancement.
 - Many businesses promote a cooperative spirit of healthy competition among similar businesses. There is a vast network of social capital that exists throughout the industry.

²⁸ Shinabarger, Tim and University of Oregon Faculty with the Program for Watershed and Community Health/Institute for a Sustainable Environment. Growing the Natural Foods Industry in Lane County: A Report for the Lane County Sustainable business and Jobs Project, October 10, 2003. Note: these figures represent the low end of data gathered from surveys returned by 15 of 60 businesses and organic farms identified.

²⁹ Shinabarger, Tim and University of Oregon Faculty with the Program for Watershed and Community Health/Institute for a Sustainable Environment. Growing the Natural Foods Industry in Lane County: A Report for the Lane County Sustainable business and Jobs Project, October 10, 2003. Note: these figures represent the low end of data gathered from surveys returned by 15 of 60 businesses and organic farms identified.

³⁰ Shinabarger, Tim, et al. Growing the Natural Foods Industry in Lane County: A Report for the Lane County Sustainable business and Jobs Project, October 10, 2003.

Environmental Characteristics

By their very nature, most businesses involved in the organic and natural foods industries are concerned about sustainability issues and many are actively pursuing innovative ways to do better.

- Organic farmers do not use synthetic fertilizers or pesticides and many farm, already do or are looking at alternatives to farm in an ecologically sound manner.
- Most businesses recycle their wholesale packaging where a market exists for such goods.
- Many businesses actively compost food scraps on an individual basis, although this is not done collaboratively.
- Many are interested in alternative energy resources, green building techniques, green packaging, and alternative transportation choices, including the use of wind and solar power for electricity, bicycle delivery services and biodiesel for wholesale distribution and compostable utensils or containers for prepared foods.

III. Systems Map of Sector

When completed, this “map” will graphically describe the flow of resources and interdependencies of local organic and natural foods trade.

IV. Local Companies and Organizations

Distributors

- Down to Earth
- Glorybee Foods
- Honey Heaven

Retail

- Sundance Natural Foods
- Red Barn Natural Grocery
- The Kiva
- Capella Market
- Friendly Street Market
- P.C. Market of Choice
- New Frontier Market
- Trader Joe’s
- Grower’s Market Food Co-op

REGIONAL AND NATIONAL CHAINS

- Many local members of regional and national chains handful of organic products. and some, such as Fred Mayer, have a natural foods section.

Farmers/Farm Produce Distributors

- Organically Grown Company
- Royal Blue Organics/Café Mam
- Lane County Farmer’s Market
- Homegrown Delivery Inc.
- Laughing Stock Farm

- Nettle Edge Farm
- Full Circle Farm
- Hand to Mouth Organics

Seeds:

- Territorial Seeds

Food Producers/Manufacturers/Brokers

- Holy Cow Foods
- Tofu Palace Products
- Golden Temple Foods
- Rising Moon Organics
- Springfield Creamery
- Café Yumm/Yumm Sauce
- Wildtime Foods
- Emerald Valley Kitchen
- Lochmead Dairy
- Oregon Ice Cream Company/Julie's Organics
- Chocolate Decadence
- Genesis Juice Co-op
- Sweet Creek Foods
- Turtle Mountain, Inc.
- Monster Cookie/Munchy Treats
- Rusty's Handbuilt Cookies
- Carmen's Chips (formerly Northwest Mexican Foods)
- Tsunami Sushi
- Custom Roasting
- Luna & Larry's Coconut Bliss
- Oregon Organic Marketing

Bakeries and Restaurants

- Great Harvest Bakery
- Eugene City Bakery
- Metropol Bakery
- Adam's Place
- Lilith's Lair
- Cozmic Pizza
- Café Yumm
- Holy Cow Café
- Day's Between Café
- Lotus Garden Vegetarian Restaurant
- Sam Bond's Garage
- Laughing Planet Café
- Marché Café

Wineries

- King Estates Winery

Technical Assistance

Organic Standards, Sustainability and Food Production Related

- Northwest Coalition Against Pesticides
- Oregon Tilth (Salem)
- Organic Materials Review Institute
- Agro-Ecology Northwest
- Organic Agsystems Consulting
- Eugene Permaculture Guild

Business Support

- Lane Community College Small Business Development Center
- Resource Innovations at the University of Oregon (research and technical assistance)

V. Practitioners Vision for the Future

Our interviews found a wide variety of views on the future of organic and natural food trade in Eugene. The organic foods industry is growing at over 20% annually nationwide and most people believe this trend should continue and the local area should ensure that it remains part of it. While a number of local businesses have been in existence for 30 years or more, most still see room for new products, new businesses, and continued expansion. The number of start-ups that continue to create niches for new products confirms this evidence. The retail sector provides strong support for product experimentation and creativity. Most businesses emphasize the value of supporting local entrepreneurs versus the recruitment of outside businesses. Growing concern for environmental and social issues will continue to fuel the growth of change and innovation within the local natural foods industry. With support for consumer education, business incubation and support, and cluster development, this growth trend should continue far into the foreseeable future.

VI. Trends

National

- “According to the USDA, the organic food industry is growing between 20 percent and 25 percent annually, and retail sales of organic foods in the United States reached \$7.8 billion in 2000.”³¹
- “This year, retail sales of organic foods are expected to exceed \$15 billion — with more than \$32 billion projected by 2009.”³²
- “Organic pet food sales, up 63% last year, are growing at nearly three times the rate of human organic food sales, says the Organic Trade Association. However, at \$14 million in sales last year, organic pet food remains a tiny fraction — 0.09% — of domestic pet food sales of nearly \$15 billion. And the U.S. Department of Agriculture is still tailoring

³¹ Shinabarger, Tim and University of Oregon Faculty with the Program for Watershed and Community Health/Institute for a Sustainable Environment. Growing the Natural Foods Industry in Lane County: A Report for the Lane County Sustainable business and Jobs Project, October 10, 2003

³² Hansen, Nanette. CNBC. Organic food sales see healthy growth: Mainstream food companies promote natural brands. <http://msnbc.msn.com/id/6638417/>. Dec. 3, 2004

guidelines for organic dog food.”³³

International

- “EDINBURGH - UK annual retail sales of organic foodstuffs have soared tenfold to top one billion pounds (\$1.83 billion) in the past decade, spurring more growers to get involved, officials at the Soil Association say.”³⁴
- “France launched a national campaign to promote organic produce on Wednesday [June 1, 2005], kicking off 10 days of events to boost a sector that has struggled to make its mark in Europe's agricultural powerhouse.”³⁵
- “The Worldwatch Institute has a new report, *Home Grown: The Case for Local Food in a Global Market* that explores the benefits of local food systems for consumers, local economies, and the environment.”³⁶

Local Status of the Sector in Comparison to National and Global Trends

- Strong consumer demand and support exists from a local population that is well educated about environmental and sustainability issues.
- Food services for the 4J school district have been directed to decrease sugar consumption, increase meal participation, and increase nutrition awareness, according to a e-message from the Eugene School Board. Sodexo (the food services company that provides meals to 4J) has presented a number of future plans including, but not limited to a) more healthy, meatless entrée choices like tofu, hummus, wraps and salads; and b) continuation of a “Farm to Market”, a nutrition fair with an A-Z salad bar.
- Eugene has a long, successful history of business participation in the organic and natural foods trade, but along with that comes increased economic pressure from much larger regional and national businesses.
- Key players in the local industry continue to shape federal policy regarding organic standards.
- With strong support and widespread application of sustainability measures, a potential exists to drive innovation at the national and international levels, e.g. reduced and biodegradable packaging, compostable utensils.
- Local brokers provide market support and opportunities for international indigenous farmers.
- Local soil-amendment production is increasing due to national and international growth of the industry.

³³ Horovitz, Bruce. USA TODAY. Organic pet food gets paws up.

http://www.usatoday.com/money/industries/food/2004-07-13-organic_x.htm. July 13, 2004

³⁴ MacKenzie, Ian. REUTERS NEWS SERVICE. UK Organic Food Sales Soar Tenfold in Decade.

