# 2011 environmental sustainability report

our values actions progress

alter.



ecologiz Zanterra's Environmental Commitment

4th edition

# a few examples of what sustainability looks like at Xanterra



Running an historic steam train with waste vegetable oil



Harnessing wind on site to reduce carbon emissions





Pioneering retail sustainability scorecards that educate consumers to make greener purchases



Replacing an entire fleet with clean-burning compressed natural gas buses





Heating buildings with waste french fry oil





# introduction

# Change is difficult. New ideas don't always work. Overcoming the inertia of the status quo can feel like a Herculean effort. But on a cool September day in 2009, as a team and as a company, Xanterra did something inspirational and sophisticated, sustainable and also symbolic.

locomotive "dinosaur" out of the "Jurassic era" and into the 21st century by retrofitting it to run on a renewable energy source - while also preserving its historic character.

Spawned by passion and conceived by ingenuity, this train runs on 100 percent clean-burning and renewable waste vegetable oil, a Xanterra waste product generated just a few miles away in the kitchens at the Grand Canyon. With an odd aroma of french fries in the air - instead of a black cloud of smoke - engine No. 4960 chugged away from the Grand Canyon Railway depot toward a world of new possibilities.

For Xanterra, this train is a living example of what sustainability looks like in the real world: unexpected partnerships, a new aesthetic paradigm, and technological advances with a nod to the past. It is among our proudest accomplishments as a business - one that operates in some of the most beautiful places on earth: our national and state parks. It symbolizes our acknowledgement that we must take responsibility for finding cleaner ways of operating our resorts and that our contribution to climate change must be addressed. It reveals a business strategy that sees clean energy in the tourism industry as smart and profitable.

On this day, Xanterra moved a 19th-century, inefficient steam Globally, if 6 billion humans on this planet are going to continue to add carbon and generate other wastes, we will need to develop regenerative ways of living and conducting business. As a people, we need to reach beyond current science and conventional ways of thinking to transform our society. As a company, we need to change our whole system: our sourcing, packaging, transportation, buildings, food, retail, accounting systems, and employees' lifestyles.

> The renewable fuel that powers this train, which operates on special occasions (five to seven days per year), represents only a drop in the bucket relative to the resources we use as a company. But, it's one of many efforts from the sustainability trenches in Xanterra's longterm mission to balance being both environmentally sustainable and economically viable.

> Welcome to Xanterra's fourth-edition Environmental Sustainability Report.

Full steam ahead!



# contents

14

17 18

22

27

28

32

34

36

40

41

42

44

45

46

47

48

49

INTRODUCTION COMPANY PROFILE Who We Are Environmental Impact of Tourism

MESSAGE FROM THE PRESIDENT AND CEO

REPORTING METHODOLOGY Scope of this Report Ecometrix Tracking System

#### VERIFICATION

Environmental Reality Versus Corporate Greenwash Verification of Greenhouse Gas Emissions and Ecometrix Data Verification of Environmental Management Systems Other Third-Party Certifications

LONG TERM ENVIRONMENTAL GOALS Summary of Environmental Performance Progress Toward Xanterra's 2015 Environmental Vision Goals

ENVIRONMENTAL HIGHLIGHTS

ENVIRONMENTAL PERFORMANCE

Greenhouse Gas and Criteria Air Pollutant Emissions CASE STUDY: Greening a Railroad Operation Energy **Renewable Energy** Water Solid Waste Hazardous Waste Transportation Sustainable Design and Construction **Environmentally Preferable Procurement** CASE STUDY: Retail with a Conscience Sustainable Cuisine Policies and Management Compliance Corporate Social Responsibility Partnerships

LETTER FROM VICE PRESIDENT OF ENVIRONMENTAL AFFAIRS

AWARDS, HONORS AND CERTIFICATIONS





# company profile



Yellowstone National Park **Grand Canyon National Park Zion National Park Crater Lake National Park Death Valley National Park Petrified Forest National Park Rocky Mountain National Park Mount Rushmore National Memorial** Grand Canyon Railway **Kingsmill Resort Furnace Creek Resort** Salt Fork State Park **Maumee Bay State Park Shawnee State Park Burr Oak State Park Punderson Manor State Park Hueston Woods State Park Mohican State Park Deer Creek State Park Geneva Marina** 

#### Who We Are

For more than 130 years, Xanterra Parks & Resorts has operated lodging, restaurants, and other facilities at some of the most beautiful places on earth – our country's spectacular national and state parks. From Yellowstone to the Grand Canyon, the Xanterra name has become synonymous with park and resort hospitality in pristine environments.

The company's legacy of hospitality leadership originated with the Fred Harvey Company, which began providing quality hotels and restaurants for weary travelers making their way West around the turn of the 20th century. Today, the Fred Harvey Company is known as Xanterra Parks & Resorts, the largest national and state park concessioner in the United States.

Xanterra properties offer a wide range of recreational facilities and experiences. From conference centers with golf courses, tennis courts, and spas, to historic park lodges and cabins, Xanterra facilities are ideal for spending quality time with family, or for getting back to nature with hiking, fishing, camping or simply exploring wilderness and natural settings.

#### **Changes at Xanterra**

In 2010, Xanterra added Deer Creek State Park and Kingsmill Resort to its operations. Deer Creek's operations, located in Ohio, include lodging, food and beverage, golf and retail. Kingsmill, located in Williamsburg, Virginia, includes 422 rooms, six restaurants, a 17,000-square-foot conference center, a full-service spa and fitness center, a marina, and a 15-court tennis center. The resort is also widely known for its three award-winning championship golf courses and its executive nine-hole course.

#### **Corporate Structure**

In September 2008, Xanterra was purchased by the privately held, Denver-based Anschutz Company. Xanterra is governed by the President and CEO, along with an Executive Team of company Vice Presidents. Xanterra's Vice President of Environmental Affairs is on the Executive Team and reports directly to the CEO on all environmental matters.

#### 2010 Company Statistics

Employees	7,400
Properties	21
Hotels/lodges	31
Guest rooms	5,300
Annual Guest Overnights	1.9 million
Retail stores	52
Annual Retail Transactions	3 million
Restaurants	68
Annual Meals Served	7 million
Marinas	5
Golf courses	9
Campsites	1,700
Visitors to parks	18 million
Annual bus tours	700,000
Horse stables	4
RV sites	486
Boat slips	561

# environmental impact of tourism

# In 2009, U.S. travel industry expenditures from domestic and international travelers exceeded \$704.4 billion.

These expenditures, in turn, directly generated more than 7.4 million jobs. Total revenues for the global travel industry are difficult to establish. However, a reasonable estimate for 2009 is \$2.1 trillion, making tourism the largest industry on earth.

At national and state parks where Xanterra operates, visitation has remained fairly flat over the last 10 years.

Xanterra's business operations are relatively non-polluting when compared with many other industries. However, just like any other business, the tourism industry has an impact on the natural environment.

Accommodations, scenic tours, restaurants, conference services, retail outlets and transportation systems use energy and resources of all types, including fossil fuels. Housekeepers and maintenance workers use chemicals to clean facilities. Golf courses and swimming pools consume gallon after gallon of water. And nearly all of these operations generate solid waste, even some hazardous waste.

Additionally, the company's consumption of these resources results in emissions of pollutants into the air, including greenhouse gases (primarily carbon dioxide), nitrogen and sulfur oxides, carbon monoxide and particulate matter.

This report examines not only environmental impacts that Xanterra can manage directly (on site), but also indirect impacts (off site). In fact, more than 70 percent of all emissions mentioned in this report are indirect emissions released off site at public power plants, not inside a national or state park.





Visitation at National Parks Where Xanterra Operates

# message from the president & ceo



Between April and August 2010, an estimated 185 million gallons of thick, black crude oil – 10 times more than the Exxon Valdez oil spill – gushed into the Gulf of Mexico from BP's Deepwater Horizon drilling rig. This tragic spill may be one of the worst environmental catastrophes in human history.

Fifteen months earlier, outside of Knoxville, Tennessee, a mountain of toxic coal ash sludge at a Tennessee Valley Authority power plant burst from a dam, spilling 5.4 million cubic yards of ash on 300 acres of homes and into a river.

While it's true that responsibility for these spills rests with mega-corporations BP and TVA, aren't all of us, to a very small extent, accomplices in these "environmental crimes," due to our insatiable appetite for those very same fossil fuels to power our homes, cars, and businesses?

This report is about Xanterra's attempts – some successful and some failed – to find ways to reduce our fossil fuel consumption and associated carbon footprint, doing our part to indirectly prevent future environmental catastrophes.

Xanterra's vision is simple: provide quality services to visitors to our parks and resorts in the most sustainable ways possible, while maintaining profitability. Our 2015 Environmental Vision goals articulate how this vision relates to energy, carbon emissions, waste, sustainable design, sustainable foods, transportation, and water.

Since our last report, we've made significant progress:

• We developed a retail store with a conscience, For Future Generations: Yellowstone Gifts, dedicated to selling environmentally preferable items and interpreting climate change. Through a first-of-its-kind product sustainability

scorecard, the store educates visitors about the threats climate change poses to our national parks and helps guests make sustainable consumer choices.

- We retrofitted our inefficient and polluting diesel-powered steam locomotives at Grand Canyon Railway to run on cleanburning, 100 percent waste vegetable oil (operating 5-7 days per year). Train enthusiasts ask us, "Where's the black smoke?" We even harvest rain water on site for the steam, saving 11,000 gallons of potable water per trip.
- To reduce plastic water bottle waste at Zion, we completely banned the sale of bottled water and installed hydration stations for guests to use with reusable bottles.
- In Death Valley, we installed our fifth and largest solar photovoltaic (PV) system to date, a 1.23 MW (DC) system that generates enough electricity to power 100 percent of the resort during the day (35 percent year round) - more than 2.3 million kWh per year for the next 50 years.
- At Yellowstone, instead of shipping waste vegetable oil off site, we now plumb it directly to boilers to heat buildings.
- To help protect views at the Grand Canyon, we have made great strides in phasing out all old diesel-powered buses with new clean-burning, propane-powered buses.
- We have installed our first wind turbine at Maumee Bay State Park. This turbine will generate 17,000 kWh of clean renewable energy per year for the next 40 years.
- We replaced all in-room amenities (soaps, lotions, shampoos) that formerly were in plastic bottles with environmentally preferable items in biodegradable corn starch containers.

- Nearly all of our cleaning products are now Green Seal certified as environmentally preferable.
- We continue to find creative ways to support the National Park Foundation, having raised more than \$1.7 million in the last eight years.

After more than a decade of data gathering and tracking, we now have third-party audited internal Ecometrix data that documents our environmental performance. With this assurance, I trust that our trends are accurate and our results conclusive:

- Absolute greenhouse gas emissions are down 20.9 percent since 2000. Accounting for acquisitions and divestitures, our emissions "Ecometabolism" (our impact normalized for revenue) is still down 19.3 percent over the same period.
- Renewable energy now provides 14.1 percent of companywide electricity.
- Our companywide solid waste diversion rate is 47 percent (56 percent at national parks). Our recycling Ecometabolism (waste diverted per room night) went from 2.3 to 9.2 pounds.
- We generate 32 percent less solid waste than we did ten years ago (from 14.1 million to 9.6 million pounds).
- Our sustainable cuisine purchases have increased from \$1.4 million in 2004 to \$5.7 million in 2009, now totaling 19.6 percent of all food purchases. To take sustainable food to the next level, at two locations we constructed greenhouses on site and began growing our own vegetables and serving them to guests. No fossil fuels are used in shipping, no trees are used in packaging, and, of course, everything is organic and fresh.

But our progress hasn't come without its share of failures. We had two minor wastewater spills in two years at Death Valley. We were unable to install renewable microhydro energy systems in two parks.

In 2008, Xanterra was purchased by Philip Anschutz Company, owned by Philip Anschutz. One of the first things Mr. Anschutz did was clarify his support for our culture of sustainability. In fact, in 2008 he even asked Xanterra's environmental affairs team to assist one of his companies, Anschutz Entertainment Group (AEG), with its environmental programs. Over the last two years, Xanterra has assisted AEG in developing environmental management systems, Ecometrics tracking systems, policies, programs, and a sustainability report. Still, if every business in the world did everything we're doing, the state of our planet and its ecosystems would still be in decline. Just reducing the environmental impact of business on the planet is simply not enough. The very foundation of how business works must drastically change in a way that makes environmental protection, even restoration, profitable.

That is no easy task. But we aim to challenge conventional economic wisdom with creativity, ingenuity, and relentless effort toward innovation in environmentally sustainable business systems. This includes disclosing to consumers the environmental impacts of their purchasing decisions while still increasing sales, developing on-site renewable energy systems that quickly pay for themselves, heating buildings with what was formerly a waste product, and growing food on site to improve quality and save money. We will continue to ask ourselves with everything we do: "Is there a better, cleaner, more efficient, restorative, renewable, and profitable way?" Hopefully, the result will be fewer crude oil and coal ash spills, a stable climate, and cleaner air, water and food for us and future generations.

As has been said many times before, "the economy is the wholly owned subsidiary of the environment." Thus, we can't be economically viable without being ecologically stable.

This is the thesis of the modern environmental movement. We aim to be among its leaders.

Andrew Y. John

Andrew N. Todd President & CEO





Scope of this report

Xanterra has applied to this report the Global Reporting Initiative's (GRI) principle of materiality, which states: "Information in the report should cover issues and indicators that would substantively influence the decision of the stakeholders using the report." Those stakeholders include visitors to national and state parks, sustainability professionals, our suppliers, contractors and vendors, Xanterra employees, the National Park Service and Ohio Department of Natural Resources, state and federal regulatory agencies, and tourism industry professionals.

Though we used GRI as a guide for development of this report, we found that many of the GRI indicators were not germane to Xanterra, a privately held company. Other indicators were arguably material, but beyond our ability to measure at the present time. Xanterra has focused this report on GRI's environmental performance indicators.

