EXECUTIVE SUMMARY

"Towards a Sustainable Oregon"

Major Findings of New Research and Case Study Highlights

Sustainable Building and Development

- The statewide use of "green" building practices in commercial and residential development could lower energy, water and construction related clean-up costs in Oregon and Washington by more than $90 million per year while providing a direct benefit to salmon habitat and the environment by reducing construction impact on streams and watersheds.

- Commercial tenants of "green" buildings pay up to 35% less for lighting, heating and cooling, water and sewer fees. Green homes use less electricity, water and sewer capacity, saving a typical residential homeowner about $500 per year. In addition, preferential mortgage rates are available for green-built homes.

- Widespread adoption of electricity conservation practices in Oregon and Washington can save hundreds of megawatts of power — generated in this region largely by hydroelectric dams that can have a harmful impact on salmon — and save residential and commercial consumers more than $70 million dollars each year.

- Simple water conservation measures adopted throughout Oregon and Washington would reduce water consumption by nearly 15 billion gallons each year – enough for 114,000 average families of four for a year – and save consumers $12 million annually on their water bills.

- Construction sites generate nearly 60,000 pounds of sediment per acre per year. This sediment is a major culprit in clogged streams and damaged salmon habitat, raises the risk of flood damage, and increases filtration costs for water users. Instituting erosion control measures on the15,500 acres used for construction sites in Washington would save taxpayers nearly $2 million annually.

- Urban landscaping uses more than a million pounds of pesticides in the Willamette Valley alone – that's more than three times agricultural use and costs about $760,000. These pesticides runoff with rainfall, polluting streams. Reducing urban pesticide usage to agricultural levels throughout the region would save nearly $1 million in Washington and $780,000 in Oregon.

- Green building practices can reduce the amount of impervious surfaces (i.e., pavement), that speed rainfall runoff, increasing floods and carrying pollutants into streams by 50 percent. In addition, green buildings use less wood, reducing demand for lumber that may be necessary for intact forest ecosystems and valuable shading of salmon streams.

EXAMPLES.

Tolman Creek Shopping Center, Ashland, Oregon. Completed in 1991 this 94,500 square-foot retail development incorporates a number of green building features, from site design to energy efficient building systems. The development preserved an existing stand of oak trees and a stream. In addition, it utilized natural lighting, high levels of insulation, a heat recovery system for the grocery store refrigerators, and occupancy sensors to control lighting and heating. The development also minimized the size of the parking lot and thereby decreased the impervious surface to improve storm drainage. As a result of these green measures, the energy performance of the development is beyond the City of Ashland's model

energy code. The grocery store saves $40,000 annually in energy costs. The development received the Bonneville Power Administration's Energy Smart Award.

Wieden & Kennedy Headquarters, Portland, Oregon. This five-story building, which formally operated as a cold storage facility in Portland's Pearl District, serves as Weiden and Kennedy advertising firm's new headquarters. The building continues to receive local and national attention for its unique one-of-a-kind design and incorporates recycled structural timbers, daylighting, and an under-floor air distribution system. The project was awarded tax credits under the State of Oregon's Business Energy Tax Credit (BETC) program and was the recipient of a BEST Business Award for Energy Efficiency by the Oregon Office of Energy.

Portland General Electric Gas Transmission Headquarters. A model of sustainable design and construction, the building was awarded the Design Award for Energy Efficiency by the Architecture and Energy Steering Committee of the AIA/Portland Chapter. The 180,000 square foot, six-floor building incorporates occupancy sensors, high-efficiency glazing on building walls, and daylighting among other green building techniques.

Sustainable Farming

- Farmers who apply "supply side" sustainable farming practices (conservation tillage, Integrate Pest Management, cover cropping, riparian buffers and/or organic farming) can potentially reduce costs by up to 20%, which equates to annual savings of up to $23 million if just 25% of the farmers in Oregon and Washington adopt the practices. The practices contribute significantly to the protection of clean water, salmon habitat and the environmental.

- Farmers who get their farm practices certified by an independent third-party as either sustainable or organically produced products can potentially generate 2% to 50% increased price premiums (in some cases as high as 100% increases) which equates to $174 million in additional revenue if just 25% of the farmers in the region adopt this approach.

- Adopting conservation tillage systems such as no-till, mulch till, and ridge till methods reduce soil erosion (by as much as 50 to 90 percent), decreases water use and run-off, saving farmers money by reducing labor, time, fuel and machinery wear while building soil productivity. In the Pacific Northwest, conservation tillage has been applied to only 29 percent of cropland compared to the national average of 37 percent.

- Farmers who invest in riparian buffer zones that filter sediments and impurities from field runoff are providing needed vegetation, shade, and organic matter for healthy streams and fish while minimizing the risk of eroding and collapsing banks that can remove vulnerable land from production. While there is a cost to removing streamside land from production, this cost can be offset by reduced costs elsewhere such as with conservation tillage and cover cropping.