<http://www.planetark.com/dailynewsstory.cfm/newsid/31436/story.htm>. June. 28, 2005

³⁵ Evans, David. REUTERS NEWS SERVICE. France Launches Drive to Boost Organic Food Sales.

<http://www.planetark.com/dailynewsstory.cfm/newsid/31063/story.htm>.

June 2, 2005

³⁶ Center for Rural Affairs. December 2002 Newsletter. www.cfra.org/newsletter/2002_12.htm. (Full report available from the Worldwatch Institute at www.worldwatch.org/pubs/paper/163/.)

VII. Possible Opportunities for Businesses Retention and Expansion From Practitioners

- Partner with Sodexo, the 4J School District's food service company, to expand opportunities for education and provision of food ingredients to students within the 4J school district. Help establish direct relationships with local farms, food producers and distributors.
- Large scale composting facilities to harvest wastes from retail, restaurant and production facilities that in turn produce feedstock for local organic agriculture.
- Expansion of local organic agricultural production specifically to supply raw ingredients for local food producers.
- A daily farmer's market that provides opportunity for organic farm expansion and consumer connections directly with the growers.
- New product development of many types by creative entrepreneurs.
- Green business park to incubate and support start up companies.
- Promotion of local organic and natural foods through product labeling and enhanced point-of-sale and other consumer education and marketing efforts.

VIII. Constraints on Business Retention and Expansion

- Lack of consumer understanding of the need for and benefits of local organic and natural foods (e.g. benefits for addressing obesity and healthy food for low income residents)
- Lack of consumer and political understanding of the need and value of a sustainable local food system (e.g. benefits of assuring local food supplies if fuel supplies or transportation systems are disrupted).
- The organic food movement has succeeded to such an extent that large corporations (e.g. General Mills) are entering the field which can flood the market with products thus reducing prices, which threatens the viability of smaller producers.
- Sustainability issues such as "buy local" may threaten growers that currently sell regionally or nationally or that import part of their product from Latin America or elsewhere.
- Subsidies provided to industrial agriculture hide the real costs of food production and make natural foods appear more costly.
- While the cost of organic food appears high to the consumer, profit margins are low, creating constraints on the ability to provide good wages or any health and retirement benefits.
- The inability to provide living wages, health care, retirement and other benefits and the seasonal nature of portions of the industry--especially on the farm--cause employee turnover rates to be high, reducing continuity and increasing training and management costs.
- Cost of implementing strategies for use of alternative energy sources remains high compared to annual revenue available to explore such alternatives.
- Lack of availability of suitable real estate for expansion of production facilities.
- Increasing concentration of distribution network by large corporations that reduces marketing and sales options.
- The interrelationship between challenges facing the organic and natural food trade and other issues of sustainability will play an important role in the health of the industry (e.g.

urban growth/protection of class 1 farmland, energy & resource use and availability of alternative sources, transportation, and federal subsidies for certain sectors).

IX. Suggested Strategies/Tools From Practitioners

- Help local companies understand and adopt sustainability measures related to transportation, packaging, labor etc in order to expand beyond organic alone.
- Increase or support opportunities for collaboration between local businesses to improve consumer education, provide technical and business support and problem-solve.
- Institute mechanisms to support local organic and sustainable farmers and food producers such as through local government (e.g. City of Eugene, Lane County, EWEB cafeteria) and institutional (e.g. public schools, hospitals, UO, LCC) policies requiring the purchase of food directly from local producers.
- Develop and expand local and regional support mechanisms for product development, distribution, and purchasing.
- Facilitate creation of neighborhood “investment” networks that provide opportunity for local consumers to invest in and support local businesses beyond just purchasing products.
- Create industry wide health care benefit pool.
- Provide tax credits or incentives for each new employee local companies hire.³⁷
- Support the efforts of the newly forming Food Policy Council to establish a food systems and food security plan for Eugene and Lane County.

X. Possible Initial Actions From Practitioners

- Institute local foods purchasing programs by local governments and institutions.
- Institute local consumer education program.
- Support creation of an industry-wide healthcare benefit pool.
- Create a collaboration to share warehouse, distribution, and business incubation.
- Support and assist the new Lane County Food Policy Council and ensure it has appropriate authority and sponsorships.
- Provide education and technical assistance to those interested in moving beyond organic to sustainable food production along with business management training.
- Support local industry efforts to collaborate with Food Alliance in Portland and the emerging Oregon Organic Coalition.

³⁷ Shinabarger, Tim, et al. Growing the Natural Foods Industry in Lane County: A Report for the Lane County Sustainable business and Jobs Project, October 10, 2003

XI. Resources:

The Provender Alliance, www.provender.org

A membership organization that provides networking, outreach and education to nearly 200 natural foods and related companies throughout the Pacific Northwest, including retailers, distributors, manufacturers, brokers, consultants, growers and consumers.

Growing the Natural Foods Industry in Lane County; available at <http://cwch.uoregon.edu/programs/SBJD/SBJDpublications.html>

A 2003 report prepared by Tim Shinabarger with assistance from the Faculty with the Program for Watershed and Community Health, Institute for a Sustainable Environment (now Resource Innovations), University of Oregon. Addresses challenges and opportunities facing the natural and organic food industry in Lane County for job growth and economic development.

Food Alliance, www.foodalliance.org

“Food Alliance is a nonprofit organization that creates market incentives for adoption of sustainable agricultural practices and educates business leaders and other food system stakeholders on the benefits of sustainable agriculture. Food Alliance was founded in 1997 through a collaborative initiative by Oregon State University, Washington State University, and the Washington State Department of Agriculture.”³⁸ Food Alliance is based in Portland, OR with a regional office in St. Paul, MN.

³⁸ Food Alliance. Organizational Summary. www.foodalliance.org/governance/index.htm

ROUNDTABLE ON PUBLIC EDUCATION FOR SUSTAINABILITY
MAYOR PIERCY'S SUSTAINABLE BUSINESS INITIATIVE
1:30-3:30 PM, Thursday, November 3, 2005
Downtown Eugene Fire Station, 13th St. and Willamette

AGENDA

- | | | |
|----------|---|----------------------------|
| 1:30 PM | Welcome and introductions | Mayor Piercy |
| 1:45 PM | Purpose, agenda, and expected outcomes of meeting.
Background on Mayor Piercy's Sustainable Business Initiative | Rusty Rexius
David Funk |
| 1:50 PM | Overview of status, trends and opportunities in education for sustainability in K-12 and higher education in Eugene | Bob Doppelt |
| 2:15 PM | Discussion of opportunities for expanding local education for sustainability opportunities: <ul style="list-style-type: none">• What is ideally possible for expanding sustainability in curriculum & campus facilities in K-12 & higher ed in Eugene?• What is the closest approximation to the ideal expansion of education for sustainability that can be achieved in relatively short order (1-3 years)?• Which of the potential actions listed in Sections 7-10 of the background report, or other actions, have the greatest opportunity for expanding the application of sustainability in curriculum and in campus facilities and operations? | |
| 2:45 PM. | Action Items <ul style="list-style-type: none">• What specific actions can the institutions currently involved in education for sustainability take to institute the ideas discussed above?• What specific actions can the City of Eugene, Lane County, The State of Oregon, local non-profits, educational institutions, or others take to support or foster the items discussed above?• What type of partnerships and other assistance is needed? | |
| 3:00 PM. | Next steps, including additional meetings | Bob Doppelt |
| 3:15 PM | Comments from Observers | Co-chairs |
| 3:30 PM | End | |

This Roundtable Is Co-Sponsored By The Following Organizations:

Lane Metro Partnership; Lane Workforce Partnership; Lundquist School of Business, University of Oregon; Department of Planning, Public Policy and Management, University of Oregon;
Lane Community College

STATUS, TRENDS AND OPPORTUNITIES IN EDUCATION FOR SUSTAINABILITY IN EUGENE

Prepared for Eugene Mayor Piercy's Sustainable Business Initiative (SBI)

This document provides background material for the SBI Education for Sustainability Roundtable. It was developed through interviews with local practitioners and research and will be finalized with the help of roundtable participants. *(Incomplete Working Draft 10/4/2005)*

I. Definition and Description of Sector

Education for sustainability has two components: 1) teaching the principles and practices of sustainability in K-12, community college, and higher education settings; and 2) applying sustainability measures to campus facilities and operations. In many cases the two components can be combined to provide examples of sustainable systems and hands-on experiences for the students in developing and using them.