Xanterra's environmental impact in this report uses comprehensive Ecometrix data collected from 2000-2009 at all of the company's operations across the United States. The format of the Environmental Performance section of this report presents data for each environmental aspect and area of impact, interprets that data, then gives specific examples of projects and initiatives that affect that data – for better or worse.

# reporting methodology

### **eco**Metri $\mathcal{X}$ : Measuring Environmental Performance

Xanterra tracks its environmental performance through its Ecometrix tracking system.

This system monitors:

- consumption of electricity, natural gas, gasoline, diesel, propane, fuel oil and water
- generation and purchase of renewable energy
- Scope 1 and 2 greenhouse gas emissions, compliance violations, and Clean Air Act Criteria Air Pollutant emissions
- generation of solid waste
- all recycled materials, waste diverted from landfills, and recycled construction waste
- composted solid waste
- sustainable cuisine
- environmentally preferable retail products sold, and
- generation of hazardous waste, recycled hazardous waste, electronics waste, and Universal Waste (including all batteries, fluorescent lamps, mercury switches and PCB-containing ballasts)

These indicators represent what we have defined as the company's total environmental footprint. Tracking usage of these resources allows the company to analyze trends, stay compliant, reduce liabilities, and move further toward sustainability.

Ecometrix data analyses use two methodologies\*:

- **Absolute (Raw) Data:** Absolute data is a tally of actual total resources consumed, pollutants emitted, or waste generated.
- 2 Ecometabolism: Because Xanterra can lose or gain property management contracts and buy and sell properties, Xanterra's Ecometrix data can artificially increase or decrease. Therefore the company has developed its Ecometabolism metric that accounts for growth or reduction in company operational size due to acquisitions or divestitures. Xanterra's Ecometabolism is a measure of resource usage normalized by annual dollars of revenue or usage per room night (total rooms occupied in one year). This metric best defines overall environmental impact per unit of product (tourist-related activities, which include rooms, restaurants, retail, transportation, and support facilities).

\*Minor fluctuations in data from Xanterra's 2008 Sustainability Report are attributed to improved tracking methodologies, corrected minor errors identified during the 2010 verification process, or updates in industry-accepted emission conversion factors.



#### Environmental Reality Versus "Corporate Greenwash"

Environmental marketing hyperbole and excessive public relations, sometimes referred to as "greenwash," can create a perception that a company is not degrading the environment, when quite the opposite can be true. To address this, Xanterra aggressively pursues external, third-party verification and certification of specific environmental programs and data to determine if, in fact, the company's environmental initiatives are truly reducing impacts.

#### Verification of Greenhouse Gas Emissions and Ecometrix Data

In 2010, Xanterra commissioned Climate Mitigation Services (CMS), a consulting firm that specializes in greenhouse gas emission measurement and management, to verify the company's emissions of greenhouse gases, its inventory methodology, and Ecometrix results from 2000-2009. Among other things, CMS reviewed the energy usage data for Xanterra's 24 sites in ten U.S. states for 2000-2009, sampled reporting consistency, reviewed emission factors employed for all energy sources (electricity, propane, fuel oil, natural gas, gasoline, biodiesel, and diesel fuel), ran an error detection analysis in the workings of inventory worksheets, and gauged whether Xanterra's inventory meets international protocols and standards.

**CMS's verification process concluded that it has** "high confidence in the completeness and accuracy of the final GHG emissions inventory for 2000-2009" and that Xanterra's inventory "meets the protocols and standards of the World Resources Institute and World Business Council for Sustainable Development GHG Protocol Standard Version 2.0. The company's emission calculations comply with ISO 14065:2007 and ISO 14064-3:2006 standards."

#### **Verification of Environmental Management Systems**

In order to determine whether environmental programs are effective, Xanterra certifies all of its Ecologix environmental management systems (EMS) through the International Organization of Standardization (ISO) using the ISO 14001 environmental management system standard. ABS Quality Evaluations, an RAB-certified EMS registrar, performs these annual third-party surveillance and certification audits. During these audits, Ecometrix data and adherence to the ISO 14001 standards are analyzed for progress and accuracy. To date, each Xanterra EMS has passed all external audits and closed all audit findings within an agreed-upon timeframe.

#### **Other Third Party Verification Systems**

Over the years, Xanterra has had numerous external parties audit and examine its environmental performance. In 2006, this included a multi-day corporate EMS audit conducted by a team of consultants from the Environmental Protection Agency (EPA) under its National Environmental Performance Track program. Other ongoing external certifications and internal environmental audits include:

**NPS Concessions Environmental Audit Program**, All 11 of Xanterra's national park operations have undergone and passed periodic NPS concession environmental audits

**Surefish Inc.**, ensures that the fish used in restaurant dishes are certified sustainable

**U.S. Green Building Council LEED Silver Certification**, Annie Creek Restaurant and Retail, Crater Lake National Park, Xanterra Parks & Resorts, 2006

**U.S. Green Building Council LEED Certification**, Yellowstone employee housing, Xanterra Parks & Resorts, 2004

Audubon Cooperative Sanctuary System (ACSS), Certified Audubon Cooperative Sanctuary, Furnace Creek Golf Course, Death Valley, since 2007

Marine Stewardship Council Certification, "Chain of Custody" certification for serving sustainable wild Alaskan salmon, since 2003

**Clean Marina Certification**, Maumee Bay State Park Marina, Ohio Department of Natural Resources, since 2007

**Clean Marina Certification**, Geneva Marina Park, Ohio Department of Natural Resources, since 2007

EPA Green Power Partner, Death Valley National Park, since 2009

EPA WasteWise Partner and Clean Utah!, Zion Lodge, since 2008

EPA National Environmental Performance Track, seven locations, 2002-2008

EPA Energy Star Partner, Xanterra Parks & Resorts, 2003

**Green-e certified renewable energy credits**, Zion, Crater Lake, Grand Canyon South Rim, and Yellowstone

Colorado Environmental Leadership Silver Certification, Rocky Mountain National Park, 2007

For more information about Xanterra Parks & Resorts, visit www.xanterra.com. Additional reports can be requested by calling Xanterra's Environmental Affairs department at 303-600-3409.

#### **2015 Environmental Vision**

Knowing that one company's practices can have wide ramifications, Xanterra Parks & Resorts looks beyond its own properties to examine environmental problems facing the earth as a whole. Xanterra is dedicated to:

	Slowing global warming	Working to reduce emissions of pollutants and gases that can cause shifts in climate.
	Preserving natural resources	Promoting improved resource efficiency and reduced energy and water use, as well as maximizing recycling.
Ŵ	Minimizing hazardous substances	Moving toward progressive and continuous reduction, leading to eventual phasing out of toxic materials and chemicals.
	Protecting the natural environment	Taking measures to safeguard the biodiversity of the world's forests, oceans and other ecosystems.

quest to become a more environmentally responsible company protecting our country's national and state parks along the way. direction over the next decade.

Xanterra's 2015 Environmental Vision goals spawned from a day- The company's vision is purposefully far-reaching, but also realistic long meeting with renowned environmental scientist Hunter Lovins and achievable. It steers decision making and helps every employee in 2004. Now, that Vision guides all Xanterra employees in their do their part to protect the environment in which they work. The goals act as a "beacon to sustainability," leading Xanterra in the right



The company's overall environmental performance is best assessed by looking at annual trends and progress toward meeting the 2015 goals. Individual Xanterra operations set property-specific, annual environmental goals that are tied to the companywide 2015 goals. A facility's specific objectives and targets are measured for performance against annual goals that are congruent with the 2015 goals. While this data is explained and analyzed in detail in later sections, here are a few highlights from the last ten years (2000-2009):

#### **Progress Toward Xanterra's 2015 Environmental Vision Goals**

Xanterra's 2015 Goals		2009 Progress Toward Goal (baseline year 2000*)				
<b>↓30%</b>	Decrease greenhouse gas (CO2) emissions by 30%	<b>↓17.2%</b>	Greenhouse gas (carbon dioxide	e) -17.2% -19.3% -20.8%	Absolute; Ecometabolism (normalized for revenue)*** Relative to Baseline	
<b>↑7%</b>	Increase usage of renewable energy to provide 7% of total electricity consumed	<b>↑14.1%</b>	Renewable energy provides 14.1% of all companywide electricity usage (exclud hydroelectric), totaling 10,192,077 kWh in 2009. From 2008-2009, on-site renewa energy generation increased 132% to 2,354 MWh in 2009. REC purchases increased 1 in the same period.			
<b>↑50%</b>	Divert from landfill 50% of all solid waste generated	<b>↑47%</b>	Diversion rate Waste to landfill Waste recycled/diverted	56% -40.1% +242%	(national parks); 47% (companywide) (from 9.77 million to 5.85 million pounds) (from 2.19 million pounds to 7.53 million pounds)	
<b>↓30%</b>	Decrease fossil fuel usage by 30%		Electricity Propane Natural gas Heating fuel oil Diesel fuel Gasoline	-13.4%** +19.2% +4.0% -24.2% +182.2% +23.2%	(-15.7% Ecometabolism, normalized for revenue) (+16.1% Ecometabolism) (+1.3% Ecometabolism) (-26.2% Ecometabolism) (+174.1% Ecometabolism) (+19.9% Ecometabolism)	
<b>↑50%</b>	Increase purchases of sustainable food items to 50% of all companywide food expenditures	<b>↑19.6%</b>	Sustainable cuisine purchases are 19.6 percent of all food purchases and have increased from \$1.4 million in 2004 to \$5.7 million in 2009, a 307 percent increase in five years.			
<b>↑35</b> mpg	Achieve companywide CAFE (corporate average fuel economy) standard of 35 miles per gallon for all passenger vehicles purchased annually	<b>↑25.1</b> mpg	Xanterra's 2009 corporate average fuel economy (CAFE) was 25.1 mpg (EPA-rated combined city/highway), a 25 percent increase from 2002 (since data was first tracked).			
0	Generate zero hazardous waste	<b>↓95%</b>	Hazardous waste generation has declined more than 95% since 2008.			
<b>↓25%</b>	Decrease water usage by 25% (baseline year 2003)		Total companywide data is currently not accurate enough to report. Property-specific data is reported in the Water section of this report.			

\* All goals use a baseline year of 2000 except where specifically noted otherwise

\*\* Electricity usage includes total kilowatt hours used companywide, regardless of the source of that electricity

\*\*\*These figures include on-site renewable energy generation and renewable energy purchases

#### Summary of Key Actions Xanterra Has Taken to Improve its Environmental Performance:

- Installed the largest renewable energy
  system in the tourism industry a
  1.23-megawatt (DC) solar photovoltaic
  system that generates 2.3 million kWh per
  year in Death Valley National Park.
- Developed the tourism industry's first "green" retail store, For Future Generations: Yellowstone Gifts, the first store fully dedicated to interpreting climate change. Each retail item has • a product sustainability scorecard to educate consumers on the impacts of their purchases.
- Implemented the national park system's first complete ban on water bottle sales to eliminate disposable plastic water bottles at Zion, replacing them with water stations and reusable containers.

- Developed and operate the country's **first waste vegetable oil-powered train**, a tourist steam locomotive at the Grand Canyon that runs on used cooking grease from the Grand Canyon.
- **Installed a wind turbine** generating 17,000 kWh of clean renewable electricity per year at Maumee Bay State Park.
- Built large-scale gardens and greenhouses to provide fresh herbs and vegetables at Mount Rushmore National Memorial and Punderson Manor State Park.
- Became the first park hospitality company to receive the U.S. Green Building Council's Leadership in Energy & Environmental Design (LEED) certification. This includes a LEED Silver rating for Crater Lake National Park's Annie Creek restaurant and retail building, and LEED certification for Yellowstone National Park employee housing.

- Began phasing out a fleet of 20 "dirty" diesel-fueled tour buses, replacing them with **new clean-burning compressed natural gas buses** at the Grand Canyon.
- Use electric vehicles and propanepowered shuttles at most locations.
- Committed to an absolute reduction target in greenhouse gas emissions through a partnership with the World Wildlife Fund. Xanterra has already exceeded that ten percent reduction goal.
- Published our fourth periodic sustainability report publicly disclosing environmental performance.
- Received the EPA's 2006 Corporate Leader Award out of 500 National Environmental Performance Track participating companies.





- Hospitality and Design Award for the "Sustainable Hotel of the Year" at Zion Lodge.
- Earned the prestigious ISO 14001 International Environmental Management System standard certification for each of its national park operations.
- Became the first U.S. hospitality company to be granted "Chain of • Custody" certification from the Marine Stewardship Council (MSC) to ensure sales of sustainably fished wild salmon.
- Purchase renewable wind energy to **power** a portion of electricity demands at six of Xanterra's national park locations.
- Use a line of all-natural soap, shampoo, and lotion room amenities, which are contained in fully biodegradable corn starch bottles.
- Use Green Seal-certified cleaners in rooms at most park properties.

- Won the 2008 Hotel World Global Recycle into biodiesel or reuse waste Earned Clean Marina Certification at cooking grease on site for use in fleet vehicles and in boilers to heat buildings. Xanterra also purchases clean-burning • Pioneered (along with the NPS) the biodiesel for use in boilers.
  - Track and report all natural resource usage and waste generation at all locations through a computerized Ecometrix monitoring system.
  - installed Developed and on-site renewable solar photovoltaic systems to meet a portion of electricity demands at five national park locations.
  - Developed a voluntary internal CAFE (corporate average fuel economy) standard to improve efficiency of fleet vehicles.
  - Achieved the designation of "Certified Audubon Cooperative Sanctuary" from the Audubon Cooperative Sanctuary System (ACSS) for the Furnace Creek Golf Course in Death Valley National Park.

- three locations.
- development of a one-of-a-kind camper propane bottle recycling unit that recycles the bottles and uses the waste fuel to power the unit.
- Lobbied the U.S. Senate, in partnership with the World Wildlife Fund, to support the bipartisan Lieberman-Warner Climate Security Act of 2008.
- Developed a partnership with Fetzer/ Bonterra wines to donate \$1 to the Yellowstone Park Foundation for every bottle of wine sold.
- Published and implemented the company's own Guidelines for Environmentally Sustainable Design and Construction to foster sustainable design of building renovations and development.





