



Energy-Smart Policy and Community Development

May 2006

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City of Portland, Oregon, USA
Office of Sustainable Development

















Themes

- Vision supported by Policy
- Achievable Objectives
- Empower implementers
- Economic growth
- Preserve farmland and open space
- Increased Density
 - Transportation infrastructure
 - Connections to parks and open space
 - Focus on livability
- Mixed use = Bus. + Res.



City Policies: Energy and global warming policies that compliment land-use planning

- 1979 Energy Policy
- 1990 Energy Policy (major revision)
- 1992 Recycling and Waste Reduction Strategy
- 1993 CO₂ Reduction Strategy
- 2000 Green Building Policy
- 2001 Local Action Plan on Global Warming (major revision to CO₂ Reduction Strategy)

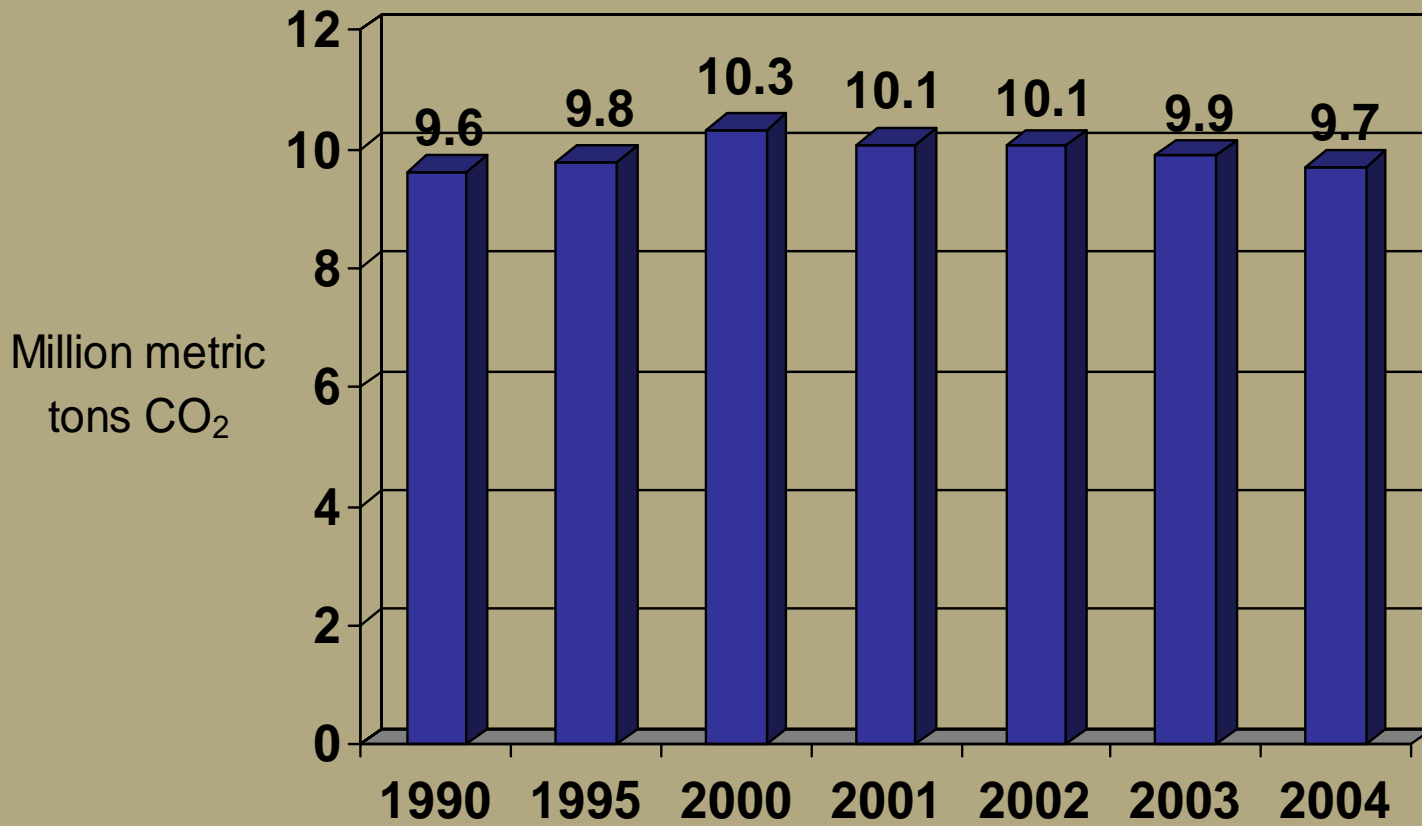


RESULT: Total CO₂ emissions in Portland and Multnomah County are less than 1% above 1990 levels

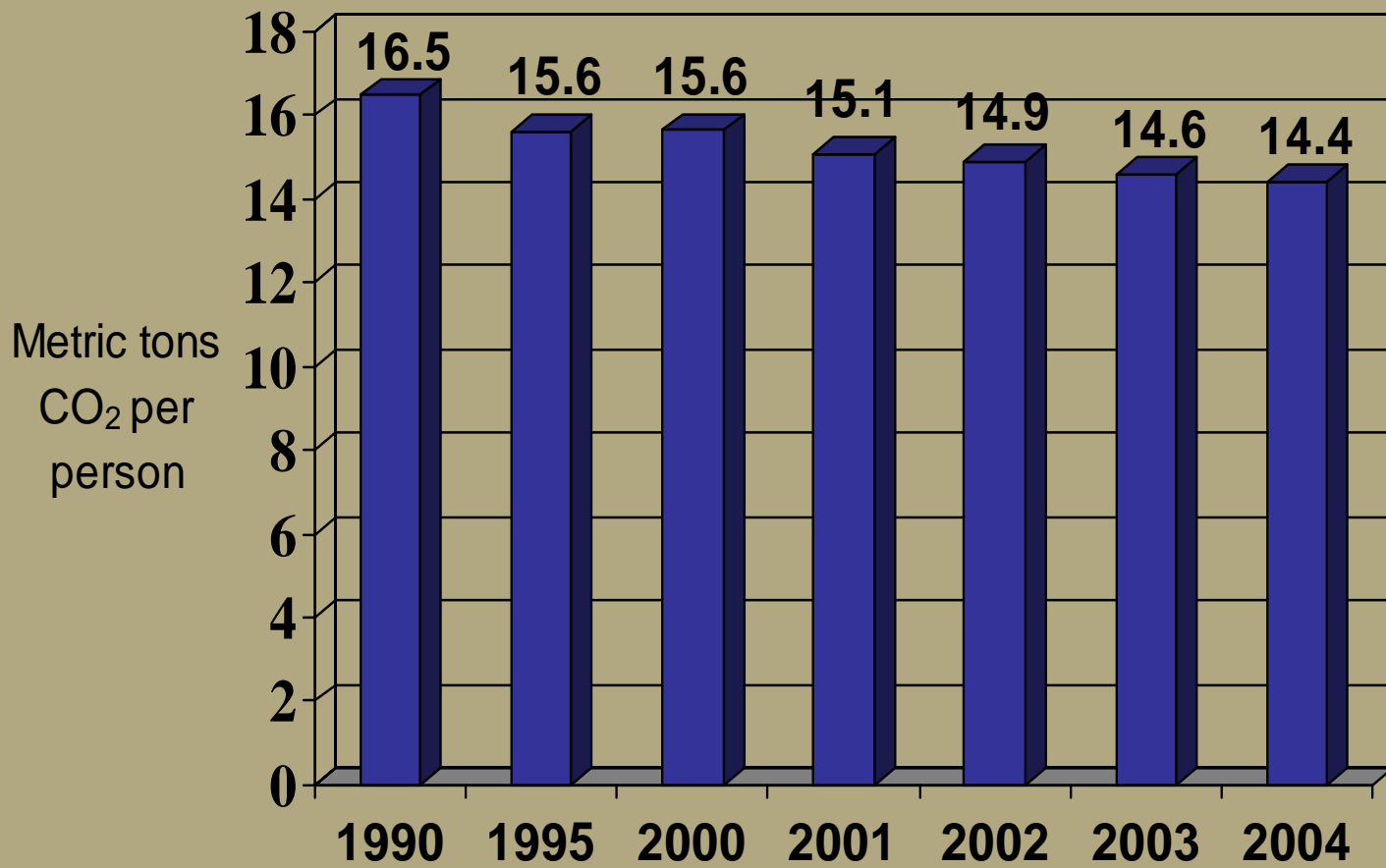
- Per capita gasoline use decreased 9%
- Household electricity use fell by 10%
- Recycling rates tripled
- 8% of electric utility customers now buy green power



