



Oregon
Environmental
Council
It's Your Oregon

*One Oregon One Environment Spring 2009

One*

It's Time to Rethink Transportation

Imagine a transportation system that is truly sustainable

By Chris Hagerbaumer

How much do you spend on transportation? Do you wish your kids could ride their bicycles to school, but you worry about their safety? Do you have an elderly uncle who can no longer drive, but doesn't have easy access to transit? Do you have a friend who has lost her job and can no longer afford her car payments? Are you worried about a transportation system that's fueled by oil — a highly polluting, limited resource?

Let's face it: our current transportation system costs us a lot in terms of time, money, social impact, and environmental ramifications. It's time to rethink it! This issue of One* brings you several different perspectives on how to provide transportation in the 21st century.

The Oregon Environmental Council envisions a transportation system that is truly sustainable from an economic, environmental and social standpoint.



Our focus is transportation's environmental impact. Cars and trucks are still a leading source of air pollution and global warming pollution in the state. Even our rivers aren't safe from our love affair with the automobile [see page 7]. The solutions we're promoting — making sure people have suitable choices and helping Oregon communities grow smart — will also put Oregonians to work, lower transportation costs, and build stronger, healthier communities.

Transportation is about getting where we need to go — whether it be our job, the grocery store, or our place of worship. If most of the places we need to go are located near us, a large part of the problem has been solved. Therefore, one key to solving our transportation problems is to help people live closer to the places they need to go — to make it less necessary to travel far to meet life's basic needs. We shouldn't be required to spend hours behind the wheel because of poor community and transportation design.

Think about it. No one should be forced to drive a two-ton vehicle to a neighborhood park or convenience store because sidewalks and bicycle lanes do not exist. We should be able to choose the best transportation solution for each trip. When given the choice, more and

more Oregonians are walking, bicycling, carpooling, telecommuting and choosing transit. In fact, transit ridership increased dramatically across Oregon during 2008. Portland's TriMet set new records with ridership increasing over 13% from 2007, while Oregon's rural communities experienced a 17-20% increase in transit ridership.

Last year, OEC served on the Governor's Transportation Vision Committee and is now working with our partners to make sure that transportation legislation passed in Oregon in 2009 makes critical investments in a host of new transportation options. We want to ensure that Oregon can create sensible transportation options for both urban and rural communities while reducing transportation-related global warming pollution and accommodating future growth.

Because transportation alternatives are locked out of Oregon's Highway Trust Fund (the state's major source of transportation funding), we are seeking to increase transportation choices by allowing transit districts to increase the payroll tax by one-tenth of one percent, dedicating a percentage of lottery funds to transportation alternatives, and shifting all federal funds that can be flexed

continued on page 3

In this issue:

Transportation: Exploring the connection between alternative transportation choices and the health of our economy, environment and social makeup.

2

Transportation Equity. Transportation is about much more than roads and cars.

4

Food miles. Does the distance your food travels from farm to plate really matter?

5

Transportation and health. Community design and transportation influence your well-being.

7

DePaving Paradise. How to minimize the impact of 80,000 miles of pavement.



People now spend more on transportation than any other household expense except housing.”³

Getting to Transportation Equity

Our transportation system is about much more than simply getting from point a to point b as fast as possible

by Mara Gross and Amanda Hess, Coalition for a Livable Future

Photo via flickr user bella v

A block wide area was purchased and a ditch dug to place the I-5 North Freeway disrupting communities on both sides in the 1950's.

Our transportation system is the network we use to access the places we want to go and to provide us with the goods and materials we need. Transportation also creates jobs, influences where housing and businesses develop, influences the social connections in neighborhoods, and affects our safety and the quality of our health, air and water. As a result, it takes more than knowing how fast we can get to our destination to determine whether the system is working well for everyone.

Transportation equity issues have existed for decades. When the interstate highway system was built in the 1950s and 1960s, it displaced inner-city communities throughout the country. Interstate

5 in North Portland, for example, was built directly through African American and low-income neighborhoods, destroying homes and businesses, splitting neighborhoods and harming the social fabric of the community.