# Our carbon footprint: 76,281 tons of CO2

ecometabolism

greenhouse gas emissions

Climate change. It's the greatest environmental challenge of our generation. Over the past 200 years, global emissions of greenhouse gas pollution have increased the concentration of carbon dioxide (the primary greenhouse gas) in the atmosphere by more than 32 percent. This increase is due to human activities related to our increasingly sophisticated and mechanized lifestyle — particularly the burning of fossil fuels such as coal, oil, and natural gas to generate electricity and to power factories and cars. In addition, humans have cleared more land for human use in the past 100 years than in all of prior human history. This has resulted in the loss of forests and wetlands, which absorb and store greenhouse gases and naturally regulate the atmosphere.

Xanterra's most significant direct (scope 1) source of greenhouse gas (GHG) emissions is from fossil fuels such as fuel oil, gasoline, natural gas, and propane. These fuels are used on site for transporting guests, for providing hot water, hot meals, and clean linens to guests, and from off-site coal-fired power plants that provide electricity for lighting and powering building systems.

We want to be part of the solution. Xanterra believes that reducing its GHG emissions is one of the most significant steps it can take to protect the national parks and the resorts in which we operate, and the planet itself.



Absolute

Total Absolute Greenhouse Gas Emissions and GHG Ecometabolism (Normalized for Revenue) (Tons CO2)

	09/\$ Rev
Absolute	-17.2%
Relative to Baseline	-20.8%
Ecometabolism	-19.3%

100/¢ Day

#### **Tackling Carbon Emissions Reduction**

There are four basic ways we're going about reducing our carbon footprint:

- 1 generating more renewable energy on site to power our operations;
- 2 switching to cleaner-burning, less carbonintensive fuels;
- 3 reducing our energy usage through efficiency and conservation; and
- 4 procuring more renewable energy to offset emissions that we can't reduce.

On-site renewable energy generation systems at Xanterra include solar PV systems, waste vegetable oil power and heating systems, and wind turbines. Fuel switching strategies include switching from heating fuel oil to propane, using electric vehicles instead of gasoline, using propane and CNG-powered buses, shuttles, and cars, replacing fuel oil and diesel fuel with waste vegetable oil, and powering vehicles with solar energy.

Energy efficiency and conservation measures have included tens of thousands of lighting retrofits, targeted area shutdowns, energy control systems in rooms and facilities, and HVAC equipment upgrades, among many other measures. While pursuing on-site renewable generation, the company also purchases a small amount of renewable energy certificates (RECs) to further reduce its GHG emissions.

Our 2015 goal is to power more than seven percent of our operations with renewable electricity and to reduce our carbon emissions by 30 percent (baseline year 2000). We've already exceeded this renewable energy goal and we're more than two-thirds of the way to meeting our carbon reduction goal.

Further detail on carbon reduction measures is included in this and the following Energy Efficiency, Renewable Energy, and Transportation sections of this report.

#### How We Present our GHG Emissions Data

We report our GHG emissions using three methodologies:

- 1 absolute emissions this is the company's total emissions regardless of changes within the company such as acquisitions or divestitures;
- 2 **absolute emissions with a recalculated baseline** this is the company's total emissions after accounting for acquisitions and divestitures; and
- 3 GHG Ecometabolism this is our emissions normalized for revenue, which accounts for all changes to company operations. Our energy usage is linked with park visitation and revenue. Thus, our Ecometabolism is the most meaningful metric we can use to determine if we're actually reducing GHG emissions while accounting for acquisitions or divestitures, changes in visitation, and changes in services provided to guests.

#### **Ten-year Results**

Xanterra has reduced its total company-wide absolute greenhouse gas emissions 17.2 percent over the last ten years. This reduction includes the following acquisitions and divestitures: the expiration of contracts for the Gideon Putnam Resort and Conference Center, the North Rim of the Grand Canyon, and Everglades, and the additions of operations at Rocky Mountain National Park and Grand Canyon Railway. Our greenhouse gas Ecometabolism (normalized for revenue) from 2000 to 2009 declined 19.3%.

When accounting for divestitures and acquisitions in our year 2000 baseline, Xanterra has reduced its GHG emissions by 20.8 percent. Within the 20.8 percent GHG reduction mentioned above, approximately 58 percent of this reduction was achieved through comprehensive energy efficiency retrofits to lighting, HVAC systems, boilers, ovens, steamers, and other energy-using equipment; 13 percent was from on-site renewable energy generation; 29 percent of the decline was derived from procurement of renewable energy; and 0.5 percent was from biodiesel and other renewable fuels burned on site.

We consider these reductions among our most significant achievements because many varying environmental impacts from all aspects of operations are encompassed within it.

The company has now exceeded its ten-year World Wildlife Fund greenhouse gas emissionreduction goal of ten percent, and it is two-thirds of the way to meeting its 2015 Environmental Vision goal of a 30 percent reduction.

All EPA Criteria Air Pollutants, voluntarily tracked by Xanterra, decreased significantly as Xanterra switched to cleaner-burning fuels. Nitrogen and sulfur oxide emissions decreased 22.7 and 5.9 percent, respectively, since 2000.

#### GHG Tracking Scope and Sources:

GHG emissions conversion factors and EPA Criteria Air Pollutant emissions data were calculated using US EPA (2008) eGRID2007, Version 11, Year 2005 Summary Tables, 12 pp., www.epa.gov/cleanenergy/egrid. Best practice in GHG accounting calls for inventories to use the most up-to-date emissions factors, thus some historical emission data has changed. In this process, we also discovered minor historical accounting errors, mostly due to better record-keeping and improved understanding of energy consumption.

GHG tracking and reporting follows the World Resources Institute (WRI) and World Business Council on Sustainable Development's (WBCSD) Greenhouse Gas Protocol Standard Version 2.0.

The company's emission calculations comply with ISO 14065:2007 and ISO 14064-3:2006 standards. Xanterra calculates Scope 1 emissions (on-site carbon pollution from transportation systems, boilers, HVAC systems, hot water heating systems, kitchen ovens, etc.) and Scope 2 emissions (off-site power plant electricity usage). No Scope 3 emissions are included.

Xanterra does not emit the following GHGs: hydrofluorocarbons (HFCs), perfluorocarbons (PFCs), nitrous oxide (N20), and sulfur hexafluoride (SF6). Since methane (CH4) emissions from waste sent to landfills are de minimus, the company excludes these in its carbon footprint. Deforestation-related emission factors also are excluded because the company does not cut trees.

Xanterra's potential to emit Criteria Air Pollutants falls well below regulatory thresholds, which means it is not subject to regulation under the 1990 Clean Air Act Amendments. Still, Xanterra aggressively combats pollution emitted by vehicles, buildings and regional public power plants to help keep the vistas at national and state parks clear.



00 01 02 03 04 05 06 07 08 09 **ecometri** *x* 



Total Annual Criteria Air Pollutant Emissions (Tons)

NOx	-22.7%
SOx	-5.9%



Total Annual Absolute Carbon Emissions per Fossil Fuel Type (Tons)

- Electricity
- Propane
- Natural Gas
- Fuel Oil
- Gasoline
- Diesel

#### **Using Retail to Drive Climate Change Mitigation**

NPS Director Jon Jarvis underscored the significant threat that climate change poses to our national parks when he testified last winter to Congress: "Climate change challenges the very foundation of the national park system and our ability to leave America's natural and cultural heritage unimpaired for future generations."

Most park visitors and employees, however, are unaware of how climate change impacts the parks, and more importantly, how their own behavior is key to ensuring the parks' survival. In 2009, Xanterra Parks & Resorts at Yellowstone launched an innovative *For Future Generations: Yellowstone Gifts* campaign aimed at raising awareness among park guests and employees about climate change.

Central to the initiative is the opening of a retail store dedicated to interpreting climate change in the parks: *For Future Generations: Yellowstone Gifts.* Through educational displays, and a first-of-its-kind sustainable product scorecard, the store connects the park visitor to the threats climate change and pollution pose to our national parks – and our world – and to the need to make sustainable consumer choices.

Other components of the extensive campaign include an innovative educational display for guest rooms with a plush animal toy, an educational brochure and website on being a green guest in national parks, and a new employee handbook entitled "Keeping Yellowstone Green."

(See Procurement section, page 41, for more details on the green retail store).



# case study: greening a railroad operation

Rail travel is one of the most energy-efficient methods of travel, typically consuming up to 50 percent less energy than motor vehicles traveling the same distance. However, operating and maintaining a historic tourist train and resort can still generate large amounts of pollution. When Xanterra acquired the Grand Canyon Railway (GCR) in 2007, the company immediately went to work making the entire operation as environmentally sustainable as possible.

#### The Results:

Between 2007 and 2010, a dedicated team of Xanterra employees at GCR successfully cleaned up the legacy environmental impact of train operations in addition to working hard on improving hotel operations. Although there is still work to do, here are some results:

#### How it happened:

By applying the principles of our Ecologix Environmental Management System (EMS), GCR set aggressive targets for improving efficiency and environmental peformance. Some of the successful programs implemented include:

- Switching from diesel fuel to 100 percent recycled waste vegetable oil (WVO) to power steam locomotives during the 5-7 trips/year when they run. This vegetable oil originally was used for cooking at our Grand Canyon restaurants and other local food service providers. From there it is simply filtered and de-watered, making it ready for use as a clean-burning, renewable fuel source.
- Harvesting rainwater to run a steam locomotive, saving 11,200 gallons of potable water per steam train trip.
- Replacing inefficient steam locomotives with more modern diesel locomotives, reducing diesel fuel usage by more than 50 percent (1,200 gallons for every train trip or 200,000 gallons per year).
- Using a "pharmacy" approach to eliminate hazardous chemicals. This approach resulted in the elimination of all EPA F-listed hazardous solvents used for cleaning, and replacing them with 100 percent citrus-based, biodegradable cleaners.

- Instituting a property-wide recycling program that includes diversion of 236 tons of scrap metal, 246 automobile tires, 1,925 pounds of telephone books, 2,680 plastic bags, 14,170 pounds of electronic waste, 550 pounds of scrap copper wire, and 6,000 pounds of solid waste in the first three years.
- Reducing the sulfur content in diesel locomotive fuel from 500 ppm to 15 ppm.
- Burning all GCR waste oil on site in shop heaters during the winter months.
- Converting 298 showerheads in the hotel to low-flow 1.6 gallons per minute (gpm) and reducing standard sink aerators to 0.5 gpm with no decrease in guest comfort.
- Saving fuel by eliminating an "old school" railroad practice of idling locomotives literally 24 hours per day all year to keep engine and fuel temperatures up. Locomotives are now parked indoors, saving 18,000 gallons of fuel per year.
- Retrofitting all incandescent lighting at the Polar Express North Pole stage with LED lighting, and retrofitting almost all incandescent lighting in hotel operations with CFLs.
- Becoming, in July of 2009, the first shortline tourist railroad in the United States to receive the prestigious ISO 14001 thirdparty certification for our EMS.

# **GCR Vital Stats:**

11 locomotives, 39 passenger train cars and 65 miles of track

One hotel with 298 guest rooms

- 2 restaurants
- **3 retail shops**
- **RV Park and Kennel**

# Vehicle, train, and building maintenance operations

200,000+ passengers per year

- Reducing train ticket generation from 2.8 million to 700,000 per year by consolidating tickets and reducing the number of tickets mailed by using a "will call" pickup window.
- Reusing thousands of used railroad ties per year, some for landscape and fencing applications.
- Using biodegradable, non-toxic pin, bearing and journal oil (PB&J) to lubricate steam locomotive bearings, slides and mechanical drives.
- Increasing xeriscaping around the property by 25,000 square feet.



#### 18

# Xanterra used 662,473 MMBtus of energy in 2009

### energy

#### **Energy Efficiency in National and State Parks**

Using energy efficiently reduces emissions, enhances guest service, saves money, and even helps Xanterra do its part to protect national security by helping the country slowly wean itself off of foreign sources of fossil fuels. Xanterra continues to launch numerous energy efficiency and conservation programs. They are highlighted in this section.



Xanterra has focused its energy efficiency strategy more on electricity, diesel fuel, and fuel oil since those fossil fuels result in more criteria air pollutant emissions and greenhouse gas pollution relative to natural gas, propane and gasoline.

Consequently, absolute fossil fuel-derived electricity has declined 13.4 percent since 2000 (on-site renewable electricity generation is included in this figure). Electricity Ecometabolism (usage normalized for revenue) has declined 15.7 percent over the same period. This reduction is attributed to a long roster of energy efficiency programs over the years, some of which are described in this section.

The Ecometabolism of the company's "dirtiest" fossil fuel, fuel oil – which emits more sulfur and nitrogen oxides, as well has higher amounts of particulates – has declined 26.2 percent in the last ten years. This is attributed primarily to switching to biodiesel, waste vegetable oil, propane, and natural gas to provide building heat, hot water and steam generation at many locations. Consequently, the Ecometabolisms of cleaner burning propane and natural gas have increased 1.3 and 16.1 percent, respectively.

Absolute companywide diesel fuel usage from 2000-2009 increased 182 percent due to the acquisition of Grand Canyon Railway (GCR). However, this figure is not indicative of the diesel fuel reductions that have occurred in the last three years since acquiring GCR.

continued on facing page



From 2000-2006, Xanterra's companywide diesel fuel usage slowly declined as the company adopted more efficient transportation technologies. But in 2007, due to the acquisition of Grand Canyon Railway, a tourist train operation that relies on significant amounts of diesel fuel to run locomotives 130 miles round trip from Williams, Arizona, to the Grand Canyon every day, companywide total diesel fuel consumption spiked 615 percent that year, from 89,696 gallons to 547,423 gallons. Since 2007, Xanterra restricted use of inefficient steam locomotives to 5-7 days/year, began using only waste vegetable oil to power those steam locomotives, and implemented numerous train operational measures and policies that have resulted in significant diesel reductions (See Grand Canyon Railway Case Study for details). Consequently, from 2007 to 2009, companywide diesel fuel usage declined from 547,423 to 332,287 gallons, a 39.5 percent decrease in three years.

