



GreenLine

Get Climate Change Savvy

The science and arguments for climate change are compelling and with growing understanding of the issue, individuals are taking action to minimize their environmental impacts. They are also encouraging the businesses they frequent to lessen their environmental impact. If you aren't familiar with climate change issues, a basic primer follows:

Lesson 1: What's all the Fuss About?

While the earth has historically experienced warm and cold periods, these transitions have typically occurred over thousands of years. Many scientists recognize that significant warming has occurred over the last century with acceleration of the warming trend over the last few decades. They attribute the accelerated warming to human activities that release greenhouse gases into the atmosphere. Major greenhouse gases and their sources include:

- **Carbon dioxide:** Sources include burning fossil fuels (e.g., oil, coal, natural gas) for electricity or transportation, in addition to naturally occurring processes such as volcanic eruptions.
- **Methane:** Sources include decomposing waste in landfills, natural gas production and distribution, and livestock manure management, in addition to naturally occurring processes such as decomposing matter in wetlands and the Arctic permafrost thawing.
- **Nitrous oxide:** Sources include burning fossil fuels for electricity or transportation, livestock manure management, and fertilizer production, in addition to naturally occurring processes from wet tropical forests and oceans.
- **Chlorofluorocarbons (CFCs) and halons:** Sources include refrigerants in cooling systems and halons for fire suppression systems.

RESOURCES:

- Bonneville Environmental Foundation: www.greentagsusa.org/GreenTags/calculator_intro.cfm
- Climate Leadership in Parks: www.nps.gov/climatefriendlyparks/CLIPool/emissioninventory.html

tems. There are no natural sources of CFCs or halons.

Note: The aforementioned list is not comprehensive but captures those greenhouse gases most pertinent to concession operations.

Lesson 2: Sources and Sinks

Greenhouse gas sources emit greenhouse gases into our atmosphere. Opposite to sources are sinks. Sinks absorb greenhouse gases from the atmosphere. To better understand sources and sinks, let's look at carbon dioxide as an example.

Carbon Dioxide Sources: In Lesson 1, we learned that carbon dioxide emissions may be natural or human-caused. A natural carbon dioxide source is a decomposing tree. Significant human sources of carbon dioxide emissions are burning fossil fuels for energy or transportation and clearing natural habitats.

Carbon Dioxide Sinks: Items that have a net absorption of carbon dioxide from the atmosphere are called carbon sinks. For example, growing trees take in carbon dioxide (which is made of one carbon atom and two oxygen atoms) and release oxygen (two oxygen atoms). The trees sequester the carbon within. Carbon dioxide sequestration can be enhanced by helping properly manage forests and oceans, which are natural carbon sinks.

Lesson 3: How to Reduce Greenhouse Gas Emissions

Concessioners can act to minimize their contribution of climate-causing greenhouse gas emissions. Before starting any new program, talk with park staff. They may be able to find ways to partner with your operation and can confirm your plans are in line with the park mission and with any efforts they are taking as part of the NPS Climate Friendly Parks Program (see page 6).

1. **Take stock.** Inventory operations and equipment that use energy, CFC and halons, or burn fuel. Also, determine how much waste you are disposing into landfills.
2. **Calculate your carbon footprint.** To get a better picture of your carbon dioxide contribution into the atmosphere, visit a website that does the calculation for you. See Resources below.
3. **Put on your thinking cap.** Think creatively on ways you can reduce fuel, electricity, CFCs and halons, and solid waste. Examples include insulating buildings and piping or replacing old energy-consuming appliances, light bulbs, and vehicles with energy-efficient models. Also consider supporting organizations that conserve forests and oceans.
4. **Write it down.** With ideas flowing, write down your strategy and set up measurable goals that will help you stay on target. If your operation already has an environmental management system (EMS) (known as an environmental management program (EMP) in the NPS Concession Program), you may add these goals to your objective and targets section.
5. **Take Action.** Communicate your goals, educate your employees and guests, and inspire action to help your business do its part in reducing our impact on climate change.