Our research found that some educational institutions in Eugene are already actively pursuing campus facility and operations programs and sustainability is being taught in a number of settings. For example, both the University of Oregon and Lane Community College have nationally recognized campus facility and operations sustainability programs. A number of the K-8 and high school programs are participating in campus recycling programs, community gardens, and other environmental education programs. EWEB has partnered with the University of Oregon as well as local school districts to increase energy conservation and provide funds for education.

Need and Potential

Our research found significant potential for increased operational and curriculum focused education for sustainability in Eugene. Although the K-12 schools have made progress in greening their campus operations, in some cases they have been hindered by lack of funding. Due to curriculum requirements, lack of teacher training and funds, and other factors, sustainability education is not fully integrated into the K-12 curriculum (the environmental education aspects of the 'triple bottom line' being taught most often). The post-secondary institutions in the area have made great strides in campus facility and operations sustainability in part because they have been able to secure the necessary funding. However, many of those interviewed said more could be done. Further, as with K-12, sustainability is not fully integrated into higher ed curriculum. Instead, the topic is taught in a few departments or by individual professors with an interest in the topic. Post-secondary institutions in the area are a valuable resource and potential partner for K-12 schools looking to develop campus sustainability initiatives. This is an area where all educational institutions may benefit from collaboration.

II. Triple Bottom Line Characteristics (To be completed)

When completed this section will describe the economic, social, and environmental make-up of local institutions involved with education for sustainability.

Economic Characteristics

- Total annual revenues of institutions involved with education for sustainability appear to be \$_____
- Local employment is approximately _____X# of workers.
- Of this total, approximately ___X% are full time and ___x% are part time.
- The sector also hires _____X# as contingent workers and _____X% as contract labor, or ___x% of the total.
- Schools represent a significant purchasing power in the community; by purchasing sustainably produced products schools can help create a large shift in demand while helping the local economy.

Social Capacity Characteristics

- Average wages in the sector are \$_____. The high end appears to be \$_____ and the low end \$_____. Approximately ___X% of workers are at the high end of wages and ___X% are at the low end.
- Approximately ___X% of the organizations provide health care benefits for full time employees and _____X% provide health care for part time employees.
- Approximately ___X% of the organizations offer retirement benefits to full time employees and ___X% offer them to part time employees.

Environmental Characteristics

- Students who learn about sustainability principles and practices at a young age will be more likely to incorporate them into their decision making process later in life.
- Many current business owners say that they do not utilize sustainable measures because they do not know enough about them. Learning about them at an early age may change this.
- Sustainability applied in educational facilities and operations can play a role in significantly reducing environment impacts such as greenhouse gasses, polluted runoff etc, because educational institutions are large consumers of energy and other resources and have numerous physical plants.
- Green buildings, recycling programs, school gardens and other programs can greatly decrease a schools ecological footprint.

III. Systems Map of Sector (to be completed)

When completed, this “map” will graphically describe the interrelationships within those involves with education for sustainability in Eugene.

IV. Local Organizations Offering Resources for and/or Operating Educational Facilities or Offering Education for Sustainability

Businesses

- Good Company (consulting)

Nonprofits

- West Eugene Wetlands
- Oregon Green Schools – provides resources on waste reduction and resource conservation

Government

- Rachel Carson Center - school within a school at Churchill High School
- Lane Community College
 - Energy Management Program
 - Lane Sustainability Program
 - Sustainability Group
 - Environmental Curriculum
- Eugene Water and Electric Board (EWEB)
 - EWEB Education Grants Program
 - Classroom presentations and tours
 - Education activities
 - Instructional materials
- University of Oregon
 - Sustainability Leadership Academy
 - Curriculum – Programs: Environmental Studies, Lundquist School of Business, Landscape Architecture, Planning, Public Policy and Management etc.
 - Service Learning Program
 - Research Institutes: Energy Studies in Buildings Laboratories, Resource Innovations in the Institute for a Sustainable Environment
 - Conferences: Sustainable Business Symposium, HOPES
 - Campus Sustainability Taskforce
- Northwest Christian College (facilities)
- Pacific University (facilities)

V. Practitioner's Vision for the Future

Our interviews identified a number of different visions for the future of education for sustainability in Eugene. Many practitioners feel that the K-12 education system needs to focus on preparing students to obtain family wage jobs by ensuring that all students graduate from high school, have a good foundation for making decisions, and understand the keys to future success. Because increasing resource constraints and other factors are likely to make issues of sustainability a centerpiece of future business operations and civic responsibility, students and faculty need to understand the environmental, social, and financial aspects of the issue. Many people we spoke with feel that local educational institutions also need to recognize their role as a large consumer and purchase more sustainable products.

Many practitioners said they thought sustainability should become a core value or principle for educational institutions at all levels. In order to do this, faculty, staff and administration need to support sustainability as part of the curriculum and campus operations. A sustainability course requirement or an integration of sustainability principles across the curriculum would help students understand the basic concepts and create a foundation for sustainability as part of the culture.

Most schools, post secondary in particular, recognize a responsibility to help the community at large understand the concept of sustainability. This could be done by offering more workshops and seminars on sustainability principles and practices at the university level as well as by creating programs within the schools in which students work with community members on sustainability initiatives.

Finally, a common theme we heard was that Eugene has the potential to be a center of excellence for education for sustainability. If sustainability becomes a core value and practice of the educational institutions--especially higher ed--it may lead to costs savings while drawing students from across the country interested in learning about the principles and practices of sustainability.

VI Trends

National

- Organizations focused on sustainable curriculum development
 - Earth Care³⁹ - offers teachers training in experiential sustainability curriculum to schools in Santa Fe, NM.
 - The Cloud Institute for Sustainability Education – provides educational materials and professional development focused on sustainability.⁴⁰
 - Education for Sustainability West (EFS West) – Works to make sustainability a central focus of education in the West (mostly focused on higher ed).⁴¹
 - Yes! Magazine – Offers resources to teachers and students interested in sustainability.⁴²
- Campus sustainability initiatives at many of the major universities and community colleges around the country
 - Examples in the region: Lane Community College, University of Oregon, Evergreen College, Oregon State University, University of Washington...
- Numerous kinds of programs offering sustainability education to all ages.
 - Service Learning Programs
 - Example: University of Oregon Service Learning Program.⁴³
 - Internships, GTFs, & courses offered through UO Resource Innovations.⁴⁴
 - Semester programs in sustainable practices
 - Example: The Mountain School VT.⁴⁵
 - Summer Programs in environmental education
 - Example: The National Outdoor Leadership School.⁴⁶
 - Organizations providing environmental education to school kids
 - Example: Naturalists at Large.⁴⁷

³⁹ www.earthcare.org

⁴⁰ <http://www.sustainabilityed.org/>

⁴¹ <http://www.efswest.org/>

⁴² <http://www.yesmagazine.org>

⁴³ <http://darkwing.uoregon.edu/~ecostudy/slp/>

⁴⁴ <http://ri.uoregon.edu>

⁴⁵ <http://www.mountainschool.org/>

⁴⁶ <http://nols.edu/>

⁴⁷ <http://www.naturalists-at-large.com/>

International

- Rancho Mastatal, Costa Rica, an environmental learning and sustainable living center, retreat and lodge, which practices and promotes living responsibly in the tropics, while educating visitors about the significance of the world's disappearing tropical forests.⁴⁸
- Oikos International – Provides a network for students interested in sustainability oriented Entrepreneurship.⁴⁹
- International conference on Education for a Sustainable Future in Ahmedabad, India attended by over 900 participants from 48 countries.⁵⁰
- Numerous campus sustainability initiatives in Europe, China, Japan, Australia and more.
 - Examples: Chiba University – Japan, Helsinki University of Technology – Finland, and Lund University – Sweden.