Gasoline usage for fleet vehicles increased slightly from 2000-2006. In 2007, after the acquisition of GCR, gasoline usage spiked. Since 2007, gasoline usage has declined 13.1 percent from 420,263 to 369,549 gallons. Fortunately, fleet vehicle fuel usage represents a relatively minor portion of Xanterra's total energy usage.

# energy efficiency & ghg reduction projects





#### The Next Leap in Lighting: From Incandescent to CFL to LED

At Zion Lodge, 97 percent of approximately 7,000 lights have been retrofitted to efficient compact fluorescent lamps (CFL), saving 70 percent on electricity and increasing the life of the lamps from 1,000 to 10,000 hours. In 2009, Xanterra took Zion Lodge's lighting to an even greener level by retrofitting more than 750 fluorescent and halogen lamps with LED (light-emitting diode) lamps that last up to 50,000 hours and use 95 percent less electricity than an incandescent lamp. In only a few short years, a typical Zion Lodge lamp has gone from 60 watts (incandescent) to 16 watts (CFL) to 4 watts (LED) for the same lumen output and no sacrifice in light quality.

Electricity usage has already declined more than five percent at Zion as of the date this report was printed. In addition, because the new bulbs were quite bright, strategic de-lamping was undertaken in many areas.

Companywide, Xanterra continues to retrofit incandescent lights with CFLs where possible. To date, Xanterra has installed more than 65,000 CFLs. Retrofitting old incandescent bulbs with super-efficient CFLs continues to be one of Xanterra's biggest energy-saving initiatives. Additionally, the lamps generate 50 percent less heat than standard lamps, reducing air conditioning loads.

T-12 to T-8 fluorescent tube lamp retrofits continue throughout the company. In 2009, Yellowstone retrofitted 500 light fixtures at the Mammoth Hotel from T-12 to T-8 lamps (which use on average 35 percent less energy) and reduced the number of existing lamps by half. South Rim's Bright Angel bathrooms use efficient T-5 lamps.

The entirety of Xanterra lighting retrofits save up to 4.4 million kWh per year, not to mention approximately \$400,000 per year in labor, lamp replacement, and energy costs. This keeps 3,900 tons of carbon dioxide, 12 tons of sulfur dioxide and six tons of nitrogen oxide out of the air annually.



#### **LED Lighting in Retail Settings**

In addition to Zion's retail store, two of Yellowstone's retail stores have retrofitted all incandescent lamps and halogen MR16 lamps with LED technology, resulting in a 18 ton reduction in CO2 per year for both shops combined. The benefits go beyond long life and 90 percent energy savings – at the Old Faithful Lodge retail shop, engineering staff measured a 29 degree F reduction in temperature after retrofitting all halogen lamps with LED lamps – increasing guest and employee comfort on hot summer days.

#### Saving Energy in Commercial Kitchens

Literally every kitchen in this country has large hood fans that exhaust grill smoke out of the building. Those fans operate up to 18 hours a day, 365 days a year, consuming inordinate amounts of energy, pumping conditioned air outside the building, unnecessarily wasting natural resources and emitting greenhouse gases. To address this, Xanterra food and beverage operations at Crater Lake, Bryce Canyon, Mount Rushmore, and Zion have implemented the latest in kitchen technologies, a variable speed hood control system. This new hood control system senses heat and particulate matter (smoke), automatically modulating the fan motors up or down depending upon usage. If a grill is shut down during a slow period,

the hood reacts accordingly and lowers its speed. The resulting energy savings have been astounding. Data analysis has shown some of the hoods save up to \$19,000 per year, enough to pay for themselves in just over one year. This includes savings from electricity that runs the motors as well as heating and cooling savings by not sending conditioned air outside. Greenhouse gas emissions savings are estimated at 180 tons per year from each unit.

#### **Controlling Wasted Energy in Resort Settings**

When you check into your room on a hot summer day at the South Rim of the Grand Canyon, Hueston Woods Resort in Ohio, Zion Lodge, or many other Xanterra properties, you will notice that the air conditioner automatically turns on when you enter the room. Open a window or door and it will automatically turn off. Leave the room for your day hike and an occupancy sensor senses your absence and turns the air conditioner down to save energy while you are out. This kind of control technology, known as a programmable thermostat, has been installed in hundreds of Xanterra rooms across the country in national and state parks, saving up to 30 percent on electricity per room.

At Yellowstone, hundreds of buildings are heated with fuel-oil fired boilers. In the past, these boilers were controlled with analog technology thermostats. In the last few years, Xanterra has retrofitted most of these analog-controlled boilers with programmable controls, resulting in fuel oil savings as well as improved heating for guests.



Maumee Bay and Salt Fork State Parks' chief engineers use a state-of-the-art computerized energy management system that allows one person to remotely monitor cabins for energy usage, detect if there is a malfunction in any mechanical equipment, set temperatures prior to guest arrival, and prevent pipes from freezing in winter, all with the touch of a finger from one computer. This saves money while improving the guest experience.

These are just a few of the many kinds of energy control technologies Xanterra uses in rooms and other areas.

# Partnering with Coca-Cola Company to Save Energy with Vending Machines

Xanterra uses hundreds of vending machines at its properties. Annually, one vending machine with refrigeration and lighting can consume as much as 3,652 kWh of energy, costing more than \$360 in energy usage and emitting the equivalent of 6,640 pounds of carbon dioxide. In total, the energy cost alone from vending machines at Xanterra is more than \$50,000 per year.

To reduce energy consumption and greenhouse gas emissions from vending machines, Xanterra has partnered with the Coca-Cola Company to install energy management systems or upgrade efficiencies on all vending machines at Xanterra. These systems typically reduce energy consumption by 25-35 percent, while also providing perfectly ice-cold refreshing drinks – and they do it automatically. The EMS smart technology learns consumer patterns for each vending situation, then applies this knowledge to adjust temperature and lighting to save energy during quiet periods or when closed. When consumer patterns change, it learns the new patterns. Through this partnership, Xanterra will move beyond wasteful "all day, every day" cooling, reduce unnecessary greenhouse gas emissions and save money on utility bills.





 Owned Final equipped this unit with a unique energy managements ysters that keeps dimits cold and reduces the energy consumption sided

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LIVE POSITIVELY DECK

14.1% of Xanterra's electricity is from renewable energy

# renewable energy







(graph does not include biofuels)

Purchased

On-site Generated

Purchased (kWh) On-site gen (kWh) 2000 0 0 2001 226,538 0 2002 346,442 0 0 2003 407,615 2004 24,000 1,178,181 2005 24,000 3,489,266 2006 5,987,667 24,056 2007 3,400,711 24,056 2008 1,014,262 8,448,762 2009 7.808.769 2,354,682 2010 7,808,769 2,843,564\*

The most efficient way Xanterra can reduce carbon emissions is to rid itself of its dependence upon fossil fuels. To achieve this goal, Xanterra has developed clean, emissionfree, renewable solar and wind energy systems at its facilities.

\*Projected figure assumes 488,882 kWh equivalent renewable energy generation from on-site waste vegetable oil burning to heat buildings at Yellowstone and Mount Rushmore





Xanterra generated & procured 10,163,451 kWh of renewable energy last year

#### The Largest Solar PV System in the Tourism Industry

In 2008, we took our renewable energy portfolio to a new level, accelerating Xanterra into the lead among all companies in the United States in environmental sustainability and green-house gas emission reductions. We did this by installing the largest renewable energy system in the entire tourism industry, a 1.23 mega-watt (MW) (DC) solar photovoltaic (PV) energy system located at the sunniest place in the country, Death Valley National Park.

#### **PV System Results**

The system, which tracks the sun, is the size of five football fields and generates on site more than 2,328,000 kWh per year, enough electricity to power more than 400 American homes. While the system generates enough electricity to power 35 percent of the entire resort over the course of a year, during daylight hours it powers more than 100 percent. It has reduced greenhouse gas emissions by 1.93 million pounds each year and will continue to do so for more than 40 years, totaling a minimum of 29,000 tons of CO2.

With this system alone, Xanterra has reduced its greenhouse gas emissions associated with electricity by more than 35 percent at Death Valley and by three percent companywide. This system also assists in furthering national security goals of energy independence. It exceeds President Obama's new Executive Order that calls upon concessioners (and all federal agencies) to reduce greenhouse gas emissions "...through reduction of energy intensity by (i) 3 percent annually through the end of fiscal year 2015, or (ii) 30 percent by the end of fiscal year 2015."



# renewable energy continued



#### **On-site Wind Power Generation**

In May of 2010, Xanterra installed a 10-kilowatt Bergy Excel-S wind turbine at Maumee Bay Resort and Conference Center. This turbine generates 15,000 kilowatt-hours per year (an amount that would power three average homes year round), reducing Maumee Bay's carbon footprint by one percent. While this may be a small start, the primary intent of the project is to establish an educational model that promotes renewable energy as a way to protect Ohio Parks and the many other beautiful places where Xanterra operates. The tower stands 120 feet tall and the blades on the turbine are 22 feet in diameter.

#### **On-site Renewable Energy Generation Systems at Xanterra**

Xanterra Location	Type of system	Size (kW)	Generation (kWh/yr) (gal/yr)	
Death Valley	Solar PV	1,230 kilowatt	2,328,626	
Zion	Solar PV	15 kilowatt	21,000	
Yellowstone	Solar PV	2.4 kilowatt	3,100	
Rocky Mountain	Solar PV (battery bank)	2.4 kilowatt	2,700	
Crater Lake	Solar PV (remote)	0.2 kilowatt	300	
Maumee Bay State Park	Wind Turbine	10 kilowatt	15,000	
Yellowstone	Kitchen Waste Vegetable Oil (WVO) to power boilers at 3 locations	Continous	11,000 gallons/yr	
Grand Canyon Railway	WVO to power steam train	600 gallons	3,000-4,200 gallons/yr	
Mt. Rushmore	Kitchen grease to biodiesel recycler	40 gallons	400 gallons/yr	
Death Valley	*Kitchen WVO to biodiesel recycler	80 gallons	800 gallons/yr	

\*This technology has been purchased and is on site, but as of the printing of this report, it is still under development.



### Green-e Certification program

All Xanterra wind power purchases are certified under the Green-e certification program for renewable electricity.

#### Heating Buildings with a Renewable Fuel - Waste Kitchen Grease

Xanterra's Yellowstone operations include a sizable food service component. On a typical summer's day, the company prepares more than 22,000 meals in 17 restaurants and eight employee dining rooms. On an annual basis, food preparation produces about 11,000 gallons of waste vegetable oil (WVO). In the past, this waste stream was shipped off site 250 miles for recycling and, sometimes, landfill disposal.

Xanterra also houses up to 5,100 guests per night in its nine lodges and burns 45,000 gallons of diesel fuel oil annually in boilers to provide heat to those facilities. In 2009, representatives from Xanterra's engineering department developed a way to eliminate the WVO waste stream and also reduce diesel fuel oil consumption by using WVO instead of fuel oil in boilers to heat buildings.

By installing a hand-made, one-of-a-kind plumbing and "carburetion" system on several boiler systems throughout the park, WVO is now injected directly into boilers and burned to heat buildings. This project achieves significant environmental benefits, most notably by reducing annual carbon dioxide emissions by 223,800 pounds from the replacement of 11,000 gallons of diesel fuel oil with WVO from kitchens. The project also eliminates the fossil fuels (and the associated 12,729 pounds of carbon dioxide emissions) needed to transport the material off site for recycling. In the future, Xanterra plans to accept WVO from other park concessioners and restaurants in the surrounding communities of Yellowstone.

At Mount Rushmore and Death Valley, Xanterra uses biodiesel conversion equipment to convert WVO into biodiesel. Biodiesel is biodegradable, non-toxic, virtually free of sulfur and particulate emissions when burned, and produces fewer greenhouse gases. Alternative fuels like E10, a blend of 10 percent ethanol, are used to power snowmobiles and snow coaches at Yellowstone.

#### Other On-site Solar Energy Systems

In addition to the 1.23-MW PV system described above, Xanterra has five other PV systems installed. These include grid-tied PV systems at both Zion Lodge and Yellowstone. At Zion, a 10,000-watt system was installed on an administration building and a 5,000-watt system was installed on a dormitory building. At Yellowstone, two 1,200-watt PV systems were installed on two employee houses. At Crater Lake, a small off-grid PV system is used to power a remote office space for the marina operations. At Rocky Mountain National Park, Xanterra installed a 2,400-watt roof-mounted PV system on our retail store atop Trail Ridge Road. The two off-grid systems require a battery bank for storage of electricity.

#### Wind and Other Renewable Power

In total, Xanterra used 10,163,451 kWh in renewable wind, solar, or geothermal energy in 2009 (hydroelectric power is not included in these figures). This represents 19 percent of Xanterra's total national park electricity usage and 14.1 percent of all Xanterra operations' electricity usage.

Xanterra has already exceeded its 2015 goal of powering the company with a minimum of seven percent renewable energy, and the company has already exceeded the goal set with the EPA of three percent to become a Green Energy Partner. By generating and purchashing wind power, each year Xanterra avoids the equivalent negative effect of driving an average car 6.8 million miles.







# renewable energy continued





Before Waste Vegetable Oil

After Waste Vegetable Oil







#### From Coal to Diesel to French Fries: Same Train - Cleaner Fuel

Anyone in food service will tell you that used vegetable oil - the stuff used to cook french fries and other food - looks, well, rather disgusting. So it is even more remarkable that the engineers at Grand Canyon Railway came up with such an original way to repurpose the stuff: power the steam train.

For more than a century, steam locomotives were powered with dirty coal. In recent decades locomotive technology switched to another fossil fuel - diesel. But in 2009, Xanterra's locomotive No. 4960 was converted from using a fossil fuel (diesel) to a renewable fuel (WVO) for its 5-7 special occasion trips/year. Now, Xanterra operates what may be the only steam train in the world that runs on clean-burning, renewable, 100-percent waste vegetable oil (WVO). Many steam train enthusiasts were surprised to see the almost complete lack of visible soot emitted from the stack under full power, since vegetable oil burns much cleaner than conventional fuels.