Greenhouse Gases and the Earth

- 1 Earth absorbs and reflects heat from the sun, then radiates it back into the atmosphere.
- 2 Greenhouse gases trap heat in the atmosphere, preventing it from escaping back into space. This is known as the "Greenhouse Effect" and is what allows life on the planet to exist. However, as the concentration of greenhouse gases continues to increase, the amount of heat trapped in the atmosphere also increases, causing worldwide average temperatures to rise.





Autumn in Denali National Park, Alaska

GreenLine

GreenLine is an official publication of the National Park Service Concession Program. The newsletter provides a forum in which the NPS can share information with NPS staff and concessioners about the NPS Concession Program, current environmental requirements, and best management practices; it also identifies resources available to improve concessioner environmental performance and highlights success stories.

Guest articles have been reviewed by the NPS Concession Program and, if required, edited in collaboration with the original author.

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Dr. Ima Park

Dr. Ima Park helps navigate the topic of green energy and provides the who, what, and why of purchasing electricity from renewable energy sources.

Q What is “green energy”? “Green power”? “Renewable energy”? How do I purchase environmentally friendly energy for my concession operation?

Dr. Ima Park: “Green energy” and “green power” is renewable energy. Renewable energy is produced with increased efficiency, or produced from cleaner fuels compared to conventional energy sources such as coal, oil, and natural gas. Wind power, solar energy, biothermal energy (earth’s heat), and hydropower are all examples of green energy.

Keep in mind that all sources of energy have some form of environmental impact. For example, hydroelectric dams can flood surrounding lands and alter upstream and downstream travel of fish. Compared to conventional sources, however, renewable energy sources have less damaging environmental impacts and are considered more environmentally preferable.

There are three main ways concessioners can utilize green energy in their operations, as shown in the table below:

Where to Begin:

1. Conduct an inventory of energy-using equipment and pro-



cesses used in your concession operation and implement as many energy-conserving methods as possible. Reducing energy consumption minimizes energy bills and minimizes the quantity of green energy needed for your operation. Refer to the U.S. Environmental Protection Agency’s (EPA) *Putting Energy into Profits: ENERGY STAR® Guide for Small Businesses* (link provided below) for a step-by-step guide to reduce energy from your concession operation.

2. Start with your local utility to see what options are available to you. If the options do not suit your needs, consider purchasing renewable energy certificates (RECs) or installing an on-site green energy generation system.

3. Before committing to any type of green energy, be sure to discuss options with park staff.

Buyer Beware:

Twenty-four states plus the District of Columbia have adopted a Renewable Portfolio Standard (RPS) which requires utility companies to obtain a percentage of power from green energy sources. If you are purchasing green energy from your utility, make sure it is in addition to the required RPS green energy amounts.

If you choose to purchase RECs, look for suppliers that are certified under the Green-e Renewable Energy Certification Program. Green-e is a voluntary certification and verification program that provides green energy information to consumers.

Way to Acquire Green Energy	How Does it Work?	Pros	Cons
Purchase green energy from the local utility company.	A percentage of monthly energy use is purchased from green energy. Purchasing options will depend on the local utility.	Can be as easy as checking off a box on an energy bill or making a call to the local utility.	May not be available in all areas or from all utilities. Prices will fluctuate over time unless a long-term contract is established.
Purchase renewable energy certificates (RECs), also called green tags, from a third party.	Concessioners continue to purchase conventional power through the local utility but purchase RECs. RECs represent environmental attributes of green power delivered to a power grid somewhere in the U.S.	Concessioners with multiple locations or in remote areas can take advantage of RECs.	The environmental attributes of green energy are purchased rather than actual green energy. Also, REC suppliers are not government regulated. Therefore thoroughly research the options to understand any risks associated with a particular provider.
Install an on-site renewable energy generation system.	With park approval, concessioners can rent or install on-site systems such as photovoltaic (solar) panels.	Eliminates the need to obtain power from local utilities and the concern over fluctuating energy prices. Extra electricity generated from an on-site system may be sold and put into the local power grid.	Depending on location, high start-up costs to install system. To sell extra power to the utility, hooking up system to the local power grid may be difficult.

