

## P2 People Meet in Denver



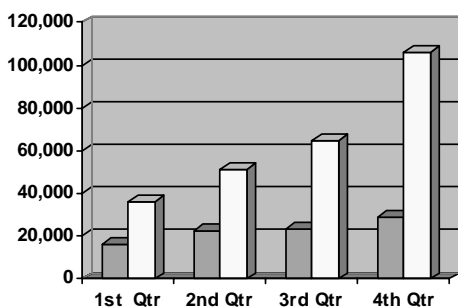
State and local programs offering pollution prevention technical assistance gathered in Denver at EPA's regional office, September 8-10 for the 2004 roundtable. The agenda included: a tour of several laboratory facilities at the National Renewable Energy Laboratory; remarks from EPA Headquarters by Tom Tillman; progress on the regional public lands initiative with a case study from a Missouri state park; an oil and gas production panel; and discussion of measurement initiatives in the on-going debate within government agencies to show that "P2 pays." Proceedings of the roundtable are located on the Peaks to Prairies web site so you can link to state reports and many of the presentations. Go to: [peakstoprairies.org/network/roundtable/](http://peakstoprairies.org/network/roundtable/) and click on "2004 Records." A summary of state program activities is included in this newsletter.

## Tribal P2 Portal Launched [www.tribalp2.org](http://www.tribalp2.org)

The NPPR Tribal Workgroup, P2Rx, and Peaks to Prairies have partnered to launch a web portal to tribal pollution prevention information. The goal of the portal is to promote pollution prevention as the method of choice for tribal waste issues and its objectives are to help tribes reduce health and environmental risks, protect and conserve resources, and address tribal issues in culturally appropriate ways.

The web site features a database of project resources, contacts to assistance including the P2Rx programs directory, funding sources, a calendar of events, an RSS feed with news about tribal P2 issues and a forum for discussion. Items planned and in progress include: adding more project resources, cross-linking with related sites, creation of some promotional material, NPPR workgroup WIP, "What is P2" tutorial, forum discussion about what makes a resource appropriate for tribes. Contributions and feedback are welcome and can be submitted by visiting the site.

## Peaks to Prairies Webtrends for FY 04



During 2004, there was a steady rate of increase in visits to the peakstoprairies website. During the 1<sup>st</sup> Quarter, the number of visitors to the website numbered at 15,925 with an average of 175 per day. The number of pages viewed was at 35,844. By the end of the year, numbers had increased to 28,857 visitors, with an average of 313 per day, and the pages viewed increased to 106,467 for the quarter.

The most visited pages were the news page and the topic hubs. Most people entered the site

via a web link or typing the address in directly. Search engines Google and Yahoo also provided access.

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The programs of the MSU Extension Service are available to all people regardless of race, color, national origin, gender, religion, age, disability, political beliefs, sexual orientation, and marital or family status. Issued in furtherance of cooperative extension work in agriculture and home economics, acts of May 8 and June 30, 1914, in cooperation with the U.S. Department of Agriculture, LeRoy Luft, Vice Provost and Director, Extension Service, Montana State University, Bozeman, MT 59717. The Montana State University Extension Service is an ADA/EO/AA/Veteran's Preference Employer and educational outreach provider.



Homes Across America currently has forty-eight high performance homes profiled on its website, with several more in the works. The showcase homes represent thirty-five states and

Washington, DC. The directory to organizations that can help people find information about high performance homes in a specific locale grew to a total of sixty-nine and cover forty-eight states and Washington DC. Web trends reports show visitation to HAA has grown dramatically. The number of unique 3<sup>rd</sup> quarter visitors to the site was 6,535 compared to 1,733 in the first quarter of 2004 and 4,430 in the 2<sup>nd</sup> quarter. With the numbers of energy star builders and local green building associations also on the rise, Homes Across America can validate its mission of building bridges between architects, builders, homeowners and planners to foster sustainable home building and operation.

Energy efficiency, indoor air quality, and affordability were major reasons cited for building a green home. Among the interesting profiles added recently is the NowHouse. The NowHouse, built by Clever Homes in conjunction with the Partnership for Advancing Technology in Housing (PATH), is a model modular home. It was on display in the parking lot of the new San Francisco Giants baseball stadium where it could be viewed by thousands of people as a lesson in energy efficiency and affordability. The NowHouse features a unique modular set up which allows the house to “grow” as lifestyle and family needs change. Using some of the most advanced technologies and sustainable materials in homebuilding today, the digitally designed NowHouse can be adapted to almost any climate, site or energy source.

