

# RCMProfile

June 2007

Resource Conservation Manager:  
Early Success in a School District

## Brittin Witzenburg, RCM, Olympia School District

*By Vicki Zarrell, Energy Specialist, WSU Energy Program*

Meet BRITTIN WITZENBURG, Olympia School District's first RCM. Witzenburg hit the ground running in November 2004 – just before the holidays – and by the end of that first December, results were coming in! The first issue of her RCM newsletter encouraged a number of vacation shutdown procedures for classrooms and work spaces. Most of the district's 2,100 operating computers were turned off, blinds drawn, and heating systems turned down. The result was a 7.4 percent reduction in December's energy use as compared to the previous year.



*Photo by Vicki Zarrell.*

### *Partnering with Puget Sound Energy*

The Olympia School District, in a three-year agreement with Puget Sound Energy, had agreed to hire a Resource Conservation Manager. PSE estimated how

much money the district could save each of the three years, and guaranteed that if the district didn't save at least the salary cost, the utility would pay the difference.

Witzenburg seems a perfect fit for the job. She arrived at the school district with experience managing waste reduction and conservation programs in the Portland School District, and with a master's degree in public administration. Since then she has picked up technical skills "on the job." For example, when she saw thermostats in portable buildings set to 70° during a winter break, she applied for utility rebates for new programmable thermostats and, once they were installed, she learned to program them.

In what she calls her “love-fest” for Puget Sound Energy, Witzenburg describes a multitude of additional support the utility offers Olympia School District including rebates on faucet aerators and boiler tune-ups. Utility personnel also assisted in energy audits of some buildings, they provide training and workshops for RCMs, and tuition assistance for Witzenburg and three main-

At the district level, Witzenburg drafted a policy and best practices document with feedback from maintenance staff and some principals. Among the stated goals are “reduce the district’s demand for energy and water” and “minimize the amount of waste of consumable materials.” The document not only guides day-to-day operations, it also means that when the district proposes its next construction bond, there is commitment to incorporate high-performance and green building features.

Students and teachers are getting on the bandwagon through an RCM “Conservation Challenge.” The school district’s budget team stepped up to the plate by creating a way for schools to get back a percentage of money saved on their utility bills. Witzenburg designed a menu of activities by which staff and students can earn points for their school. For example, a school that assigns someone to coordinate its

resource conservation activities

can earn 5 points, and starting a “Lights Out” program will earn 2 points. Seven schools participated the first year, saving more than \$55,000 and getting back incentives of nearly \$14,000 (see Figure 1).

District staff members are also sowing the seeds of sustainability. The district’s new maintenance supervisor is improving the system to track work orders and schedule preventive maintenance. The district’s food services person is actively incorporating locally grown products, and – through partnerships with county and city solid waste departments – five elementary schools recently began separating lunchtime food waste for composting (three will use the compost in their school garden projects).

The school district’s water conservation efforts, such as faucet aerators and reducing irrigation, are accruing community-wide benefits. Not only is the district reducing its cost to purchase and heat water, but less water means less impact on the local wastewater treatment facility. And because the school district has authorized Witzenburg to oversee conservation efforts, the municipal water utility can work



*Tutoring elementary students on food waste composting. Photo by Vicki Zarrell.*

tenance staff members to earn Building Operator Certification.

### ***Hitting Sustainability from Various Angles***

Witzenburg describes her job as “lots of seed dropping” for sustainability. Whether it’s a school board meeting or lunch time in an elementary school, she finds ways to sow the seeds of energy conservation, water conservation, recycling, composting, and more.

Figure 1.  
Conservation Challenge Results 2005-2006 School Year

| School                   | Cost Savings | Award Amount |
|--------------------------|--------------|--------------|
| Roosevelt Elementary     | \$14,026     | \$3,506      |
| Jefferson Middle         | 11,166       | 2,791        |
| Boston Harbor Elementary | 10,485       | 2,621        |
| McKenny Elementary       | 8,894        | 2,223        |
| Garfield Elementary      | 5,086        | 1,271        |
| McLane Elementary        | 4,064        | 1,016        |
| Madison Elementary       | 1,693        | 423          |

with her rather than with each individual school.

### Stumbling Blocks

At the same time that the RCM position was being created, the school district faced budget cuts *for the first time* and some staff positions were eliminated. Maintenance department cuts were among the largest, requiring the group to do more with less and putting a squeeze on preventive maintenance work. More recently, however, Witzenburg is encouraged by the hiring of a new maintenance supervisor along with two new technicians who can tackle energy management and preventive maintenance on the wide variety of heating, ventilating, and air conditioning systems in the district.

Another common hurdle is that the district has so many priorities it needs to juggle (e.g., education, student assessment testing, maintenance, budgets). It's difficult to focus attention on resource conservation, but Witzenburg tries to select strategic times to meet with the school board, principals, and other staff – times that are less likely to interfere with immediate priorities.

### Jump-Starting the Program

Several key elements are at work in helping the Olympia School District establish its RCM program, and have contributed to its early successes.