RESOURCES:

- EPA Guide to Purchasing Green Power: www.epa.gov/greenpower/buygp/guide
- EPA’s Putting Energy into Profits: ENERGY STAR Guide for Small Businesses: www.energystar.gov/ia/business/small_business/sb_guidebook/smallbizguide.pdf
- Green-e website: www.green-e.org
- Information on RPS: www.eere.energy.gov/states/maps/renewable_portfolio_states.cfm



Get On The Performance Track

Does your concession operation have an Environmental Management System (EMS) (which is also called an Environmental Management Program (EMP) in the NPS Concession Program)? Are you proud of your environmental program and want recognition for your hard work? Or are you looking to boost your environmental performance and become an environmental leader? If you answered “yes” to any of these questions, then you may want to participate in Performance Track, a U.S. Environmental Protection Agency (EPA) program that recognizes top environmental performers.

Background and Benefits

There are approximately 450 members in Performance Track. Performance Track is open to both public and private entities. The common element is that members make a commitment to environmental protection and to continuously improve their environmental performance.

Performance Track promotes environmental leadership and encourages members to go “beyond compliance” in their environmental programs. Members find value in the program in many ways. For example, EPA promotes member organizations locally and nationally through letters to elected officials, trade journal articles, press releases, listings on the Performance Track website, and awards. Performance Track members also are given a lower priority status for EPA regulatory inspections, have the opportunity for collaborative relationships with EPA, have networking opportunities to exchange best

practices, and have access to a mentoring program.

Membership Requirements

Performance Track is built around the use of EMSs. Organizations applying to the Performance Track program must:

- Have an implemented, independently reviewed* EMS in place prior to applying to the program;
- Have a record of compliance with environmental laws and regulations;
- Commit to environmental results that go beyond compliance; and
- Engage in a public outreach program to communicate their environmental activities.

Measurable environmental progress is also an important element of Performance Track. During the application process, an

organization must show quantitative achievements in at least two environmental areas such as energy and water usage. If accepted, the organization must set quantitative goals (four for most operations, but only two for small operations) that it will achieve in the next three years. Goals are based on a list of Performance Track environmental indicators.

Every year, Performance Track members submit an Annual Performance Report to demonstrate their environmental accomplishments. This report shows member progress towards meeting environmental goals and provides information about their outreach program. Membership in Performance Track does not cost anything. Memberships last three

years, after which successful members can apply for another term.

Get Recognized

Park visitors admire and support organizations that are environmental leaders. Performance Track is one of many ways you can demonstrate to the general public that you take environmental management seriously – so seriously that the EPA has recognized you for your efforts! If you want to go above and beyond in environmental management, consider becoming a member of EPA’s Performance Track.



RESOURCES:

EPA’s Performance Track: www.epa.gov/performance-track



Green I.T.

Several federal agencies, including the Department of the Interior, are participating in the Federal Electronics Challenge (FEC), a goal-based program committed to helping federal Partners improve their electronics stewardship. The overall program goals help Partners:

- Purchase greener electronic products;
- Reduce impacts of electronic products during use; and
- Manage obsolete electronics in an environmentally safe way.

While concessioners cannot officially participate in the program, they may find information and resource materials on the FEC website useful in managing their own electronics. For more information visit www.federalelectronicschallenge.net/index.htm.

* Several options exist for meeting this requirement. While most of the options require an organization to hire a certified auditor to conduct the EMS review, concessioners are encouraged to contact EPA Performance Track to determine whether a current Performance Track mentor may be willing to conduct the review for a reduced fee.

2007 Award Winning Concessioners

Award winners for the 2007 NPS Environmental Achievement Award (EAA) were announced by the NPS Washington Area Support Office (WASO) in August 2007. Four concessioners have been honored for their environmental program achievements. For detailed summaries of each award winner, please visit concessions.nps.gov/news6.cfm.

★ WINNER

Restaurant Serves Guests on a Silver-LEED Platter

Xanterra Parks & Resorts (Xanterra) received a 2007 NPS EAA for its exemplary work in sustainable building design for Annie Creek Restaurant and Gift Shop (Annie Creek R&G) at Crater Lake National Park. The new Annie Creek R&G is certified under the Leadership in Energy and Environmental Design (LEED) Green Building Rating System™ as a Silver-rated building.

