

Sustainable Operations • 2006

U.S. FOREST SERVICE • ROCKY MOUNTAIN REGION



PAPER – one of mankind’s most resource-intensive products with impacts on forests, energy and water. Consumption of paper now up to almost 1,000 pounds per person annually in the U.S. and expected to double within the next fifteen years. Producing one ton of paper requires nearly as much energy as the manufacturing of a ton of steel. Papermaking consumes more water on a per ton basis than all other industrial commodities. Recycling one ton of paper prevents the processing of 17 trees, saves 7,000 gallons of water, and saves three cubic yards of landfill space. – Communication Arts, March/April 2006



CONTENTS

INTRODUCTION – Message from Anna

FEATURE PROJECT

ACCOMPLISHMENTS THIS YEAR BY FOCUS AREAS

- Waste Reduction and Recycling
- Fleet and Transportation Management
- Water Conservation
- Wise Energy Consumption
- Green Purchasing
- Leadership

SUSTAINABILITY CHAMPIONS AND ACKNOWLEDGEMENTS

BOARD OF DIRECTORS – Looking Forward



INTRODUCTION

Last year's Sustainable Operations Summit kicked off the US Forest Service Region 2 efforts for reducing its ecological footprint by adopting sustainable practices. Sustainable Operations is about changing habits and engaging in a process that creates abundance. Reducing energy use not only decreases our environmental footprint, it also increases the pot of money for other projects. Carpooling not only reduces emissions, but gives us a chance to learn something new from a fellow employee. Reusing GOOS (good on one side) paper out of the recycle bin limits the amount of paper that has to be hauled to the recycler.

However, engaging in habit change can be difficult. Resource and time constraints can make it feel overwhelming to do yet one more thing. But, in an era when consumption habits have created a footprint requiring a shoe bigger than what Mother Nature can provide, time scarcity as an excuse to make changes will lead to resource scarcity for future generations. Those of us responsible for the stewardship of public lands have no greater task than to create a vision for how conservation should look and feel into the future.

AVERAGE USE OF METERED POTABLE WATER PER CAPITA, PER DAY IN THE ROCKY MOUNTAIN REGION IS OVER 200 GALLONS PER DAY, PER PERSON. IN 2004, THERE WERE 2,159 PERMANENT EMPLOYEES IN REGION 2. THIS EQUATES TO 14,750 GALLONS OF USE PER YEAR PER EMPLOYEE OR EACH EMPLOYEE USING 57 GALLONS (A BARREL) A DAY FOR EACH OF THE 261 WORKING DAYS DURING THE YEAR.



Not only has Region 2 learned a tremendous amount from those who have actively engaged in the sustainable operations effort, but so has the agency. The process of creating habits of abundance next year looks inspiring. Region 2 will be supporting the effort to create a national footprint reporting structure. Additionally the Region will be:

- Continuing partnerships with the National Renewable Energy Lab to create an energy strategy both for buildings and fleet.
- Working on a partnership strategy that cultivates relationships with corporations and communities in support of sustainable operations efforts.
- Implementing a partnership with Region 8 of the Environmental Protection Agency, to mutually support reducing our agency's footprints.
- Continue to help each and every employee participate in deliberate acts of conservation through implementation of the Sustainable Operations Board of Director's Unity Statement.

The best quote I've read recently was included in "The Energy Diet," a New York Times Article by Andrew Postman. Postman gave himself eight hours to lose the weight of half a ton of green house gas emissions. In the article he quotes Laurie David, the founder of the Stop Global Warming web site as saying "It's all about attitude. Change one or two things and you end up changing four or five things . . . before you know it you start influencing people around you." The sustainable operations endeavor has created an abundant network of employees in and beyond Region 2 that have wholeheartedly embraced and engaged in this important work.

I hope you will take time to read about these accomplishments and keep this document in a place you can refer to frequently. Contained within these many words are stories that deserve to be shared, discussed and rewritten into new stories in new places. It will be exciting to hear more stories at this time next year.

Anna Jones-Crabtree
Regional Sustainable Operations Coordinator
Rocky Mountain Region



FEATURE PROJECT

BESSEY RANGER STATION – First LEED certified building in the Region

One accomplishment in particular merits special mention. The Bessey District and Nursery Office in Nebraska is the first in the region to extensively apply Leadership in Energy and Environmental Design (LEED) principles along with The Built Environment Image Guide for the National Forests and Grasslands (BEIG). This project helps pave the way toward building more energy and water efficient, comfortable and sustainable structures that will provide long lasting benefits for years to come.

The LEED rating system is organized into five environmental categories: 1) sustainable sites, 2) water efficiency, 3) energy and atmosphere, 4) materials and resources, and 5) indoor environmental quality. Features for each of these categories follow below.