Total CO₂ emissions in Multnomah County are now less than 1% above 1990 levels;
U.S. emissions are up 13% over the same period



Per capita CO₂ emissions in Portland have decreased 12.5% since 1990

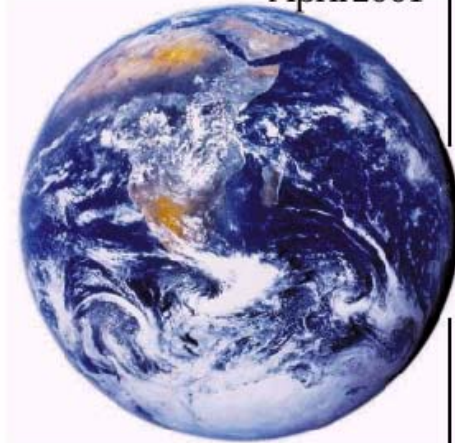


Office of Sustainable Development



Local Action Plan on GLOBAL WARMING

April 2001



City of Portland &
Multnomah County

Erik Sten, City Commissioner
Susan Anderson, Director

Office of Sustainable Development

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www.co.multnomah.or.us/dscd

2001:
Revised plan
assesses
progress in five
sectors & adds
emphasis on
education



I. Transportation Planning and Infrastructure

- Starts with thoughtful development decisions--mixed use, transit-oriented development
- Important (expensive) infrastructure
 - Light rail lines and streetcar
- But also inexpensive behavior change
 - Bicycling
 - Car sharing
 - TravelSmart



Mass Transit

Transit ridership has increased 65% since 1990.



Toolkit for Energy Efficiency

➤ Statewide

- 1985: Oregon Business Energy Tax Credit
- 1978-01: Utility Driven Energy Conservation
- 2001: 3% to public purposes + Energy Trust.

➤ Portland

- Energy Policies: 1979, 1990, 1993, 2000, 2001
- Dedicated effort, 1991: City Energy Challenge
- Also targeted Apartment housing, old SF housing, high performance new commercial (LEED)



City-owned Energy conservation

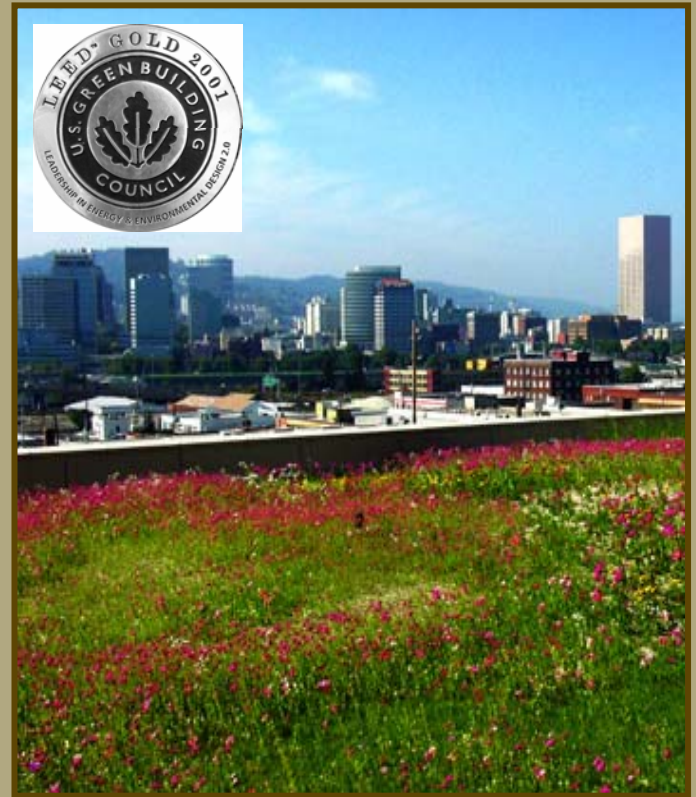
- City energy-conservation measures save \$2 million annually—22% of total energy costs
- New green building standards for City facilities – LEED Gold