Xanterra used sustainable building design guidance from the NPS and its own Guidelines for Sustainable Design and Construction. Xanterra also worked closely with architects, designers, the general contractor, and Park staff to ensure a collaborative process. The result is a building that showcases a number of sustainable concepts and practices. For example:

- **Land Disturbance, Soil Erosion, and Storm Water Management:** Disturbed areas of land were replanted with native tree and plant species and a sophisticated storm water management system was installed to reduce run-off.
- **Water Efficiency:** By using native tree and plant species, Xanterra eliminated the need to install permanent irrigation systems. Indoors, the following were used: ultra-low flow (0.5 gallons/minute) bathroom and kitchen sink faucets, waterless urinals, and dual-flush toilets which offer a half-flush (0.8 gallons) for liquid waste or a full flush (1.6 gallons) for solid waste.
- **Energy Efficiency, Ozone Protection:** The new heating, ventilation, and air-conditioning system does not use ozone-depleting chlorofluorocarbons or hydrochlorofluorocarbons. Well-insulated walls and roof, a high efficiency boiler, and energy efficient lighting were

installed. Additionally, Xanterra committed to purchase 100 percent of its Annie Creek R&G energy needs from renewable sources.

- **Product Materials and Waste:** Xanterra used suppliers within a 500 mile radius for 40 percent of the construction materials. Over 20 percent of the material was extracted from the local area. The use of local materials helped support the local economy and reduced the environmental impact from transportation. Suppliers were encouraged to reduce packaging and a comprehensive on-site recycling program reduced the waste sent to the landfill.
- **Indoor Air Quality:** Paints, glues, and solvents used during construction were water-based, non-toxic, and/or contained no volatile organic compounds (VOCs) that could make indoor air unhealthy. The building meets the Carpet and Rug Institute's Green Label program for emitting low amounts of VOCs.

Xanterra recognized the importance and benefits of an environmentally friendly and human health friendly space for employees, Park staff, and visitors. The move toward the sustainable building design does not start or end at Annie Creek R&G. Xanterra institutionalized a process that ensures all buildings it constructs in national parks are, if not LEED certified, as sustainable as possible given the local environment.



Crater Lake National Park, Oregon

RESOURCES:

- Carpet and Rug Institute's Green Label program: www.carpet-rug.com/commercial-customers/green-building-and-the-environment/green-label-plus/index.cfm
- LEED: www.usgbc.org/DisplayPage.aspx?CategoryID=19

LEED is a nationally recognized green building design certification program that focuses on five key areas: sustainable site development, water savings, energy efficiency, materials selection, and indoor environmental quality. Buildings are assigned credits for meeting criteria under each area. The more credits a building earns, the higher the LEED rating. There are four categories of LEED certification: Certified, Silver, Gold, and Platinum.

! HONORABLE MENTION

An Eruption of Green Products at Lassen Volcanic National Park

California Guest Services, Inc. (California Guest Services) received a 2007 NPS EAA Honorable Mention in recognition of its Green Buying program at Lassen Volcanic National Park. Between 2005 and 2006, California Guest Services significantly increased its purchases of environmentally preferable products. Four areas where California Guest Services greatly increased its use and offering of environmentally preferable products included:

- Food and beverage operations;
- Serviceware and supplies;
- Retail items; and
- Janitorial and housekeeping products.

Food and Beverage Operations: In 2006, California Guest Services made the business decision to serve only organic, fair-trade certified, and shade grown coffees in its Park concession operations. The coffee was so well received by guests that California Guest Services expanded use of these coffees to all of its operations beyond Park boundaries. As an added benefit, it purchased the coffee from a local vendor.

In its small retail store, California Guest Services sells Pacific Sun Olive Oil products. Pacific Sun Olive Oil is a local, woman-owned, family run, sustainable farming operation that produces high quality olive oil products. Purchasing locally grown and manufactured products reduces the environmental impact from trucking and shipping the products long distances and benefits the local economy.

Serviceware and Supplies: California Guest Services replaced plastic cups in hotel rooms with Greenware Cups. Greenware Cups are compostable and made entirely from renewable Nebraska corn. The cups allowed California Guest Services to remove over 2,000 non-biodegradable cups from the waste stream annually. Further, a switch was made to 100 percent biodegradable, recycled, chlorine free, and compostable cups sold in its retail stores. These cups replaced over 10,000 less environmentally preferable partially recycled content cups.