Sites

- There are five spaces for storing bicycles and showers are available at the pool.
- An electric vehicle recharging station is provided.
- Preferred parking is provided for car or van pool and parking spaces were reduced.

- The building was oriented to preserve as many trees as possible. Additionally, strict construction limits were enforced to decrease site impacts related to the construction process.
- An area larger than twice the building footprint is designated as open space.
- The outdoor lighting has minimal impact to off-site activities.

Water Efficiency

- Potable water use is reduced by utilizing waterless urinals and low-flow plumbing fixtures. These fixtures reduce water utilized for potable water to 24,734 gallons per year; which is a 50 percent reduction of the amount expected in a similar building without water-reducing plumbing fixtures.

Energy and Atmosphere

- No CFC-based refrigerants were used in the HVAC systems.

Optimize Energy Performance

- The energy cost to operate the Bessey District/Nursery Office is estimated to be 45% less than a typical building.
- The roof and walls are insulated to a standard much higher than traditional buildings, and also sits on a concrete slab with two inches of insulation around the perimeter.

THE FUEL MIX USED TO GENERATE ELECTRICITY SUPPLIED TO THE BESSEY AREA IS 76% COAL, 12% NUCLEAR, 9% HYDRO, 1% RENEWABLES. BY USING RENEWABLE ENERGY BESSEY ELIMINATES APPROXIMATELY 94 TONS OF CARBON DIOXIDE, 560 POUNDS OF SULFUR DIOXIDE, AND 400 POUNDS OF NITROGEN OXIDE FROM BEING RELEASED INTO THE AIR. IT WOULD TAKE 14,400 TREES TO ABSORB 94 TONS OF CARBON DIOXIDE.



- The building is heated and cooled by two geothermal, ground coupled, heat pumps with backup electric resistant heating.
- Compact fluorescents, fluorescents, and task lighting are controlled by occupancy sensors, timers, dimmers, and daylighting controls.
- 100 percent of the building's electricity is provided from renewable sources for two years. Renewable energy comes from solar electric, wind, geothermal, biomass and small hydro facilities.
- By using renewable energy instead of fossil fuel generated electricity, the Bessey District/ Nursery Office eliminates approximately 94 tons of carbon dioxide, 560 pounds of sulfur dioxide, and 400 pounds of nitrogen oxide from being released into the air. It would take 14,400 trees to absorb 94 tons of carbon dioxide. This is equivalent to 37.6 acres of trees. Another way of looking at the emissions is that it is equivalent to eliminating the emissions produced by driving 310,000 miles in a car.

Materials and Resources

- Recycling space is provided inside the building to recycle paper, corrugated cardboard, glass, plastics, and metals. The Bessey District/Nursery Office could produce approximately 75 pounds of solid waste per day, most of which may be recycled.

- Of the 735 tons of waste generated during construction, demolition, and land clearing, 727 tons or 98 per cent was reused or recycled instead of sending to a landfill.
- Over 20 percent of the building materials and products were manufactured within a 500-mile radius of the building site. This supports local economies and reduces transportation costs.

Indoor Environmental Quality

- Carbon dioxide levels are monitored to provide an indication of indoor air quality.
- Increase level of thermal, ventilation, and lighting system control by individual occupants was provided to promote the productivity, comfort, and well-being of building occupants.

This project extends across all of the six focus areas that were established to accomplish sustainable operations goals:

1. waste reduction and recycling,
2. fleet and transportation management,
3. water conservation,
4. wise energy consumption,
5. green purchasing and
6. leadership.

The following pages highlight accomplishments in each of these areas, all of which contribute to reducing our environmental footprint.



ACCOMPLISHMENTS THIS YEAR

FOCUS AREA

Waste Reduction and Recycling

“Slash Our Trash” Bighorn National Forest

The Bighorn National Forest Green Team, which was formed in 2006, focused their first year sustainability efforts on waste recording, prevention and recycling.

Armed with a little money from last year’s summit and help from Kathleen Goode, a STEP Engineering student, they began by investigating the forest “waste stream” – or the most commonly disposed items. Garbage from several dumpsters at offices, campgrounds and a work center were analyzed to determine the flow of trash.

The Team also took a hard look at the waste stream in campgrounds. Analysis of waste streams from a few campgrounds demonstrated that the majority of the waste is compostable, and much of the remaining portion is recyclable.

Ash from fire pits is the main contributor to the waste stream from campgrounds and is currently hauled off the forest and disposed of in community landfills. The Bighorn Team is investigating opportunities for composting this waste material to use in revegetation projects.