Local Status of the Sector in Comparison to National and Global Trends

- UO and Lane Community College are leaders in campus operations and facility sustainability.
- Lane County solid waste partners with local schools on educational programs.
- The 4J school district has plans to develop the West Eugene Wetlands environmental education center.
- Many of the K-12 schools have programs in recycling, gardening, composting and energy conservation.
- The Rachel Carson Center provides sustainability education for Churchill High School
- Lane Community College offers programs such as the Energy Management programs, which trains people to use sustainable alternatives (in this case solar operations).

VII. Possible Opportunities for Expanding Education for Sustainability From Practitioners

- Create partnerships between different schools, UO, LCC etc. to create a more integrated curriculum from kindergarten through university level education.
- Each school could work with different academic departments to create a more interdisciplinary approach that addresses the multifaceted economic, social, and environmental aspects of sustainability.
- UO and LCC could partner with local K-12 schools to enhance campus facilities sustainability initiatives.
- Provide an incentive for faculty to incorporate sustainability into curriculum (e.g. time off to develop curriculum).
- K-12 and higher ed institutions could adopt green purchasing policies (group bulk purchasing may lower the price of some items)
- K-12 and higher ed institutions could install solar hot water and solar PV systems (with the help of EWEB) and make the use of biofuels a requirement.
- Local school districts could hire conservation coordinator (which previously existed).

⁴⁸ <http://www.ranchomastatal.com/>

⁴⁹ <http://www.oikosinternational.org/>

⁵⁰ <http://www.cceindia.org>

- Local school districts need to expand facility maintenance as much has been left undone due to budget cuts.

VIII. Constraints on Sustainability Education, Training and Technical Assistance Expansion

- Many faculty members at the University do not incorporate sustainability into their research or teaching because they are stretched thin due to budget cutbacks, do not have time to learn about or incorporate the issue and, for some, it does not contribute to achieving tenure.
- There is a lack of funding for sustainability initiatives in the local K-12 schools.
- The local K-12 school system is fragmented both between departments and schools, which makes collaboration difficult.
- There is a need for more interaction between schools and the workforce so that schools are better preparing their students for the jobs they will be entering into, including jobs in the emerging field of sustainability.
- Schools are dealing with many competing priorities and limited resources and taking on new initiatives is very difficult.
- Decreased funding for staffing has reduced 4J maintenance staff from 90 to 30 since 1993.
- 4J had a conservation coordinator position before it was cut due to budget issues
- Field trip opportunities have been reduced due to budget cuts for tours such as of solar and green homes.

IX. Suggested Strategies/Tools

Operations:

- Continue the dialogue around housing and how decisions made by the city regarding housing affect education (e.g. through school makeup and transportation to school).
- Develop mechanisms to allow school cafeterias to purchase organic and natural food from local farmers.
- Examine funding opportunities for sustainable initiatives, particularly those in campus operations that pay for themselves, i.e. energy conservation.
- Increase preventative maintenance with buildings.
- Increased grant programs/incentives for projects like solar PV systems, composting, etc.
- Educate school board members and solicit their support for all of the above.

Curriculum:

- Develop or expand teacher education programs in sustainability.
- Clarify the concepts, principles and practices of sustainability for teachers.
- Coordinate efforts between teachers to avoid the segmentation of the curriculum.
- Continued coordination between city, utilities and schools for curriculum (as with solid waste and energy).
- Business/school connections so that students can learn of real world sustainability practices.
- Schools could provide incentives for educators incorporating sustainability into curriculum (e.g. time off for learning and curriculum development).
- Create programs that connect students with the community through sustainability initiatives.
- Create programs that increase student exposure to and training for the workforce (e.g. working on green building, renewable energy, or natural foods projects).

- Provide tours of solar and green homes for schools.

X. Possible Initial Actions

- K-12 could expand green purchasing policies and expand use of biofuels.
- Consortium could be developed between local farmers and cafeterias to purchase local foods.
- Organize consortium between K-12 schools, the University of Oregon and Lane Community College (and NW Christian College and Pacific University if interested) to develop a strategy to make Eugene a center of excellence in both sustainability curriculum and facility management. For example, ways to share curriculum and/or develop joint green product purchasing efforts.
- Create programs that strengthen the collaborative efforts between schools and local organizations such as the Lane Workforce Partnership, which provides workforce training programs, in sustainability related jobs.
- K-12 schools could determine best methods for incorporating sustainability into school curriculum i.e. required courses, integration into classes, or external programs.
- Use the Service Learning Program and Resource Innovations at the University of Oregon as models academic programs for bringing sustainability principles and practices into the community.

XI. Resources: Web Links To Other Programs, Articles, Technical Assistance

Earth Care: This program focuses on educating teens about sustainability by demonstrating the connections between the global society and nature. As part of this effort they provide sustainability curriculum and training to teachers interested in teaching and practices into their own classrooms. They also have trained teachers who are hired by schools to teach a sustainability curriculum.

www.earthcare.org

EFS West and Second Nature: These organizations are dedicated to making sustainability a core value of higher education institutions across the country. They offer a number of valuable resources as well as a chance to network and connect with other campuses employing sustainability nationwide.

<http://www.efswest.org/>

<http://www.secondnature.org/>

The Cloud Institute for Sustainability Education: An organization that provides educational materials and professional development for educators interested in teaching sustainability principles. Their curriculum is designed to meet state and federal educational requirements so it can replace regular curriculum.

<http://www.sustainabilityed.org/>

EWEB: Eugene Water and Electric Board (EWEB) provides a number of sustainability educational services such as EWEB Education Grants Program, Classroom presentations and tours, Education activities, and Instructional materials .

<http://www.eweb.org>

UO Service Learning Program: Offers students a hands-on experience in working with sustainability issues and the director of the program is a wealth of information and ideas. <http://darkwing.uoregon.edu/~ecostudy/slp/>

UO Resource Innovations: Offers graduate student internships and GTFs, as well as seminars and workshops for students and working professionals on sustainability. RI has assisted or led many of the public and private sustainability efforts occurring across the Northwest today, and completed much of the key research on the issue. RI director Bob Doppelt's book, *Leading Change Toward Sustainability: A Change Management Guide for Business, Government, and Civil Society* (Greenleaf Publications, UK 2003) was deemed "one of the nine most important books in sustainability" in 2004 just six months after it was published by an international survey of sustainability experts completed by Globescan, a leading global public survey firm. <http://ri.uoregon.edu>

Oregon Green Schools: The mission of Oregon Green Schools is to help Oregon schools set up and maintain effective, permanent waste reduction and resource efficiency programs that improve school environments and communities, and to recognize schools for their efforts and achievements. They provide hands-on assistance, curriculum and funding resources and recognition and events. <http://www.oregongreenschools.org>

Portland Public Schools Resource Conservation Program: PPS is dedicated to optimum building performance, resulting in reduced energy consumption, greater comfort for occupants, and lower operating costs. The Resource Conservation Program works with schools on energy efficiency, water conservation, stormwater management, solid waste reduction, and recycling. <http://159.191.14.137/docs/pg/1862>

ROUNDTABLE ON SUSTAINABLE HEALTHCARE
MAYOR PIERCY'S SUSTAINABLE BUSINESS INITIATIVE
1:30-3:30 PM, Tuesday, November 8^h, 2005
Eugene Downtown Fire Station, 13th St. and Willamette

AGENDA

1:30 PM	Welcome and introductions	Mayor Piercy
1:45 PM	Purpose, agenda, and expected outcomes of meeting. Background on Mayor Piercy's Sustainable Business Initiative	Rusty Rexius David Funk
1:50 PM	Overview of status, trends and opportunities in the local Healthcare industry.	Bob Doppelt
2:00 PM	Discussion of opportunities for growing the local green building industry: <ul style="list-style-type: none">• What is ideally possible for expanding sustainability practices in the local healthcare industry?• What is the closest approximation to the ideal expansion of sustainability in the local healthcare industry that can be achieved in relatively short order (1-3 years)?• Which of the potential actions listed in Sections 7-10 of the background report, or other actions, have the greatest opportunity for expanding sustainability practices within the local healthcare industry?	
2:45 PM.	Action Items <ul style="list-style-type: none">• What specific actions can the local healthcare industry take to institute the ideas discussed above?• What specific actions can the City of Eugene, Lane County, The State of Oregon, local non-profits, UO, LCC, or others take to support or foster the items discussed above?• What type of partnerships and other assistance is needed?	
3:00 PM.	Next steps, including additional meetings	Bob Doppelt
3:15 PM	Comments from Observers	Co-Chairs
3:30 PM	End	

