



The Apple

Sustainable
Schools
News

Healthy Schools – Healthy Environments

July 2008

Update on the Sustainable Oregon Schools Initiative (SOSI)

SOSI has been progressing steadily. The new website is online (see below).

-- The topic team working on management of sustainability efforts in a school/district has been very active and some of their work products will be posted in the next weeks. This team plans to continue into the future as a peer group to learn from each other as they move forward. Let us know if you would like to join in.

-- Other active topic teams will be wrapped up within the next couple months.

-- In the winter PSU's Community Development Student Group organized a speaker series for SOSI focused on schools and climate change impacts which could be attended in person or by phone. Also we've given presentations at several state-wide conferences. Videos of these presentations are on the SOSI [Events webpage](#).

-- Completing the website project and a subsequent SOSI staff person bike accident caused delays in the newsletter, but we're happy to be back on track with this issue!

Introducing the New SOSI Website!

SOSI invites you to visit our recently launched new website at www.sustainableschools.org! It's just the start; There's a lot more to come yet. We extend special thanks to Sheryl Macy and Brett Luttrell for all their work. Without them it would not have been possible! The site has 4 major sections.

[Discover](#) will help you understand what "Sustainability" is all about, why it's important, general status of sustainability in Oregon, sustainability in schools, and coming imminently is a section for students about sustainability and the job market.

[Take Action](#) takes you to sections for schools and districts, teachers, parents, students and businesses and others. To highlight a couple items: The *school/district* section includes details about getting started and managing the sustainability effort. The *parent* section includes a detailed list of eco-friendly fundraiser options.

In this Issue:

- *Update on the Sustainable Oregon Schools Initiative*
- *Introducing the New SOSI Website!*
- *Seismic Study of Oregon's Schools*
- *Energy Savings Performance Contracting*
- *Climate Change Tidbits*
- *Youth Garden Grants*
- *EPA's Indoor Air Quality (IAQ) Awards*
- *Snippets for Teachers*
- *UPCOMING EVENTS*
- *Thank You to our Supporters*

The *student* section includes links to sustainability efforts in Oregon colleges and universities.

[Resources](#) takes you to sections for each of the SOSI topic areas, organized by category. Each topic's landing page begins with a link to a list of non-profit and government organizations that can help schools and districts. Please let us know which key organizations exist in your particular area so that we can add them to the list and make this a truly state-wide resource. Links to topic-relevant websites and reports can be found at each topic's "Other Resources" page. The "General" button includes the resource list for Sustainability in general and a page about Climate Change.

[About SOSI](#) takes you to SOSI-specific information and resources, some of which can be quickly accessed from buttons at the top of the home page. Here you can learn about SOSI, who the staff and steering committee are, learn about upcoming events of interest around the state and also see information from previous events. You can access past newsletters and subscribe to future issues. You can see who is currently helping to fund SOSI. We are indebted to our sponsors for making this site possible! See the complete list of SOSI sponsors on the *Sponsor* page, and learn how you too, can become a SOSI sponsor and support this site.

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

We need your input for the new SOSI website!

1. We welcome your additional contributions, and appreciate hearing your thoughts about the site. **Consider submitting a website comment form**, available from the "[Contact Us](#)" page.
2. Please take a moment to determine whether you can add a link to the SOSI site from your own website, or whether you can invite others to do so.
3. The website will keep growing. Please consider becoming a SOSI supporter to help make it happen. There are further details on the website, of course!

Seismic Study of Oregon's Schools

To be sustainable, a facility's design and construction must be appropriate for its local climate and geology, including a capability to withstand the typical natural disasters to which its location is subject. In Oregon that means all schools must be prepared for earthquakes, and those in flood plains or tsunami zones must also be built with the appropriate considerations. Many of Oregon's school buildings are over 50 years old, and were built before the potential damage from such natural disasters was so well understood.

In 2005 Oregon's legislature passed SB 2, which directed the Oregon Department of Geology and Mineral Industries (DOGAMI) to develop a statewide seismic needs assessment, including seismic safety surveys of K-12 public school buildings that have a capacity of 250 or more persons, and other selected public facilities. Related legislation passed concurrently outlined a seismic rehabilitation grant program (SB 3) and a supporting bond program (SB 4).

The assessment looked at these key factors:

- Seismic hazard zone (high vs. low history/probability of earthquake)
- Building structural type (wood, concrete, masonry, reinforced, etc.)
- Original construction date
- Soil type (dense to soft)

The assessment also incorporated a "Rapid Visual Screening" process for each building.

This data was then used to assign scores to each school building based on how the building might behave in a maximum strength potential earthquake. Using generalities based on the above factors the assessment helps to understand the scope of this seismic concern, but it was not a comprehensive structural assessment and did not consider building-specific factors or completed mitigation projects. Many districts have completed either a local evaluation or local building upgrades. The majority of the schools being assessed were built in the 1945-1975 period, before either

seismic zones or building codes were updated based on a heightened awareness of earthquake and tsunami potential in Oregon. The assessment also considered the risk posed to buildings by their proximity to the tsunami inundation zone.

