



The Apple

Sustainable
Schools
News

Healthy Schools – Healthy Environments

June 2007

SOSI Topic Team Meetings

- The Managing Sustainability, Purchasing and Material Goods topic teams all began meeting in June. The last two chose to work together as the Purchased Goods and Services Team. Future meeting dates for these groups will be posted on the SOSI website.
- To be scheduled for July; Indoor environment/Toxics Topic Team.

To participate on these or other topic teams, contact Lori Stole, lstole@zerowaste.org or 503-307-4067. All stakeholders are welcome! For more on topic teams: http://www.zerowaste.org/schools/topic_teams.htm.

Case Study: Integrating Sustainability into a School

The Center for Ecoliteracy (CEL) in Berkeley, CA offers many resources to foster school sustainability. A new report examines efforts at the Marin Academy to make sustainability part of their entire being. Read about their "change of consciousness around sustainability".

http://www.ecoliteracy.org/publications/marin_academy_1.html. This and more can be found in the CEL online newsletter; subscribe to it and explore their resources at <http://www.ecoliteracy.org/>.

Mold Conference Call, July 17, 12-1 PM

--Mold Basics and What Schools can do to Prevent Mold--
This free conference call is organized by the Oregon School Indoor Air Quality Partnership. For details see the flyer: http://www.zerowaste.org/schools/events_files/MOLD_Technical_Conference_Call_Flyer.pdf

- More on mold; New research about moisture and mold related to asthma is summarized in this Berkeley Lab press release: <http://www.lbl.gov/Science-Articles/Archive/EETD-mold-risk.html>

Looking back: Reading, Writing and Carbon Reductions

On April 25 SOSI presented an event to teach about global warming, and present some directions for school action.

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We'd like to heartily thank the sponsors that made it happen! These include
Event Sponsors: Energy Trust of Oregon, Northwest Natural and the City of Portland's Office of Sustainable Development.
Venue Sponsor: Portland Center Stage in the Gerding Theater at the Armory
Food Sponsor: Artemis Foods
Event flyer creation: Alayna Vincent

The morning began with a group of 3rd graders from Forest Ridge Elementary School, Salem-Keizer School District, with teacher Laurie Aguirre. They shared their presentation about global warming and their Kids Carbon Credits program. Aguirre's approach to incorporating sustainability issues into the classroom is included with others in the event handout, "Teachers' Stories".

Jill Sughrue, Sustain Northwest, presented the Inconvenient Truth slide show. This show is full of facts and figures. If you would like to organize a group for a presentation, Sughrue and a number of others throughout Oregon are available to do so. Most presenters can tailor the presentation to the age of the group. To locate a presenter contact the Oregon Environmental Council, Suzanne Vaudry-Casaus, 503-222-1963 ext. 108; [suzannevc at oeconline.org](mailto:suzannevc@oeconline.org).

The Apple is the monthly newsletter from the Sustainable Oregon Schools Initiative (SOSI). This and past newsletters are available in PDF form at <http://www.zerowaste.org/schools/newsletters.htm>.

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David Van't Hof, Governor's Policy Advisor, shared some of the current state initiatives, and his Climate Challenge Super Seven List (below).

Dave Cone, Gresham-Barlow School District, shared the resource management program his school district has implemented which provided the results, for which they received a national Energy Star award. Monitoring utility bills has provided notable cost savings, as other districts have found too. Other factors include data tracking, incentives and student involvement. It's critical to commission buildings to ensure that they are operating as designed. There are a lot of details in his slides, and Mr. Cone is happy to answer questions, 503-667-6497.

Kevin Downing, DEQ, provided great information about school buses. Some concerns cited include energy use/fuel economy and emissions/air quality. His presentation included lots of information. In summary, some steps to make school buses more sustainable now include: use ultra low sulfur fuel and biodiesel, minimize idling times, maintain vehicles properly, use newer buses more often and for longer routes and install exhaust filters. Mr. Downing can answer questions and suggest funding options; 503-229-6549.

Scott Bricker, Bicycle Transportation Alliance (BTA), began with "Burn donuts, not fuel!". In 1970 70% of the kids biked or walked to school, but today it's down to only 10%. 50% are driven by their parents. Bicycle and foot commuting are things that everybody can do now to reduce global warming, yet they're typically left out of the discussion. The Safe Routes to School Program, a variety of pilot programs and walking/biking school bus examples offer approaches that don't use any fossil fuels, while also increasing student health. For more on the BTA see http://www.bta4bikes.org/at_work/programs.php

The PowerPoint slides and audio from the presentations are on our website at:

<http://www.zerowaste.org/schools/events-past.htm>.

We are looking into a partnership opportunity through which we can present these and other speakers for longer presentations, perhaps in a brown bag forum, hopefully starting in the fall.