This Roundtable Is Co-Sponsored By The Following Organizations:

Lane Metro Partnership; Lane Workforce Partnership; Lundquist School of Business, University of Oregon; Department of Planning, Public Policy and Management, University of Oregon;
Lane Community College

STATUS, TRENDS AND OPPORTUNITIES IN THE HEALTH CARE INDUSTRY IN EUGENE

Prepared for the Health Care Roundtable
Eugene Mayor Piercy's Sustainable Business Initiative
Working Draft, Not for Public Citation (10/03/2005)

I. Definition and Description of Sector:

Healthcare facilities present both a challenge and opportunity in the development and implementation of sustainable design, construction and operations practices. Issues such as 24/7 operations, energy and water use intensity, chemical use, infection control requirements and formidable regulatory requirements can pose significant obstacles to the implementation of currently accepted sustainability protocols.⁵¹ Furthermore, sustainable practices within the healthcare industry must be customized to reflect the fundamental mission of each organization and facility and acknowledge the intrinsic relationship between the built environment and ecological health.⁵² Achieving quantifiable sustainable design therefore requires the integration of environmental and health principles with sustainability practices related to the planning, design, construction, operations and maintenance of healthcare facilities.

The local healthcare industry is diverse and vast and is not limited just to Eugene. It is regional and not defined by the boundaries of any one city. The industry draws on the regional population for both consumers and employees. It is also growing. According to the Oregon Employment Department, the Lane County Health Services sector was one industry that continued to grow throughout the recession of the late 1990s, adding 270 jobs through 2001.

There are many stakeholders involved with the healthcare industry. Stakeholders vary in the types of healthcare they address, for example, dentistry, chiropractic, cardiac or other specialized disciplines or general physiology. The industry is comprised of individual practitioners and physician groups; it ranges from regional hospitals, to clinics, to specialty services and doctor offices. The healthcare industry addresses all stages of life including birth, family planning, family medicine, emergency services, preventative care, therapy for trauma recovery and senior living.

Facilities cover a broad range including out-patient clinics, acute care centers, long-term care, residential or in-home-care for seniors. Some facilities are private enterprises, while others are non-profits. A wide range of practitioners exists, from mainstream allopathic medicine to what some call alternative medicine, although many are non-Western healthcare traditions like acupuncture. While all forms of healthcare seem likely to continue to thrive, many people feel that an ever-increasing senior population will drive many changes in the local healthcare industry.

⁵¹ Quote from Guide for Healthcare <http://www.gghc.org/>

⁵² Ibid

The healthcare industry is somewhat unique and different from many industries in that few if any alternatives exist for handling bio-hazardous wastes. Due to the need for sterile equipment, healthcare deals with numerous types of non-reusable, one-time use supplies and plastic materials that may not be available or are difficult to find in more environmentally friendly forms. The toxic nature of many of the substances and inability to reuse or recycle plastics and many other materials means that the healthcare industry produces a large amount of hazardous waste.

The need for patient confidentiality requirements also creates unique constraints for issues like simply recycling paper. Many businesses must have at least three bins for paper waste management that are each handled differently – confidential for shredding, non-confidential and other waste. This can often create confusion for staff and high costs to manage the volume of confidential material. While these are unique challenges, some technological advances and regulatory changes are also helping to address these issues. For example, molecular diagnostics is providing an alternative to cultures grown in a plastic Petri dish that become bio-hazardous waste. Electronic record management and a move to digital imaging reduce the amount of paper and film that must be stored or properly disposed of.

There are many changes taking place in the local healthcare industry with construction of at least one, if not two new hospitals. These changes create a domino effect that forces change on many other parts of the industry. As hospitals shift locations, support professionals may need to relocate their facilities too, to better serve shared customers. This creates challenges for these support networks, but may also provide unique opportunities for many new facilities to incorporate sustainability practices and innovations in building design and construction, diagnostic, surgical or administrative equipment, and physical plant maintenance and operations.

With all the changes taking place in the local healthcare industry, it is critical to recognize that decisions made today will affect the industry and its support services, as well as the local economy, environmental quality, quality-of-life, and health of local citizens for decades to come. It is rare that such an opportunity exists to incorporate sustainable design, construction, and operational practices in such a vast segment of a particular industry. As one interviewee said, many of the decisions being made, buildings constructed, and systems being put in place now will far outlast he or most of his colleague's involvement in the industry.

II. Triple Bottom Line Characteristics (To be completed)

When completed this section will describe the economic, social, and environmental make-up of the local healthcare industry.

Economic Characteristics

- Total annual gross revenues of the Eugene-Springfield healthcare industry appear to be \$_____.
- The local healthcare industry employs at least 14,300 workers, with an annual payroll of at least \$____, as of 2002.⁵³

⁵³ Oregon Employment Department. Regional Profile Industry Employment in Region 5. June, 2004. <http://www.qualityinfo.org/pubs/indemp/htm/r5/r5.html>.

- The industry also hires ____X# as contingent workers and ____X% as contract labor total.

Social Capacity Characteristics

- Average wages in the local health care industry are \$_____.
- Approximately ____X% of the companies provide health care benefits for full time employees and ____X% provide health care for part time employees.
- Approximately ____X% of the health care businesses offer retirement benefits to full time employees and ____X% offer them to part time employees.
- Approximately ____X% of the businesses offers education and training for employees that may help with career advancement.
- Cost of basic medical services can be too expensive for many people in the local community to access or benefit from.
- Employers draw on Lane Community College, the University of Oregon and national recruitment for employees.
- Sustainability is more than an issue of environmental applicability, but also something to be applied toward employee satisfaction and retention in the form of competitive wages and benefits and a positive work environment.
- Connecting residents of long-term care facilities and neighborhood businesses can help promote neighborhood sustainability.

Environmental Characteristics

- Due to the inherent nature of healthcare, there are many unique and often costly challenges in handling, recycling, or disposing of wastes.
- Due the unique nature of the constraints, the healthcare industry currently produces large amounts of bio-hazardous waste.
- Green building practices can be incorporated in building materials, site planning and building orientation to better utilize solar properties, preserve and manage open space, reduce storm water runoff from impermeable surfaces, reduce toxicity, and reduce the consumption of virgin raw materials. Green building practices can also reduce long term energy and water use at facilities.

III. Systems Map of Sector (To Be Completed)

When completed, this “map” will graphically describe the relationships and interdependencies in the local healthcare industry.

IV. Local Companies and Organizations (Incomplete list)

The following is a very short, *incomplete list* of healthcare organizations and businesses in the local area. One look at the number of Yellow Pages devoted to Physicians, Retirement & Life Care Communities & Homes, Dentists, Massage Therapists, Medical Equipment & Supplies or Acupuncturists, just to name a few, will demonstrate that the list provided below is by no means complete. We chose to list some of the larger organizations and/or those that help to demonstrate the diversity within the industry.

Hospitals

- McKenzie Willamette Hospital
- PeaceHealth/Sacred Heart Medical Center

Clinics

- Medical Group Clinics
- Dental Clinics
- Riverstone Clinic (serves primarily low-income or Latino populations)
- White Bird Clinic (serves primarily low-income populations)
- Women's Care
- University of Oregon, Student Health Services
- Confederated Tribes of Siletz, Springfield Satellite Office

Professional Practices, Specialized

- Oregon Medical Labs
- Oregon Medical Group
- Orthopedic Healthcare Northwest
- Oregon Cardiology PC
- Urology Healthcare PC
- PeaceHealth Medical Group
- Legacy Labs

Long Term Facilities/Home Health Care

- Pinnacle Healthcare
- Cascade Manor
- Cascade Health Solutions

Healthcare Advocacy Organizations

- Lane County Public Health/Family Planning
- Planned Parenthood

Supplies and Equipment

- Molecular Probes

V. Practitioners Vision for the Future

One vision of the future we heard through our interviews with practitioners was to "Establish Eugene as a "Center of Health and Healing." This would require coordinating among all local industries that are directly or indirectly connected to healthcare. "Imagine a retiree with a chronic condition coming to Eugene for 30 days to first treat and stabilize the chronic condition in an attractive, hospitable, environmentally supportive hospital with the best practitioners in allopathic medicine; then be presented with ongoing opportunities to maintain optimal health through the complimentary use of diet, alternative therapies, exercise programs that draw on our unique climate and easily accessible natural environment, counseling programs and cultural activities that support the whole body/mind relationship."