Portland's Green Building Policy - City-owned new const.

LEED Gold Certification and Requires:

- 75% C&D waste recycling
- 30% beyond code for stormwater, energy and water
- Ecoroofs/Energy Star roofing



Portland's Green Building Policy

Publicly-funded, private new construction

New Construction

- Commercial & mixed use: LEED Silver
- Market/Affordable Housing >3 stories: LEED Silver**
- Market/Affordable Housing <3 stories: Earth Advantage**

Rehabilitation

- Commercial & mixed use: LEED Silver
- Market/Affordable Housing >3 stories: LEED Silver**
- Market/Affordable Housing <3 stories: Earth Advantage**



* all projects over 10,000-ft² and that receive financial assistance from PDC and other public agencies totaling over \$200,000 or 10% of the total project costs

** all affordable housing projects must also meet the threshold criteria in the Green Affordable Housing Guidelines

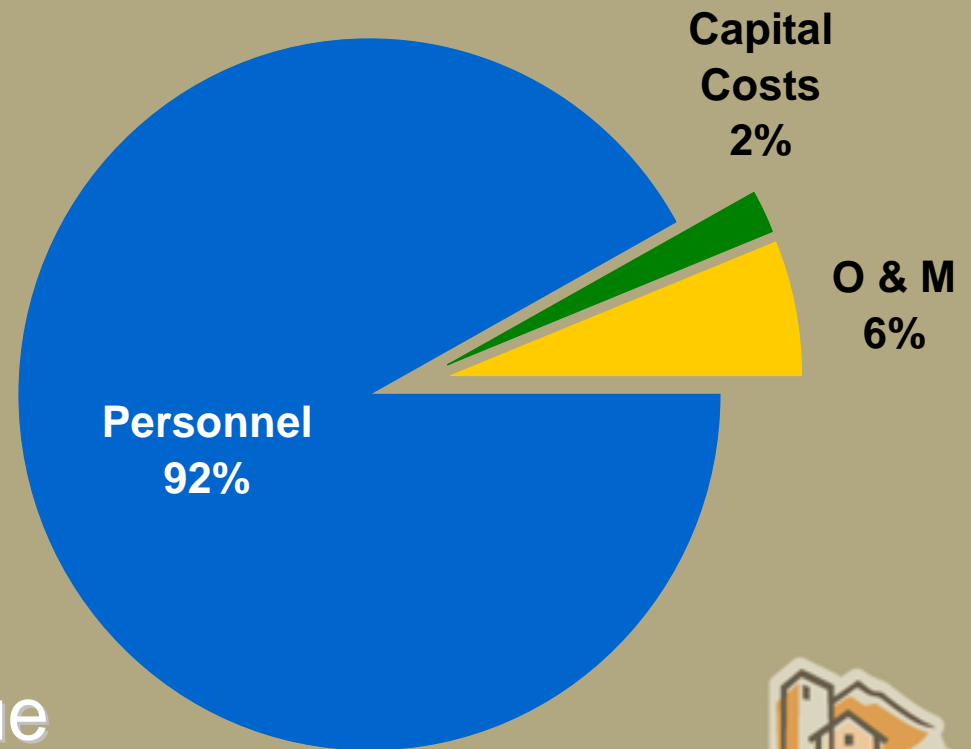
Why Green Building?