A Big Belly Solar Powered Trash compactor was purchased and installed at Burgess Visitor Center, which reduced the number of trips necessary to haul waste.

RECYCLING ONE ALUMINUM CAN SAVES ENOUGH ENERGY TO RUN A TV FOR 3 HOURS. RECYCLING ONE GLASS CONTAINER SAVES ENOUGH ENERGY TO LIGHT A 100-WATT BULB FOR 4 HOURS. • CONSTRUCTION AND DEMOLITION WASTES CONSTITUTE ABOUT 40% OF THE TOTAL SOLID WASTE STREAM IN THE U.S. • IT IS ESTIMATED THAT AN OFFICE BUILDING, DAILY, PRODUCES 1 POUND OF SOLID WASTE PER 100 SQUARE FEET.



The Team is also in the process of purchasing a glass pulverizer that could serve multiple Federal, State, and local agencies in and around the Sheridan area. Currently, there is no means of recycling glass in Northeastern Wyoming. A glass pulverizer would turn the glass

into silica sand, which could then be used for a variety of uses, including landscaping. The Team plans on applying for a grant to help fund the purchase of the pulverizer.

Recycle bins were installed at one campground to identify visitors reactions to recycling as well as what types of recyclables could be collected. Paper, glass, aluminum and compostable recycle bins were made available for visitors. The team plans to expand this effort next year and work more closely with the campground concessionaire to identify recycle needs and provide the bins necessary to reduce waste and increase recycling.

Finally, the Team is working to make the 'slash our trash' effort an integral part of the EMS (Environmental Management System), which the Forest is beginning in FY '07.

Dumping and Disposal

Some sites on the Front Range of Colorado often resemble landfills. A variety of items are dumped on national forest land, including those considered hazardous waste. One such item is vehicle batteries. As a summer project Jessie Miller, a STEP Engineering student, developed a toolkit that field units can use to safely retrieve the batteries and store them at a work center until they can be properly disposed. At the Pikes Peak RD there were over 500 cubic yards of trash collected from illegal dumping activities. Items collected included over 300 tires, 50 vehicle batteries, and scrap metal, among others.

The GOOS Paper Movement – Good On One Side

Glenda Wilson, Director of Engineering, has been a champion of reusing GOOS paper in her printer. The RO Engineering Staff is in the process of converting one drawer of their copy machine to GOOS paper and one of the engineering printers uses GOOS paper exclusively. The Engineering, State and Private Forestry and Renewable Resources Regional Office Staffs reported many employees have eliminated the cover sheets used at the printer. Recreation and Engineering RO Staffs have set the default setting on the printers and copiers to automatically duplex.

The Regional Recycling Report

Many offices reported they are actively participating in local recycling efforts. Paper and aluminum cans are the most often reported items being recycled.

- Several offices such as the Pikes Peak RD are also encouraging employees to bring recyclables from home. This district estimated their recycling efforts alone diverted between 45-55 cubic yards of waste from the landfill.
- The Nebraska NF, the Norwood RD on the GMUG, the PSICC NF, are making efforts to properly dispose of and reduce the use of hazardous materials from their bone yards and work centers.

- The RO, JeffCO Air Tanker Base and five facilities on the Denver Federal Center purchased approximately 350 recycled toner cartridges which were sent back to the primary vendor for reuse. These same facilities also returned approximately 50 new, but used, toner cartridges to be recycled.

The Sustainable Ops Team on the Medicine Bow/Routt National Forest identified a few unique reuse opportunities. The forest is transferring analog radios being phased out of the system to the local National Guard unit for use in national emergency work.

The White River National Forest noted an effort to remove subscribers from subscriptions that were no longer needed or were duplicated.

Looking Forward

There are tremendous opportunities for waste reduction in wildland fire support activities. One fire camp waste analysis was conducted this summer and follow-up opportunities will be investigated further this year.

The Rocky Mountain Region will work closely with the national Information Resources Management group to identify quantities of cell phones, printer cartridges and other electronic related waste. This effort will determine the magnitude of this waste stream and identify measures to reduce waste, reuse items and recycle eligible material.

