



Portland, Oregon: A Regional Approach to Addressing Climate Change

David Bragdon, President, Metro Council

October 5, 2009

The Portland Metropolitan Region



The Portland region's natural beauty and bounty have cultivated among residents a fierce devotion to the landscape and the lifestyle it affords them. We have lush forests, rich soils and abundant rainfall, which leads to a strong forestry and agricultural economy.

The landscape and natural resources of the region led settlers to develop a system of navigable waterways, railroads, roads, bridges and airports to facilitate international trade. The resulting economy and culture stimulated the emergence of a regional identity that led, in turns, to regional thinking, regional governance and regional growth management.

Metro, the nation's only popularly-elected regional government, is chartered by voters to protect the region's quality of life, which includes minimizing contributions to global warming.

Addressing Climate Change

- Urban Planning and Transportation
- Natural Areas Preservation
- Resource Conservation and Recycling
- Buildings and Energy Conservation
- Community Lifestyle

Several factors influence greenhouse gas emissions and we must work on all of these areas.

Metro has direct responsibility in the region for determining how and where we develop our land, how we commute, and what areas we preserve for natural space. We also influence how our residents and businesses use materials in their home and work space.

The Portland community supports a sustainable lifestyle and refers to Metro for the tools and resources to help. In turn, we look to our residents to inform the region's long term growth strategies.

Regional Urban Planning



Sprawling auto-oriented land use patterns have been the dominant growth pattern in the U.S. since the introduction of the auto in the early part of the 20th century.

Oregon and the Portland metropolitan region have made a dedicated effort to change that pattern by containing growth and preserving forest and farmland.

The region's urban growth boundary was created in 1979. This boundary limits how far the 25 cities and urbanized portions of three counties area can "sprawl."

There are over 2 million people in the greater Portland metro region, and the region is expected to grow by an additional 1 million people by 2020. Metro's growth strategy calls for a compact development form, using lands inside the boundary as efficiently as possible. Maintaining a tight growth boundary has generally succeeded in channeling market forces from a sprawling edge to the designated centers.

Community Design and Transportation



So, as population increases, our region will grow “up”, not “out”, which dramatically lowers the driving per capita.

Metro’s regional plan merges land use planning and transportation planning to concentrate mixed-use and higher-density development in centers.

For a sustained 30+ year period, Metro and its regional partners have aggressively developed a regional light rail and streetcar system, numerous smaller projects to support a more compact urban development pattern and an expanding system of bus, bike, pedestrian and trail projects.

The region’s trend toward greater “compactness”, complemented by investments in non-auto modes, is reducing vehicle miles traveled (VMT).

Compact Neighborhoods



Portland's Pearl Neighborhood

Transit oriented development is an integral feature of compact urban form and has been successful in many parts of the region.

When growth is focused in town and regional centers, rather than at the edge (suburban development), the result is a travel pattern that results in 5-10 times the transit ridership and 3 times the walking, with half the driving and half the auto ownership.

Emerging data also indicate that the region is experiencing some of the hoped-for benefits of its planning efforts.

Each new person moving into the Washington, D.C metropolitan area used 480 yards of space in 2000. Each person moving into the Portland metro area used 120 yards of space.

Compact growth has enabled Portland-area residents to drive less than residents of other American cities, saving more than \$1 Billion each year in transportation costs. A substantial portion of those saved dollars are spent in the local economy where they have economic multiplier effects, rather than flowing to largely non-local energy companies.

Natural Areas Preservation



When Metro and the cities and counties of the region committed to more efficient use of land in centers and corridors, they recognized that more intensive development must be matched with better access to parks and natural areas. The region developed complementary greenspaces strategies using land acquisition, regulation, and a broad program of public engagement and incentives.

In 1995 and 2006, voters passed measures sponsored by Metro and a coalition of local governments, businesses and conservation organizations to authorize a combined total of \$364 million in general obligation bonds to purchase land for parks and greenspaces. A portion - \$69 million – is allocated to cities, counties and park districts to protect water quality and habitat and park and natural areas improvements. Metro has acquired over 9,000 acres across the region and expects to add another 2,500 to 3,500 acres to the region's parks, trails, greenspaces and natural areas.