California Guest Services uses 100 percent compostable trash bags from Envision, and provides

grocery store customers with corn-based 100 percent biodegradable grocery bags. Making the switch to biodegradable grocery bags removes 2,000 non-biodegradable plastic bags from the waste stream annually.

Retail Items: California Guest Services sells both 100 percent recycled cotton shirts and shirts made from 100 percent organic cotton. Also offered for sale in its retail stores are Goodwood® firelogs, made from woodchips and sawdust from mills and forest trimming operations and held together by natural wood lignin. Goodwood® firelogs burn longer and emit 25-50 percent less carbon dioxide than traditional cordwood.

Janitorial and Housekeeping Products: In 2006, California Guest Services used natural, non-toxic cleaners and detergents at its Park operations. It also worked closely with its vendor to institute a “just in time” philosophy that eliminated the need to store large amounts of cleaning products onsite in the Park.



Lassen Volcanic National Park, California

Efforts to purchase more environmentally preferable local products led to another opportunity for recycling. Xanterra purchases Blue Bird flour, locally grown on a nearby Navajo Reservation. Instead of large paper sacks, the flour is delivered in cloth bags which are returned to the Reservation to be refilled for the next delivery.

Other types of materials traditionally thought of as wastes are given a second life by Xanterra. Old newspapers are used to wrap fragile items from retail stores and cardboard boxes in good condition are used for shipping items to customers.

Xanterra recognizes that sustainability reaches far beyond having a good waste diversion program. By recycling materials and purchasing products made with recycled content, Xanterra helps close the recycling loop. Environmentally preferable products are used in its operations as well as offered for sale in its retail stores. Some examples include:

- ♻️ Recycled content T-shirts, blankets, and sweatshirts;
- ♻️ Soy-based candles;
- ♻️ Locally produced products (e.g., Navajo tea, Blue Bird flour, Prickly Pear barbecue sauce, salsa, hot sauce, fry bread mix, hominy);
- ♻️ Rechargeable batteries (with an opportunity to recycle the batteries being replaced); and
- ♻️ Clipboards, pencils, and paperclips made with recycled content.

Even at smaller, more remote national parks, Xanterra has shown that its business operations can have significant beneficial impacts on the world and operate on a grand scale.



Petrified Forest National Park, Arizona

utilizes over 100 environmentally preferable products in its operations within the Park.

Xanterra South Rim identified two necessary components of a successful green purchasing program:

1. Input and participation from all departments; and
2. Looking beyond recycled content products while tailoring the program to fit each department's needs.

To keep track of product information, each vendor is sent a letter that states Xanterra South Rim is moving towards sustainability and that environmentally preferable items are given preference over comparable traditional items. Accompanied with the letter is a questionnaire to collect environmental information about the vendor's products. Along with questions about product recycled content and product biodegradability, information on product packaging is collected. Xanterra gives preference to products with take-back packaging, recyclable packaging, or packaging made with recycled content.

The following examples provide a partial list of the wide variety of environmentally friendly products used and/or offered for sale in Xanterra South Rim operations.

- **Office Equipment and Supplies:** Remanufactured computer toner cartridges, 100 percent post-consumer recycled content business envelopes, ENERGY STAR® qualified photocopiers with sleep functions.
- **Retail Items:** Pens with 100 percent recycled paper as the barrel and clip of the pen, with plastic parts being 90 percent recycled; tree-free greeting cards; and T-shirts made from 100 percent recycled cotton shirt material.
- **Food and Beverage:** Locally produced beers and wines made with organic grapes; wild caught, Marine Stewardship Council certified Alaskan salmon; shade-grown and bird friendly coffee grown by small farmer cooperatives.
- **Hotel Room Supplies:** Compact fluorescent 10,000 hour light bulbs, and programmable thermostats in hotel rooms that reduce energy consumption.



Grand Canyon National Park, Arizona

! HONORABLE MENTION

Using Local Solutions for World Problems

Xanterra Parks & Resorts (Xanterra) received a 2007 NPS EAA Honorable Mention for its solid waste reduction efforts at Petrified Forest National Park. Xanterra's operation consists of two small retail stores, a gas station, and two small cafeterias; employees all take part in helping to reduce solid waste generated. One reason for such high employee participation is that the facility recycling goals are tied into employee annual performance reviews.