- Buildings account for 40% of Portland's CO₂ emissions
- Represents 40% of raw materials used globally
- 213 miles of streams/ivers in Portland metro area don't meet DEQ water quality standards
- Energy costs are increasing; No control over cost only amount used
- 30% of US buildings have poor indoor air quality
- In 1998, the Portland area generated 750,000 tons of C&D waste



Green building: A focus on people costs

- Improve employee productivity
- Reduce operating costs
- Optimize life-cycle economic performance
- Enhance asset value and profits



An aerial photograph of a park with winding paths and trees, serving as the background for the slide.

G/Rated

buildings suitable for all

City of Portland Office of Sustainable Development

Brewery Blocks

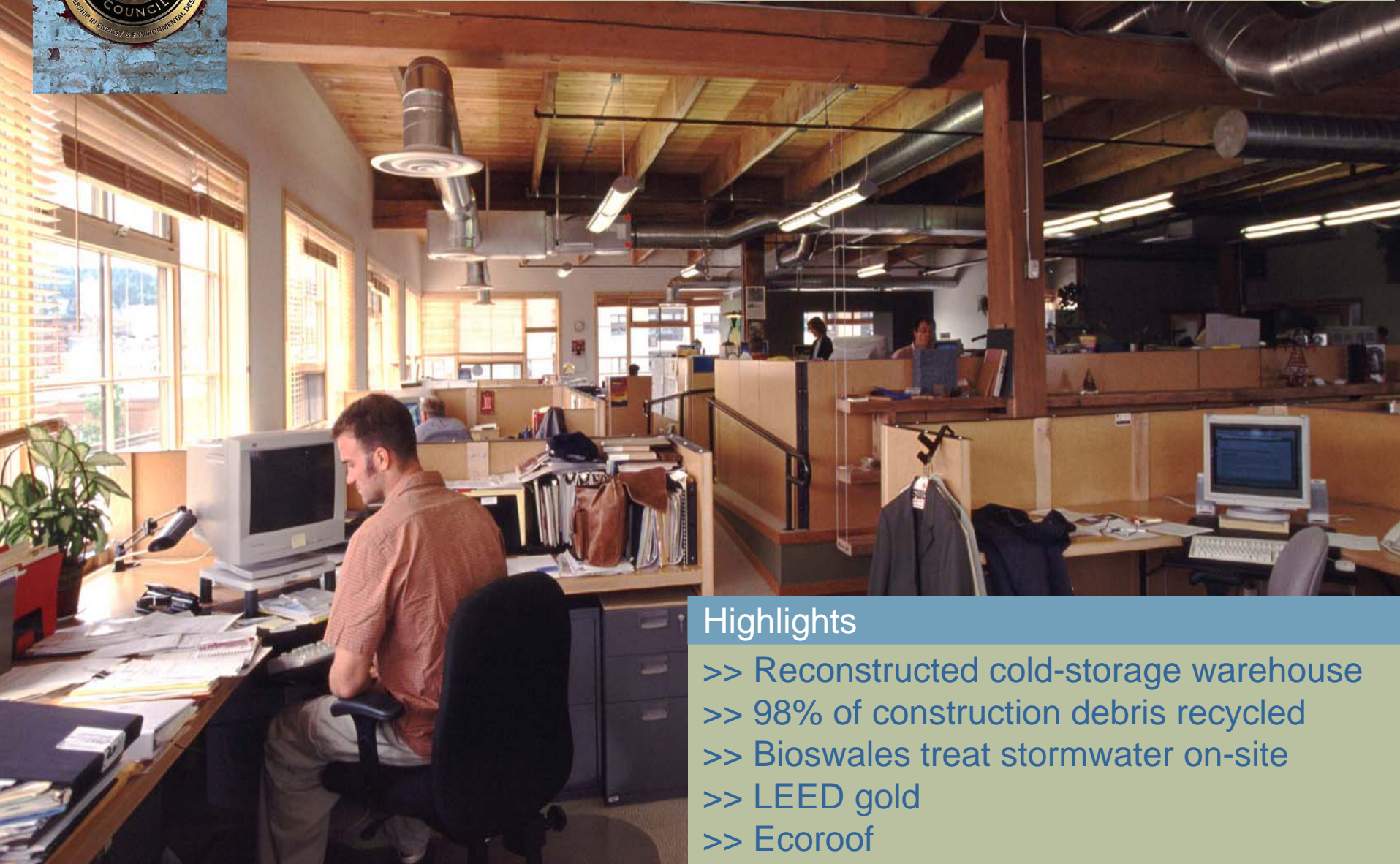


Highlights

- >> 1.7-million sq ft mixed-use redevelopment
- >> 5 LEED buildings
- >> Portland's largest ecoroof & PV system
- >> Energy-efficient HVAC, lighting, controls
- >> Low-toxic finish materials