On the environmental front, with the tremendous amount of change occurring now in the local healthcare industry, our interviews found a strong interest in investigating how to incorporate sustainable design, construction and operations practices into building design, natural

resource management, and the technologies used in new facilities. Several interviewees also stated interest in incorporating the use of alternative fuels in fleet vehicles.

On the business side, our interviews found growing interest in greater coordination among preventive healthcare companies so healthcare employees maintain a healthy lifestyle that in turn can help decrease long-term healthcare costs. There is also momentum to reduce the overall cost of healthcare while providing better service. One example is a Pay-for-Performance model where services are paid based on how effective they are in addressing patient satisfaction, prevention and chronic health management; currently the standard model is payment for services rendered. If, as a local industry, there was continued support and collaboration between providers and consumers to move from chronic health management to improved preventative healthcare, this in turn could be a draw for existing businesses to stay in the local area and a benefit to those considering relocating to Eugene/Springfield. Either way, preventive healthcare can benefit consumer health, which in turn benefits businesses of all kinds and sizes and the economy as a whole.

On the social front, in addition to interest in helping healthcare employees live a healthier lifestyle, our interviews great interest in finding ways to provide expanded care for seniors. The growth of the local population will include many senior citizens. The local area has much to offer seniors who are looking for retirement area with a good climate as well as community, arts & entertainment and sufficient housing. The growth of seniors will increase the need for qualified professionals and healthcare businesses that directly or indirectly support this segment of the population. Our research also found awareness of the need to provide quality, affordable services to under-represented populations. Many saw this as an important component of addressing social equity within the community. For example, people mentioned the need to improve opportunities for low-income and non-English speaking consumers to receive both basic and acute care services.

VI. Trends

National

- In Portland, healthcare organizations have been meeting quarterly to address common issues regarding furthering sustainable business practices in the industry and their community.
- “In the past few years, hospitals and clinics have shown growing interest in building facilities that are more environmentally responsible, healthier for patients and employees, and more energy efficient. For example, in Boston, Brigham and Women's Hospital is now planning a green design for its new facility.”⁵⁴
- *The Green Guide for Healthcare* was produced in by a consortium of organizations convened by the Center for Maximum Potential Building Systems and sponsored by Hospitals for a Healthy Environment (H2E), the New York State Energy Research & Development Authority (NYSERDA), and the Merck Family Fund. The document is “A best practices guide for healthy and sustainable building design, construction, and

⁵⁴ Beirma, Page. (2005) Hospitals: Green Revelation. *Health Leaders Magazine*. Retrieved 9/30/05 from <http://www.noharm.org/details.cfm?type=news&ID=88>

operations for the healthcare industry.” The project is also a pilot program that adapts the LEED Certification for green building model, to the unique needs and challenges faced by the healthcare industry (see section on Resources for more information).

- Providence Newberg is building the first LEED certified hospital on the West Coast. Through innovative design and the help of a number of grants, rebates and incentives, the building will show an energy efficiency rate of return of only 14 months; industry standards say it is a good investment if it can be done within 5 years. “In just over a year, we will be saving 26 percent in reduced energy costs — savings we are then able to use for holding the line on costs of care, equipment, programs, charity care and more.”⁵⁵
- Many hospitals across the country are beginning to address how they promote health and combat or prevent disease through the food programs they operate. Whether addressing the food served to patients, staff or the community, or making farmer’s markets available on hospital grounds, there is a growing movement to help promote good health through consumption of antibiotic-free meats, and local, fresh, organic food. “Eating nutritious, locally and sustainably-grown whole foods, can improve human health while enhancing the environmental quality and economic vitality of local communities.”⁵⁶

International

- “More than 300 health care leaders from 28 countries met in Vienna last week at the first-ever international health care conference to agree on a far-reaching platform for environmentally responsible health care. Participants represented a wide range of constituencies from hospitals and companies, to organizations such as the Vienna Hospital Association, Health Care Without Harm, the International Council of Nurses, the World Health Organization, the Health Promoting Hospitals Network, the European Environmental Agency and UNIDO.”⁵⁷ (October 11, 2004)
- “The Environment Protection Group (EPG) has funded the Australian Health Care Association (AHCA) to produce a cleaner production and environment audit handbook to assist hospitals and other medical facilities to improve their environmental performance. The project aimed to encourage the implementation of cleaner production practices in Australian hospitals and health care institutes. The Green Health Care: Environmental Assessment Manual is raising awareness of the concept, approaches and benefits of cleaner production in hospitals and health care institutes.”⁵⁸

Local Status of the Sector in Comparison to National and Global Trends

- Green building principles are being incorporated into a number of new healthcare facilities, from hospitals to clinics to professional groups.

⁵⁵ (2005) The West Coast’s First Green Hospital *Right Where You Are*. Retrieved 10/3/05 from http://www.providence.org/yamhill/new_medical_center/green.htm

⁵⁶ Lilliston, Ben. (2005) Hospitals Catching on to Health Food, New Report Finds: Healthcare Leaders Supporting Farmers Markets and Organic Food. *Institute for Agriculture and Trade Policy*. Retrieved 10/03/05 from <http://www.iatp.org/foodandhealth/>

⁵⁷ (2004) Health Care Leaders Issue Historic Vienna Declaration at International Congress ‘CleanMed Europe.’ *Health Care Without Harm: News Release* Retrieved 10/03/05 from <http://www.noharm.org/details.cfm?ID=963&type=document> 10/11/04

⁵⁸ (2005) Environment Health and Hospitals: Fact Sheet. *Department of the Environment and Heritage, Australian Government*. Retrieved 10/03/05 from <http://www.deh.gov.au/settlements/industry/corporate/eecp/publications/fs-hospitals.html>

- Sustainable transportation is being explored locally. For example, use of alternative fuels with fleet vehicles is being explored by some local organizations. One local business that provides home-care visits attempts to coordinate nurse schedules so their stops are as close to their own home as possible, thus cutting down on travel time for employees and secondarily this reduces fuel use.
- One local clinic that provides services for low-income and Latino populations, after only about a year of being in business, is already thinking about expanding operations and building a new facility in the next five years with the hope of incorporating sustainable construction practices.
- In response to the lack of skilled technicians, one local company designed a distance-learning program that allowed students to do early stages of their education from remote locations and finish the hands-on work at labs in the local area.
- Increasing developments in and demand for electronic records management is driving a need for administrative staff with strong technical skills as well as office skills.

VII. Possible Opportunities for Businesses Retention and Expansion Offered Through Interviews

- Establish Eugene as a “Center of Health and Healing” by connecting all local industries that are directly or indirectly connected to healthcare, i.e. hospitals, clinics, professional organizations, natural and organic foods, alternative healthcare practitioners (e.g. acupuncture, massage therapy, etc.), cultural activities and lodging.
- Develop a local cooperative purchasing program to encourage bulk purchases of green products and supplies from large suppliers.
- Promote wellness education among employers outside of the healthcare industry to improve the long-term health of community members and in turn increase awareness of Eugene as a good place to do business for those seeking to relocate here.
- Complete on-site sustainability audits to help local healthcare businesses identify potential ways to improve their design, building, and operations sustainability efforts.
- Public/private partnerships exist between existing healthcare businesses and higher education, yet there is room to expand this collaboration. Beyond preparing people for careers directly in the healthcare industry, there are opportunities to expand research & development and patent creation efforts. One such example is a successful research park in Salt Lake City, Utah at the University of Utah⁵⁹.

VIII. Constraints on Business Retention and Expansion

- Lack of a central information source that local organizations can turn to for information on sustainable design, building, and operational practices, products and regulations.
- Liability concerns make it difficult to re-use equipment marketed as single-use, that could be successfully sterilized and used again.
- Use of large national supply purchasing pools make it difficult to find new sources for more sustainable products and equipment.
- Adequate number of well-trained, skilled professional and support personnel to fill needs of ongoing growth in the healthcare industry.