Today, residents in neighborhoods near freeways experience high noise levels¹ and poor air quality, and people's health continues to suffer. Excessive noise leads to hearing impairment, hypertension and sleep disturbance; and diesel emissions contribute to cancer

1 North Portland Environmental Noise Data Collection and Abatement Recommendation Project, 2008, www.portlandonline.com/shared/cfm/image.cfm?id=197376.

and a host of respiratory problems. Asthma rates in the I-5 corridor are almost double the national average.²

What does equity in transportation mean? It means low-income neighborhoods and communities of color have sidewalks with lighting for safety, and transit service and bike trails that are at least as good as those in wealthy neighborhoods. Women and people of color have opportunities for transportation construction jobs. Seniors, people with disabilities and rural residents have accessible transportation options. No groups suffer from negative health impacts from trans-

2 Regional Equity Atlas, at 77, www.equityatlas.org.

portation, and our air and water are protected from vehicle pollution.

Transportation equity is possible. To be achieved, we must ensure that (1) citizens in under-served communities participate in planning and decision-making; (2) their needs are incorporated into transportation plans; and (3) they receive a fair share of funding.

How we invest in transportation is of critical concern. The vast majority of transportation dollars has been spent on roads, creating auto-dependent communities and leading to inadequate transit or other options. People now spend more on transportation than any other household expense except housing,³ and auto ownership has become a financial burden for many people across Oregon.

Individual projects should serve the needs of the local community, improving neighborhoods, health, and environmental quality. Increasing the availability of high quality, affordable, and accessible transportation choices in underserved communities will increase equity and expand personal and economic opportunities. Equity can also be improved through programs to increase contracting with local and minority-owned firms, job training programs, and community enhancement funds to improve the communities around pollution-emitting transportation.

Oregon has an imperative and an opportunity to ensure that everyone, in all corners of the state, including people of all races, income levels, ages and abilities, has equal access to the places they need and want to go, and no groups suffer disproportionately from the negative impacts of our transportation system.

The Coalition for a Livable Future (CLF) unites over 90 diverse organizations and hundreds of individuals to promote healthy and sustainable communities in the Portland region. The Oregon Environmental Council is proud to be a member of CLF.

³ Bureau of Labor Statistics. Consumer Expenditure Survey, www.bls.gov/cex.

It's Time to Reinvent Transportation

continued from page 1

to non-highway transportation projects. In addition, we are supporting legislation that would require all six major metropolitan areas in the state (Portland, Salem, Corvallis, Eugene, Medford, and Bend) to set targets for helping to meet the state's global warming goals and provide these fast-growing areas with new planning tools and financial resources for transportation and land use investments that will lead to less global warming pollution.

Ultimately, our goal is to move the state toward a more cost-effective and sustainable 21st century transportation system that supports both the economy and the environment.

How Investing in Transportation Alternatives Can Boost Our Economy

An investment in mass transit results in 30% more jobs than an equivalent investment in roads and bridges. [How Infrastructure Investments Support the U.S. Economy: Employment, Productivity and Growth, Political Economy Research Institute, 2009]

Portland-area residents travel about 20% fewer miles every day than residents of other large metropolitan areas in the U.S. and accrue out-of-pocket savings of \$1.1 billion dollars per year. 75% of these transportation cost reduction savings end up being invested in the local community. [Portland's Green Dividend, Joe Cortright, 2007]



Your voice is critical to ensuring that the Oregon Legislature passes a transportation package that creates jobs, lowers transportation costs and builds stronger, healthier communities. Contact your state senator and state representative **today** to indicate your support for a sustainable 21st century transportation system. **To make your voice heard today, visit www.oeonline.org/our-work/smart-policy.**

Do Food Miles Matter?

By Allison Hensey

Does the distance your food travels from farm to plate really matter? Definitely. But perhaps not for the reason you might think. Many of us are trying to buy more locally grown food so that we reduce the carbon emissions created when our bananas come from Ecuador or our lamb comes from New Zealand. These are called “food miles.” And, yes, reducing your food miles does help reduce your carbon *foodprint* (the contribution of your food choices to global warming). But how your food is produced and how closely it resembles its original form is far more important to slowing global warming than the distance it travels.