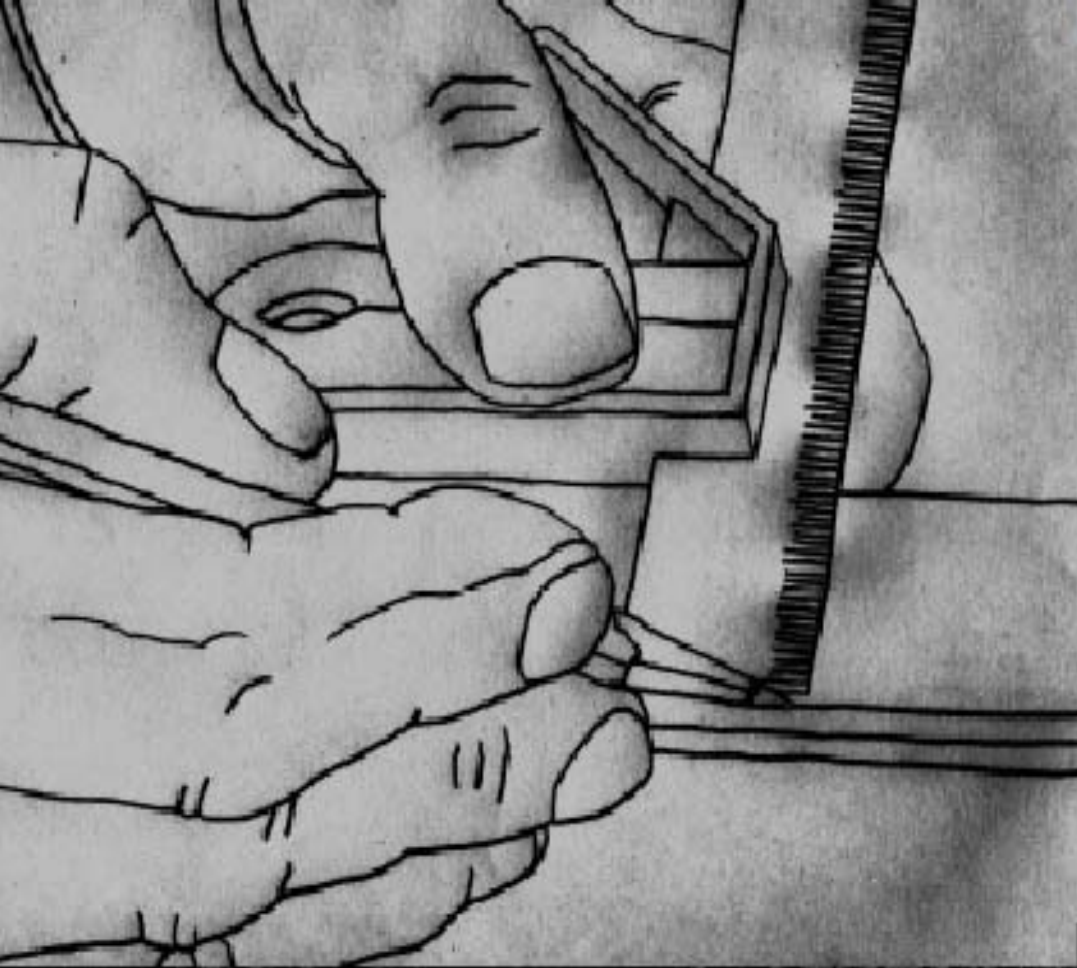


Jean Vollum Natural Capital Center Downtown Portland



Highlights

- >> Reconstructed cold-storage warehouse
- >> 98% of construction debris recycled
- >> Bioswales treat stormwater on-site
- >> LEED gold
- >> Ecoroof