⁵⁹ University of Utah Research Park. Retrieved 8/9/05 from <http://www.research.utah.edu/econ/> See Resources section for more detail.

IX. Suggested Strategies/Tools

- Establish regular roundtables among local healthcare companies and provider to address common problems and create a collaborative approach to finding solutions (similar to the roundtables that Portland area healthcare providers are doing.)
- Organize collaborates to increase purchasing power of local companies with the intent of encouraging national supply networks to provide more environmentally friendly products.
- Collaborate to identify ways that the healthcare industry can encourage and support local employers in their efforts to reduce costs, improve preventative healthcare education and efforts, and address the healthcare needs of low income and disadvantaged individuals and groups.

X. Possible Initial Actions

- Establish and coordinate ongoing communication between local healthcare providers such as through roundtables, a listserv, or a discussion board to address common concerns and how to expand the use of sustainable design, building, and operational practices.
- Research and report on effectiveness of current databases for “green” products suitable for healthcare like the U.S. Environmental Protection Agency’s Environmentally Preferable Purchasing database.

XI. Resources:

- Green Guide for Healthcare <http://www.gghc.org/>
“A best practices guide for healthy and sustainable building design, construction, and operations for the healthcare industry.” This is a pilot program that adapts the LEED Certification for green building model, to the unique needs and challenges faced by the healthcare industry.
- Healthcare without Harm www.noharm.org
The Campaign for Environmentally Responsible Health Care; this is an international coalition of 443 organizations, working in 52 countries. “Health Care Without Harm is an international coalition of hospitals and health care systems, medical professionals, community groups, health-affected constituencies, labor unions, environmental and environmental health organizations and religious groups.”⁶⁰
- Waste Prevention Information Exchange: Environmentally Preferable Purchasing in Health Care <http://www.ciwmb.ca.gov/WPIE/HealthCare/Purchasing.htm>
A resource provided by the state of California for locating information on environmentally preferable purchasing strategies and products.
- Hospitals for a Healthy Environment <http://www.h2e-online.org/>

⁶⁰ Healthcare Without Harm. *Mission and Goals*. Retrieved 10/03/05 from <http://www.noharm.org/aboutUs/missionGoals>

Hospitals for a Healthy Environment (H2E) “is a voluntary program designed to help health care facilities enhance work place safety, reduce waste and waste disposal costs and become better environmental stewards and neighbors.”⁶¹

- Potawot Health Village; background information available from Sustainable Northwest: Founders of a New Northwest database at:

<http://www.sustainablenorthwest.org/programs/fndsearch.php>

Introductory article that describes a culturally appropriate outpatient clinic for Native Americans in Northern California

- University of Utah Research Park <http://www.research.utah.edu/econ/>

“University of Utah Research Park lies adjacent to campus on 320 acres of ancient Lake Bonneville shoreline. The park houses 37 companies, 51 academic departments and approximately 6,000 employees in 37 buildings. A master plan has been developed with emphasis on preservation and enhancement of land contiguous to the university.

Research Park companies have added more than 4,700 jobs to the state's economy, and the annual in-state productivity of park residents exceeds \$550 million. The park provides a special environment for entrepreneurial growth. It is a reservoir of practical research and business opportunities for university faculty and both graduate and undergraduate students, giving new challenges and opportunities. These opportunities are created in a community that values technological innovation and commercial enterprise.”

Institute for Agriculture and Trade Policy <http://www.iatp.org/foodandhealth/>

See the full report on the movement within healthcare to incorporate more sustainably raised, local and organic meats and produce into their operations. It is entitled *Healthy Food, Healthy Hospitals, Healthy Communities: Stories of Health Care Leaders Bringing Fresher, Healthier Food Choices to their Patients, Staff and Communities* and available on the IATP website.

U.S. Environmental Protection Agency: Environmentally Preferable Purchasing

<http://www.epa.gov/oppt/epp/tools/database.htm>

“...is a tool to make it easier to purchase products and services with reduced environmental impacts.”

⁶¹ Hospitals for a Healthy Environment. *About H2E*. Retrieved 10/04/05 from <http://www.h2e-online.org/about/index.htm>

ROUNDTABLE ON NATURAL HOUSEHOLD AND CONSUMER PRODUCTS
MAYOR PIERCY'S SUSTAINABLE BUSINESS INITIATIVE

1:30-3:30 PM, Thursday, November 17, 2005

Eugene Downtown Fire Station, 13th St. and Willamette

AGENDA

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|----------|--|---------------------------|
| 1:30 PM | Welcome and introductions | Mayor Piercy |
| 1:45 PM | Purpose, agenda, and expected outcomes of meeting.
Background on Mayor Piercy's Sustainable Business Initiative | Rusty Rexus
David Funk |
| 1:50 PM | Overview of status, trends and opportunities in the local
Natural Household and Consumer Products Industry. | Bob Doppelt |
| 2:15 PM | Discussion of opportunities for growing the local natural products industry: <ul style="list-style-type: none">• What is ideally possible for growing the natural products industry in Eugene?• What is the closest approximation to the ideal growth of natural products that can be achieved in relatively short order (1-3 years)?• Which of the potential actions listed in Sections 7-10 of the background report, or other actions, have the greatest opportunity for enhancing consumer awareness of natural products?• What actions can be taken to overcome barriers and enhance production and marketing of natural products? | |
| 2:45 PM. | Action Items <ul style="list-style-type: none">• What specific actions can the local building industry take to institute the ideas discussed above?• What specific actions can the City of Eugene, Lane County, The State of Oregon, local non-profits or others take to support or foster the items discussed above?• What type of partnerships and other assistance is needed? | |
| 3:00 PM. | Next steps, including additional meetings | Bob Doppelt |
| 3:15 PM | Comments from Observers | Co-Chairs |
| 3:30 PM | End | |

This Roundtable Is Co-Sponsored By The Following Organizations:

Lane Metro Partnership; Lane Workforce Partnership; Lundquist School of Business, University of Oregon; Department of Planning, Public Policy and Management, University of Oregon; Lane Community College; Oregon Department of Economic and Community Development

STATUS, TRENDS AND OPPORTUNITIES IN THE LOCAL NATURAL HOUSEHOLD AND CONSUMER PRODUCTS INDUSTRY

Prepared for Eugene Mayor Piercy's Sustainable Business Initiative (SBI)

This document provides background material for the SBI Natural Products Industry Roundtable. It was developed through interviews with local practitioners and research and will be finalized with the help of roundtable participants. (*Incomplete Working Draft 10/1/2005*)

I. Definition and Description of Sector:

Broadly, "natural products" refers to body care products, supplements and remedies that are made from natural (non-synthetic, plant, animal or inorganic mineral) ingredients using non-synthetic processing methods.⁶² This sector includes products such as herbal tinctures, essential oils, bulk herbs, lotions, soaps and spices as well as other products.

In Eugene, the natural product sector consists of processors, retailers, distributors, educators on the collection and use of herbs, as well as naturopaths prescribing herbal medicines. Just outside Eugene, one finds herb farmers, additional educators and larger distributors with international markets. Many of the processors and distributors have a national market that they access through internet and phone sales. Growers in the Willamette Valley that belong to the Meadowfoam Association sell their product to major cosmetic companies such as Revlon. The industry as a whole includes marketing and research organizations as well as insurance agencies that cover naturopathic medicine.

Businesses within the local sector have experienced steadily growth at reported rates of 5-100% annually, depending on the company. Others described a steady increase, without providing specific rate of growth.⁶³ Most of the processors interviewed reported few direct competitors, as they fill a specific niche in the market.

Growth in the sector is driven by rising costs of healthcare coupled with the public's disenchantment with traditional medicine. Consumer perceptions of the benefits of alternative medicines also add fuel to the market. For those in the sector involved with organic products, increased interest in organics could contribute to the expansion of that slice of industry growth.

We did not discover significant coordination or partnerships between various branches of the local sector.

