



Newsletter

Environmental Connection

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Businesses Lauded for Pollution Prevention

Orbit Irrigation Products Inc., Varian Medical Systems Inc. Rio, Tinto/Kennecott Utah Copper and Xanterra Zion Canyon Lodge were recognized for outstanding efforts to reduce pollution at an awards luncheon held in their honor on September 21 at the Rio Tinto Regional Center.

"I'm impressed with the accomplishments that have been achieved in reducing the amount of pollution in our environment," said Amanda Smith, executive director of the Department of Environmental Quality. "I encourage continue work and investment in these areas."

In 2010, Orbit Irrigation Products, Inc. initiated a comprehensive sustainability program focused on trip reduction, energy efficiency, water conservation, reduction in the use of toxic materials, and employee education. An employee ride share program involving 73 participants resulted in a decrease of 136,725 vehicle miles traveled with an associated reduction of 50 metric tons of CO₂. In the area of innovation, Orbit has introduced an underground sprinkler system which eliminates 90 percent of toxic glue and primer.



Jeannie Clement and members of Orbit Irrigation Products, Inc. Green Team accept an award for Outstanding Achievement at 2011 Pollution Prevention Awards.

The Green Team at Varian Medical Systems coordinated their efforts in the areas of energy and water efficiency, waste reduction and recycling, greening their supply chain, employee and community involvement, and product reuse and recycling. The team reported a savings of \$437,000 from their waste reduction and recycling alone. This facility recycled 78 percent of waste and diverted 2.9 million pounds of waste from the landfill. Also, in 2010 Varian Medical Systems saved 5.5 million gallons of water with an associated financial benefit of \$7,000 dollars.

Rio Tinto/Kennecott Utah Copper in 2010 focused on energy efficiency and reduced the use of natural gas by 96,000 decatherms for the super heater at the smelter, resulting in a decrease of about 3,000 metric tons of CO₂ and a savings to the company of \$380,000. Other energy efficiencies were achieved through replacement of inefficient electric motors, the purchase of hybrid and clean fuel vehicles to replace old ones, and through an upgrade of power system instrumentation that reduced peak demand costs by controlling power spikes across all operations.

Xanterra Parks and Resorts Zion Lodge implemented a Vehicle Fleet Efficiency Initiative aimed at reducing fleet size, eliminating inefficient vehicles, and adding solar-electric hybrid carts which resulted in reduced CO₂ emissions by over 33 metric tons and fleet fuel consumption by 43.6 percent or 3,127 gallons. An extensive remodel of 40 historic 1920's western cabin rooms was accomplished with a focus on environmental preferable features, including lighting provided by Utah LED lighting vendors, improved insulation, re-use of materials, and the installation of on-demand water heaters. All of this was accomplished while maintaining the historic character of the interiors.

The Utah Pollution Prevention Association, a nonprofit organization made up of Utah businesses and institutions dedicated to reducing pollution through practical, cost-saving methods, each year recognizes the achievements of businesses that make outstanding efforts to reduce risk to the environment and public health.

This article was written by Paul Harding, business assistance consultant with DEQ's Office of Planning and Public Affairs.

DEQ's Emergency Response Eyes Efficiencies

The Division of Environmental Response and Remediation (DERR) is engaging in a fast-paced effort to scrutinize its response to emergencies by joining other Divisions and Offices within the Department

of Environmental Quality (DEQ) to utilize "Lean Six Sigma" to better protect Utah's health and environment.

Over the past year Amanda Smith, executive director of DEQ, working with her management team, has used Lean improvement methods to assess Radiation Control, Air Quality and Finance to dramatically improve the quality, transparency, and speed of their processes.

"Lean government enables environmental agencies, like DEQ, to work more effectively and efficiently by eliminating waste in government processes," Smith said. "We expect to be more efficient in how we do business with the result of higher quality work and more responsive to our customers."

Throughout time DERR has made modifications to the way it notifies agencies and the public when such incidents like chemicals are released into the environment. But it may not be perfect.

"We can make it better," said Brent Everett, director of DERR. "We have an outstanding group of people who can bring valuable ideas to the table and create a plan that improves what we do."

Everett is part of the management team that met with business consultant Steve Avery to define the scope of the project. The team decided to focus on evaluating the current "Emergency Incident Notification Process" and its protocols that DERR has managed since the 1990s. Currently, upon notification of an incident involving chemical or other releases to the environment, DERR's duty officers compile a report to notify responding agencies, the first step in clean up and remediation.

"Coordination and communications is absolutely critical," said Brad Johnson, deputy director of DEQ. "Poor coordination and communication significantly hampers our ability to properly respond to an incident."

Last year's major crude oil spills—Chevron-related pipeline releases into Red Butte Creek and clandestine dumping into Strawberry River—have heightened the public's awareness of these incidents so the project team decided to take a hard look at ways to improve agency coordination and public notification.

"The Lean Six Sigma is a business improvement process that doesn't try to fix something that isn't broken but allows us to take it apart, examine it to see what we can do to make it better," said Avery, executive vice president of Business Process Improvement with Promontory Management Group.