From her work in Portland, Witzenburg was familiar with using *Utility Manager™* software. Coordinating with Olympia School District's business office to get regular bills from utilities, she then began entering them into the software's database *every month* and is able to identify trends and issues. For example, a high school hadn't received water bills for several months, and then was surprised by a bill for \$30,000! The tracking allows her to benchmark sites and prioritize conservation opportunities.

A few months into the job Witzenburg scheduled a "Take Your RCM to Work Day" with each maintenance person (including the carpenter, plumber, painter, custodial foreman, electrician, HVAC technician, grounds foreman). She got to see boiler rooms and other systems, gained insights from the trades' people, and began to get to know them personally.

The local newspaper, *The Olympian*, has given the RCM program significant news coverage. The newspaper's education reporter actively looks for material, and there is a good relationship between the newspaper and the district's communication department. Witzenburg notes that larger communities often don't have this benefit.

As a way to communicate with staff, students, and the larger community Witzenburg developed a website that she can easily change and update. The site covers news and events, conservation tips, information about participating in the "Conservation Challenge," and much more.

The Northwest has an active support network for resource conservation managers. From Puget Sound Energy trainings and workshops, to regular RCM network meetings, Witzenburg says there are "lots of opportunities to get together and discuss elements of being an RCM and getting projects done."

Figure 2.  
Year 1 and 2 Projections Versus Actual Savings

|             | Savings Projection<br>(from Base Year) | Actual<br>Cost Savings |
|-------------|----------------------------------------|------------------------|
| Year 1 *    | \$83,681                               | \$196,793              |
| Year 2 *    | \$163,198                              | \$247,268              |
| Year 3 *    | \$238,637                              | TBD                    |
| Net Savings | \$485,637                              | \$444,061 **           |
| RCM Costs   | (\$187,500)                            | (\$110,000) **         |
| Total       | \$298,137                              | \$318,436 **           |

\* Agreement with Puget Sound Energy is from December 2004 to November 2007

\*\* Years 1 and 2 only

## Early Savings

After the first two years of the program (December 2004 through November 2006), the district saw a 10 percent reduction in overall energy use, 17 percent reduction in irrigation and domestic water use, and 12 percent reduction in solid waste disposal. Witzenburg notes that “after only two years we have surpassed what was predicted after three years in our agreement with the utility!” (see Figure 2 on page 3).

## Looking Toward the Future

Some school districts try an RCM program for a year or two and then say “good... we did it... now we don’t need you.” Witzenburg believes, however, that the Olympia School District recognizes the benefits of continuing to have someone focused on resource conservation – someone who will consistently track utility use, rate changes, facility improvements, successful conservation efforts – and take advantage of opportunities (such as rebates) to install conservation equipment with little or no cost to the district.

Witzenburg is eager to participate in future construction projects that incorporate high-performance buildings (the district’s next construction bond will be proposed in 2010). She is currently working toward becoming a *Leadership in Energy and Environmental Design (LEED) Accredited Professional*.

Another goal is to get education and training for staff, especially maintenance and custodial staff.



Witzenburg programs the thermostat in a portable classroom.

Photo by Toni L. Bailey/The Olympian. Reprinted with permission of The Olympian.

They are not currently being trained on green technologies and practices, and may not be aware of the potential contributions they can make to the district’s conservation efforts. Likewise, communication channels with them (e.g., email and on-line) are not as well established as with other staff. This is a challenge in all school districts.

Partnerships between the school district and other agencies are one way to widen benefits to the community. The district was recently approached by the local wastewater treatment agency, which is interested in completely retrofitting one of the district’s buildings with water-saving fixtures as a demonstration of building-level water conservation.

Finally – and importantly – in the next three years Witzenburg hopes to be able to dedicate someone (perhaps an intern or

volunteer) to focus RCM efforts on education and curriculum activities, bringing ideas to teachers that will meet their needs and tie into student assessment requirements. One option is to use curriculum that Puget Sound Energy developed for 6th and 7th graders. Witzenburg envisions the far-reaching effects of dropping seeds that take root in the students, their families, and their communities.

## More Information about RCM

- Olympia School District’s Resource Conservation Management Program [http://osd.wednet.edu/schools/resource\\_conservation](http://osd.wednet.edu/schools/resource_conservation)
- Olympia School District’s Conservation Challenge [http://osd.wednet.edu/schools/resource\\_conservation/incentive\\_program](http://osd.wednet.edu/schools/resource_conservation/incentive_program)

- The Washington State University Extension Energy Program's RCM Network website:  
[www.energy.wsu.edu/projects/rem/rcm.cfm](http://www.energy.wsu.edu/projects/rem/rcm.cfm)  
(network meetings, newsletters, success stories). For further information about Resource Conservation Manager support, contact Karen Messmer, [messmerk@energy.wsu.edu](mailto:messmerk@energy.wsu.edu), at (360) 956-2090.
- The Oregon Department of Energy's Resource Conservation Management website:  
[www.oregon.gov/ENERGY/CONS/RCM/rcmhm.shtml](http://www.oregon.gov/ENERGY/CONS/RCM/rcmhm.shtml)



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