Farming Case Study Examples:

- **Stahlbush Island Farms in Corvallis, Oregon**, limited their use of herbicides, insecticides and fungicides by using natural systems to their fullest potential. Owners say they rely on the use of cover crops to naturally grow nitrogen, and on crop rotation to naturally break disease and insect cycles. "We have taken some of the best methods from the organic community, as well as advanced science from the conventional agriculture

community, and combined them to move toward a lowest-cost farming system," said Karla Chambers of Stahlbush Farms.

- **Bethel Heights Vineyard in Salem, Oregon**, has been certified by and labels its wine with the "Salmon Safe" label. As a result, with minimal promotion and virtually no label recognition outside of Oregon, Chez Panisse, of Alice Waters' restaurant in Berkeley, California, chose to pour their Pinot Blanc by the glass because of the Salmon Safe certification. Pat Dudley, manager of Bethel Heights Vineyard says, "This is an excellent placement for our wine and has a lot of promotional value to us because she is nationally recognized for her leadership in the sustainable restaurant movement." In addition, Whole Foods stores in several cities put Bethel Heights Vineyard wines on the shelf and gave it a special shelf label because of the Salmon Safe certification. Bethel Heights Vineyard was also invited to participate in the Chefs Collaborative Retreat held in Portland in September, 1999, when the topic was "The Sustainable Restaurant." Chefs from all over the country belong to this organization, and Bethel Heights Vinyard is now on their list of allies, which gives their wine a foot in the door to these restaurants.

- Ron Stewart, owner of **Columbia Gorge Organic Fruit Company in Hood River**, Oregon, sells organic apples, pears, cherries, and peaches in addition to juices, and some concentrates nationwide. He says, "we get from 50% to 100% more for our fruit than conventional growers."

Manufacturing, Service, and High-Tech

- Earlier research contained in the report *"Saving Salmon, Saving Money"* last year found $42 million in savings by 137 firms in 9 economic sectors in the Northwest who had invested in improving their environmental management.

- New research released today in *"Its Just Plain Good Business"* contains case studies of 160 Northwest companies and found that sustainability practices documented in 108 of the case examples (where financial data was available) led to an annual savings of more than $55 million, along with significant environmental benefits.

- Investment payback data shows that the sustainability or "resource efficiency" projects paid for themselves in an average of *less than two years*, a remarkably quick return on investment.

- While huge savings are possible even from partial adoption of sustainable practices in some facets of industry, few businesses are employing truly comprehensive sustainability plans for their entire business operation. The potential savings that would result from such a comprehensive, integrated program would be dramatic for each firm.

- Fewer than 1% of businesses in the region are known to be actively employing practices that increase resource productivity or sustainability. If even 25% of the economic sectors represented by the businesses examined adopted sustainability measures, the savings would be well more than $1 billion. And while not all economic sectors have been assessed yet, individual companies have found similar savings in sectors such as forestry and high-tech.

- In 85 cases we studied, annual resource savings data showed some remarkable results. Among the highlights: water conservation projects resulted in savings of one billion gallons of water per year; energy-efficiency projects saved 18-million kilowatt-hours per year, 175,200 million BTU's and 5.4 million therms and reduced annual carbon dioxide emissions by 21,000 tons; transportation alternative projects saved 183,000 gallons of gasoline and diesel; waste-reduction and recyling efforts prevented 14,225 tons of solid waste from being dumped in landfills; and toxic/hazardous waste generation was reduced by 157,000 pounds.

Manufacturing, Service, and High-Tech Case Study Examples:

Ash Grove Cement's Rivergate Lime Plant is located 1½ miles from the former St. John's landfill. Through a unique public-private partnership, Metro has joined forces with Ash Grove and Palmer Capital to install a 9,400 foot pipeline connecting the two sites. A compressor station has been installed to deliver landfill gas to the lime plant. The gas generated by the landfill is now being used to fuel three lime kilns that operate around the clock, significantly reducing Ash Grove's reliance on natural gas or other fossil fuels. Prior to this project, the gas generated by the landfill was flared on-site, providing no useful benefit. Using landfill gas for commercial purposes will save fuel and reduce air emissions. The landfill generates more than 17,000 therms per day. That's about as much gas as would be used to heat 13,000 Portland-area homes for a year. Quote: "How clever! To take a source of energy, previously wasted at the expense of the air shed, and use it to provide useful, productive work. It's uncommon in business to encounter many win-win situations. But this project has certainly been one of them. It takes a lot of energy to fire our kilns. We will use everything the landfill generates and we could actually use more if it were available." ~Gary Wright, Plant Manager.

The Collins Company's wood products division, with plants in Lakeview and Klamath Falls, Oregon, has saved more than $1 million in the first year alone through the adoption of a sustainability plan in the manufacturing side of their operations. Collins has also realized increased market share as a result of third party certification of their sustainable forestry practices, providing them with increased access to retail markets. Contact: Lee Jimerson, 503-471-2266

Oki Semiconductor, formerly based on Oregon, found environmental benefits when they adopted an ISO 14000 environmental management system. Yet, when they adopted The Natural Step principles to guide company operations, they found even more environmental benefits and, on an initial investment of about $40,000, saved $80,000 alone in the first year, a 2 to 1 ROI. The Asian financial crisis eventually caused this facility to close. Contact: Larry Chalfan 503-279-9383