Energy Star and award-winning builder A. Rossetto Construction of Fayston, Vermont built another interesting addition, the Vermont Green Home. Out of approximately 1,400 homes tested for energy efficiency in Vermont over the years, this house received the highest rating ever given. The blower door test infiltration rate was an all-time-low of 0.04 air changes per hour. Its energy rating was 95.3. Featured in the March 2004 edition of Fine Homebuilding magazine, this home received extra accolades for an innovation called a Solar Flywheel. The flywheel supplements the efficient gas water heater and radiant floor heating system with solar energy. Rossetto said, “Because we know how to build in ways that are better for the planet and everyone on it, we have a responsibility to do so.”

Habitat for Humanity is another proponent of building affordable homes using sustainable means. Homes Across America has profiled Habitat homes in West Virginia and Michigan, and is in the beginning stages of profiling an Idaho Habitat home. Volunteers, supervised by professional contractors, generally build these homes with the new homeowners. Homes Across America would also like to profile sustainable homes built on tribal lands. If you have tribal housing contacts, or any other viable contacts involved with sustainable home building, please let the Peaks to Prairies Center know.

## Teacher/Student Construction Science Topic Hub Update

With continuing input from a dedicated group of teachers involved with construction science, a new topic hub will soon be added to the P2Rx information network. The hub will include resources to augment construction programs in vocational/technical schools with links to curriculum materials, student organizations, green building marketing, calculators and on-line tools, and design competitions and awards. The hub is scheduled to be available to the public by early 2005.

Despite advancements in green building and affordability, many green builders still struggle to sell their spec homes. Consequently, one objective of this hub is to offer instructional resources on cost-effective ways to market their products and services. Peaks would like to extend a special thanks to Jay Ritter, a shop teacher in Hotchkiss, Colorado and Earl Torgerson, a construction science teacher at Bismarck State College for their extra effort in thoroughly reviewing resources and offering suggestions. Earl’s students also built the Bismarck State College Sustainable Project home showcased on the Homes Across America website. Peaks is looking for additional student built homes to profile on the HAA website and welcomes suggestions at any time for possible leads.

Check out NAHB’s new Model Green Home Building Guidelines at: [www.nahb.org/gbg](http://www.nahb.org/gbg).

## Region 8 State P2 Program Highlights for 2004



### Sustainability Program

- Agency-wide EMS – Continued the “plan-do-review-improve” cycle. They report a reduction in water, energy and resource use as well as waste production.
- EMS template for asphalt pavers - In partnership with the Colorado Asphalt Pavement Association and 25 companies, the template was created to provide compliance assistance (especially in terms of storm water regulations) and improve permit accuracy. Dubbed the “COMET” project, this is an extension of the COMPASS project started a couple of years ago.
- EMS Permit Pilot Project – Dealing with the aerospace, semi-conductor, and livestock industries, this voluntary program incorporates permits and permit requirements into the framework of an EMS. It is expected to improve integration of regulatory requirements, procedures, and record keeping. It is also expected to produce performance-based measurements of reduced environmental impacts.