Food production uses far more fossil fuels than food transport. And fossil fuel use, which releases carbon dioxide, is one of the major contributors to global warming. For the average U.S. household, 11% of food-related greenhouse gas emissions are due to food transportation, compared to 83% due to agricultural practices.¹

So, why do food miles matter?

When you eat local food:

1. It tastes better! Fresh, local ingredients are harvested at the peak of ripeness, when they are at their most delicious. Produce from halfway across the world is picked unripe and can arrive at your plate weeks after harvest, devoid of taste.
2. You keep your dollars circulating in the local economy.
3. You support local farmers.
4. Local, fresh produce is more nutritious. Fruits and vegetables lose nutrients every day after they're harvested.
5. You know the people who grow and make your food.

¹ Weber, C. L. & Scott, H. (2008). Food-Miles and the Relative Climate Impacts of Food Choices in the United States. *Environmental Science Technology*, 42(10), 3508-3513.



Liz Menke

6. You're in tune with the seasons. You know that in April it's time to eat asparagus; in May Hood strawberries, and in August delicious tomatoes.

Join the movement! Find out how you can help create a better food system.

Sign up for our *Vote with Your Fork!* e-newsletter to learn more about the effects your food choices have on your health, the environment and our local economy. In each issue we include simple actions you can take to help create a better food system for all of us.

Take the *Vote with Your Fork!* Pledge. Commit to one action in the next month to help create a better food system.

We are also offering lunchtime *Vote with Your Fork!* presentations to local workplaces with more than 100 employees.

And remember, eaters are a powerful voting block. Each time you eat, the kind of food you choose helps shape our food system. Be a conscious eater, and vote with your fork!

All this and more is available at www.oeconline.org/fork

What will reduce my carbon foodprint?

Eat less red meat and dairy, and when you do eat meat, buy organic, grass-fed, or sustainably grown. Eating conventionally grown red meat and dairy one less day a week helps slow global warming the same amount as switching to an all-local diet. Conventional meat production is highly dependent on fossil fuels. Organic, sustainable, or grass-fed meat use significantly less animal feed grown with fossil-fuel based fertilizers and pesticides.¹

Buy (or grow) organic or sustainably grown food produced using the least possible amount of synthetic fertilizers and pesticides. Using fewer fossil fuel-based pesticides and fertilizers reduces energy use and greenhouse gas emissions.

Eat real food — reduce the amount of highly processed food you eat. If you can't pronounce the ingredients, or your great-grandmother wouldn't recognize it as food, think twice! Highly processed food requires significant energy and packaging. Reducing energy use and packaging waste by eating food closer to its original form reduces your greenhouse gas emissions.

Everyday Ways that Transportation Affects Health

By Chris Hagerbaumer

Your health is probably not the first thing that comes to mind when you consider where to buy a house or how to get from one place to another, but community design and transportation can influence your well-being in several ways.

People who live in places where all trips must be made in the car (typically sprawling, suburban neighborhoods) tend to get less physical activity on average than people who live where it's easy to walk or bicycle (typically compact neighborhoods where commercial and residential properties are mixed). An analysis of 400 counties across the nation found that people who live in counties marked by sprawling development tend to walk less and weigh more than their counterparts who live in counties with less sprawl.¹ Obesity, which leads to a host of chronic diseases, is on the rise in Oregon — about 60% of adults are overweight or obese and 24% of 8th and 11th graders. Better neighborhood design will help turn the tide on this major health threat.

Air pollution is associated with asthma and other respiratory illnesses, heart disease and cancer; and a number of studies are finding that the closer one lives to a busy freeway, the more prevalent these diseases are. For example, one study found that children exposed to higher levels of traffic-related pollution before the age of three were more than two times as likely to develop asthma than similar children exposed to lower levels of traffic pollution.² Another study found that communities located near heavily traveled highways have a disproportion-

1 Ewing R, Schmid T, Killingsworth R, Zlot A, Raudenbush S. Relationship Between Urban Sprawl and Physical Activity, Obesity, and Morbidity. *American Journal of Health Promotion* 2003

2 Zmirou D, Gauvin S, Pin I, Momas I, Sahraoui F, Just J, et al. Traffic related air pollution and incidence of childhood asthma: results of the Vesta case-control study. *Journal of Epidemiological Community Health* 2004



photo via flickr user markstos

ately higher rate of lung cancer.³ Cleaner cars, trucks and fuels will help reduce air pollution and its serious health impacts.