Schools Climate Challenge: Super Seven List

This is the Challenge that David Van't Hof issued at the SOSI Global Warming event. It's posted on the event archive page:

Carbon Assessment. Develop a carbon footprint for your school and commit to strategies to achieve the Governor's announced greenhouse gas reduction goals (arrest

increases by 2010; reduce to 10% below 1990 levels by 2020; reduce to 75% below 1990 levels by 2050)

Green Building. Commit to achieving a minimum LEED Silver rating (or equivalent) for all new buildings or major renovations.

Cleaner Fuels. Develop a transportation and fuels plan that includes strategies: to reduce engine idling on school grounds; utilize a minimum B-20 blend in school busses; retrofit old school engines with clean technologies that greatly reduce emissions; transition to hybrid or E-85 fuel vehicles for non bus fleet; establish carpool incentives; eliminate two stroke engines.

Renewable Energy Use. Commit to utilizing increasing amounts of renewable energy for electricity and heating. Ideally achieve 100% renewable energy use on school grounds with some on-site renewable energy technologies such as solar, wind or biomass that can serve as educational tools for students.

Energy Savings. Commit to secure 20 percent energy savings from existing energy load.

Waste Reduction. Become an "Oregon Green School" by establishing a certified recycling and waste reduction program. (See <http://www.oregongreenschools.org>.)

Procurement. Develop a procurement policy that includes carbon impacts as a significant decision criteria – this could range from a preference for low carbon life cycle products; making life cycle cost purchases; a preference for buying local products; use only recycled-content paper etc.

Human Benefits of Indoor Environmental Quality: Heerwagen Event Summary

SOSI was a co-sponsor for recent workshops in Bend and Portland that featured Judith Heerwagen, a national expert on indoor air quality (IAQ). Dr. Heerwagen defined 2 models for building design which she related to zoo design; 1) "Do no harm", the old model and 2) "Do good", the new model.

The new model provides behavior choice and control, supports curiosity and exploration, supports species-typical behaviors, and allows for solitude and interaction, as desired. It sustains human social, emotional, behavioral and cognitive needs. While LEED criteria currently address daylight, views, air quality, thermal conditions and personal control, additional factors to be included are a connection to nature, beauty and inspiration and occupant feedback.

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To summarize several case studies: A view and connection to nature, created with very open interior spaces, have the most positive psychological impact. However strategies to increase these factors create acoustic and privacy issues that are hard to deal with. Also, features that require occupant interaction don't tend to be utilized. Even in daylight areas occupants tend to use lights, and occupants tend to express discomfort even when conditions are within comfort zones.

Humans evolved with natural light, which impacts hormone levels, stress levels and circadian rhythms. In schools there are inconsistent results linking daylighting to test scores. There are more important factors affecting cognitive performance; acoustics, thermal comfort and air quality. These have well-known effects on cognition. Daylight is important for mood and circadian rhythms.

The PowerPoint slides are posted on our website at: <http://www.zerowaste.org/schools/events-past.htm>.

IAQ Info

- Spring Newsletter from WSU's Energy Office:
http://www.energy.wsu.edu/projects/building/iaq_nl.cfm

- Study about IAQ and Air Fresheners:
<http://www.nbc5i.com/news/13279497/detail.html?taf=dfw>

Curriculum Ideas from Facing the Future

Check out their spring newsletter, which includes:

- Middle School Sustainability Unit Available This Summer
- Curriculum Highlight: "Three Faces of Governance"
- Action Project: Take the Global Warming Challenge to Win \$300!
- Hot Resources on Energy, Climate Change and Sustainability
- Upcoming Professional Development Opportunities
- Featured Partner: Camas Alternative Program

<http://www.facingthefuturedata.org/wfNewsletterSubscribe.aspx>

Recycle Apple Computers Free

Apple Computer has a special offer for schools that register by June 30, and have a minimum of 25 units from any manufacturer to recycle. All equipment will be recycled for free in an environmentally sound and secure manner.

<http://www.apple.com/education/shop/recycle/promo/index5538087.html>, for details.

It's important to properly dispose of this equipment. To learn why, see the reports "Exporting Harm" and "The Digital Dump" at <http://www.ban.org>.

Energy Trust of Oregon has School Opportunities

The Energy Trust of Oregon (ETO) is a nonprofit organization dedicated to "investing in cost-effective energy conservation, helping to pay the above-market costs of renewable energy resources, and encouraging energy market transformation in Oregon." Below is a brief synopsis of ETO's chief programs available for Oregon's K-12 schools. Learn more by visiting ETO on the web at <http://www.energytrust.org>. School projects and case studies can be found via keyword "schools" while using the ETO website search tool.

The existing buildings program (<http://www.energytrust.org/buildingefficiency/index.html>) and new buildings program (<http://www.energytrust.org/newbuildingefficiency/index.html>) are ETO's main options for schools. Both programs offer standard incentives, including discounts for energy efficient lighting, motors, food service equipment, and more. Case-dependent custom incentives are also available.