Strategies to prepare for climate change is absolutely essential for preventing a meltdown of our current natural, human, built, economic and cultural systems. One of our local universities is currently studying the projections for regional changes in temperature, precipitation, fire, vegetation, stream flow, and snowpack for the years 2040 and 2080 to identify risks and vulnerabilities to the systems we work in. The projected changes will inform how we protect and enhance our precious natural areas.

Resource Conservation and Recycling



Where we live and how we get there has a significant impact on greenhouse gas emissions, but the materials we consume and dispose of also have an impact. Waste prevention and recycling reduces methane emissions, saves energy, and increases forest carbon sequestration.

The Portland metro region is a national leader in the recycling movement, recovering 57% of our waste in 2008. But that isn't enough.

We continuously strive to recover more from our waste stream. Last year, we adopted legislation requiring businesses in the region to recycle their paper, bottles, and cans. We offer educational assistance and tools to help the businesses comply with the requirement.

We also now require that all loads of construction and demolition debris are sorted for recovery before being disposed of.

In addition, the state of Oregon recently passed a requirement that electronics and battery manufacturers take responsibility for the materials they produce at the end of their life cycle.

Our next major challenges are to identify a large scale composting facility to manage the region's food waste and to reduce the amount of material consumed in the region.

Buildings and Energy Conservation



In an average week, the Portland metropolitan area gains an average of 500 new residents, requiring us to find innovative ways to balance development and growth with conservation and livability.

Portland is a leader in designing and building green buildings. We aim to accelerate the adoption of cost effective green building practices as the standard of development in Portland. For residents of the Portland Metro Area, we have a centralized resource, the Green Building Program, for people interested in incorporating green building practices in residential and commercial development.

We support nature friendly development practices that look beyond just the building, and focus on land development and site design that mimic nature's processes, like ecoroofs, native plants, and rain gardens.

Our local design firms are also taking their expertise overseas. We are currently working in China to design the Zhangjiang Semiconductor Park in Shanghai that will be the largest LEED Platinum building on the planet (*photo*).

Portland recently launched a pilot program that will enable homeowners to access low-interest, long-term financing for easy and affordable investments in energy efficiency improvements to their homes. Homeowners will be able to pay back the cost of the investments on their heating bill.

Community Lifestyle



Encouraging individuals to make decisions that reduce their impact on greenhouse gas emissions is a priority.

Metro offers a recycling hotline, which answers over 100,000 phone calls per year to help our residents dispose of and recycle materials properly.

Our Drive Less, Save More program helps residents identify ways to reduce their car trips and assists businesses in setting up carpooling and biking programs for their employees.

Metro educates the children of our region on waste reduction practices in outdoor classrooms, and families participate in tree planting at our natural areas. We need to engage young people now, as they will be our future decision makers.

Challenges for the Future



The region is becoming more compact. But it faces the same challenge nearly all U.S. cities face: reversing 60 years of auto-oriented development by refitting suburban land use patterns.

Recent legislation passed by the Oregon Legislature directs Metro to use its sophisticated modeling capabilities to develop a growth management scenario that would meet state emissions reduction goals (20% reduction from 1990 levels by 2020 and 75% reduction by 2050). **This will require us to do much better than we have in the past.**

We are beginning to explore Eco Districts, with green buildings, transportation and infrastructure, such as centralized energy production and water treatment. Pooling several blocks or an entire neighborhood into one eco district is more complex than constructing a single green building, but it also offers more flexibility and can be cheaper in the long run because of the economies of scale.

We have many lessons to learn from places like Japan, Sweden and Germany.

Learning from Other Countries



Opportunities such as the International Seminar on Eco-Model Cities foster the spread of vital new technologies and policies that are needed if we are going to live sustainably and reduce carbon outputs. The Portland delegation is thankful for the opportunity to learn firsthand about the innovations taking place in Japan and to hear from the other visiting cities and countries.

THANK YOU
www.oregonmetro.gov



Doumo arigato gozaimasu