The seismic needs assessment final report was released one year ago, in July 2007. It found that of 2369 public school buildings in Oregon, nearly one half have high or very high risk of sustaining life-threatening damage in a maximum-case earthquake. The report is only the first step in a multi-part process that will eventually create a pool of state money for seismically retrofitting eligible buildings (Senate Bills 3 and 4).

The report also states that of the 150 sites along the Oregon coast studied for potential risk of tsunami inundation, 48 sites have moderate to high risk, and another 81 sites have lower tsunami inundation risk.

To learn more visit the DOGAMI site:

<http://www.oregongeology.com/sub/projects/rvs/default.htm>. Links on the right lead to the report, individual school assessments and a helpful FAQ.

Also, we'll be adding relevant info and links to a natural disaster [section](#) on the Building Resource page of the SOSI website.

Energy Savings Performance Contracting

Perhaps one of the biggest obstacles to school districts becoming more energy efficient is finding funding to upgrade their facilities. An option rapidly gaining popularity across the country is called *Energy Savings Performance Contracting* (ESPC). In this type of alternative contracting project, a single company is contracted to provide a complete facility solution to save energy and resources in existing buildings. This *Energy Service Company* (ESCO) designs upgrades around the utility cost saving benefits of the improvements and whatever needs are most pressing for the district. Furthermore, as part of providing audit, design, project management, and financing/grant assistance services the ESCO also guarantees the amount of energy savings to be realized from the completed project. This allows the school district to secure financing and use the annual energy savings to help pay for the cost of the improvements. The ESCO will compensate the district for any shortfall in the event that the energy savings targets are not achieved. This cash flow, along with funds available from the *Business Energy Tax Credit* (BETC - which can be utilized through a tax-liable pass-through partner), the *Energy Trust of Oregon* (ETO) rebates, and other incentives, allows school districts to make upgrades they otherwise would not have room for in their budget. The end result is more efficient, sustainable facilities with better indoor air quality and improved student comfort.

Oregon Public Contracting Statute recognizes ESPC as a legal contracting vehicle for energy efficiency upgrades in public buildings. In February 2008 the Oregon legislature passed HB 3612 giving the Oregon Department of Energy (ODOE) the legal authority to establish the qualification criteria for selecting ESCOs to perform ESPC services in state and local government buildings in Oregon. Over the next several months ODOE will be working to pre-qualify ESCOs that state and local governments may choose to contract for ESPC services. For more information contact Brandon Adams with the Oregon Department of Energy at Brandon.Adams@state.or.us or visit <http://www.oregon.gov/ENERGY/CONS/school/perfcontr.act.shtml>.

Thanks to David Palmer, TAC and Brandon Adams, ODOE, for providing this information!

Climate Change Tidbits

Measure your School or District Climate Change Impact
Sun Microsystems has a free, open-source website with which you can track energy use and calculate its greenhouse gas emissions. See <https://www.openeco.org/>. So far it only considers purchased electricity and natural gas, but additions are coming for purchased steam, mobile sources, etc.

New NASA Global Climate Change Site

This new Web site from NASA's Jet Propulsion Laboratory is devoted to educating the public about Earth's changing climate, providing easy-to-understand information about climate change and how NASA studies it. Features include a continuous snapshot of the condition of Earth's ice sheets, global average temperatures, sea level change, and concentrations of greenhouse gases. <http://eelink.net/cgi-bin/ee-link/newclick/7868188>

Exploratorium site links to real-time NOAA imagery and graphs on atmosphere, hydrosphere, global effects, etc.
Students can explore scientific data relating to the atmosphere, the oceans, areas covered by ice and snow, and the living organisms in all these domains. <http://eelink.net/cgi-bin/ee-link/newclick/5264364>

Clean Air Cool Planet website

This Northeast- based site includes a carbon calculator and various types of information about global warming. Visit it at <http://www.cleanair-coolplanet.org/>.

Youth Garden Grants

The National Gardening Association and Home Depot will award Youth Garden Grants to schools throughout the U.S. with child-centered garden programs. Priority will be given to programs that emphasize one or more of these elements:

- Educational focus or curricular/program integration
- Nutrition or plant-to-food connections
- Environmental awareness/education

- Entrepreneurship
- Social aspects of gardening such as leadership development, team building, community support, or service-learning.