With each 130-mile round trip to the Grand Canyon, this train carries between 1,600 and 2,000 people and uses 1,320 gallons of WVO. This saves 1,200 gallons of diesel fuel per trip. We also collect rainwater during the rainy season to use in the steam engine boiler. The water, more than 11,000 gallons saved per trip, would otherwise have to be pulled from the aquifer.

Using a train to enter the park is dramatically more efficient than using an automobile. The energy use per capita when taking the train is roughly 0.67 gallons of fuel for the 130-mile round trip. And when using WVO instead of diesel fuel, it results in a reduction in carbon emissions of 26,856 pounds per train trip and keeps approximately 600 automobiles out of the park each trip.

### water

Xanterra recognizes the importance of water conservation when operating tourist facilities in desert climates like Zion, Death Valley, and Grand Canyon National Parks. Our long-term goal is to reduce water use by 25 percent from 2003 levels by 2015. In recent years, we have struggled to accurately track companywide water use due to systemic problems beyond our control in reporting methodologies and the lack of resources to fix those problems. In future years, we plan to improve upon our water tracking systems.

#### Saving Energy, Ecosystems, and ... Water

As a standard practice, Xanterra has equipped nearly all guest rooms with water-efficient fixtures: showers use between 1.2 and 2.0 gallons per minute, all new toilets consume at most 1.6 gallons per flush, and faucet aerators decrease flow to between 0.5 and 1.0 gallon per minute.

But these steps merely scratch the surface of where we are headed in our water-saving endeavors. At some locations, Xanterra employs dual-flush toilets (using 0.8 or 1.6 gallons per flush depending upon use type) while other locations use 0.12 gallon-per-flush urinals, an 85 percent reduction from even the most efficient dual-flush toilets. Some properties have already installed the most advanced technology available – entirely waterless urinals.

Where possible, Xanterra converts landscaping to xeriscaping - a much more natural and less water-intensive approach. In 2009, the Grand Canyon Railway converted 24,000 square feet of conventionally landscaped area to xeriscape, using only native plants with nearly zero irrigation required. To save water at Zion, the company eliminated irrigation of some landscaped areas outright, resulting in water savings of more than 9 million gallons in one season, decreasing usage by 40 percent.

The importance of water conservation at the South Rim of the Grand Canyon extends beyond the scarcity issue. Moving water from its source to its users across the canyon and up 3,200 vertical feet on the rim is energy intensive. Therefore, running a faucet at the South Rim for only 5 minutes uses the same amount of electricity that a 60-watt light bulb consumes in 14 hours. To reduce this impact, Xanterra uses around 60,000 gallons per year of reclaimed water for non-potable purposes in its kennels, employee bathrooms and landscape irrigation. The company has also enacted policies governing water usage and has installed waterless urinals and other water efficient equipment. Consequently, Xanterra has achieved a 19 percent decrease in annual water usage at the South Rim (from 111 to 91 million gallons) since the year 2000, which also means 324,000 kWh less per year in electricity used are to move that water.

Xanterra's companywide towel and linen reuse program, in which these items are only laundered when directed by guests, continues to have an estimated 75 percent participation rate and saves hundreds of thousands of gallons of water each year. The company's advanced linen tunnel washer at Yellowstone reuses up to 3,500 gallons of water per day.

## Our water footprint: more than 700 million gallons per year

#### Audubon Certified Golf Course Saves Water in Death Valley

While the Furnace Creek Golf Course at Death Valley (the lowestelevation golf course in the world) was recently named to Golf Digest's "50 Most Difficult Courses," Xanterra is particularly proud to have achieved designation as a Certified Audubon Cooperative Sanctuary in partnership with Audubon International. The Furnace Creek Golf Course was the 42nd course in California and the 630th in the world to receive the honor.

To reach certification, a golf course must achieve exemplary environmental quality in a number of areas including: Environmental Planning, Wildlife and Habitat Management, Outreach and Education, Chemical Use Reduction and Safety, Water Conservation, and Water Quality Management. While a great deal of work was completed to achieve certification, one specific example of what makes the Furnace Creek Golf Course "green" is an 84 percent reduction in pesticide usage.

Using a natural dye during the winter to make brown, dormant Bermuda grass green effectively eliminates wintertime watering. These efforts, along with many others at Furnace Creek, have resulted in a 23 percent decrease in water consumption since 2002.



#### 28

Our solid waste footprint:

- » 18.1 million lbs of solid waste generated in 2009
- » 47.3% (8.6 million lbs) of that was recycled, composted,reused, or diverted

47.3% diverted in 2009

# solid waste

#### **Rethinking Waste**

Operating lodging, restaurant, and retail facilities in parks and resorts can generate a significant amount of waste. Solid waste is generated not only by Xanterra and its employees, but also by the guests the company serves. Effective management of waste requires a comprehensive program of awareness, education, action, and commitment to continual improvement.

Over the last ten years, Xanterra has actively pursued increased solid waste diversion. When tracking was implemented in 2000, only a few basic waste streams were recorded: solid waste to landfill, glass, plastic, metal, and cardboard. Since that time, the company has developed a comprehensive tracking spreadsheet detailing 69 waste streams that Xanterra now recycles, composts, reuses, or diverts from a landfill for each property (8.6 million pounds total in 2009). Our traditional recycling includes, among other items: aluminum, tin, steel equipment and scrap metals; plastic and glass containers; cardboard, paperboard, office paper, magazines, and newspaper; and Universal Wastes such as batteries (lead acid, alkaline, NiMH, lithium) and CFL lamps. Today, we go well beyond those items. Newer categories include: electronic waste, phone books, bedding, pillows, mattresses, wood, construction waste, carpeting, cooking oil, manure, and camp stove fuel among the 69 waste streams in total.







Each year, Xanterra works with its partners, contractors, and employees to identify, capture, and track additional materials to be kept from entering landfills. Some of these resources were already being diverted in previous years without being tracked. The combination of improved tracking and increased diversion efforts has contributed significantly to the 224 percent increase (from 14.6 to 47.3 percent) in the company's solid waste diversion rate over ten years. Diversion per room night has increased three-fold, from 2.3 pounds in 2000 to 9.2 pounds in 2009. The solid waste diversion rate in national parks increased from 18.4 to 56.2 percent in the last ten years.

Xanterra has also been working with its partners to prevent waste from being generated in the first place. While these efforts are nearly impossible to track numerically, the company has greatly expanded its packaging take-back programs (pallets, shipping containers, etc.) and is working with some vendors to prevent packaging from being produced in the first place. At Rocky Mountain National Park, for example, a major local vendor now delivers its product in reusable containers instead of shipping cardboard boxes within larger cardboard boxes.

Overall, waste diversion continues to be a challenge, though Xanterra's progress still has been significant.







# solid waste continued



#### Making Mountains Out of...eh, Buses?

Where do buses go at the end of their lives? When Xanterra began replacing its outdated fleet of diesel buses with new, clean-burning compressed natural gas-powered buses at the Grand Canyon, we were tasked with this problem.

The Grand Canyon vehicle maintenance department staff came up with the solution: partner with the Bearizona wildlife park in Williams, Arizona, to deconstruct the buses and use the scrap metal frames as structural components of "mountain" water features used to create artificial animal habitats.

Of the initial five full-length tour buses sold to Bearizona, some may be used as shuttles and others may be used in construction of the mountain water feature. The buses will be piled up, wrapped in wire mesh, and covered in concrete to make a rock cliff structure. This project will result in creative reuse of approximately 72,000 pounds of bus material. Most other parts of the buses will be recycled and reused for parts replacement.



Rendering showing recycled Xanterra buses to be used in the construction of a water feature



#### **Cups: From Styrofoam to Plastic to Paper to Corn**

In one year, Xanterra uses more than 2 million cups for guests at over 64 restaurants and food outlets. Years ago those cups were Styrofoam, a material that is now banned in all Xanterra operations. After that, plastic cups were the norm. However, the environmental impact associated with using and disposing of millions of petroleum-based plastic cups is significant, so in recent years Xanterra switched to a combination of reusable (wear-washing) cups, chlorine-free paper cups, and some biodegradable corn-starch cups. In 2010, Xanterra took this one step further by switching literally all of its cups to the most environmentally benign, vegetable-based corn starch that readily biodegrades into the environment. These cups can even be composted, as they are at Yellowstone.

#### "Holey" Soaps and Biodegradable Shampoo Bottles

Each year, Xanterra's hotel in-room guest amenity program uses more than 550,000 shampoo bottles, 500,000 lotion bottles, and more than 800,000 bars of soap. In the past, the empty containers and used soaps were sometimes donated to charitable organizations, occasionally recycled, and often disposed as trash in a landfill.

In 2008, Xanterra was one of the first hospitality companies to switch its entire guest room amenity program to an environmentally sustainable product that is petroleum free, biodegradable, and compostable. These products are contained in Plastarch Material (PSM), a corn-starch resin that biodegrades into water and carbon dioxide.

The accompanying soap and accessory cartons are made from recycled paper and printed with soy-based inks, while the shower cap itself is also made from PSM. The vegetablebased, all-natural soaps are cruelty free, and contain no animal fat or byproducts. To further minimize waste, the bars of soap are shaped like a donut, leaving out the unused center.

This product also complies with the international environmental requirements of ISO 14851 (related to biodegradability and compostability) and North America ASTM D6400 (Standard specification for Compostable Plastics). It also meets the degradability criteria of GB 18006.1 – 1999 issued by State Administration for Quality Supervision and Inspection and Quarantine.

#### Zion Sets Precedent by Banning Bottled Water

In 1976, the average American consumed 1.6 gallons of bottled water per year. In 2008, that number jumped 18-fold, to 28.3 gallons. Americans are the world's leading consumers of bottled water, downing four billion gallons per year. The process of making plastic bottles consumed in the United States alone uses approximately 17 million barrels of oil per year. Once a plastic bottle is manufactured and filled with water, it has to be transported, using diesel trucks, ships or airfreight. If you add the average energy cost of making the plastic, filling the bottle, transporting it to market and processing the empty bottle, you begin to see the hidden environmental costs of bottled water.

In partnership with the National Park Service in January 2009, Xanterra banned the sale of bottled water at its operations in Zion National Park. In its place, Xanterra installed water filling stations where guests can fill reusable bottles (sold at Xanterra's retail store) with what could be the purest water in the country – fresh Zion spring water.

This park-wide ban immediately reduced the amount of plastic in the waste stream, eliminating 30,000 single-use plastic water bottles at Zion Lodge as well as 30,000 more bottles at other locations operated by the NPS and other partners. Interpretive signage on reusable bottles educates guests on the program and its environmental benefits.

This initiative is now spreading to the gateway community of Springdale, Utah, where businesses are exploring the possibility of installing water filling stations of their own – which should further reduce plastic waste coming into Zion National Park.

#### Working Toward a Biodegradable World - Composting on Steroids

Xanterra's most significant reductions in sending waste to landfills have come from new composting efforts. In the last two years, Xanterra has drastically increased its capabilities with functional composting facilities at Zion, Mount Rushmore, South Rim's Phantom Ranch, and Yellowstone. Through these programs, close to three million pounds of biodegradable waste, which was previously going to a landfill, is now being turned into inert organic matter to be used in gardens. Yellowstone composts the greatest volume, now diverting almost 70 percent of its entire solid waste stream, recycling more than 1.8 million pounds and composting 2,200,000 pounds in 2009 at the West Yellowstone compost facility. Other Xanterra operations use Earth Tub composters to "digest" up to 70,000 pounds of food and vegetative wastes each year.





## Xanterra generated 59,854 lbs of hazardous waste in 2009, 4,800 lbs in 2010



# hazardous waste

#### **Hazardous Wastes**

Xanterra's goal is to generate zero RCRA-regulated hazardous waste. From 2000 to 2006, Xanterra's total hazardous waste generation remained fairly constant. Increases in numbers as documented in the table below are due primarily to improved tracking systems.

From 2007 to 2009, the company's hazardous waste generation increased significantly because of the acquisition of Grand Canyon Railway (GCR) and its maintenance operation. When Xanterra acquired that operation in 2007, GCR was generating more than 93,000 pounds of hazardous waste annually. In one year, Xanterra cut that amount by 37 percent. In 2010, that amount has been cut by more than 99 percent to only 1,000 pounds.

#### **Universal Wastes**

Universal Wastes are less regulated hazardous wastes that contain toxic materials such as mercury, lead, cadmium, copper and other substances hazardous to human health and the environment. Xanterra currently recycles all Universal Wastes including electronics (computers, cell phones, CRTs, printers, etc.), batteries (camera, car, household, lead-acid, nickel-metal hydride, lithium, and alkaline), pesticides, mercury switches, PCBcontaining ballasts, televisions, and fluorescent lamps.

Since 2000, for example, fluorescent lamp recycling has continued to increase as the company completes more retrofits and as old lamps burn out. Electronics waste recycling also has increased continually as Xanterra created and implemented its new E-waste Policy in 2009, and as the company stays ahead of new state laws that will require recycling of CRTs and other electronic equipment. Diversion of household batteries, mercury switches, and used oil have all remained stable or increased as the company becomes better at capturing and recycling those waste streams. (See Case Study: Greening a Railroad Operation for details on this waste minimization.)