Fewer Oregonians are dying in traffic crashes, in large part because more are buckling up and fewer are driving while intoxicated, but motor vehicle crashes still have the unenviable designation of being the main cause of injury-related deaths in Oregon. Traditional “safety improvements,” such as larger and straighter roads, inadvertently lead to higher speeds. A move to narrower streets and techniques to calm traffic (like landscaped medians, raised crosswalks, bike lanes, street trees, and speed bumps) have been found to curb speeding, reduce crash rates and improve traffic flow.

To sum it up, a poorly designed transportation system and polluting vehicles are bad for our health. In fact, transportation contributes to all five of the leading causes of death in Oregon — cancer, heart disease, cerebrovascular diseases (e.g., stroke), chronic lower respiratory diseases, and accidental injuries. We have an important opportunity to improve our health and increase our lifespan as we redesign our communities and improve our vehicles and fuels for the 21st century.

3 Kim JJ, Huen K, Adams S, et al. Residential Traffic and Children's Respiratory Health. *Environmental Health Perspectives* 2008

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Investing in Our Future

By Carrie Jones

OEC's *It's Not Cool to Idle at School* toolkit engages young people in improving the air quality in and around their school through the use of education, action and human energy. Students across Oregon are learning about the causes and effects of air pollution, as well as the myths of vehicle idling (no, you are not saving energy or gas when you let your car idle for more than 10 seconds – and no, frequently re-starting your car won't ruin your engine).

Students involved in the Root and Shoots Program at the Beaverton International School started monitoring vehicle idling in December 2008. They wrote a pledge form to send to parents, along with fact sheets from the *It's Not*

Cool to Idle at School toolkit. The students created a competition between classrooms to see which group could bring in the largest number of pledge forms from parents. Lori Stole, Roots and Shoots Program Coordinator and a parent at the school, said "The students have learned a lot and are making a real difference at their school."

Kathleen Hill, Utilities Conservation Specialist with the Salem-Keizer School District, has presented plays to nearly 15,000 elementary school students about environmental problems and solutions. This year's "Dirty Jobs" theme articulates the pollution associated with vehicle use and idling. Principals at each school receive an OEC

It's Not Cool to Idle at School toolkit, with the hope that teachers will expand upon what the students learn during the assembly by bringing this hands-on curriculum into the classroom.

Our children are one of the greatest forces of change, and it is the action and engagement of so many young people that are laying the groundwork for a healthy, equitable and bright future.

If you are interested in incorporating the *It's Not Cool to Idle at School* toolkit into your child's education, please contact volunteer@oeconline.org or visit our website at www.oeconline.org/our-work/kidshealth/schools.

Idling Myths

1

Stopping and then restarting your engine uses more fuel.

False!

According to the U.S. EPA, idling for more than 10 seconds uses more fuel than restarting your engine.

2

Idling helps to warm up my car, especially in colder weather.

False!

Idling a vehicle is not an effective way to warm it up. The best way to warm up a car is to drive it.

3

Frequent restarting is hard on my car engine and battery.

False!

Idling has little impact on engine components like the battery and starter motor.

4

Idling won't hurt the vehicle – if anything it helps it run better.

False!

Excessive idling is hard on engines and can damage cylinders, spark plugs, and exhaust systems.

Did you know?

A single car dropping off and picking up kids at school can put **3 pounds of pollution** into the air each month. Choosing to not idle can significantly reduce air pollution in our environment.