THE CITY OF PORTLAND OFFICE OF SUSTAINABLE DEVELOPMENT & METRO PRESENT

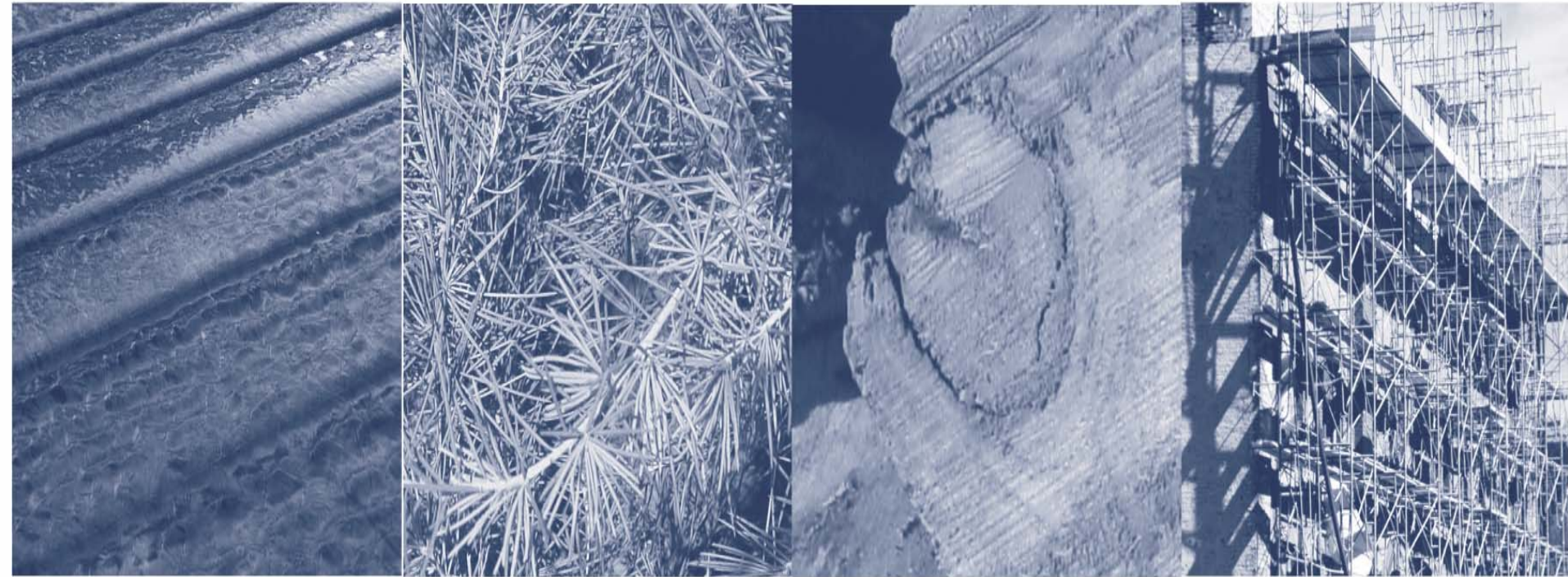
BUILD IT GREEN!