NOBODY MADE A GREATER MISTAKE THAN HE WHO DID NOTHING BECAUSE HE COULD ONLY DO A LITTLE. – EDMUND BURKE • IT IS NO USE WALKING ANYWHERE TO PREACH UNLESS OUR WALKING IS OUR PREACHING. – ST. FRANCIS OF ASSISI • NEVER DOUBT THE POWER OF A SMALL GROUP OF COMMITTED PEOPLE TO CHANGE THE WORLD. THAT’S ABOUT THE ONLY WAY IT HAS EVER HAPPENED IN THE PAST. – MARGARET MEAD • BE THE CHANGE YOU’RE TRYING TO CREATE.– GANDHI



FOCUS AREA

Fleet and Transportation Management

Alternative Transportation Rally, Regional Office, June 27, 2006

More than 75 participants chose an alternative mode of transportation for getting to work for the rally, including biking, car pooling, driving a hybrid, riding the bus, or walking. Speakers from the DOE Clean Cities Program, the Denver Regional Council of Government's Ride Arrangers Program, and the Regional Transportation District (mass transit system) shared information about alternatives in vehicles and fuels to help reduce fossil-fuel dependence. The rally was another effort to raise employee awareness about developing behaviors today that conserve resources for tomorrow.



The Regional Directive: Reduce Travel by 15 Percent

The Presidential Memorandum issued on September

26, 2005, which required Federal Agencies to take actions to conserve energy and improve energy efficiency was taken very seriously in the Rocky Mountain Region. A goal was set to reduce our travel costs, miles and fuel usage by 15 percent from FY05 figures which exceeded the memo requirements of 10 percent. Many units increased their use of carpooling and teleconferencing allowing the region, to achieve a final reduction just over seven percent (this does not include any costs for TOS or emergency support). This decrease is still significant based on increased cost of travel this past year. We also increased our miles driven by approximately 1 percent. Although the specific targets set were not met, the real success was the awareness raised and questions asked about the necessity of getting together rather finding an alternative to face-to-face meetings. Our effort to find creative ways to reduce the impacts of our travel will continue. Employees will be encouraged to seek appropriate ways to reduce travel, yet also improve the quality of field presence.

Success Shorts

Almost all units reported increasing the use of carpooling and reducing the number of face-to-face meetings.

Many units experienced an increased attention to matching the size and mile-per-gallon rating of a vehicle to a given job. The White River NF reported reducing its overall fleet by 12 percent in the last three years.

Many forests have reported an increased effort to use alternative fuels where it was feasible.

Currently the:

- MBR has access to one bulk biodiesel supplier.
- Two work centers on the Thunder Basin Grassland are using biodiesel.
- Bighorn National Forest road crew is using bulk biodiesel.
- South Platte RD is using B20 in the bulk fuel tank at the Buffalo Work Center
- GMUG is using biodiesel where applicable from a commercial pump in Montrose, CO.
- Several forests have contacted local fuel suppliers to obtain easier access to alternative fuels such as E-85.
- Currently the Shoshone NF is working closely with the Greater Yellowstone Grand Teton Clean Cities Coalition to expand use of alternative fuel in their ecosystem.

- The SPF Staff in the RO and the Nebraska NF are educating drivers about the importance of appropriate tire inflation as it relates to fuel economy.
- Several forests are using retreaded tires on their heavy equipment.
- The Shoshone and Bighorn NFs have worked with oil change vendors to use re-refined oil in FS fleet vehicles.

By the Numbers

28 percent of new vehicles ordered in the Region were alternative fuel vehicles (AFV). This increased the number of E-85 compatible vehicles in the Region to 49 and brought the number of hybrids to 24.

RO employees utilizing the transit program increased from 23 to 30 by the end of FY06.

Looking Forward

The region will be entering into an interagency agreement with the Transportation Systems Group at the National Renewable Energy Lab to perform a fleet energy audit.

The regional fuel economy for our fleet is 14.9 miles per gallon. We will be tracking this indicator as a way to monitor our progress towards matching the right vehicle with the right job.

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FOCUS AREA

Water Conservation



Popular Site in Wyoming Will Include Water Saving Features

Shell Falls Wayside, one of the most popular stops in Region 2, is scheduled for a complete remodel of the site and buildings beginning in the summer of 2007. The Bighorn National Forest is working hard to ensure water saving and energy conservation measures are built into the site's design.

The main attraction at the Shell Falls Wayside is a waterfall. With water as a theme, interpretive signs will be placed in various locations that tell visitors how much water is used every time they brush their teeth, flush the toilet, or water their lawn. In addition, the remodel will include dual flush toilet valves that use much less water, along with waterless urinals.

In addition to these water-saving measures, the facility will feature non-toxic finishes and drought tolerant landscaping.

The Bighorn National Forest is also pursuing a project to replace the existing underground power line with a microhydro turbine system that generates power from Shell Creek.

Success Shorts

Many units identified water conservation measures they will be taking in the upcoming year. For example the MBR identified several kitchens that could use on-demand water heaters. Several forests also identified locations for low-flow fixtures to be installed.

The Arapaho/Roosevelt SO is a good example of native and xeriscaped landscaping requiring minimal water use.

By the Numbers

Pikes Peak Ranger District achieved a 22 percent reduction in water use!

