Environmental Connection Newsletter

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AAA Greens Its Fleets
DEQ Uses AAA to Promote Fuel Efficiency

AAA Auto Club (AAA) is expanding its member services by promoting environmental stewardships through its award-winning Greenlight Initative—a successful business model that the Department of Environmental Quality (DEQ) wants to promote.

"Businesses are looking at examples of what other businesses have done to save money and reduce vehicle miles traveled by doing fleet conversions," said Frances Bernards, a business consultant at DEQ's Office of Planning and Public Affairs. AAA's Greenlight Initiative, launched in 2005, is a case in point that will be highlighted at BizHelp—a Web page that provides tools and resources to businesses.

The Greenlight Initiative was developed in response to customer's needs to keep informed on alternative fuels and vehicles as well as meeting its own corporate environmental objectives, Bernards said.

In an effort to promote more fuel-efficient transportation, AAA NCNU transitioned about 300 of its 425-vehicle fleet into gasoline hybrids in 2006. It also has about a dozen minivans that use E-85, a mix of 85 percent ethanol, 15 percent gasoline. AAA fleet drivers travel approximately 4.8 million miles/year. The cars are used by insurance employees.

This switch doubled fleet fuel economy, leading to a savings of 120,112 gallons of fuel in 2008 and 93,607 gallons in 2009 (due to a fleet size decrease). As a result, greenhouse gas emissions were reduced by 1,068 metric tons in 2008 and 832 metric tons in 2009. By purchasing carbon offsets for its emissions, the auto club's fleet is carbon neutral. "For us, the savings in dollars due to fuel economy far outweigh the additional expense of purchasing the hybrids and carbon offsets," said AAA Fleet Manager Peter Peirce.

Members and the general public can tap into information on some of the alternatives to the gasoline-only engine, including hybrids and non-traditional fuel options, such as biodiesel and electric-fueled vehicles through the Greenlight initiative. AAA also offers free classes to members and the general public providing tips on how to maximize the performance and fuel economy of hybrid vehicles.

AAA of Northern California, Nevada and Utah awards grants to organizations that share its environmental objectives. Through a long-standing partnership with the UC Davis Institute of Transportation Studies and awarding up to $150,000 in grants and fellowships, AAA is finding ways to promote the study of clean vehicles and fuels. We're so pleased to be able to offer assistance in this fast-developing and increasingly important field,â€ said Greenlight manager Deborah Wong.

"AAA is proud to be an educator and advocate for new vehicle technology that gives consumers more choices while protecting our environment," said Deborah Wong. "AAA was here for the first 100 years of the automobile and it is through forward-thinking initiatives like Greenlight that we plan to be here for the next chapter."

This article was written by Frances Bernards, who provides business assistance at DEQ's Office of Planning and Public Affairs.

DAQ Seeks to Improve Permitting Process

In six months, the Division of Air Quality (DAQ) expects to reduce the amount of time it takes to review air quality permits after stakeholders helped to identify steps in the process that were slowing things down.

Following on the success of the Division of Radiation Control, DAQ in January began the "Lean Six Sigma" process—a management tool that the Department of Environmental Quality is utilizing to take a fresh look at ways it does business in an ever-changing regulatory environment.

"It was an intensive process that allowed us to step back and take a broader look at how we can improve the permitting process," said Reginald Olsen, branch manager who has been the team leader for the process.

The Lean Six Sigma team focused on the New Source Review (NSR) permitting process that currently takes about 90 to 100 days to complete. The goal is to have a faster, more efficient process and quality permits. It also allows DEQ to become more transparent by opening up the process to the public—earlier.

Kathy Van Dame, policy coordinator for the Wasatch Clean Air Coalition, thinks the review will help improve DAQ's permitting process. "I think a benefit of this has been the thought put into earlier and better public notification. Interested people can be involved earlier and more effectively because permit applications will be posted as received. Before, a project of potential concern could pop out for comment and people would have only 30 days to understand the project and decide what, if any, action to take. That is a short time for busy people to consider complex proposals."

The first stage in the process was an intensive three-day review of the NSR process, whereby participants critically evaluated the current practice, discussed bottlenecks and inefficiencies, and designed a new process with timelines for implementation.

Participants included representatives from DEQ, DAQ, environmental groups, industry, consultants, and the Attorney General's office.

"The hardest part was the overall time commitment," Olsen said. "It has been intense work by everyone involved—staff and the voluntary participants. We really appreciate the effort of everyone who has been involved."

To implement the new design, Olsen and his team has had weekly meetings since January. At these meetings, they track their progress. "We set up the chart week by week focusing on the "to be", what we wanted the end result to look like."

Amanda Smith, executive director of DEQ, believes continuous process improvement is key to DEQ's success in protection environmental quality while creating a predictable and timely process for Utahâ€™s businesses.

"As we become more efficient, it not only helps us stabilize our funding resources but also allows us to work more effectively with stakeholders to carry out our mission—safeguarding public health and our quality of life," said Smith.

This article was written by Cheralyn Anderson, outreach coordinator.

Check Your Mailbox in June

As part of Division of Water Quality's ongoing study of the economic benefits and costs of implementing a nutrient criteria standard for statewide waters, surveys will be mailed to randomly selected households in Utah.

The objective of the survey is to estimate the value that Utah residents place on good water quality for their recreational use and enjoyment and to protect the quality of life for future generations living in Utah.

If you receive a survey, it would be much appreciated if you would complete and return the survey. It should only take a few minutes and will help us immensely to enhance Utah's nutrient protections.

Also, later this year, we will be sending out a survey targeted to residents who recreate in or adjacent to Utah waters, in order to estimate how recreation demand is affected by water quality. For more information and updates.