The results of the waste management program are significant; Xanterra achieved a 76 percent solid waste diversion rate in 2006 and a 50 percent increase in the solid waste diversion rate since 2002, despite being in such a remote location. One of the most commendable highlights of the program is that Xanterra looked to the local community for solutions and opportunities in reducing solid waste. As an example, food waste generated from its two restaurants is given to local ranchers for their animals, which resulted in the diversion of over 1,400 pounds of food waste from the landfill in 2006.

! HONORABLE MENTION

Grand Visions of Green at the Grand Canyon

Xanterra South Rim, LLC (Xanterra South Rim) received a 2007 NPS EAA Honorable Mention for its green purchasing program at Grand Canyon National Park. Its green purchasing program

A Delicate Balance

ARAMARK Parks & Resorts (ARAMARK) has developed many environmental programs including PlanetEVERgreen—the company’s environmental management program. Through PlanetEVERgreen, other environmental programs are supported including Green Suites EcoRooms™, and sustainable prix-fixe menus. In an effort to take its environmental commitment to the next level, ARAMARK offset 100 percent of its energy consumption from its national and state park operations with alternative energy solutions in 2007.

Green energy is produced with increased efficiency, or produced from cleaner fuels compared to conventional energy sources



such as coal, oil, and natural gas. Wind power, solar energy, biothermal energy (earth’s heat), and hydropower are all examples of green energy.

ARAMARK chose to work with Carbon Solutions Group and Bonneville Environmental Foundation to purchase green tags to counterbalance 24.5 million pounds of carbon dioxide, a greenhouse gas, generated from power plants that supply its energy. (For more information on Green Tags, refer to Dr. Ima Park in this *GreenLine* Newsletter issue). By offsetting the negative effects of its energy consumption, it is estimated that

ARAMARK avoided carbon dioxide emissions equivalent to the annual emissions from 2,450 automobiles!

ARAMARK’s Green Tag purchase will help fund

renewable generation projects in many areas, including Washington, Alaska, Indiana, and Illinois. Projects include solar power systems for school and public buildings, watershed restoration, and wind power systems for farms, ranches and communities.

RESOURCES:

- ARAMARK’s PlanetEVERgreen Program: www.aramarkharrisonlodging.com/corporate-citizenship/planet-evergreen.cfm
- Carbon Solutions Group: www.carbonsolutionsgroup.com/
- Bonneville Environmental Foundation: www.b-e-f.org/index.shtml

Why Buy Biobased?

What Exactly Are Biobased Products?

The U.S. Department of Agriculture (USDA) defines biobased products as “commercial or industrial goods (other than food or feed) composed... of biological products, forestry materials, or renewable domestic agricultural materials, including plant, animal, or marine materials.” In sum, biobased products are primarily not made with petroleum or synthetic components, are generally safer for the environment, and are usually biodegradable or recyclable.

Federal Requirements to Purchase Green Products

Did you know that federal agencies are required to purchase environmentally preferable products, including those listed in USDA’s BioPreferred program? The BioPreferred program was established in 2002 and currently includes six officially designated product types made from biobased materials:

- Hydraulic Fluids (for mobile equipment);
- Penetrating Lubricants;
- Roof Coatings;
- Bedding, Bed Linens, and Towels;

- Water Tank Coatings; and
- Diesel Fuel Additives.

How Does the USDA’s BioPreferred Program Affect Concessioners?

As a concessioner, you are not required to follow the BioPreferred program unless your concession contract states otherwise. But it is worthwhile researching biobased products, such as those in the BioPreferred program, for use in your concession operations to help reduce your environmental footprint.

Things That Make You Go... Huh?

You might think that regular cotton bedding and towels that we use every day would classify as a biobased product because they are made from cotton, a renewable agricultural material. Yet, under the BioPreferred program, cotton products would not classify as a biobased material. Legislation establishing the BioPreferred program requires USDA to limit item designations to “new use” products. Therefore any product having a significant market hold in 1972 is considered mature and not eligible under the program.