- Environmental Leadership Program – Provides continued recognition and reward for environmental leaders in the state. The program features both a gold and silver tier and provides coordination with EPA's Performance Track program.
- Cross-media compliance/P2 assistance – Staff from Air, Consumer, Sustainability, Waste, and Water Divisions performed site visits for auto salvage, mercury switches, corrections, surface coating and auto body facilities.
- Cross Media Enforcement Team - Reviews, improves and develops departmental enforcement policies. This service helps incorporate P2 and sustainability principles into policies, approaches, training and tools for enforcement.
- Mercury Environmental Problem Solving Team – Staff from Sustainability, Air, Waste and Water worked as a team to formulate cross-media approaches to reduce mercury releases including those from auto switches, thermostats, thermometers and dental mercury. They developed outreach documents and environmental performance metrics for mercury collected and recycled.
- Energy Efficiency (E2) / Environment Partners – Provided free E2 assessments for facilities referred by environmental inspectors. Another cross-media effort, the assessments are funded by the Department of Energy. They have produced E2 identification and training materials, site-specific assessment reports, and project metrics based on recommendations implemented.
- Montana Materials Exchange - Material reuse listing website. Users can submit their materials for listing or search for materials they can use. [www.montana.edu/mme](http://www.montana.edu/mme)
- Computer Recycling - Developed on-line listing and description of potential sources to recycle/reuse computers for the Montana area.
- P2 in the restaurant industry - Provide P2-related materials to restaurants in conjunction with the ServeSafe Training and Certification Program required for all restaurant operators.
- Electric Vehicle Retrofit Project - Contributed to testing and demonstration of a converted gas to electric and solar powered service vehicle developed by the Montana Transportation Center and MSU Technology Education Program.
- EcoStar Program - Recognizes businesses implementing P2. There is a special focus on homebuilders in partnership with the Montana Building Industry Association.
- Landfarm Plastics Research Project - Research project with MSU Soil Science Department to determine moisture retention, thermal benefit and other attributes of shredded PETE and HDPE plastic as a soil amendment.
- Lewis & Clark P2 Youth Program - A series of 18 collector's cards teach P2 principles through comparison of methods and practices used by Lewis and Clark.
- P2 and Homeland Security - In partnership with Montana Homeland Security Taskforce, placed P2 information on the state homeland security web site.
- P2U (University) - Providing P2 assessment and P2 information to all Montana higher education campuses.
- Mercury thermostat recovery program - Collect mercury thermostats and replace with non-mercury programmable thermostats through the Montana Low-Income Weatherization Program.
- Montana Green Parks - Developing outreach to state and local park operations including P2 assessment opportunities, workshops and reference guide.
- EnergyStar Verifier - Partnership with National Center for Appropriate Technology to offer training for those interested in rating EnergyStar Homes.

#### **Future plans:**

- Environmentally preferable purchasing for state agencies.
- Exchange network for industrial waste.
- Rural chemical roundup (farms, ranches, schools).
- Hands-on EMS training for Environmental Leadership Awardees.
- Cooperative environmental project with Williams Oil and Gas.
- Partner with Ute Tribes to determine how to leverage resources between tribal and state P2 program.
- Develop measures/indicators for department focusing on outcomes vs. outputs.
- Create Hospitals for Healthy Environment opportunities in Colorado.
- Use EU ban on lead in electronics (2006) as a motivation to reduce or eliminate lead in electronic equipment manufacturers (14 in CO, ~40 in Region 8).
- Provide training in lean manufacturing techniques to Environmental Leadership companies.



#### **Pollution Prevention Program**

- STAR Program - trains students in collision repair vocational programs about techniques and equipment that improve transfer efficiency.

#### **Planned Projects**

- Consumer P2 - Public Kiosk - Development of a touch-pad interactive kiosk for users to determine home environmental risks for seven factors.
- Tribal P2 Leadership Consortium - Formed consortium of seven Montana tribes to define long-term P2 interests and needs for potential funding and strategic planning.
- Household Battery Recovery/Recycling Program - Pilot program to explore sustainable cost and feasibility of statewide battery collection program.



## Pollution Prevention Bureau

- Revised Integrated Waste Management Plan - Formed a 26-member stakeholders task force to study the 1994 plan and make recommendations for improvement. Three public hearings were held in Missoula, Great Falls, and Billings. Updated goals were submitted to the 2005 legislative session.
- Mobile Glass Pulverizer - Identified partners and funding to purchase this equipment. The pulverizer will be rotated throughout the state producing glass cullet for road base, landscaping, drain back fill and septic systems.
- Landfill Tonnage and Recycling Survey - Montana landfills, recyclers and composters.
- Economic Impact of Recycling - Produced a study on the economic benefits of recycling on Montana's economy.
- Recycling Market Development Guide - Produced an informational guide for individuals considering starting a recycling operation (with Department of Commerce).
- Ethanol Education Outreach - Developed a marketing campaign for state motor pool users and citizens to increase distribution and sale of ethanol blended fuels and biodiesel.
- Public Outreach Events - Promoted and recognized P2 Week, America Recycles Day and Earth Day to state agencies, public schools and the general public.
- EMS Guide for Small Businesses - Developed an informational guide for developing and measuring an EMS.
- Business and Community Assistance Program and Asbestos Program PSA's - Developed two 30-second TV PSAs to publicize DEQ programs. Asbestos PSA's will be released in Spring 2005. Asbestos Insulation Weatherization - Demonstration project to weatherize low-income housing containing asbestos insulation in partnership with Human Resource Development Council.
- Laboratory Chemicals in Schools - Developed and conducted an inventory of chemicals contained within the laboratories of Montana public schools.
- Rest Stops - Analyzed P2 opportunities for pollution prevention and energy efficient practices to be used in building new and remodeled highway rest areas.
- Montana Children's Environmental Health Network - Participated in multi-agency working group to address a variety of environmental issues affecting children. Some outreach materials were developed.