DEQ and Partners Applaud Businesses for Reduced Pollution

The Department of Environmental Quality (DEQ) and its partners in pollution prevention recognized several businesses for success in conserving energy, water and reducing air pollution.

Every year the Pollution Prevention (P2) Association honors businesses who achieve significant results from reducing their carbon footprint. The 2011 Pollution Prevention Association's Outstanding Award Winners are:

- Orbit Irrigation Products, Inc. awarded for Initiation and Innovation. Orbit 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 PVC and PVC glue and primer.

- The Green Team at Varian Medical Systems, awarded for an Outstanding Year in a Decade of Success. The Green Team's efforts at Varian Medical Systems have been 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.

The 2011 Pollution Prevention Association's Meritorious Award Winners are:

- Rio Tinto/Kennecott Utah Copper awarded for Energy Efficiency. In 2010 the use of natural gas was reduced 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 awarded for Fleets and Facilities. In 2010 a Vehicle Fleet Efficiency Initiative, aimed at reducing fleet size, eliminating inefficient vehicles, and adding solor-electric hybrid carts, 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.

These four businesses will be honored at a luncheon hosted by the Pollution Prevention Association on September 21, 2011, during Pollution Prevention Week.

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

Engineer is Lauded by Peers for Protecting Utah's Waters

Division of Water Quality Engineer Jennifer Robinson has earned two prestigious awards from the Water Environment Association of Utah (WEAU) for outstanding work in her field of wastewater treatment and water quality protection.

Robinson received the Young Professional of the Year Award, nominated by her peers, for outstanding work at the Department of Environmental Quality (DEQ) and the Association. And she was one of only two who received what's known in the industry as the prestigious "SSSSS" Shovel (the Select Society of Sanitary Sludge Shovelers) for her hard work and dedication.

"It's a great honor,' Robinson said. "Not many receive this award."

Robinson started her career at the Division of Water Quality (DWQ) in 2000, working as an intern until she completed her engineering degree at the University of Utah. In November 2002 she began working in Water Quality's UPDES section (Utah Permit Discharge Elimination System) writing permits, responding to occasional sanitary sewer overflows and reviewing pre-treatment plans. For the last 2Â½ years she has chaired the awards committee for WEAU.

Jill Houston, assistant manager of the Central Davis Sewer District, said Robinson has done a lot for the industry and the state.

"She has done an excellent job heading up the awards committee for the Association," Houston said. "She is very knowledgeable in her work and is so pleasant."

Water Quality Engineer Paul Krauth nominated Robinson for the Young Professional of the Year Award for her energetic enthusiasm she brings to her job.

"Jennifer goes out of her way to be helpful in assisting others with wastewater issues," Krauth said. "She"s also a lot of fun to work with."

It also helps to have a father who is highly respected in the water industry, added Krauth, who is the President-elect of WEAU.

Robinson's father is Dennis Strong who is the director of the Department of Natural Resource's Division of Water Resources.

"These awards reflect the dedication of the wastewater professionals who assist our state's treatment plants," added Walt Baker, director of DWQ. "We enjoy cleaner water and a healthier environment because of the dedicated work that Jennifer performs."

Guest Speaker Series: DEQ Eyes Teaming with U. Professor to Study Air Shed

Dr. James Ehleringer, a Distinquished Professor of biology at the University of Utah, hopes to partner with the Utah Department of Environmental Quality to help gain a better understanding of air pollution in Utah.

At a DEQ-sponsored Guest Speaker Series, Dr. Ehleringer on May 9 explained that Carbon Dioxide (CO2) is rapidly increasing in the Salt Lake City urban area as population continues to grow.

"The rate of CO2 concentration is increasing faster as urbanization intensifies in the Salt Lake Valley," said Ehleringer who operates the world's only urban CO2 monitoring network. His research into the detection and interpretation of stable isotopes can help explain the biological makeup of Utah's air shed.

"The isotope is the environmental fingerprint," he said. For example, the U's lab could pinpoint whether the oil spill belonged to Chevron's pipeline when it ruptured a year ago at Red Butte.

Dr. Ehleringer currently partners with researchers from Utah State University and Brigham Young University to study the effects of climate change and urban development on ecological systems and the environmental along the Wasatch Front. Like, the Division of Air Quality, he monitors and

characterizes Utah's urban air environment as the Director of the Utah Global Change and Ecosystems Center.

DAQ's Toxicologist Steve Packham discovered Dr. Ehleringerâ€™s real-time urban network CO2 data Web site in October and arranged to meet with him. "It became instantly apparrant that his CO and CO2 data dovetailed with our AMC monitoring and his it seemed likely that his stable isotope analysis could potentially be used in the near term to objectively address "exceptional events" and other significant SIP issues." Packham recalls.

"I noticed the similarity in diurnal, daily, weekly, and annual patterns of ambient CO and CO2 concentrations with charts I had made using DAQ CO monitoring data," Packham said. "I had compared Salt Lake City's unhealthy air quality days with other metropolitan statistical areas of similar sized and other major Intermountain urban areas for the Asthma Health Telecast and had become interested in the possibility of using ambient CO as an objective quantifiable baseline for anthropogenic sources of petroleum combustion products that form the universe of criteria and HAP's (Hazardous Air Pollutants) compounds in the urban air sheds."

Ehleringer said he's excited about the opportunity to partner with DEQ.

"I'd be willing to help establish internships and explore ways in which stable isotope analysis can be used to help with DEQ's specific analytical needs."

Amanda Smith, executive director of DEQ, welcomes the idea of a partnership.

"We have the same goals of protecting Utah's air quality," Smith said. "It is important to DEQ to form partnerships with various stakeholders throughout the community, including academia, to help improve Utah's environment."

Brad Johnson, deputy director of DEQ, couldn't agree more.

"It's the kind of partnerships like this that help DEQ meet its mission."