For three days (Oct. 31-Nov. 2) the project team, which comprised of DEQ staff and industry representatives, engaged in a marathon session, called a "Kaizen" event - which means - "to take apart and make good." The team then will spend the next few months mapping out a plan to make improvements that will be implemented by March 1, 2012.

"It's an ambitious undertaking but that's what Lean Six Sigma is all about—streamlining the process to make it more efficient and effective," Avery said.

DEQ Employees Volunteer at Refugee Gardens

Once again a group of Department of Environmental (DEQ) employees rolled up their collective sleeves to provide a community service during non-working hours. This time DEQ's Green Team focused its 2nd Annual Service Day Project on helping a group of refugees with their community gardens.



So on Oct. 12, Helge Gabert, a scientist with the Division of Solid and Hazardous Waste, and a small but dedicated group of DEQ volunteers, constructed garden beds for New Roots Garden, located north of the Redwood Road Recreation Center in West Valley City. The garden is part of the Utah Refugee Pathways to Self Sufficiency (Pathways) project that provides refugees an opportunity to become self-sufficient by selling produce grown on small scale, urban training farms and community gardens in the Salt Lake City Valley.

"I saw the DEQ Service Day project as an opportunity to make a difference in my community without having to choose a volunteer project on my own," said Chad Harris, an environmental engineer with the Office of Energy and Development.

Each month, DEQ's Green Team encourages employees to do their part to improve the environment—from carpooling or taking mass transit to increased recycling and making their homes and offices more efficient.

DEQ's Annual Service Day has the support of Executive Director Amanda Smith.



"DEQ employees are a dedicated group who take our mission to heart—to protect and enhance our environment," said Smith. "I applaud all those who participated in this year's event."

Last year, the Green Team helped Cottonwood Canyons Foundation widen a new section of trail at the top of Millcreek Canyon as part of DEQ's Service Day project.

At Pathways, over 70 families participate in growing traditional crops as well as non-traditional crops, such as roselle, also known as sorrel, a spicy leaf similar to spinach.

Plans are under way to enlarge the existing 1.5-acre garden. For more information on the project, contact Supreet Gill, New Roots Project Coordinator, Salt Lake County, at: skgill@slco.org.

Utah to Host Annual Regional Meeting on Radon Education

The Utah Department of Environmental Quality's Division of Radiation Control (DRC) is intensifying its efforts to educate Utahns about the health risks of indoor radon gas—a topic of focus at the upcoming Environmental Protection Agency's Region 8 Radon Stakeholders meeting held in Salt Lake City next spring.

Stakeholders and other participants from North and South Dakota, Montana, Colorado, Wyoming, and Utah will gather together April 12-13 for a 2-day educational meeting. The agenda will include educational topics, along with CE classes taught by National Environmental Health Association (NEHA) Certified Instructors. Speakers include:

Wallace L. Akerley, director of Community Oncology Research, medical director of the Clinical Trials Office, co-director of the Thoracic Cancer Program at Huntsman Cancer Institute (HCI) and professor of medicine at the University of Utah, will explicate the prevalence of non-tobacco related lung cancer deaths in Utah.

William J. Angell, professor of housing at the University of Minnesota, will address the Federal Action Plan for Saving Lives.

Carolyn Allen, president of the American Association of Radon Scientists and Technologists (AARST), will clarify radon measurement and mitigation protocols.

Radon is a colorless/odorless gas that is thought to be a culprit behind over 21,000 lung cancer death a year. Radon is the leading cause of lung cancer among non-smokers. Radon enters homes through cracks or openings in foundation walls or floors.

"Radon comes from the natural (radioactive) breakdown of uranium in soil, rock and water and gets into the air you breathe. Radon can be found all over the U.S. It can get into any type of building—homes, offices, and schools—and result in a high indoor radon level. But you and your family are most likely to get your greatest exposure at home, where you spend most of your time," said Christine Keyser, radon program coordinator for DRC who is organizing the conference.

According to radon test reports, the Division estimates that one-third of the homes in Utah will have elevated levels of radon.

"We do have a problem in Utah and the only way to know if a home has elevated levels is to test it," said Keyser. "And, to make it easy and inexpensive, Utahns may now purchase a discounted short-term radon test kit for \$6.00 (includes laboratory analysis) on the state's Radon Website at <http://www.radon.utah.gov> or call 1-800-324-5928, ext. 22." To learn more about radon and/or the upcoming 2012 EPA Stakeholders Radon Meeting, please visit the state's Radon Website.



Ken Wilde has helped many communities improve their drinking water systems throughout his 12-year career as the manager overseeing the Division of Drinking Water's Construction Assistance Section. He retired Nov. 1.

"Twelve years ago when I started working here, I had planned to stay only 10 years," Wilde said. "I have prolonged my stay with the Division for several reasons. I think the biggest reason was out of loyalty to the members of my team and our financial assistance program. The federal 'stimulus bill' greatly increased our workload and everyone was needed."

Wilde looks back on his career as a "good and rewarding experience."