Looking Forward

Partnership efforts with the city of Denver to link water use more directly with water supply will continue.

The Regional Energy Management Team will be developing direction to identify appropriate locations to monitor water use this next year as part of the Energy Policy Act of 2005 metering requirements.

IF 20% OF U.S. HOMES USED HIGH EFFICIENCY CLOTHES WASHER, NATIONAL ENERGY SAVINGS COULD BE 285 MILLION BTU'S PER DAY—ENOUGH TO SUPPLY THE NEEDS OF OVER ONE MILLION HOMES. • IN THE U.S., APPROXIMATELY 340 BILLION GALLONS OF WATER ARE WITHDRAWN PER DAY FROM RIVERS, STREAMS, AND RESERVOIRS TO SUPPORT DAY-TO-DAY ACTIVITIES. • IN SOME PARTS OF THE U.S., WATER LEVELS IN UNDERGROUND AQUIFERS HAVE DROPPED MORE THAN 100 FEET SINCE THE 1940'S.



FOCUS AREA

Wise Energy Consumption

Vending Machines Save Energy and Money

VendingMisers (TM) are motion sensors and controllers that attach to the back and top of vending machines. After 15 minutes of inactivity, the VendingMiser will shut down power to the machine. If someone walks by the machine the device will send power to reactivate. It also activates the machine every one to three hours to keep drinks cool.



When the Regional Office Leasing agent approached the vending machine owner about installing VendingMisers he was curious about the device and how it would affect the quality of his products. When he noticed where the company was located he walked out the door and down the street three blocks to see first-hand where the VendingMisers were created. As a result of the conversation between the two business owners, all machines owned and operated by the vendor are now equipped with these energy-saving devices.

Through a region-wide purchase there were 32 vending misers installed in the region with an annual estimated savings of 71,000 KWH. At current energy rates this equates to approximately a \$6,000 annual savings. The VendingMisers cost about \$140 each and the payback period is approximately nine and a half months.

Dim the Lights for Conservation

One of the most visible energy conservation activities taken in the region was lighting level reductions in the Regional Office. Most areas were found to be lit at levels exceeding lease requirements. Many areas were reduced by “de-lamping” one or two lamps in each fixture. 380 lamps were “de-lamped” throughout the building, reducing 40 watts of energy used for each lamp. In one year, the Regional Office will save 31,616 kwh of energy at a cost savings of \$2,213 per year. This eliminated 30 tons of carbon dioxide from entering the atmosphere. It takes 4,515 trees, or 12 acres of forest land, to absorb this amount of carbon dioxide. There is also energy savings by reducing the cooling load in the building. The energy saved in 2006 by this effort is 1.9 percent of the energy used in 2005. EFACT 2005 requires two percent energy reduction each year.

Success Shorts

Creation of the Regional Energy Management Team

In August a Regional Energy Management Team was chartered to be a resource for energy use and management, reporting requirements, progress tracking, provide technical experts and champion the use of renewable energy.

Missoula Technology and Development Center is a member of the energy team and the National Renewable Energy Lab (NREL) has provided representatives as advisory members. An inter-agency agreement with NREL was established to help support these goals and develop a region-wide energy management strategy. NREL will determine the best return on investment locations for renewable energy installations at FS sites.

Energy Conservation Brown Bag at the Regional Office

On Friday, April 28, dozens of Regional Office employees participated with a brown bag lunch to learn about simple actions to reduce energy consumption. A short award-winning video was shown called “Kilowatt Ours,” and experts from Xcel Energy and the National Renewable Energy Laboratory made short presentations and answered numerous questions. Feedback from participants was very positive and the goal for raising awareness and providing useful information for making small changes was achieved.



BUILDINGS CONSUME APPROXIMATELY 37% OF THE ENERGY AND 68% OF THE ELECTRICITY PRODUCED IN THE U.S. ANNUALLY. COMBUSTION OF FOSSIL FUELS PRODUCES ABOUT 75% OF OUR ENERGY. • A WIND TURBINE TYPICALLY LOWERS A HOUSEHOLD ELECTRICITY BILL BY 50% TO 90%. • OVER ITS LIFE, A SMALL RESIDENTIAL WIND TURBINE CAN OFFSET APPROXIMATELY 1.2 TONS OF AIR POLLUTANTS AND 200 TONS OF GLOBAL WARMING POLLUTANTS.



Renewable Energy Credits

Region Two exceeded the requirements of the Energy Policy Act of 2005 for use of renewable energy. Through a partnership with Western Area Power Administration the Region was able to enter into a five-year agreement to purchase a minimum of 550 MWH's of Renewable Energy Credits (REC) at a reduced rate of \$2.70/mwh. This is the equivalent to approximately five percent of the region's annual power usage. At least 50 percent of the REC's are from biomass energy developed in the state of Colorado.