Through ETO's Solar Electric Program (<http://www.energytrust.org/RR/PV/index.html>), schools can receive up to \$70,000 to install solar panels on their buildings or grounds. Finally, the Change a Light, Change the World Fundraiser (formerly Lights for Learning) (http://www.energytrust.org/residential/ehp/lights_learning.html) encourages students to sell ENERGY STAR-qualified Compact Fluorescent Light bulbs (CFLs). Schools earn a 50% profit on every bulb sold.

Oregon Legislation of Interest

Some of the bills related to school sustainability that became law this session in the Oregon legislature are listed below. Full text of Oregon State legislative measures can be found at <http://www.leg.state.or.us/searchmeas.html>, together with the final status.

Buildings and Energy

- HB 2620: Inclusion of solar energy technologies in public buildings.
- HB 2628: Prohibits installation of certain outdoor lighting fixtures, and sale of mercury vapor lights.
- SB 479: Prohibits use of R type metal halide or mercury vapor light bulbs in schools.

Food and Nutrition

- HB 2650: Sets nutrition standards for school foods not sold within school food program.

Transportation

- HB 2172: Directs Environmental Quality Commission to establish a goal to reduce diesel emissions, targets emissions by school buses.

UPCOMING EVENTS:

Check the website for details and updates. <http://www.zerowaste.org/schools/events.htm>.

SOSI Meetings

Next meetings currently being scheduled for:

- **Managing Sustainability Topic Team**
- **Purchased Goods and Services Topic Team (Purchasing and Materials teams)**

Coming in July:

- **Indoor Environment /Toxics Topic Team**

Related Events:

Many events that help support sustainable schools occur throughout the year. This information is provided as a service. Listing on this page does not necessarily imply endorsement by the Zero Waste Alliance or the Oregon Sustainable Schools Initiative.

July and August

Summer Institutes for Place-Based Education

Juneau, July 19-21; Seattle, August 9-11
The institutes will provide training and resources on place-based education practice. For info and registration contact Ted Wright, 206-491-9240, or visit:
<http://ankn.uaf.edu/NPE/Southeast/Summer2007.html>

July 17 Teleconference: Mold Basics - What Schools Can Do To Prevent Mold

Free Indoor Air Quality Conference Call Training for Oregon Schools. Sponsored by the Oregon School Indoor Air Quality Partnership. For School Administrators, Facility Managers, Teachers, Nurses, Principals, Community Leaders, Parents.
When: 12:00 noon – 1:00 p.m,
http://www.zerowaste.org/schools/events_files/MOLD_Technical_Conference_Call_Flyer.pdf

July 19-20 Education for Sustainability (EFS) Institute, Shelburne Farms, Vermont

EFS calls on us to help students understand the connection between the environmental integrity, economic vitality, and social well-being of the planet. Contact: Jen Cirillo, 802-985-8686 x31 or jcirillo@shelburnefarms.org
<http://www.sustainableschoolsproject.org/>

July 26-28 "Teaching the Basics through Design"

Workshop hosted by Architecture Foundation of Oregon and Oregon Building Congress. Open to high school teachers of all disciplines in Oregon and Washington.

Where: Portland

Info: See flyer

http://www.zerowaste.org/schools/events_files/07_Teaching_Basics_Design.pdf

July 27-29 SolWest Fair

3-day renewable energy fair with activities for all ages.

Where: John Day

<http://www.solwest.org/fair.htm>

August 2 and 10 Oregon's Forests in the 21st Century: A Forest Tour

August 2: Washington and Tillamook Counties

August 10: Lane County

Tour sponsored by the Oregon Forest Resources Institute. To register: <http://www.oregonforests.org> and click on "Public Tours." For more information contact Jordan Benner at benner@ofri.com or (971) 673-2951.

January 31, 2008 Focus the Nation

A national teach-in about Global Warming Solutions
Start planning for your local event today.

<http://www.focusthenation.org/main.php>

Due to space constraints not all events could be included here. For the full list, see our website:

<http://www.zerowaste.org/schools/events.htm>

BE A SUPPORTER!! Contributions from you and your organizations make this initiative happen.

Please consider contributing. Details at <http://www.zerowaste.org/schools/supporters.htm>.

**** Thank You to our supporters ****

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Silver Level: Artemis Foods, Bonneville Power Administration, Energy Trust of Oregon, Metro

Regional Government*, Northwest Natural, Oregon Department of Education, Portland Center Stage, Siltronic Corporation*, The Catlin Gabel School

Bronze Level: Bill Blosser, Boora Architects, City of Portland Office of Sustainable Development, The Food Alliance, Johnson Controls, Neil Kelly Remodelers*

* Honor Roll Contributors have contributed for more than one year.

To unsubscribe, please contact Lori Porter Stole, lstole@zerowaste.org. Thank you!

Sustainable Oregon Schools Initiative - <http://www.zerowaste.org/schools>

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