### Planned Projects

- EMS Training for Montana small businesses with Montana Manufacturing Extension Program.
- Hospital Compliance/P2/E2 Outreach.

- Green cleaning and gardening brochure for consumers and businesses.
- Discovery Center Collaboration with US Forest Service to determine green building strategies.
- Exploration Works collaboration with City of Helena and Department of Transportation to identify green building strategies for children's learning center.
- Best Stove Technology brochure (wood burning stoves).
- Recycled Products Directory update.
- Wood stove exchange program for Libby, MT in partnership with the EPA and other sections at the DEQ.

## North Dakota Department of Health Pollution Prevention Program

- Environmental Management Training for State Parks - Conducted P2 assessments in three state parks and provided compliance and P2 training to 26 state park employees.
- Nutrient Management - Assisted agricultural operations in developing and implementing nutrient management plans.
- Materials Exchange Program - Developed the structure for a North Dakota material exchange web site.
- Project Safe Send - Safely collected and disposed of 129,994 pounds of agricultural chemicals that were outdated, unidentified, and/or banned chemicals.
- Fleet Maintenance P2 - Provided a toolkit of best management practices to the Department of Transportation, State Fleet Maintenance and County Highway Departments.
- Jamestown Wastewater Methane Collection - Demonstration project to evaluate a potential methane gas collection and utilization project. Partners include: City of Jamestown, University of North Dakota Energy and Environmental Research Center and a local potato processing plant.

### Planned Projects:

- Promoting environmental stewardship through state parks (for visitors and employees).
- Increase the quantity of organic waste materials utilized by community biomass programs.



## Pollution Prevention Program

Deliverables available at: [www.state.sd.us/denr/document.htm#Pollution%20Prevention](http://www.state.sd.us/denr/document.htm#Pollution%20Prevention)

- South Dakota Forest BMP Training and Audit - Partnered with other DENR divisions, universities, federal public land agencies, and timber associations to provide training in best

management practices to the timber industry. Concentrated on minimizing erosion and pollution to nearby lakes and streams. Two workshops were conducted, six timber sale sites were audited, and a revised BMP guide was distributed. Monitoring and development continues.

- Arsenic in Drinking Water - Provided water systems and private well owners with a cost effective method of arsenic remediation from drinking water at the source in partnership with the Drinking Water Program and South Dakota School of Mines and Technology.
- Source Reduction for the Livestock Industry - Provides livestock producers with animal production waste reduction strategies to prevent surface and ground water pollution and meet regulatory requirements. The program "Managing Manure for Profit and the Environment" is a result of this project. A workgroup of university and resource management professionals and commodity group representatives coordinate activities.
- Fecal Coliform Strain Identification - Developed an affordable reliable protocol to identify fecal coliform bacteria strains by species of origin including an antibiotic resistance analysis "library" to identify strains originating from humans, cattle, swine, sheep, poultry, dogs and cats.
- Small City Storm Water P2 - Developed P2-based model for storm water management for small municipalities. Conducted workshops for local government staff in the cities of Sturgis and Aberdeen.
- Water and Wastewater Utility Security Training - Provided assistance in developing training materials for use at workshops. A video was developed in partnership with SD Public Broadcasting and three workshops were conducted for system operators.

**Planned Projects:**

- P2 for State Parks
- Stormwater P2 Plan/BMP Workshops



**Pollution Prevention Program**

- EMS Certification and Training - Training was obtained and provided to Utah agencies and regional groups looking to develop an EMS. Goal is to obtain ISO auditor's certification.
- Clean Utah!/EMS Audits - This performance partnership program recognizes and provides incentives to Utah businesses for environmental performance and going beyond compliance.
- Mountain Recreation - Continued work with mountain recreation areas to educate and implement best management practices for golf, lodging and ski area operations. Provided on-going technical assistance and training opportunities. <http://utmtngroup.utah.gov/>

- Collaboration Summit - September 7-9, 2004 Conference to develop an environmentally-focused partnership among local, state and federal land management agencies.
- Utah P2 Association - Group of Utah business and industry and local governments works to promote P2 as the preferred environmental approach.
- Mercury Recovery - Campaign in partnership with Smith's and Salt Lake Valley HD and with Granite District schools providing digital thermometers in exchange for mercury thermometers. The exchange was free and included proper disposal of mercury thermometers.