DePaving Paradise

By Teresa Huntsinger

When you think about our transportation system's environmental impacts, global warming and air emissions immediately spring to mind. Consider the other ways transportation impacts our environment. About 80,000 miles of highways, county roads and city streets criss-cross Oregon's landscape.¹ That's about seven miles of roads for every ten miles of streams and rivers in the state.²

All those miles of pavement have huge impacts on water quality, wildlife habitat, and the overall health of our rivers and streams. When roads cross streams, poorly designed culverts often create barriers to fish passage. The roads themselves often cut through habitat areas and cause deadly collisions with wildlife. Roads have another less visible impact on local streams. Paved roads are impervious, meaning water can't soak through them into the ground so it pools up and runs off. This makes roads a major source of stormwater runoff and the associated pollution, flooding and streambank erosion. Impervious surfaces create large volumes of runoff that would have soaked into the ground or been captured by vegetation before the landscape was paved over. Numerous studies correlate impervious surfaces with poor stream health.

In 2001, Clean Water Services (the stormwater and wastewater utility for Washington County) calculated that in a typical urbanizing watershed, 54.5% of the impervious cover is for "car habitat" (roads, parking lots and driveways) and 44.6% of the impervious cover is for "human habitat" (buildings and sidewalks).³

1 2007 Oregon Mileage Report.

2 Oregon has 111,619 stream miles according to the Oregon Water Resources Department.

3 Clean Water Services "Healthy Streams Plan." June 2005.

So, even if we can make cars run more efficiently and pollute less, we still can't afford to build more and more roads to accommodate more and more cars – unless you want to look out the window and see nothing but pavement. One thing we can do is build our roads differently, and retrofit existing roads to reduce their environmental impact.

There is a revolution in road design called "green streets." Green streets have street trees to soak up the rain and provide cooling shade, plus vegetated swales or "rain gardens" that harness the power of plants and soil to capture runoff the way nature intended. There are even alternative types of asphalt and concrete that are pervious – they let the water flow right through them into an underbed of gravel.

Streetside stormwater swales can be designed to look formal or informal and fit many different situations. They all work in the same basic way: curbs are cut, removed or never installed in the first place to allow water to enter a small basin filled with plants. A second curb cut on the lower end of the basin allows water to overflow during large storms and enter the conventional storm drains. The plants and soil soak up and clean the water, and allow some of it to infiltrate and recharge the groundwater. Because most of our rain comes in small showers, if these swales capture the first one inch of rain in each storm, they will capture 90% of the annual rainfall. They will also capture the "first flush" of rain, which picks up oils and sediments off the streets and is the most highly polluted stormwater.

Because streets make up such a sizable portion of the impervious area in cities, green streets have the potential

to significantly reduce the disastrous impact stormwater runoff has on local streams. You can see examples of green streets all over Portland, and they are cropping up around the state as well. The design and installation of green streets presents a growing market opportunity for the nursery and landscaping industries to be a part of making our cities more sustainable. In fact, the federal economic stimulus package recently passed by Congress requires that 20% of the funding for water projects be used for innovative "green infrastructure" and water conservation projects.

OEC is spreading the word about green streets and other more sustainable stormwater management practices with a series of "Stormwater Solutions" workshops in Lane County and the Rogue Valley this spring. For more information, visit www.oconline.org/stormwater.

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Pringle Creek Community in Salem has one of the largest installations of pervious asphalt in the country. The green streets are narrower than conventional streets, using less materials to build and calming traffic. They have no curbs, which reduces construction costs and allows vegetated swales to capture, absorb and clean stormwater runoff.



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By joining the "Evergreen Society," you commit to a monthly investment in clean air, clean water and the future sustainability of our state. This support helps ensure that we have a steady stream of revenue to address critical opportunities as they arise. If you commit to just \$9 per month, we will send you a Klean Kanteen as an expression of our gratitude!



Fill out the enclosed envelope, visit us online at www.oeonline.org or call Wendy at 503.222.1963 x 106 to give.

2009 Legislative Session

As the 2009 Legislative Session rolls on down in Salem, your voice is a crucial part of creating beneficial outcomes for Oregon. Let your state legislators know today that passing laws protecting what we all love about Oregon should be a priority for them! To make your voice heard, visit:

www.oeonline.org/our-work/smart-policy

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Contact Information

Oregon Environmental Council
222 NW Davis Street, Suite 309
Portland, OR 97209-3900
503.222.1963
info@oeonline.org
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