By the Numbers

Most forests reported implementing the direction from the Presidents Energy Conservation Memo by setting thermostats to recommended settings and purchasing "Energy Star" equipment and appliances.

Lighting typically accounts for up to 40 percent of a company's energy usage. Many forests and RO staffs reported turning on the lights only when necessary. For example, the Regional Foresters conference room is flanked by a bank of windows and most days there is enough daylight for the lights to remain off during meetings.

Lighting retrofit projects were accomplished at the Paonia and Gunnison District Offices on the GMUG.

Energy Audits were performed on six buildings in the Region. As phase one of energy audit implementation the PSICC South Park Ranger District replaced a 50-60 percent efficient furnace with a 92 percent efficient unit and installed air-to-air heat exchangers, installed six occupancy sensors, retrofitted 33 fluorescent lights with electronic ballasts and T-8 bulbs, replaced a 40-gallon water heater with a 2.5 gallon unit.

The PSICC also did three other furnace replacements with energy-efficient models.

The Pikes Peak RD, PSICC reduced electricity use by seven percent and natural gas use by 26 percent.

Medicine Bow/Routt NF(MBR) leadership provided direction to all employees to set computers in stand-by modes after 20 minutes of non use.

The MBR also replaced an inefficient heating system with an energy-efficient system at the Walden Residence.

Bighorn National Forest replaced 90 percent of remote work station incandescent light bulbs with compact fluorescents – for an approximate energy savings of 400 cfl's.

Looking Forward

Support other Regions and/or units to purchase RECs using the Forest Service agreement with the Western Area Power Administration.

Develop an inventory of renewable energy installations in the region.

Purchase another supply of energy conservation items for the region.

Cultivate the relationship with the national FS Information Resources Management group to implement energy-saving settings for workstations throughout the agency.

FOCUS AREA

Green Purchasing

100 Percent Post Consumer Recycled Content Paper is a Hit!

The biggest green purchase this year was the conversion to using 100 percent post consumer recycled content paper for copying and printing by several units in the Region. As part of Office of General Counsel's participation in the Regional Office Green Team they were the first unit to convert. The lawyers led, the forests followed. Other units throughout the Region now using 100 percent post consumer recycled content paper include the Pikes Peak Ranger District, Bighorn National Forest, Medicine Bow National Forest and the Regional Office. The Regional Office switch alone is approximately 1,240 boxes of paper every year!

Success Shorts

The Pikes Peak Ranger District, PSICC and Buffalo RD, Bighorn National Forest, have converted to "green" cleaning supplies as part of their janitorial contracts.

Most units reported increased attention to purchasing Energy Star equipment. The RO replaced 10 percent of its fax machines this year with Energy Star compliant systems. Currently all RO printers and photocopiers are also Energy Star compliant. Energy Star ratings will continue to be a major criterion for FY07 replacements.

Looking Forward

Partnering with the Information Resources Management Group to include Electronic Product Environmental Assessment Tool Criteria when purchasing computers.

Regional guidelines and direction for green purchasing were drafted this year, and will be sent out as soon as a basic 'tool kit' is developed. The tool kit will provide USDA green purchasing guidance as well as a list of 'green' items and vendors.

IN THE END, IT IS IMPORTANT TO REMEMBER THAT WE CANNOT BECOME WHAT WE NEED TO BE BY REMAINING WHAT WE ARE. – MAX DE PREE

• THE FUTURE IS NOT SHAPED BY PEOPLE WHO DON'T REALLY BELIEVE IN THE FUTURE. – JOHN GARDNER • THE STARTING POINT OF ALL ACHIEVEMENT IS DESIRE. KEEP THIS CONSTANTLY IN MIND. WEAK DESIRES BRING WEAK RESULTS, JUST AS A SMALL AMOUNT OF FIRE MAKES A SMALL AMOUNT OF HEAT. – NAPOLEON HILL



FOCUS AREA

Leadership

Board of Directors Provide National Level Guidance and Support

A multi-regional, management-level interagency Board of Directors was established in late Spring 2006. In addition to Regional Line and Staff participation there is representation from Forest Service regions 1, 3, 4 as well as the Rocky Mountain Research Station and the Washington Office. EPA is an active advisory member and a BLM representative was recently added. The Board's purpose is to create a management climate that reduces barriers to sustainable operations efforts as well as integration of sustainable habits into FS culture. The board met in Yellowstone National Park in July to learn about sustainable operation practices and develop an action plan. This group also developed a unity statement that can be used to facilitate the implementation of sustainable operations principles at all levels of the agency.