RESOURCES:

USDA BioPreferred Program: www.biobased.oce.usda.gov/fb4p

Get Friendly with the Climate

In 1999, the NPS kicked off the Environmental Leadership Program, a program that encourages sustainability in the NPS. A principal initiative is Climate Friendly Parks (CFP). CFP is a collaboration between the U.S. Environmental Protection Agency and the NPS that encourages parks, concessioners, and other park partners to reduce greenhouse gas emissions and minimize impacts on climate change.

Concessioners operating in CFP-participating parks may choose to participate in CFP by:

1. Conducting a greenhouse gas emission inventory;
2. Educating staff on climate change; and
3. Completing an action plan to reduce greenhouse gas emissions.

Concessioners operating in parks not participating in the CFP program may use resources developed for the program. These include but are not limited to:

- The *Climate Leadership in Parks* Tool, which includes an Emission Inventory Module and an Action Planning Module; and
- The *Do Your Part!* program which asks park visitors to reduce their greenhouse gas emissions.

RESOURCES:

- CFP Program: www.nps.gov/climatefriendly-parks
- NPS Sustainability Initiatives: www.nature.nps.gov/sustainabilityNews/index.htm



Biobased products can be made from plants such as the soy plant shown here.

FLOORED by Carpet Environmental Issues?

Carpet is a widely used option for floor covering. Industry experts estimate that approximately 70 percent of U.S. floors are covered by carpet. Yet before choosing carpet, you should consider your options.

Carpet and rug manufacturing consume large quantities of energy and water, and involves chemicals (especially in the dyeing process) that contribute to air and water pollution. Furthermore, the synthetic fibers used in most carpets are made from petroleum—a non-renewable fossil fuel—and take an extremely long time to biodegrade. That is a significant concern when approximately 4.7 billion pounds of carpet are added to landfills every year.

New Carpet Options

If you are in the market for new carpeting for your concession operations, consider the following issues.



- Avoid carpet containing adhesives which emit volatile organic compounds (VOCs) that affect indoor air quality. Look for the Carpet and Rug Institute's (CRI) "Green Label" for carpeting that emits low VOCs.
- Choose natural fibers such as wool, hemp, corn leaves/stalks, cotton, sea grass, jute, sisal, or coir. Look for those that have been treated with as few chemicals as possible (including adhesives and mothproofing or stain-resistant treatments).
- The best synthetic-fiber option is solution-dyed which requires much less water than conventional dyeing methods.
- Avoid wall-to-wall carpeting. Area rugs are available in large sizes and are easier to remove for cleaning or replacement. If you do choose wall-to-wall carpeting, have the carpet tacked down instead of glued down; this will reduce your exposure to adhesive VOCs, reduce floor damage, and

An Internet search on "recycled carpet" or "green carpet" should provide useful product sources including suppliers who will send free samples and/or offer substantial discounts on mill overruns and job surplus inventory - thus keeping waste from landfills.

make the carpet easier to remove later. Or consider using carpet tiles that can be replaced one-by-one as they wear out. Some companies offer refurbished tiles that have been cleaned and re-dyed; in some cases, this option will cost less than new carpet.

- Consider recycled carpeting made with fibers from post-consumer materials such as plastic soda bottles or old carpeting. Some carpet companies also have "take back" programs to encourage recycling.
- Apply the same considerations to padding. Not all carpet installations require padding. But if it is necessary, choose natural and recycled products if possible.
- Consider leasing your carpet. Under leasing agreements, the vendor charges a monthly service fee for use of the carpet, usually over a negotiated period. In exchange, the leasing company may take responsibility for carpet installation, maintenance, removal, and recycling. Leasing often creates an incentive for the vendor to reuse and recycle carpet waste to avoid paying for its disposal

Carpet Disposal

Eventually carpet reaches the end of its useful life as an attractive and functional floor covering and is disposed. In recent years, carpet accounted for over one percent of all municipal solid waste by weight or approximately two percent by volume. The bulky nature of carpet and the variety of materials used in its manufacture often create handling, collection, and recycling problems for local and state governments.