⁶² International Association of Natural Products Producers. Accessed September 21, 2005. <<http://www.ianpp.org/>>

⁶³ The following people provided information on the growth of their company:
Julie Bailey, Mountain Rose Herbals. Phone Interview August 4, 2005.
River Kennedy, Terra Firma Botanicals, Phone Interview September 20, 2005.
Gerry Shapiro, Merry Hempsters, Phone Interview September 20, 2005.
Emily Pacheco, Living Earth Herbs, Phone Interview August 9, 2005.
David Reggisy, Sundance. Phone Interview September 21, 2005.

II. Triple Bottom Line Characteristics (To be completed)

When completed this section will describe the potential economic, social, and environmental make-up of the local natural household and consumer product sector.

Economic Characteristics⁶⁴

- Total annual revenues of the local natural products industry are a minimum of \$7 million, including figures from only about 30% of local businesses.
- The local industry employs approximately _____X# of workers.
- Of this total, approximately ___X% are full time and ___x% are part time.

Social Capacity Characteristics

- Average wages in the industry are \$_____. The high end appears to be \$_____ and the low end \$7.50 per hour.
- Approximately ___X% of companies provide health care benefits for full time employees and ___X% provide health care for part time employees.
- Approximately ___X% of the companies offer retirement benefits to full time employees and ___X% offer them to part time employees.
- Approximately ___X% of the companies offers education and training for employees that may help with career advancement.

Environmental Characteristics

- A voluntary component of many local natural products businesses appears to be a focus on environmentally sound business practices. For example, many work with primarily or solely organic ingredients, thus contributing to soil health while minimizing risks to farm workers and waterways. For some, recycling extends beyond paper and plastics to reusing water for processing and to the use of recycled products for packaging and catalogues.
- Products made from natural materials provide alternatives to the controversy that exists concerning the long-term environmental effects of pharmaceuticals, cosmetics and their production. Some studies and anecdotal evidence have found harm to humans, aquatic, and other environments from ingredients found in synthetic pharmaceuticals and cosmetics.⁶⁵ Phthalates, found in many cosmetics and body care products, have been permanently banned in the EU in toys, and temporarily banned in other products.⁶⁶ Natural products reduce or avoid these problems.

III. Systems Map of Sector

When completed, this “map” will graphically describe the flow of materials and resources and interdependencies in the natural household and consumer products industry in Eugene.

⁶⁴ The figures in this section are based on information from phone interviews with those businesses listed in section IV below. Not all businesses contributed and not all retailers were contacted.

⁶⁵ For more information on environmental effects of pharmaceuticals and cosmetics, see Health Care Without Harm at <http://www.noharm.org/library/search.cfm>. Note that most activity is taking place in Europe.

⁶⁶BBC News. “Europe Bans Chemical Use in Toys,” 5 July, 2005.
<<http://news.bbc.co.uk/2/hi/health/4651391.stm>>

IV. Local Companies and Organizations

Businesses

- **Distributors:** Mountain Rose Herbals, Wise Woman Herbals
- **Processors:** Yellow Emperor, Merry Hempsters, NU Naturals, Quantum, A.M. Todd
- **Retailers/Processors:** Columbines and Wizardry, Living Earth Herbs, Terra Firma Botanicals
- **Retailers:** Sundance, Alchymia Herbs, Kiva, Evergreen Nutrition, PC Market of Choice and other drug/grocery stores
- **Educators:** Herbal Transitions, Columbines School of Botanical Studies
- **Growers:**
 - Oregon Meadowfoam Growers (consortium of Meadowfoam growers that receives the seed from OSU)
 - Wintergreen Farm, Hawkins Farm, and other various farms providing quantities of single or several herbs

V. Vision for the Future

Our research uncovered a wide variety of views on the potential for growing the local natural products industry. However, two broad themes emerged; the first being to increase the production of raw materials locally (namely medicinal herbs) and the second to continue sustainable business practices in light of rapid expansion.

Enhanced technical and educational support and collaboration amongst practitioners and other sectors could contribute to progress on both of these goals within the next 2-5 years.

VI. Trends

National

- Utah may have the strongest natural products sector in the country. Utah Natural Products Alliance supports Utah's \$3 billion dietary supplements industry (which encompasses more than just natural products).

International

- The global market for herbal remedies was at more than \$60 billion in 2003 and growing steadily, according to the WHO.
- International regulations on strengths of herbal supplements are currently being decided by the Codex Alimentarius Commission.⁶⁷ The outcome could influence local businesses.
- The global sector grew at a rate of 8% annually from 1994-2001.⁶⁸

Local State of the Sector in Comparison to the Global Sector

⁶⁷ See the official website at http://www.codexalimentarius.net/web/index_en.jsp for more information on Codex Alimentarius.

⁶⁸ Rocsearch. "Herbal Remedies: Global Market." Accessed 27 September, 2005
<http://www.mindbranch.com/products/R415-1691.html> October, 2004.

- A naturopathic college in Portland and social climate in Eugene may contribute to strength of local market
- Several local distributors sell to the global market and many sell to national market.
- Some practitioners feel that local growth is stronger than global growth rate of natural products.

VII. Possible Opportunities for Businesses Retention and Expansion from Practitioners

- More raw materials could be grown locally with coordination between growers and producers.
- Better networking could allow for shared organic certification, building space, pooled health care and solving common problems.
- Increased technical assistance and/or networking could contribute to business expansion with less hours spent reinventing the wheel.
- Less expensive and complicated city permitting system for new building and remodeling.

VIII. Constraints on Business and Sector Expansion

- Several business owners located outside of Eugene because of the high cost and hassle of permitting for new buildings and expansion within city limits. Others, located within the city, cited the same issues as a barrier to expansion.
- Federal and international regulation and insurance companies' decisions surrounding naturopathic medicine influence local businesses in ways that cannot be predicted.
- The herbal supplements market is highly volatile; the latest research influences consumer choices, which in turn lead to market gluts of certain products.
- Practitioners report a lack of education on the part of many traditional doctors.
- Lack of access to farm land (particularly land suitable for organic production), disinterest in growing large quantities and varieties of herbs, volatility in the market and inexperience with growing particular plant species have been cited as barriers to producing more local raw materials. In addition, herbs grown in different locations may have varying medicinal properties, and thus it is not feasible that all raw materials are produced locally.

IX. Suggested Strategies/Tools

- Sustainable growth:
 - Pooled health care
 - Pooled organic certification
 - Pooled expertise on issues like sustainability in transportation, packaging recycling etc.
 - City/county-wide infrastructure for sustainability in manufacturing. Ex: exchanging inputs and outputs – one company's waste used as another's raw materials.

- Technical support in:
 - Meeting organic specifications
 - Meeting Good Manufacturing Processes (GMP)
 - Dealing with growth. ex: obtaining an equipment loan, exporting to foreign countries.
- Education/Marketing:
 - West Coast convention
 - Networking local holistic health care doctors with local traditional doctors to create a holistic community of healthcare.
 - Classes and apprenticeships on growing medicinal herbs
 - Buy local campaign
- Expanding the market:
 - Liaison between insurance companies and naturopaths and natural practitioners.
 - Insurance reimbursement for vitamins and supplements taken to maintain health.
 - Permanent market space for local growers/producers
- Production:
 - Liaisons between farmers and herb companies, so that appropriate varieties and quantities are grown
 - Conversion of conventional acres to organic acres

X. Possible Initial Actions

- Create mechanisms to provide pooled health care
- Organic certification for natural products
- Technical assistance, possibly in the form of seminars and training workshops
- Practitioner network (list serve? regular meetings?) to allow for information sharing on technical and growth matters and problem solving
- Solicitation of growers for local raw materials via ad in Oregon Tilth or Provender Alliance, for example. This ought to be followed up with educational opportunities for growers.

XI. Resources

This list is not comprehensive and many of these pages have links to other resources.

- American Herbal Products Association (National Trade Association of the herbal products industry). <http://www.ahpa.org/index.htm>
- International Association of Natural Products Producers (25 member organization, comprehensive definition of “natural”, links) <http://www.ianpp.org/>
- Herb Research Foundation (Developmental expertise and information on herbs and botanicals) <http://www.herbs.org/dsd/index.htm>
- New Hope Natural Media (Marketing for companies in natural products sector) <http://www.newhope.com/>