Success Shorts

Forest Service Joins the Federal Network for Sustainability

The Rocky Mountain Region became an official member of the Federal Network for Sustainability in a signing ceremony in Idaho Falls, Idaho, during the week of July 17. The Federal Network for Sustainability is a voluntary, collaborative network of Federal agencies in the western United States focused on fostering and furthering the concept of sustainability within the government through individual programs and group initiatives. The Forest Service, the 16th federal agency to become a member of this organization, will benefit from the collective experiences and knowledge shared by those involved and bring a resource management to federal sustainability discussions.

Greater Yellowstone Sustainable Operations Subcommittee was established to work towards implementing sustainable operations efforts across 14 million acres of public land in the Greater Yellowstone Ecosystem. Six National Forests, two National Parks and two Fish and Wildlife Refuge units are represented on this committee. Initial areas of focus included expansion of propane cylinder recycling, fleet sharing and green purchasing.

Collaboration and Partnerships Continue to Grow

The University of Wyoming and the Wyoming Department of Transportation are just two examples of partners who are helping the Forest Service make a difference. Representatives from these partnerships attended last year's summit and have moved forward to implement their own sustainable operations activities as well.

Bureau of Land Management Colorado and Wyoming State Office representatives are discussing ways to begin integrating sustainable operations efforts at Forest Service/BLM Service First locations.

The sustainable operations program is limited in staff and resources, but many recognize its importance and provide support in other ways. Two STEP students, a Senior Leader Project person and a New Leader Program Participant devoted their time and energy to sustainability. The EPA also lent a hand by providing some staff time to the effort.

Nebraska NF is working with local college and state on biofuel opportunities.

PSICC Employees actively participate in the SE Chapter of the Colorado Renewable Energy Society.

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Pikes Peak RD continues to seek opportunities for biomass utilization with Fort Carson.

Examples Being Set

MBR Sustainable Operations Charter Team has been working to help the forest establish “green thinking”. An employee suggestion website has been created to facilitate dialog among employees.

Several Forest Leadership Teams and RO Staff Units are working to set the example for reducing travel by using conference calls instead of face-to-face meetings.

Pikes Peak RD’s Sustainable Operations Plan has become a pragmatic model for other units to use to reduce their environmental footprint. The Pikes Peak RD was the first forest unit to establish a unit ‘Green Team’ and has achieved significant success in their first year.

By the Numbers

Green Teams Established in Region 2

- RO
- Bighorn
- MBR
- Pikes Peak Ranger District
- San Juan Public Lands

Looking Forward

Seeking opportunities to work with ski resort and other permittees to further sustainability practices.

Working with City of Denver to establish partnership for water conservation.

Expanding the effort beyond R2 by establishing a unity statement that may be replicated anywhere in the country.

Creating of a national footprint reporting system to track progress.

Adding personnel support next year to include STEP Students, an EPA intern and additional Senior and New Leader projects.

Replicating the Greater Yellowstone Model at other locations where FS adjoins other land management agencies and opportunities to work across ecosystems exist.

Establishing an MOU with EPA Region 8 to work jointly on sustainable operations issues.



BOARD OF DIRECTORS

Change is always hard, but there is much to be learned as we change our habits. The empty soda can goes into the recycle bin instead of the wastebasket. Coordinate with coworkers to carpool when scheduling meetings, or consider a conference call or SameTime conversation instead of booking an airplane flight. It is almost automatic that when one walks into a room to turn the light on, but unfortunately, it is not automatic when we leave the room to turn the light off. I am currently pilot testing a motion sensor in my office that turns several lights on when I enter the room and turns them off when the office has been vacant for approximately 10 minutes. This device is great but does require an adjustment. If the sensor doesn't detect any motion after several minutes, the lights go off, so it necessary to move enough so the light knows that you are still alive. The motion sensor is one of the tools that we can use to reduce our energy consumption.

In March, a board of directors was established to provide the management and leadership climate to help remove barriers, and to ensure that sustainable operation activities and practices are successful.

The board has five core Region 2 members and an advisory member from EPA. Additionally, in recognition of the cross boundary and

interdisciplinary nature of sustainable operations work, board membership includes representatives from R1, R3, R4, Rocky Mountain Research Station and BLM.

This past summer the board gathered for its first meeting in Gardner, Montana; the northern gateway to Yellowstone National Park. The board spent a significant amount of time identifying priority areas of action to be implemented throughout the next year. These action areas included:

- **Communication:** implementing a communication plan that includes a standardized method to communicate sustainable operations messages and success stories both to internal and external audiences.
- **Incentives:** recognize employees who champion sustainable operations practices, develop a process for capturing and reinvesting cost savings at the unit that generated it, and participate in government-wide greening award programs.
- **Building commitment:** develop opportunities for individual units to show commitment through the implementation of a 'unity statement' and develop sustainable operations language to be included in performance elements.