**Planned Projects:**

- EMS in schools.
- Mercury switches in auto salvage.
- EMS in agriculture.
- Children's Environmental Health Summit.
- P2 Measurement



**Pollution Prevention Program**

- On-site P2 Assessments for Small Businesses - Provides individual on-site P2 assessments and assistance to small businesses to implement P2 practices. Mid-America Manufacturing Association is a partner.
- School Chemistry Lab P2 - Provided P2 assessments for labs and assisted in safe handling and disposal of unnecessary chemicals while initiating P2 practices.
- State and Local Parks P2 - Performed on-site assessments in Wyoming Parks, participated in planning for Parks P2 toolbox and will plan to promote this project at the next Wyoming Parks and Recreation Association meeting.
- Rural Road and Coal Mine Particulate Matter P2 - Identified and monitored sources of fugitive dust and particulate matter potentially affecting ambient air quality in NE Wyoming from extensive development of road systems to surface mining and oil/gas industries. Developed guidelines to reduce PM 10 and 2.5 generation at the source and provided documentation of ambient air quality and reductions possible through P2. Partners include: Converse Area New Development Organization, coal, oil and gas industry representatives, road maintenance agencies and Bureau of Land Management.

**Planned Projects:**

- Small business on-site P2 assessments.
- Oil and gas drilling P2.
- State and local Parks P2 project.
- Hybrid electric vehicle P2 Project.

NON PROFIT  
ORGANIZATION  
US POSTAGE  
**PAID**  
BOZEMAN, MT  
PERMIT #69

**Region 8 State P2 Programs  
and Center Advisory  
Committee**

**Colorado**

Jill Cooper & Kirk Mills, CDPHE  
email: [jill.cooper@state.co.us](mailto:jill.cooper@state.co.us)  
email: [kirk.mills@state.co.us](mailto:kirk.mills@state.co.us)

**Montana**

Mike Vogel, MSU Extension  
email: [mvogel@montana.edu](mailto:mvogel@montana.edu)

Lou Moore & Brian Spangler, DEQ  
email: [lmoore@state.mt.us](mailto:lmoore@state.mt.us)  
email: [bspangler@state.mt.us](mailto:bspangler@state.mt.us)

**North Dakota**

Kent Belland, NDDH  
email: [kbelland@state.nd.us](mailto:kbelland@state.nd.us)

**South Dakota**

Barry McLaury, DENR  
email: [barry.mclaury@state.sd.us](mailto:barry.mclaury@state.sd.us)

**Utah**

Sonja Wallace, DEQ  
email: [swallace@deg.state.ut.us](mailto:swallace@deg.state.ut.us)

**Wyoming**

Robin Lockman, DEQ  
email: [rlockm@state.wy.us](mailto:rlockm@state.wy.us)

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**About the Peaks to Prairies Center**

The Center is operated by the Montana State University Extension Service and serves EPA Region 8 states--Colorado, Montana, North Dakota, South Dakota, Utah and Wyoming. As part of a non-regulatory, educational entity, the Center draws on resources of the land-grant system. The Center's goal is to protect the environment through pollution prevention. Its major function is to serve as a networking tool for state and local governmental agencies, trade associations, educational institutions, consultants, and non-governmental organizations who serve small businesses.

**Executive Director:**

Michael Vogel  
[mvogel@montana.edu](mailto:mvogel@montana.edu)

**Program Coordinator:**

Laura Estes  
[laurae@montana.edu](mailto:laurae@montana.edu)

**Sector Specialist:**

Steve Guettermann  
[sguettermann@montana.edu](mailto:sguettermann@montana.edu)

**Program Assistant:**

Byron McKinney  
[bmckinney@montana.edu](mailto:bmckinney@montana.edu)

<http://peakstoprairies.org>  
phone: 406/994-3451 ♦ fax: 406/994-5417



Peaks to Prairies is a member of the Pollution Prevention Resource Exchange (P2Rx), a national network of pollution prevention information centers representing all ten EPA regions. Through P2Rx, centers bring regional networking to a national level, exchange information and build on each others' ideas. Support for Peaks to Prairies is provided by the U.S. Environmental Protection Agency and the state programs listed on the left.