First Annual Green Building Home Tour & Information Fair

Saturday, September 21, 2002



ReThink



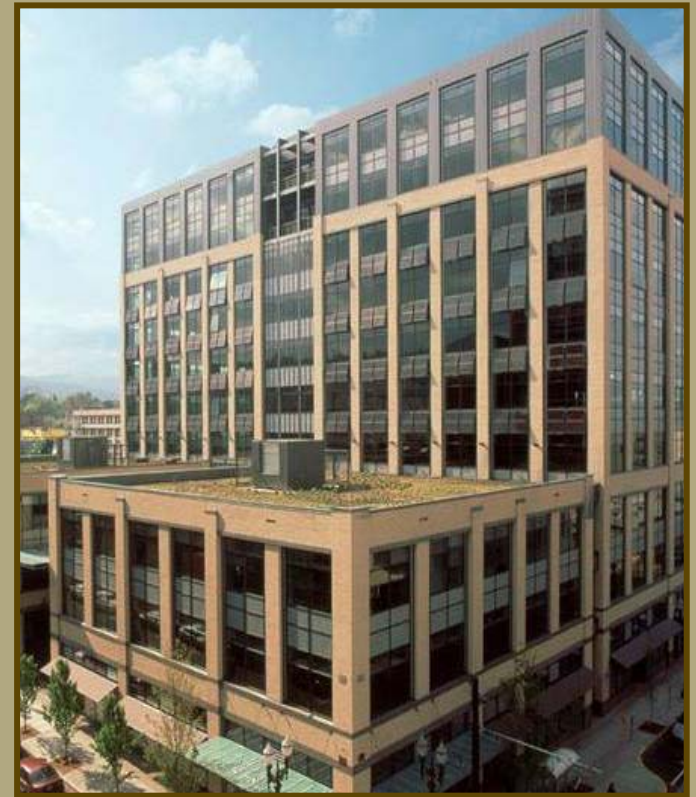
Innovation in Ecological Design and Construction

Green Building Trends

Portland Leads US in # of LEED Buildings

1	Portland	56	→ 64
2	Chicago	53	
3	Seattle	51	
4	Los Angeles	37	
5	Washington DC	36	
6	Grand Rapids	30	
7	San Francisco	30	
8	Pittsburgh	29	
9	Atlanta	28	
10	New York City	24	

7,689,739 ft² in Portland



* Certified & Registered

Source: USGBC 5/05



PacifiCorp

III. Renewable Energy

- In 2001, Broad Community Goals.
- Specific targets for city-owned facilities.



Photovoltaic



Pay stations for street parking are solar powered.



Solar panels on City maintenance vans provide mobile electricity for power tools.





Urban wind turbine - 2005



B-20 biodiesel in city fleet – 2004

Next: B-100 (100%)
biodiesel??



Portland Wind Farm

- Goal: Turnkey delivery of wind power to 100% of Portland's facilities.
- 54 Megawatts, \$120 million contract, 15 yrs.



IV. Recycling & Waste Reduction: Portland lead the US with a 55% recycling rate

Curbside recycling is easy! Inside you will find all the information you need to do it. Just start with a simple idea:

Two Bags. Two Bins.



If you don't have two yellow recycling bins call your garbage hauler.



At Home and Work





**So simple even your
boss can understand it.**
New! All paper, one-box office recycling.

Free boxes. Call Metro. 503-234-3000



Food composting

- Large-scale food composting project will began in spring 2004



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CITY OF PORTLAND Office of Sustainable Development

Energy Division Solid Waste & Recycling Green Building Sustainable Technologies & Practices

Welcome to Portland's Office of Sustainable Development. Our mission is to research, promote and integrate environmental, social and economic sustainability. Here you'll find information on how to make a real difference in your home and community.

Highlights

The Multifamily Assistance Program



MAP

The Energy Division's Multifamily Assistance Program (MAP) brings a free statewide one-stop shop service that helps save energy and money. If an owner or property manager is interested in improving energy

Summer Job Opening: Research Assistant - Green Building and Sustainable Technologies & Practices Divisions



Closes 5 PM, Wed., May 21.
For detailed job description and to print out the application, click on this PDF [Summer Intern](#).

Practical Solutions for Your Home. 5 FREE workshops on mold, stormwater management, composting, energy, and green remodeling sponsored by the



Sustainable Technologies & Practices

- STP Home
- Benchmarking Sustainability
- BEST Awards
- Food Policy Council
- Global Warming
- Sustainable Development Commission
- Sustainability Resources

- Systems Thinking for Sustainable Enterprise May 28
- From the Ground Up May 29
- Laboratories for the 21st Century May 29
- Greening Rooftops for Sustainable

http://www.sustainableportland.org/default.asp?sec=stp&pg=glo_home Internet





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