Application deadline: November 1, 2008. Download applications here:

<http://www.kidsgardening.com/YGG.asp>

EPA's Indoor Air Quality (IAQ) Awards

The application process for EPA's competitive IAQ Tools for Schools (TfS) Awards is now open! Be recognized for your outstanding commitment to improving children's health by promoting good indoor air quality. EPA offers two competitive awards for which schools or school districts may apply: the IAQ TfS National Excellence Award, and the IAQ TfS National Model of Sustained Excellence Award. Application deadline: Sept. 12, 2008. Winners will be honored at EPA's 9th Annual IAQ TfS National Symposium, to be held December 4-6, 2008. EPA also offers the Great Start and National Leadership Awards, non-competitive awards designed to recognize schools and districts that are on their way to achieving sustainable IAQ management plans.

Details and a list of Oregon's previous award winners at: <http://www.epa.gov/iaq/schools/awards.html>.

Snippets for Teachers

- Innovative Ways to Teach Systems: *ScienceScope*, National Science Teachers Association (NSTA) peer-reviewed journal for middle school science teachers, July 2008 issue, offers teachers strategies for using a systems-view of the world in the classroom. <http://www.nsta.org/middleschool/>

- Rethinking Schools has published a new book: *A People's History for the Classroom*. It book grew out of a project to promote the work of activist historian Howard Zinn in schools across the country. Last fall, a former student of Zinn's saw the film on Zinn's life, *You Can't Be Neutral on a Moving Train*. He remembered what a marvelous teacher Howard Zinn had been, and 35 years later, after a successful career in technology, he wanted to find a way to spread Zinn's influence in schools. Visit <http://www.rethinkingschools.org/publication/aphc/> to check out the book's table of contents and introduction. Order online, or call toll-free, 800-669-4192.

- HippoWorks Helps Teach Kids about Global Warming
HippoWorks.com has just produced a new 12-part cartoon series "One by One, Ton by Ton, Let's Stop Global Warming!" to help teach kids about this issue and what they can do to stop it. A new episode will air every week. As an educational tool for teachers, each episode concludes with questions and a glossary for a follow-up classroom discussion. The weekly cartoonlets are a free offering, for subscribers or for your Web site! <http://www.hippoworks.com/>

UPCOMING EVENTS:

Check the SOSI website for details and updates: <http://www.sustainableschools.org/about/events.htm>.

SOSI Meetings:

Upcoming SOSI Topic Team Meetings:

Managing Sustainability Topic Team

- September 2008, date being finalized,
9:30 am to 12:00 am

Procurement, Managing Material and Energy Resources,
Buildings and Indoor Environment /Toxics Topic Teams

- Dates will be set in the next month to wrap up the work of these teams.

Steering Committee: October 21, 1 - 4 PM

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 Sustainable Oregon Schools Initiative.

Aug 5 Rebuilding China's Schools — Sustainably; Earthquake Lessons for Oregon

Learn what a Portland-based consortium is doing to help reconstruct safe, sustainable schools in Sichuan Province, China. Hear how lessons learned from the China earthquake relate to Oregon Schools. 12:00 - 1:00 PM, Portland, See flyer [here](#).

Aug 7 or 14 Discussion on Teaching Sustainability

Northwest Earth Institute is offering this pilot workshop for teachers to help enable them to implement foundational sustainability concepts into lesson plans. Free. 10 AM – 3 PM, Portland. See registration [form](#) or contact Jane Turville, 503-227-2807, jane@nwei.org

Aug 19 SEPS Carbon Footprint Workshop
Science Education Partnerships workshop explaining the science behind climate change. More information available [here](#) (pdf). Where: OSU, Corvallis.

Aug 20 Sustainable Building Advisor Program Information Meeting

The SBAP program is a 9-month training designed for working professionals wishing to apply sustainable concepts to the buildings they design, develop and construct. Where: Portland. Details at: <http://www.zerowaste.org/sbap/>

Aug 22 Next Carbon Steps: Climate Action Planning for Complex Organization

Part of the Fall U. of O. Sustainability Leadership Program. 8:30 a.m.-4:00 p.m. UO Portland, White Stag Block. See [course key](#).

Sept 9-11 All Our Futures: Education Waking to Threat conference

Explore how to shape and deliver an education for sustainable futures. Where: United Kingdom. Details at: <http://csf.plymouth.ac.uk/?q=allourfutures>

Sept 11 Sustainability Using the Natural Step Framework

This one-day program from the Oregon Natural Step Network presents a great foundation for understanding sustainability. Portland. Details at www.ortns.org.

Visit the SOSI Website Events List for MANY more listings: <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.sustainableschools.org/about/support.htm>.

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

Platinum Level:

U.S. Environmental Protection Agency

Gold Level:

Bonneville Power Administration*, Coastwide Laboratories*, Dolphin Software*, Ecoworks Foundation, Oregon Community Foundation – Schamp Family Fund, Oregon Department of Administrative Services, Oregon Department of Energy, Oregon School Employees Association*, Portland General Electric*

Silver Level:

Artemis Foods, 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, Hot Lips Pizza, Johnson Controls, Neil Kelly*, Trane Oregon

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

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