**ecometri***X* 02 03 04 05 06 07 08 09 10\*

<b>eco</b> metri <i>x</i>	00	01	02	03	04	05	06	07	08	09
Universal Waste recycled	6,441	7,474	11,989	9,706	34,493	29,383	25,701	10,313	19,635	12,788
Used oil	5,536	6,875	1,600	23,885	6,450	2,045	2,708	9,000	39,788	23,000
Car batteries	111	313	5,680	964	970	115	142	2,697	11,408	4,556
Household batteries	135	0	5,828	4,470	7,998	8,145	7,653	1,241	2,638	1,435
Fluorescent tubes	3,360	2,657	1,092	3,936	4,625	6,267	5,214	1,830	5,239	2,229
Mercury switches	20	30	25	7	16	1	8	19	48	0



Total Non-regulated Hazardous Waste and Universal Waste Recycled (pounds)

Total RCRA-regulated Hazardous Waste (pounds)

Hazardous Waste

\* 2010 data is projected based upon preliminary data obtained as of the writing of this report

#### **Focusing on E-waste**

In the past, Xanterra's E-waste was either recycled through a licensed service provider or donated to a nonprofit organization. However, we never went so far as to review the environmental and human rights status of the vendors doing the recycling.

In 2009, Xanterra developed and instituted its new Electronics Waste Recycling Protocol and Policy. This guide not only ensures proper disposal of hazardous E-waste, but also requires Xanterra employees to ask recycling service providers a series of questions that determine if the recycler handles E-waste in the most socially and environmentally responsible fashion. Our guide, based in part on the Responsible Recycler (R2) practices, ensures:

- Maximizing reuse, refurbishment, and recycling over disposal and incineration
- Taking precautions to reduce emissions and exposures to workers and the environment
- Ensuring that exported electronic
- products are being sent for legitimate and responsible reuse, recycling or refurbishment, and
- Ensuring that downstream recycling, refurbishing and disposal facilities follow management practices consistent with the guidelines

If the Xanterra representative does not obtain adequate information (based upon a questionnaire incorporated in the policy), then he or she must select an alternative recycler. This level of vendor questioning was new territory for Xanterra, but so far, has proven beneficial and easily implemented.

#### National Park System's First Propane Cylinder Recovery Program

Xanterra's Yellowstone operation, in conjunction with the National Park Service and other park partners, is the first in the country to develop a camper propane cylinder recovery program. Targeted at campgrounds that generate waste consisting of thousands of small propane cylinders each season, the program employs custom-made bins placed in campgrounds to collect approximately 20,000 onepound cans that, in the past, have been sent to landfills. Many of the cylinders contain significant amounts of recoverable gas. The mobile propane bottle recycler (PBR) unit drains discarded propane cylinders into a storage tank and crushes the empty hulks to be recycled as scrap metal. A closed-loop system, the PBR is powered by the recovered propane.

#### **Reducing Hazardous Waste 97% in Train Operations**

In 2007, Xanterra acquired Grand Canyon Railway (GCR), a resort and tourist train operation located 65 miles south of the Grand Canyon in Williams, Arizona. Knowing little about train operations at the time, Xanterra was unaware of the significant amount of hazardous waste generated at a locomotive maintenance shop. After conducting an industrial waste stream inventory, Xanterra staff quickly learned that the primary culprits in hazardous waste generation were the highly toxic solvents used to clean automobile-sized electric traction motors and other train parts. In 2008, the operation generated 93,400 lbs of hazardous solvent waste.

In January 2009, Xanterra found the solution to reducing hazardous waste generation: a "chemical pharmacy approach." With this approach, all chemicals and products must be approved by the environmental affairs department before they can be used on site. This "pharmacy approach" resulted in a ban on all EPA "F-listed" hazardous chemicals used for cleaning parts and all products that contain hazardous constituents. Xanterra substituted these toxic and hazardous products with a 100 percent citrus-based, biodegradable cleaner. This, along with other hazardous material reduction and management measures, enabled GCR to reduce the amount of hazardous waste generated from 93,400 lbs in 2008 to 15,600 lbs in 2009, and now to 1,000 lbs in 2010, a 97 percent reduction. (See Deep Green Case Study of Grand Canyon Railway for more details on greening the train operations).



34

Our transportation footprint: 701,000 gallons of fuel in 2009

# transportation

Xanterra operates a fleet of hundreds of buses, cars, trucks, snowmobiles, boats, snow coaches, shuttles, and other vehicles. Our goal is to increase fuel economy, decrease emissions, and transport our guests and employees in the most environmentally responsible ways possible.

Because we operate in some of the most scenic areas in the world, our goals also

include reducing visible emissions

much as carbon emissions. This means transitioning from fossil fuels such as diesel and gasoline to propane and compressed natural gas, and from higher polluting twostroke engines in boats and snowmobiles to cleaner four-stroke engines. As we increase on-site renewable energy generation and as the entire utility grid does the same, we are also transitioning to electric and alternative fueled vehicles. Here is how we've progressed in recent years.

ecometria 02 03 04 05 06 07 08 09

Companywide Corporate Average Fuel Economy (CAFE) (miles per gallon)

MPG



as

Total Transportation Fuel Usage (1,000 gallons)

Gasoline

#### Improving Fleet Efficiency with Xanterra's Voluntary CAFE Standard

Xanterra's most significant transportation initiative is its CAFE (corporate average fuel economy) standard. Under this initiative, Xanterra voluntarily seeks to increase the fuel efficiency of its annual fleet vehicle purchases to 35 miles per gallon (combined city/ highway) for all new vehicles purchased by 2015.

Using the U.S. Department of Energy's Fuel Economy website, we have formulated a policy mandating purchase of the most fuel-efficient vehicles in their class.

In 2002, Xanterra's CAFE was 18.8 mpg. By 2005, due to purchases of new hybrid and more efficient vehicles, the company's CAFE increased by 18 percent, to 23.0 mpg. Due to the acquisition of Grand Canyon Railway (GCR) and its need for trucks, passenger vans, and less efficient maintenance vehicles, our annual CAFE decreased to 18.4 mpg in 2008. Since that time, GCR staff engaged the environmental affairs department to assist in locating and approving the most efficient vehicle available by class. Consequently, from 2008 to 2009, average fuel economy has increased 27 percent, to 25.0 mpg. This increase is also due to the acquisition of more electric vehicles.

Correspondingly, total gasoline and diesel consumption held steady or decreased until 2007, when GCR was acquired, causing consumption levels to spike. As a result, from 2007 to 2009, companywide gasoline and diesel consumption fell 12 and 39 percent, respectively.



# Protecting Views with CNG Buses at the Grand Canyon

Protecting pristine views is one of the most important environmental issues in all national parks, and the Grand Canyon is no exception. For decades, environmental groups have tried to improve the air quality around the Grand Canyon by working to reduce emissions from regional coal-fired power plants. Many years ago, Xanterra installed an alcohol injection system on its fleet of 20 diesel-fueled tour buses, which helped reduce much of the sooty black smoke and particulates.

To achieve the greatest possible emissions reduction while providing visitors with the highest quality experience, Xanterra began replacing its fleet of diesel-powered tour buses with clean-burning compressed natural gas (CNG)-fired buses. Compared to diesel buses, CNG buses produce from 50-90 percent less particulate matter, significantly reduce carbon monoxide emissions, reduce nitrogen oxide and volatile organic hydrocarbon emissions by 50 percent or more, reduce carbon dioxide emissions 25 percent (depending on the source of the natural gas), and drastically reduce toxic and carcinogenic pollutants.

# Using On-site Renewable Energy to Power an Electric Vehicle (EV)

To complement Xanterra's 10-kW wind turbine at Maumee Bay State Park, we use an E-ride EXV2 two-passenger, electric-powered utility truck. This pollution-free truck includes most features of the F-350 V8 gas-powered service van it replaced, except that instead of getting 15 miles per gallon, it goes more than 50 hours on one carbon-free, wind-powered charge. The switch to this EV saves more than 1,000 gallons of gas per year and has literally eliminated maintenance costs associated with the F-350. The vehicle is used year round and even in snow.



#### Cleaner Ways to Move Guests: From Diesel to Propane

At Zion, Xanterra replaced its older, diesel-powered tram with a new, clean-burning, propane-powered, 29-passenger tram that takes guests from Zion Lodge to Temple of Sinewava. Guests appreciate the low emissions and do not miss the acrid exhaust smell.

#### Cleaner Ways to Move Employees: From Propane to Solar PV Hybrids

Two new solar-electric hybrid carts at Zion Lodge replaced an older propane-powered cart and a conventional electric cart, which eliminates curb-side emissions. The solar panel on the roof nearly eliminates the need to charge the cart batteries and the solar panel extends cart battery life.



#### **Transitioning Fleet Vehicles to Cleaner Alternatives**

In the past few years, Xanterra's companywide fleet has grown to include:

- Waste vegetable oil (WVO)-fired steam locomotive train engines using WVO from Grand Canyon kitchens
- Six hybrid electric Toyota Priuses (rated by ACEEE as the "greenest vehicle on the road")
- Nine compressed natural gas tour buses (11 more CNG buses are forthcoming)
- One E-ride EXV2 two-passenger electric truck powered by an on-site wind turbine
- 58 zero-emission (curbside) electric vehicles
- 79 cleaner-burning four-stroke engine snowmobiles and 42 fourstroke engine boats that are 65 percent more fuel efficient than the two-stroke machines they replaced
- 16 Toyota Echos that get more than 42 miles per gallon (all rated ULEVs, Ultra-Low Emission Vehicles)
- Seven new Toyota Corollas that get more than 40 mpg (Hwy) (all rated ULEVs)
- Four new Ford and Toyota hybrid SUVs that get more than 35 mpg (Hwy)
- Four new clean-burning propane-fueled maintenance utility vehicles
- Two propane-burning passenger shuttles and four electric-topropane retrofits of vehicles
- Diesel vehicles running on 20 percent biodiesel
- Many employee shuttles and carpool programs

Our building footprint: management or ownership of more than 2,000 structures



"Green" buildings pollute less than traditional structures and are less expensive to operate. They are safe, healthy, comfortable, and economical. Research even shows that their occupants are happier and more productive. Xanterra's policy of green development meets the goals of the National Park Service and other agencies to further protect our country's natural treasures – our national and state parks.

#### **Sustainable Design Begins with Policy**



Xanterra's Guidelines for Environmentally Sustainable Design and Construction instructs the company's employees and partners through the process of making a building as environmentally sustainable as possible. These guidelines define the company's expectations for all contractors, subcontractors, architects, engineers, consultants, and vendors working with Xanterra on the design, construction, or rehabilitation of buildings in national and state parks and resorts.

Xanterra uses the guidelines to ensure that new construction and renovations of buildings will be as environmentally sensitive as possible. For example, at Yellowstone, Xanterra now requires contractors for all remodeling and new construction projects to divert at least 50 percent of all construction waste from landfill disposal through reuse or recycling. Contractors must also complete a Waste Reduction Plan prior to contract approval and subsequently submit a quarterly report detailing all activities related to waste minimization.



#### Sustainable Design at Xanterra

At Yellowstone National Park in 2004, Xanterra reclaimed a formerly contaminated brownfield site and transformed it into a U.S. Green Building Council Leadership in Energy and Environmental Design (LEED)-certified employee housing development – the first LEED-certified structures in the Yellowstone area, in Montana, and in the entire national park system.

Since then, Xanterra (and its environmental team with five LEED-Accredited Professional certifications) has continued its commitment to sustainable design, construction, and renovation by adding several more major sustainable development projects to its portfolio:

- LEED Silver-certified Annie Creek Restaurant and Gift Shop at Crater Lake
- Ecologix Suites at Zion Lodge
- Sustainable luxury suites at Grand Canyon's El Tovar
- Green Renovation of historic Western Cabins at Zion
- For Future Generations: Yellowstone Gifts green retail gift shop at Yellowstone
- LEED 3.1 Existing Building and Maintenance at Bright Angel Lodge, Grand Canyon (development is underway; anticipating LEED Gold rating)

Xanterra often must adapt sustainable design measures to a variety of building types. Here's our story of three different renovations and how we creatively integrated sustainability into each.





# Can Sustainable Design and Luxury Coexist?

At the historic El Tovar Hotel at the Grand Canyon, Xanterra renovated seven luxury suites. The question was whether such high-end suites could be renovated with a sustainability focus at the core of the design. Here's what we did:

To begin, we selected manufacturers of items used in the room renovation based upon their environmental résumés. A core principle was to keep manufacturers within a 500-mile radius to reduce the carbon footprint of the renovation. This kind of vetting worked: luxury bedding was manufactured from postconsumer recycled PET bottles produced within 500 miles, duvet inserts were derived from 100 percent recycled polyester, and all wood for the furniture frames came from domestic suppliers certified through the Forest Stewardship Council (FSC). With the majority of manufacturers located regionally, we were then able to reduce shipping waste drastically by using only reusable blanket wrapping.

We used a variety of carpets, but all included pre- and post-consumer recycled content material, the CRI green label certification, and NSF certification as having recycled or bio-based content, reclamation, and manufacturing processes.

More than 80 percent of artwork in the rooms was reused. All new framing was made from recycled scrap wood and new printing was on 100 percent recycled cotton, sourced from within 500 miles.

Room fabrics varied in environmental qualifications, but all had at least one of the following: 50 percent post-consumer recycled polyester, 100 percent post-consumer recycled polyester, 100 percent PVC-free vinyl, Oeko-Tex Standards (textiles free of harmful substances), or recyclable and reclaimable at the end of its life cycle. We took great care to increase air quality by selecting zero VOC (volatile organic compound) paints and water-based finishes and low formaldehyde wood content.

Luxury and sustainability may not always come together, but in this renovation, Xanterra enhanced guest experience while using sustainable materials.





#### Can Sustainable Design and Historic Preservation Coexist?

At Zion, Xanterra renovated the historic Western Cabins. These cabins have provided overnight guest accommodations for more than 90 years while maintaining their unique character and contributing to the rustic appeal of Zion National Park. The challenge for Xanterra was to determine how to improve the environmental performance of the guest rooms without compromising their historic character.

With a limited scope of work to be done, the U.S. Green Building Council's LEED rating system could only be used as a rudimentary guide. So, with the oversight of NPS historic preservation experts, Xanterra employed a variety of sustainable measures.