While most components of carpet are recyclable or reusable, only approximately four percent of waste carpet currently is handled this way. Barriers to recycling waste carpet include:

- Lack of established infrastructures for collection and processing;
- Geographical hot spots for carpet manufacturers and recyclers in the southeast and minimal presence in the rest of the country; and

- Inadequate markets for some carpet materials.

The industry is working to address these barriers. In January 2002, carpet and fiber manufacturers, the CRI, state governments, non-governmental organizations, and the U.S. Environmental Protection Agency signed the National Carpet Recycling Agreement. This agreement established a 10-year goal schedule to increase the amount of recycling and reuse of post-consumer carpet and reduce the amount of waste carpet land-filled. The agreement also created a third-party organization, the Carpet America Recovery Effort (CARE) to reach the goals. CARE's mission is to develop market-based solutions for the recycling and reuse of post-consumer carpet; its website even lists carpet recovery centers in many areas of the country.

What Can Concessioners Do to Help?

When it is time to replace carpet, consider the following:



- **Donate.** Offer good-quality used carpet and rugs to charities.
- **Recycle.** Depending on the material, a local company may be willing to remove your old carpet and recycle it into new carpeting or other items.
- **Do not incinerate carpeting.** Incineration may release harmful toxins into the atmosphere.
- **Partner with the Park.** If the Park is also in the market for new floor covering, you may be able to combine efforts and get a discounted rate from purchasing a large quantity.

RESOURCES:

- CRIs "Green Label" program: www.carpet-rug.org/about%2Dcri/cr%2Dsignature%2Dprograms
- National Carpet Recycling Agreement: www.carpetrecovery.org/mou.php#goals
- CARE: www.carpetrecovery.org/waste.php
- Community Waste Prevention Toolkit: Carpet Fact Sheet: www.informinc.org/fact_CWPcarpet.php

Inside:

Get Climate Change Savvy 1

Ask Dr. Ima Park 2

Get on the Performance Track 3

Green I.T. 3

Concessioner Highlights 4-5

Why Buy BioBased? 6

A Delicate Balance 6

Get Friendly with the Climate 6

Floored by Carpet Environmental Issues 7



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NPS Concession Program Corner

There is no time like the present to begin thinking about the future – the future of our environment to be exact. Many of you may have watched Al Gore’s documentary *An Inconvenient Truth*. Most would agree the documentary was persuasive in getting the general public to think more about how everyday actions affect global climate change.

For those who have yet to see the movie or read the book, I hope this issue of the *GreenLine* Newsletter is a good introduction to the issue of global climate change. For those who are already familiar with the topic of climate change, I hope this newsletter is a reminder of what you learned and can apply daily in your concession operations.

This newsletter also focuses on a variety of other environmental issues including environmental management systems and environmental

purchasing concerns, such as carpets, green energy, and biobased products. We also take time out to congratulate those concessioners – one “Winner” and three “Honorable Mentions” – who were recently recognized through the 2007 NPS Environmental Achievement Awards for their environmental programs and activities.

I encourage you to take ideas from this newsletter, apply them to your concession operation, share your success with us, and apply for next year’s NPS Environmental Achievement Awards.

Wendy M. Berhman
Contract Management Team Lead,
NPS Concession Program

GreenLine ASSISTANCE

If you require technical assistance on environmental issues or want to learn more about the NPS Concession Program, contact us:

GreenLine Number:
303/987-6913

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NPS_GreenLine@nps.gov

Website:
concessions.nps.gov, click “CoEMP”

Recycling for a Cause

If you have an old laptop, cell phone, pager, printer cartridge, or other type of unused or outdated electronic equipment, listen up! Recycle for Breast Cancer can help clear out your clutter, help the environment, and help support the fight against breast cancer. The best part is that this service is provided at NO COST TO YOU! Individuals and businesses can both participate in this program. The steps are easy:

1. Visit the Recycle for Breast Cancer website and request a free shipping label;

2. Pack the items in a box and drop it off at the most convenient UPS, FedEx, DHL, or U.S. Post Office location;
3. Keep internal records of what items were shipped offsite and when; and
4. Celebrate doing your part to help fight breast cancer and protect the environment!



RESOURCES:

Recycle for Breast Cancer: www.recycleforbreastcancer.org/index.html