IN THE END, IT IS IMPORTANT TO REMEMBER THAT WE CANNOT BECOME WHAT WE NEED TO BE BY REMAINING WHAT WE ARE. – MAX DE PREE

• THE FUTURE IS NOT SHAPED BY PEOPLE WHO DON'T REALLY BELIEVE IN THE FUTURE. – JOHN GARDNER • THE STARTING POINT OF ALL

ACHIEVEMENT IS DESIRE. KEEP THIS CONSTANTLY IN MIND. WEAK DESIRES BRING WEAK RESULTS, JUST AS A SMALL AMOUNT OF FIRE MAKES A SMALL AMOUNT OF HEAT. – NAPOLEON HILL



- Organizational effectiveness and process oversight: seek ways to integrate sustainable operations into the organization, provide direction and support for the summit, and implement a process of continual involvement and improvement.
- Partnerships: cultivate a strategic approach to sustainable operations partnerships by matching the scope and scale of an opportunity with prospective partners, as well as engage other Federal Agencies as partners.
- Leadership with the WO / OMB / Congress: establish common expectations related to measuring, monitoring and reporting sustainable operations successes.
- EMS and Sustainable Ops: support the appropriate linkage between sustainable operations efforts and environmental management systems.

During 2006 the board began the journey to reduce our consumption of resources in Region 2 and other select places throughout the Forest

Service. The first year we found simple things to begin making changes. This next year, will be more challenging, but I am confident that we can continue to reduce our consumption, continue to find those simple changes, and start to address the more challenging hurdles that we need to overcome to incorporate sustainable operations into our Forest Service culture. It is our hope that this list of action items foster more sustainable habits.

I welcome you to contact a board member with questions and ideas. Thanks for your contribution in this important endeavor. It is during our watch, by managing the National Forests and Grasslands, that we want to be recognized by our successors as the generation of employees who were instrumental in reducing our environmental footprint.

Glenda L. Wilson
Sustainable Operations Board of Directors Chair

NOBODY MADE A GREATER MISTAKE THAN HE WHO DID NOTHING BE-
CAUSE HE COULD ONLY DO A LITTLE. – EDMUND BURKE • IT IS NO USE
WALKING ANYWHERE TO PREACH UNLESS OUR WALKING IS OUR PREACH-
ING. – ST. FRANCIS OF ASSISI • NEVER DOUBT THE POWER OF A SMALL
GROUP OF COMMITTED PEOPLE TO CHANGE THE WORLD. THAT’S ABOUT
THE ONLY WAY IT HAS EVER HAPPENED IN THE PAST. – MARGARET MEAD
• BE THE CHANGE YOU’RE TRYING TO CREATE.– GANDHI



SUSTAINABILITY CHAMPIONS

Jeff Sorkin and The Rocky Mountain Region Regional Office Green Team

Right after the summit last year Jeff took a major leadership role in the sustainable operations efforts.

He not only was the champion for two “Show Me the Money” projects but he also volunteered to be the lead for the RO Green Team. Under Jeff’s leadership the multidisciplinary RO Green Team accomplished many things and provided a model for other units to follow. Representatives from all staff units in the RO are encouraged to participate on the team.



Todd Michael

As the Region’s Electrical and Mechanical Engineer Todd has provided leadership in many areas of energy use. As a member of the RO Green Team he was instrumental in the RO’s lighting reduction project. As the Region’s first LEED certified professional he’s been responsible for the LEED certification of the first building in the region Bessey Ranger Station. Finally, Todd is serving as the chair of the Regional Energy Management Team striving to develop a region-wide energy management strategy that will not only increase our energy conservation activities but also increase our use of renewable energy.

Jeff Hovermale

Within two weeks of attending the summit last year Jeff wrote a “Green Peak” document which established goals for the Pike’s Peak Ranger District’s own Sustainable Operations effort. Jeff has spent the last year pragmatically implementing the District’s sustainability strategy and significantly reducing energy, water and natural gas usage. His low key but always working towards the goal approach has been used to overcome several hurdles to implementation. His strategy document has provided leadership not only to the Pikes Peak District but has served as a showcase example to other units throughout the nation about how to pragmatically implement the sometimes philosophical ideas of sustainability.



ACKNOWLEDGEMENTS

Many hands make light work but we need all hands to be involved in creating a consumption ethic.

Thanks to all of those who took the time to report what their accomplishments were even in anecdotal form.

Thanks to Judy for layout and Janelle for continued sustained support for all things communicative!



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