"As a Department we have made a significant difference in the lives of tens of thousands of citizens and have helped improve and protect their quality of life," Wilde said. "I am particularly appreciative of those who have worked on my team and thank them for their dedication and commitment to serving the public."

Besides Wilde, other notable retirements are:



Cheryl Prawl, former Environmental Program Manager for the DSHW

Cheryl Prawl, environmental program manager for the Division of Solid and Hazardous Waste, on Jan. 1. She worked for the state of Utah (DEQ) for 25 years.



Bruce Allen, former Environmental Scientist with DAQ

Bruce Allen, environmental scientist with Division of Air Quality, on Aug. 1. He worked for the state of Utah (DEQ) for 27 years.



Rose Kenworthy, former Executive Secretary of the OPPA, with husband Bill Kenworthy

Rose Kenworthy, executive secretary of the Office of Planning and Public Affairs, on Sept. 16. She worked for the state of Utah for 14 years, last several years at DEQ

DEQ Weighs in on Snake Valley Pipeline **Making the Nevada Desert Bloom: At Utah's Expense?**

The controversial Snake Valley pipeline proposal sits poised to change the economic landscape of Nevada. With hundreds of miles of pipeline to pump up to 176,000 acre feet of groundwater per year, the massive development project stands ready to meet the water needs of the Las Vegas area for years to come.

The pipeline also sits poised to change Utah's landscape.

So the Utah Department of Environmental Quality (DEQ) joined forces with the Governor's Office to submit comments to the Bureau of Land Management (BLM) on the pipeline proposal. In a cooperative effort, DEQ and other state agencies provided the Governor's Office with technical and scientific analysis of the project and proposed alternatives.

"We want to make sure this project doesn't have an adverse impact on Utah's quality of life and environment," said Amanda Smith, executive director of DEQ.

According to the 1,200-page draft environmental impact statement (DEIS) the BLM released this summer, the project could, over the next hundred years, produce more than 33,000 tons of annual particulate pollution (PM10) from fugitive dust emissions. The result could mean significant changes to vegetation on nearly 196,000 acres of basin and wetland areas, reduce flows of critical desert springs, and lower groundwater by up to 200 feet in some areas.

"Our job at DEQ is to ensure that Utah residents have clean air to breathe and clean water to drink," Smith said. "While the pumping would occur in Nevada, the effects will be felt here."

The Southern Nevada Water Authority (SNWA) recently applied for a right-of-way to build a series of pipelines across BLM land in Nevada. A portion of the proposed right-of-way was granted to SNWA through congressional legislation. It is now up to the BLM to decide if it will grant SNWA additional rights-of-way and determine the conditions it will impose on pipeline construction and operation.

SNWA's water rights applications, first filed in 1989, have been the subject of recent court battles, ultimately landing in the Nevada Supreme Court. SNWA is now back to square one, awaiting a decision by the Nevada State Engineer (NSE) on its applications. Expected to be announced sometime in spring of 2012, the NSE's decision will ultimately determine the amount of water available for development.

A congressionally-mandated water distribution agreement between Utah and Nevada will also affect the amount of water available for pumping.

The BLM, in its DEIS, acknowledges that there is a high degree of uncertainty surrounding the long term effects of this kind of massive pumping project. Groundwater drawdown could dramatically change desert vegetation, resulting in increased fugitive dust. Water quality could deteriorate as the groundwater level drops, threatening the water supplies for rural agricultural communities in Millard and Juab Counties

The Division of Air Quality (DAQ) is particularly concerned that man-made fugitive dust from the project area will make its way to the Wasatch Front. Agency efforts in recent years to reduce PM10 levels along the Wasatch Front have been successful. In fact, the only time that 24 hour PM10 standards are currently exceeded is during dust storms originating from the project area.

"The BLM assumed that there would be little or no impact to the Wasatch Front from fugitive dust emissions," said Brock LeBaron, deputy director of DAQ. "Our models of seasonal dust storms originating from the southwest desert demonstrate that PM emissions could in fact reach the Wasatch Front and force us into non-attainment for these critical health standards."

Dust storms could also cloud the air in Utah's National Parks. An increase in regional haze over the Parks could obscure scenic vistas and compromise air quality, potentially costing Utah important tourism dollars.

The comment period on the BLM's draft analysis closed October 11. Utah officials compiled the concerns and submitted comments.

"We raised serious concerns with the BLM, both in the accuracy of their modeling and the design of their environmental analysis. We need a clearer picture of the true impacts of groundwater development and a program of proven mitigation measures that minimize or eliminate impacts to the State of Utah from the project," said John Harja, director of the Public Lands Policy Coordination Office.

SNWA's pipeline proposal is still in the early stages. Because Snake Valley groundwater pumping has the potential to severely impact the health and well being of Utah residents, the Department of Environmental Quality will continue to monitor the project, provide expert advice, and insist on monitoring and mitigation programs that protect Utah's citizens from negative effects resulting from the project.

"We will be watching closely and providing input throughout this process," Smith added. "Protecting Utah's air and water quality is our paramount concern."

This article was written by Christine Osborne, policy analyst for DEQ's Office of Planning and Public Affairs.