Furnishings were made from FSC-certified wood. Lighting used LED technology. Water is now heated with ultra-efficient, on-demand heaters. Soaps and guest amenities are bulk dispensed. In-room recycling containers match the historic furnishing style. HVAC equipment is controlled using new Smart Systems (automated energy management systems). Bathroom water use is super-efficient with new Oxygenics low-flow shower heads (2.0 gpm), faucet aerators (2.2 gpm), and low-flow toilets (1.6 gallons per flush). Energy Star-rated insulation was added to interior bathroom walls. Lighting fixtures were manufactured locally in Utah. Existing furnishings were re-used in other areas of the lodge. Historic-style blankets were made from washable wool to prevent the need for dry cleaning while triple-sheeting of beds eliminates the need for bedspreads. Ceiling fans were installed to reduce air conditioning usage.

All of these measures add up to a much more sustainable room, demonstrating that historic structures don't necessarily preclude improved environmental sustainability.

#### **Can Sustainable Design and Retail Coexist?**

At Yellowstone, Xanterra opened a new gift store, *For Future Generations: Yellowstone Gifts*, focused primarly on providing guests with sustainable products and educating visitors on climate change.

Before the store opened, the space underwent a thorough sustainable remodel. This included wood flooring from sustainably managed forests in Montana, retail display fixtures made from reclaimed wood (some from the Old Faithful Inn remodeling, including the old floor), and every light fixture switched to 90 percent more efficient LED technology. (See the Environmentally Preferable Procurement section for details on this project).









Xanterra purchased and sold \$34.4 million of environmentally preferable products in 2009



Retail Items

- Local
- Native American
- Environment Preferable Vendor or Product



# environmentally preferable procurement

Xanterra's Environmentally Preferable Procurement (EPP) program guides staff members in making purchases that are better for the environment without sacrificing quality. These criteria include products that contain recycled materials, are more recyclable, are less toxic or more biodegradable, have less packaging, cost less to transport, perform better, are more durable or use less energy, or consume fewer natural resources over their useful life.

Xanterra now sells more environmentally preferable products than ever before - from apparel made of recycled fibers, to gifts and jewelry made of recycled glass and copper, to "green" health and beauty aids offered in our camper stores.

For the last eight years, Xanterra has contacted vendors and suppliers on an annual basis to inquire about their environmental practices. We have found most to be more than willing to assist in our mission. We request that all of our suppliers and vendors cut down on packaging, and we have even worked with suppliers to devise new ways to package and ship products to our stores and coordinate take-back programs of shipping packaging. In addition, contractors and vendors doing business with Xanterra must ensure that all waste is disposed of responsibly.

Green retail offerings continue to grow both in volume and in an increased number of locations across the company. Since tracking began in 2005, environmentally preferable purchases and sales have increased more than 500 percent, from \$4.8 to \$34.4 million (a portion of this increase is due to better tracking systems). Since our last report, Xanterra has developed a comprehensive EPP tracking database as part of our Ecometrix system. There are two categories of products: those used "behind the scenes" and those offered for retail sale to guests (as shown in the graph).

In the "behind the scenes" category, Xanterra tracks the amount spent each year on items such as recycled office paper, corn-based plastic containers, energy-efficient computer equipment, and green cleaners. In addition, where available, the amount of recycled content is recorded. On the retail side of the tracking, Xanterra's Ecometrix includes local, environmentally preferable, and Native American items.

The majority of Xanterra's green retail products, \$16.4 million, are environmentally preferable retail items that include products with either alternative (fossil fuel-free or biodegradable) materials, recycled content, or other environmentally preferable attributes. Examples include socks made from corn fiber, organic cotton and bamboo t-shirts, fleece made from plastic bottles, recycled aluminum wind chimes, animal dung paper, and corn-based mugs.

The fastest growing category, comprising nearly half of Xanterra's environmentally preferable retail purchasing (\$15.1 million), is local products. All local products are made within 500 miles of the site. These products often are made by small businesses using locally sourced components such as local honey, gold-plated aspen leaves, and frames made from reclaimed local wood.

Native American items are handicrafts (dream catchers, pottery, etc.) or food stuffs (Sioux Fry Bread, for example) found in the local area of each retail store. In 2009, Xanterra sold \$2.9 million of these products in its stores.

# case study: retail with a conscience

At Yellowstone National Park in 2009, Xanterra opened *For Future Generations: Yellowstone Gifts*, a store focused primarily on sustainable products and educating visitors on climate change.

The store is one-of-a-kind in several ways. Products sold in the store have "sustainability scorecards" that provide comprehensive information and numerical eco-ratings based on 16 sustainability categories such as "organic," "recycled content," "made with rapidly renewable energy," "locally made," and "socially responsible practices."

Store displays educate customers about threats climate change poses to national parks and what the parks are doing to minimize environmental impacts. Through the displays and product sustainability scorecards, customers can make informed choices about their retail purchases. In this case, being a consumer is actually good for the environment in that it creates demand for more sustainable retail products, pushing less sustainable products and companies to change their ways or lose business!

To develop this sustainability scorecard, vendors had to complete and certify an extensive survey (developed by Xanterra) that rated both the company and the product on sustainable attributes. Xanterra's team in Yellowstone now uses this survey to inform purchases and is also expanding the requirement to all of its vendors.

Before the store opened, the space underwent a thorough "green" remodel. Literally all the materials used to remodel the store were reclaimed, recycled or sourced for sustainable operations. This included Tamarac wood flooring harvested from sustainably managed forests in Montana, retail display fixtures made from reclaimed wood (some from the Old Faithful Inn remodel), and every light fixture switched to 90 percent more efficient LED technology.

The store offers a unique array of sustainable retail items. Examples include: picture frames made of wood reclaimed from the Old Faithful Inn remodel, bison dung paper art, puzzles made from recycled content and embedded with wildflower seeds, coffee mugs manufactured with U.S. corn, "plastic" pencils made from recycled money and denim, bamboo clothing, recycled plastic fiber blankets, and earrings made from recycled metals.

Within a year of its opening, *For Future Generations: Yellowstone Gifts* received a special sustainability award from the Association for Retail Environments in the category "Consumer Education & Outreach" and the Good EarthKeeping award from AHLA.





# Food footprint: Xanterra purchased \$29 million in food in 2009, \$5.7 million (19.6%) of that was sustainable cuisine

# 19.6% of all food purchases



Total Annual Sustainable Cuisine Food Expenditures (\$) and Percent of Total Expenditures

Cost

Coffee	6.4%
Produce	9.7%
Dairy	9.6%
Meat	20.9%
Game	7.6%
Poultry	5.3%
Seafood	16.6%
Other	13.7%
Beer/Wine	10.22%

# sustainable cuisine

#### **Food that Promotes Environmental Protection**

Sustainable cuisine is the practice of using products that are grown, harvested, processed, packaged and distributed with the least possible amount of environmental impact. Typically these products are locally sourced, organically grown, sustainably harvested, or third-party verified as having a reduced environmental impact. With Xanterra's sustainable cuisine program, the company is trying to push the limits of this ecologically sound approach to food service.

In 2009, Xanterra created a Sustainable Cuisine Task Force. Consisting of key members of the food & beverage and environmental affairs teams at various properties, this task force aims to define what meets Xanterra's definition of sustainable, share vital product information, and assist all Xanterra properties in achieving their sustainable cuisine goals.

To increase sustainable purchases, Xanterra food & beverage directors, chefs, and purchasing agents continue to look beyond their normal distribution channels for products available in their region from farmers, ranchers, and artisan food producers. At most Xanterra restaurants, new eco-logos on menus highlight sustainable choices to inform guests about their food choices. As a result, sustainable cuisine purchases continue to grow both in volume and in an increased number of locations across the company. Purchases more than quadrupled since 2004, from \$1.4 to \$5.7 million, amounting to 19.6 percent of our total food and beverage expenditures. While this is a tremendous increase over nine years, we realize there is still much room for improvement.

Meats and seafood still account for the largest portion of sustainable food products, at 20.9 and 16.6 percent of total sustainable cuisine items, respectively. This is a good sign considering that these two food categories also tend to have the greatest environmental impact, requiring relatively high amounts of natural resources to grow and harvest.

This program began in 2000 with a company-wide seafood policy that ensured Xanterra served only sustainable seafood, including seafood certified by the Marine Stewardship Council. Today, it has grown into a nationally acclaimed sustainable cuisine program that includes almost all Xanterra properties. For example, more than half of the items on the dining room menu at the Crater Lake Lodge are sustainable food options for guests. More than 95 percent of the wines there are local, regional, organic, or otherwise sustainable.





New sustainable products of note include:

- Local game such as bison, elk, antelope, venison, and pheasant provide sustainable, hormone- and antibiotic-free local meat.
- Local and sustainable beer and wine purchases such as Indian Wells Brewing Co. beer in Death Valley; Oregon beer and wine at Crater Lake; regional brews at Yellowstone; signature Utah-produced wines at Zion; Ohio state wines at the Ohio State Park Resorts; and private-label South Dakota wines at Mount Rushmore.
- Marine Stewardship Council-certified sustainable wild seafood such as Alaska salmon.
- New local products including South Dakota popcorn at Mt. Rushmore, fresh produce in Arizona, Cascade Glacier Ice Cream in Oregon, and fresh Diamond D milk and cream at Rocky Mountain National Park.

Xanterra also continues to purchase products such as:

- St. Helen's grain fed, local beef (natural, no hormones)
- Organic, shade-grown Fair Trade Green Mountain Coffee Roasters coffee
- Silk organic soy milk
- Oregon Country Natural Beef
- Organic and sustainably-produced wines
- New Belgium Brewing beers produced with 100 percent wind power
- Organic produce
- Farm-raised tilapia, shrimp, trout, bison, elk and venison
- Vegetarian entrée selections such as gardenburgers and tofu

#### Taking Sustainable Cuisine to the Highest Level: Growing and Eating It On Site

Ideally, sustainable food is grown organically on site, avoiding the consumption of fossil fuels in harvesting, processing, packaging, and transporting it to market. Some Xanterra operations are doing just that.

Both Xanterra's Punderson Manor State Park and Mount Rushmore locations provide quality organic produce from on-site garden operations.

While Xanterra composts food waste at many of its national and state park operations, at Mount Rushmore and Punderson, food waste from on-site restaurants is "recycled" into compost to provide plant nutrients in their gardens. The company also uses rain barrels to reduce water consumption and practices natural pest control methods, instead of using pesticides.

At Xanterra's Punderson Manor State Park, staff created a 16x24-foot vegetable garden to grow produce for three groups of people: the employees maintaining the garden, the Manor House Restaurant, and the Geauga County Home. Each group gets one-third of the crop of lettuce, parsley, basil, chives, green beans, acorn and summer squash, zucchini, green peppers, cucumbers, and tomatoes.

At Mount Rushmore, garden operations are two-fold: Xanterra built a 20x8-foot greenhouse on the roof of the gift shop, where baby spinach is grown nearly year round, even through chilly South Dakota winters. The greenhouse also houses tomato and pepper plants in the summer.

Mount Rushmore has also added a 30x50-foot garden a mile off of the property. Here, employees grow radishes, carrots, snow peas, cucumbers, zucchini, yellow squash, butternut squash, pumpkin, onions, potatoes, chives, oregano, basil, parsley, and cilantro.

With a little effort from a few dedicated employees, everyone from guests to fellow employees benefits from delicious, organic, home-grown veggies that have virtually no negative environmental impact.



44



our mission: Hospitality with a softer footprint.

ecologix

Xanterra's Environmental Commitment

the ecologix environmental mission:

Protect the environment. This is vital and part of everyone's job.



# environmental policies & management

#### **Xanterra's Environmental Policy**

Ecologix is Xanterra's company-wide, intranet-based Environmental Management System (EMS). Through the framework of Ecologix, which represents a "logical integration of ecology and business," Xanterra has institutionalized programs that protect the fragile ecosystems that surround the company's hotels, shops, restaurants, and support facilities.

Ecologix helps ensure:

- a framework for continual improvement and review of environmental performance at all Xanterra national park operations
- compliance with all applicable environmental regulations and policies, and with other requirements to which Xanterra subscribes
- incorporation of best management practices into our operations—using pollution prevention and environmental sustainability strategies as core objectives

Our Ecologix environmental mission includes a few key principles:

"Our business decisions balance economic viability with ecological responsibility.

We reduce and recycle waste, conserve energy and water, and educate our guests and employees on environmental stewardship.

We believe that increasing the sustainability of natural systems is not just good business. It is the right thing to do."

#### **Environmental Policies**

In addition to generating property-specific environmental management systems, Xanterra has also developed a full spectrum of corporate environmental policies as part of Ecologix, including:

- Guidelines for Environmentally Sustainable Design and Construction
- Environmentally Preferable Purchasing Policy
- Hazardous Waste Protocol
- Criteria to Assist in the Determination
- of the Environmental Impact of Capital Expenditures
- Efficient Light Bulb Purchasing Program
- Paint Management Plan
- Energy Efficiency Guidelines
- Fluorescent Lamp Retrofit Guidelines
- Universal Waste Protocol
- Sustainable Fish Policy
- Electronics Waste Policy and Vendor Questionnaire
- Integrated Pest Management Policy
- Polystyrene Ban
- Chemical Review Committees
- Energy Management in Food Service
- Efficient Vehicle Approval Policy
- Spill Prevention Control and Countermeasures Plans
- Storm Water Pollution Prevention Plans
- Pollution Prevention Plans
- UST Guidelines
- Ecometrix Tracking System
- Sustainable Product Guidelines for Food & Beverage
- Waste Reduction Plan for Contractors

# compliance

The tourism industry is regulated by the same state and federal environmental laws that govern all companies, but as a park concessioner, Xanterra also complies with National Park Service and U.S. Department of the Interior policies. For Xanterra, environmental regulatory compliance is fundamental to all of our operations. Internally, we set rigorous regulatory procedures and standards to help the company and each employee meet environmental regulations pertinent to a particular area of work.

To date, Xanterra has not received any regulatory environmental compliance penalties. However, the company has received two temporary notices of violation in the last three years from state regulatory agencies.

At Grand Canyon Railway (GCR) in 2008, the Arizona Department of Environmental Quality (ADEQ) conducted an inspection that resulted in two notices of violation related to hazardous waste management. Those findings were closed within days. At Furnace Creek Resort in 2009, Xanterra received a notice of violation from the Regional Water Quality Control Board for a waste-water overflow into a holding pond. This overflow, caused by a pump failure, was completely contained and never released to the environment.

Xanterra is currently working to remediate three fuel spills. At Yellowstone in 2006, an underground storage tank leaked 800 gallons of fuel oil onto surface soil during a fuel transfer. This leak was caused by a faulty valve, coupled with human error. Remedial activities occurred for the last three years. There was no impact to local water or ecosystem resources, and new procedures governing fuel transfer now prevent this type of spill from occurring again. The site is currently undergoing closure proceedings with the Wyoming Department of Environmental Quality. Xanterra is also remediating a fuel oil spill that occurred in the late 1970s at Yellowstone. That spill will be fully cleaned and closed in the summer of 2011.

Xanterra is working with the Arizona Department of Environmental Quality (ADEQ) on a site closure plan for soil contamination caused by leaking USTs in the 1970s at the Petrified Forest Service Station. The tanks that leaked were removed and replaced many years ago. In June 2005, ADEQ determined that the full extent and degree of the contamination had been adequately characterized by Xanterra. Remedial work was completed in 2009. Xanterra is working with ADEQ to turn responsibility for the site over to the State or close the site. No drinking water sources were ever threatened by the contamination, which was static and stabilized in scope.

This report does not address federal or state OSHA safety compliance.

#### National Park Service Concessions Environmental Audit Program

In 2000, the National Park Service launched its Concessions Environmental Audit Program. The purpose of this program is to conduct environmental compliance audits at all national park concession operations every few years. Since 2001, all 11 of Xanterra's national park operations have been audited at least once under this program. To date, the company has had zero Priority 1 compliance violations and, on average, only a handful of minor Priority 2 findings per operation. These audits have proven extremely valuable to Xanterra in assisting the company's own efforts to meet high environmental standards.

Regulatory Compliance 2000-2010	Number of Penalties
Clean Air Act	0
Clean Water Act	ο
Resource Conservation and Recovery Act	Ο
CERCLA (Superfund)	0
Toxic Substances Control Act	Ο
Safe Drinking Water Act	0
Superfund Amendments and Reauthorization Act (SARA Title III)	0
U.S. Department of Transportation	0
State Water/UST Regulations	Ο
State Air Regulations	0
State Hazardous /Solid Waste Regulations	0
Wastewater Exceedances	ο

# corporate social responsibility & partnerships

At both the corporate and property levels, Xanterra supports numerous community charitable organizations not only through monetary contributions, but also through volunteer work and fundraising. Below are a few examples of the more progressive programs Xanterra has created to reach outside of our organization to help others.

#### Supporting Advocacy Groups to Protect Parks

During the last eight years, Xanterra has collected more than \$1.7 million to help the National Park Foundation, as well as park-specific foundations, through a voluntary donation program of \$1 per room night from guests and from sales of National Park Passes.

In recent years, we sought to further our involvement in helping advocacy groups that work for the protection of national parks. A natural fit came in the form of the National Parks Conservation Association (NPCA), whose goal is to protect and enhance the ecological systems of national parks. With Xanterra's similar mission, the company decided the best way to support NPCA's efforts was to sponsor its annual fundraising event. In 2006, Xanterra donated and helped raise more than \$175,000 for NPCA. The company worked with NPCA at a similar level again in 2008 and continues to support NPCA today.

#### Sip Fine Wine to Protect a Park

At Yellowstone in 2009, Xanterra partnered with Brown-Forman (BF), one of the largest American-owned spirits and wine companies, to fund environmental improvement projects at Yellowstone by donating \$1 to the Yellowstone Park Foundation for each bottle of Bonterra and Fetzer wine sold at park restaurants.

Tent cards and menu inserts in the restaurants explain the program, which generates several thousand dollars per year. Bonterra wine is made with 100 percent organic grapes and Fetzer is an industry leader in sustainable wine making - both an excellent fit for Xanterra.

#### Yellowstone's Wolves Educate Guests While Funding Park Protection

Educating more than three million visitors about climate change – and how to help save the parks by adopting sustainable lifestyles – is no easy task.

At Yellowstone, Xanterra enlisted the help of four of the park's favorite wildlife – a black bear, bison, moose, and wolf – to help engage visitors on environmental issues. Plush toy versions of the animals greet guests staying at the park hotels. The stuffed animals are placed on beds inside a unique environmental educational display (printed on recycled plastic) that outlines the threats national parks face from climate change and explains what guests can do to protect the environment during their stay and at home. Guests can purchase the animals at check-out and at all park retail stores. As an added benefit, Xanterra donates a portion of the sale proceeds to the Yellowstone Park Foundation, a non-profit organization that is currently raising money to "green" Yellowstone. Last year, more than \$12,000 from the sales of these animals went to protecting the park.

#### **Reaching Beyond Our Boundaries to Effect Change**

Through a partnership with the World Wildlife Fund and its Climate Saver program, Xanterra has educated public policy makers and legislators about the severe consequences of inaction on climate change, as well as the benefits of businesses reducing their greenhouse gas emissions. Through this partnership, Xanterra, along with 12 major international corporations, has advocated for action on reducing greenhouse gas emissions by participating in advertising campaigns directed at the COP-15 meetings in Copenhagen last year, the COP-14 meetings in Tokyo in 2008, and the U.S. Senate hearings on climate legislation.



# partnerships

Through ongoing, evolving partnerships with external and internal stakeholders, Xanterra is better able to serve guests while protecting the natural surroundings of its properties. Active alliances with the stakeholders listed below help Xanterra move closer to realizing its goal of sustainability.

National Park Service U.S. Department of the Interior National Parks Conservation Association World Wildlife Fund Climate Savers Climate Change Education Partnership Sustainable Travel International Leadership Network National Wildlife Federation Ohio Department of Natural Resources Ohio Department of Environmental Quality U.S. Green Building Council EPA Energy Star Program EPA WasteWise Program **EPA Green Power Partner** National Park Foundation Friends of Yellowstone Greater Yellowstone Tetons Clean Cities Coalition Yellowstone Business Partnership Utah Power Blue Sky Wind Power Pacificorp Wind and Geothermal Power

**Renewable Northwest Project** Northwest Energy Coalition Earth Share Ecopartners Colorado, Utah, Arizona Coalition of Clean Energy Technologies Marine Stewardship Council Chef's Collaborative Seafood Watch Native Energy American Wind Renewable Choice Energy Arizona Climate Change Advisory Group Tusayan-Grand Canyon Sustainable Energy Project Committee Southern Utah Recycling Coalition Jackson County Oregon Recycling California Solar Initiative Southern California Edison Utah Department of Environmental Quality









#### What's Your Ecometabolism?

There's GE's "Ecomagination," Walmart's "Sustainability 360," Coca-Cola's "Commitment 2020," Nike's "North Star," and Starbucks' "Shared Planet."

Our direct competitors in the national park concession business have "Planet Evergreen," "Green Path," "Envision," and "Green Stakes."

And here at Xanterra we have "Ecologix."

These days, every company has a catchy name for its environmental program that promises to essentially "save

the world." Sexy marketing campaigns make being green seem easy. In reality, the path to sustainability requires much more than slick marketing. Progress can be an excruciating, inch-by-inch proposition, and you're more likely to choose the lesser of evils than find a "magical" solution. It's long, slow, hard work, which makes you wonder: Is corporate America as green as it markets itself to be?

The Federal Trade Commission (FTC) aims to find out as it releases a set of Green Guides used to enforce environmental marketing laws against deceptive advertising. These could radically reshape how far marketers and corporations can go in painting their products, packaging, or even corporate images, as "green."

The guides are expected to tighten standards for packaging claims such as "recyclable" or "biodegradable" and regulate how marketers use terms such as "carbon neutral." The guides may also define other terms such as "sustainability" or address "greenwashing." To date, these terms have been largely undefined. So far, in the corporate sustainability world, the bar has been set pretty low.

At Xanterra, we aggressively pursue external, third-party verification and certification of specific environmental programs and our Ecometrix data to determine if, in fact, the company's environmental initiatives are truly reducing impacts.

A new term introduced in this report is the environmental performance metric, "Ecometabolism." In addition to reporting raw, absolute data on our carbon footprint, resources consumed, pollutants emitted, and wastes generated, we also report our Ecometabolism, a measure of resource usage normalized by annual dollars of revenue or per room night. This metric best defines overall environmental impact per unit of product (tourist-related activities, which include rooms, restaurants, retail, transportation, and support facilities) while accounting for company growth or reduction in size due to acquisitions or divestitures. When accounting for this, are we still moving toward environmental sustainability while remaining profitable? We believe we are, so the question is: "How do we prove it?"

So far, our Ecometabolism metric indicates that:

- disclosing to consumers the environmental impacts of their purchasing decisions and offering sustainable products can actually increase sales;
- powering a resort with the sun makes economic sense;
- heating buildings with a renewable waste product (vegetable oil) reduces emissions and costs;
- growing food on site improves food quality while increasing food margins;
- installing a wind turbine at a state park quickly pays for itself; and
- developing buildings with sustainable materials and efficient energy systems decreases maintenance-related labor expenses.

In the end, these projects and hundred of others like them must improve our environmental performance in measurable, demonstrable ways. The best way to know if this is happening is to quantify, calculate, and crunch the data. Yes, it's boring, but this way the numbers can't be exaggerated or spun. While we know we still have a long way to go on this ultra-marathon called sustainability, after ten years of intensively tracking our ecologic footprint, the results and trends are promising:

Our carbon emissions Ecometabolism is down a promising 19.3 percent. Absolute carbon emissions are down 20.9 percent. Renewable energy now provides 14.1 percent of companywide electricity. We divert (reuse, recycle, compost) 47 percent (56 percent at national parks) of all solid waste. Our recycling Ecometabolism, waste diverted per room night, went from 2.3 to 9.2 lbs. We generate 32 percent less solid waste than we did ten years ago (from 14.1 million to 9.6 million lbs). Our sustainable cuisine purchases have increased from \$1.4 million to \$5.7 million, comprising 19.6 percent of all food purchases. Our corporate average fuel economy of new vehicle purchases increased 25 percent last year. Our Grand Canyon Railway operation decreased hazardous waste generation by 97 percent in two years.

These numbers are real. They are facts. No marketing hyperbole. No PR campaigns. Just humble, unrelenting progress, inch-by-inch, closer to our goal—environmental sustainability.

Chris Lane Vice President, Environmental Affairs

# awards, honors and certifications

**U.S. Department of the Interior**, Environmental Achievement Award, 11-time winner and three-time honorable mention, 2001, 02, 04, 06, 07, 09

**National Park Service**, Environmental Achievement Award, eighttime winner, seven-time honorable mention, 2001-2010.

**Utah Department of Environmental Quality**, four-time winner, Clean Utah! Award and Outstanding Achievement in Pollution Prevention, Zion Lodge and Bryce Canyon, 2004, 2008-2010.

**California State Legislature**, Certificate of Recognition, Outstanding Recycling, Silverado Resort and Spa, 2009.

**Utah Business Magazine**, Green Business of the Year, Overall Winner, Zion Lodge Green Suites and Water Bottle Ban programs, 2009.

American Association for Retail Environments, Consumer Education and Outreach Award, For Future Generations: Yellowstone Gifts retail store, 2010.

**American Hotel and Lodging Association**, four-time winner, Stars of the Industry Good Earthkeeping Award, 2005-2008, 2010.

**California Public Utilities Commission**, Flex Your Power Award Winner, Death Valley, Demand Response category for Solar PV installation, 2008.

**HotelWorld**, Global Hospitality and Design Award, Sustainable Hotel of the Year, Zion Lodge, 2008.

**Colorado Department of Public Health and Environment**, "Gold" Environmental Achievement Award, Rocky Mountain National Park, 2006-2010.

**Travel Industry Association**, two-time winner, Odyssey Award, *National Geographic* Magazine, "Geotourism Award for Sustaining the Environment of a Place," 2005 and 2007.

**Environmental Protection Agency**, two-time winner, Environmental Achievement Award, Yellowstone National Park, 2006-2007.

Napa County, Napa County Green Awards, Silverado Resort, 2007.



**Environmental Protection Agency**, National Environmental Performance Track Corporate Leader Award for Exceptional Environmental Performance, Xanterra Parks & Resorts, 2006.

**Environmental Protection Agency**, Green Purchasing Gold Achievement Award, WasteWise program, Xanterra South Rim, 2006.

**National Registry of Environmental Professionals**, Environment, Health and Safety Management Systems, Infrastructure, and Training Award Winner, Xanterra Parks & Resorts, 2006.

Hospitality Sale and Marketing Association International, Adrian Award for Green Marketing, Xanterra Parks & Resorts, 2005.

**Hazardous Materials Management Association**, Environmental Excellence Award, On-site Camper Propane Bottle Recovery Unit at Yellowstone, 2005.

*Environmental Design and Construction* Magazine, Innovation in Design Award, Yellowstone LEED-Certified Housing, 2005.

**ColoradoBiz Magazine**, Top Company of the Year Award, Xanterra Parks & Resorts, 2005.

American Society of Travel Agents, Environmental Achievement Award, Xanterra Parks & Resorts, 2004.

**Charter Institute of Environmental Health**, Environment Agency, Great Britain, International Green Apple Award, Companywide Sustainability, Xanterra Parks & Resorts, 2004.

**Colorado Department of Public Health and Environment**, Environmental Achievement Award, Xanterra Parks & Resorts, Sustainability Reporting and Pollution Prevention, 2004.

**State of Arizona Governor's Tourism Award**, two-time winner, Xanterra South Rim, 2003-4.

**Conde Nast Magazine**, Ecotourism Award (Honorable Mention), Xanterra South Rim, 2004.

**Environmental Protection Agency (Region 9)**, two-time winner, Superior Environmental Performance Award for Business, Death Valley and Grand Canyon, 2003.



we strive to protect the beautiful places on earth, our national & state parks

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