# ASPEN () SNOWMASS.



SUSTAINABILITY REPORT 2006-2007

WWW.ASPENSNOWMASS.COM/ENVIRONMENT

"In the spring of '27 something bright and alien flashed across the sky. A young Minnesotan who seemed to have nothing to do with his generation did a heroic thing, and for a moment people set down their glasses in country clubs and speakeasies and thought of their old best dreams."

F. Scott Fitzgerald On Charles Lindbergh's flight from New York to Paris

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ASPEN SNOWMASS, www.aspensnowmass.com/environment

#### **Business Profile**

Aspen Skiing Company (ASC) is a privately held corporation that owns and operates the four season resort Aspen/ Snowmass. Each winter 1.4 million skiers enjoy our properties. The resort includes four ski mountains covering more than 5,000 acres—Snowmass, Aspen Mountain, Aspen Highlands, Buttermilk—as well as some 15 restaurants, The Little Nell hotel, the Snowmass Golf Course and Snowmass Club. ASC employs 3,800 people in winter and was founded in 1947.

#### **Corporate Structure, Sustainability**

ASC's Executive Director of Sustainability Auden Schendler is part of the senior management team and reports to David Bellack, Senior Vice President of Administration and Legal Counsel. Dave reports to CEO Mike Kaplan. Auden and Sustainability Manager Matt Hamilton, who also runs the Environment Foundation and ASC's corporate philanthropy programs, manage company policy on environmental, political, and philanthropic issues, and work with all company departments on sustainability.

#### On a scorching July afternoon, in a cow pasture in an old coal mining town, a group of seemingly disparate people got together to celebrate one of humanity's oldest, shared dreams.

The people came from all walks of life: parents, teachers, businesspeople, elected officials, nonprofit leaders, ranchers, farmers and retirees. The Governor of the state, Bill Ritter, was there, as was our owner Jim Crown and Colorado Senator Ken Salazar. The field in which they stood had most recently been used by cattle ranchers; but if you were to dig into the earth even today you might find old potatoes from an earlier episode in the town's history. Starting that day, the field had again become a farm: in this case sprouting rows of photovoltaic panels, made from single crystalline silicon, boron and phosphorous—elements mined from the earth just like coal had been a hundred years ago in this region.

The dream the people shared was of a dignity that might include all of us, whatever our differences; it was a vision of a world in which conflict between human endeavor and the natural environment is put to rest; it was the hope of an existence where the business of our lives meshes with the business of our work.

The cover of this report represents that vision. For a corporation like ASC, which invested \$1.1 million in the 147 kilowatt project, it signifies an understanding that we must take responsibility for finding new, cleaner ways to create the power that runs our chairlifts; it is an acknowledgment that climate change threatens our existence; and it reveals a business strategy that sees clean energy along with skiing as a source of income.

For Colorado Rocky Mountain School, which owns the land and will use the power, the array represents a continuation of the founding mission of the institution, an educational tool, and a wise use of land. For the community, this solar array, the product of so many people's efforts, is not just a symbol, but a living example of what sustainability looks like in rural Colorado: unique, even unexpected collaborations; a new concept of beauty; a flourish of ultramodern technology with a nod to the past. Beautiful and serious, inspirational and also businesslike, this array is one of our proudest accomplishments as a business and a community.

And yet, it represents only a miniscule amount of clean power generation relative to what we as use as a company. As such, it is also merely a drop in the bucket, the first salvo in a long engagement.

#### **Buckling Down**

Aspen Skiing Company has developed a worldwide reputation as a "green" company. Our work has been covered in every major media outlet, and we've traveled across the globe talking about how to implement sustainability. As this report indicates, we're on the leading edge of progressive action to address climate change, from our increasingly efficient green buildings, to the "thermal equalizers" we're installing in vehicle shops (see p. 13), to our policy work in Colorado and Washington.

And yet...if you look at the only metric that matters—our carbon footprint—we're not moving as fast as we'd like, or as the planet needs us to. In our case, our carbon footprint is only creeping downward, and that's entirely because our utility provider is using more renewable power over time. We're not alone. Most of the world is realizing just how hard it is to solve the climate challenge. Less than a handful of countries that signed onto the Kyoto protocol are going to hit their targets. Even companies hugely motivated to cut greenhouse gas emissions like Wal-Mart are seeing their emissions climb. Meanwhile, since our last report, the climate situation has gotten worse. The head of the Nobel Prize winning International Panel on Climate Change said we have to act in the next three years, or it will be too late.

You might think this information is discouraging to us, but you would be wrong. We are fundamentally skiers, and the greater the challenge, the more likely we are to go for it. Statistics are simply a reality check for us, like an assessment of the steepness of a slope or the quality of the snow. Instead of feeling overwhelmed, we've put a new lens on all our work. We've got to ask the questions:

#### Is it real? Does it matter?

And that level of thinking has redirected our approach to our environmental programs. Auden talks about this in more detail at the end of the report, but I'll give you one example here. We've realized that one of the most important challenges comes in the form of the power we use. To that end, we've become actively involved with our utility provider, Holy Cross Energy. I have met with Holy Cross's CEO, Del Worley, and expressed our strong interest in seeing more renewables in the co-op's power portfolio. We are and will continue to work with them to actually develop renewable energy projects. In collaboration with Holy Cross, we are exploring opportunities to buy wind power at a fixed rate, which is not just an environmental hedge, but also a financial one as electricity prices rise. Meanwhile, we created a comprehensive energy plan with the goal of reducing company emissions 10% below 2000 levels by 2012, as well as 25% reductions by 2020 in addition to becoming carbon neutral with regard to natural gas, electricity, and fuel use using legitimate approaches.

This work is a far cry from the origins of our environmental program, which focused on recycling, our foundation, and wildlife issues. That work is still going strong, but now climate has superseded those efforts, and in a sense, that "progressive" work is merely expected of us. Now, our mission is to make climate protection as mundane as recycling and water quality work and so "business as usual" that the next generation of ski resort operators won't even remark on their radical efficiency and carbon neutrality, saying, simply, "It's just how we've always done it."



Sincerely,

Al

Mike Kaplan

"Climate Change isn't the most important story of our time. It's the only story." — *Bill Blakemore, ABC News* 

#### ASPEN SKIING COMPANY **GUIDING PRINCIPLES**

## **GUIDING PRINCIPLES AND** ENVIRONMENTAL POLICY

ASC is a values-based company owned and operated by people who share a common appreciation and respect for the pristine environment in which we live. To that end our staff developed these guiding principles and our environmental policy 13 years ago. These documents continue to guide day-to-day decisions and how we do business.

For More Information:

http://www.aspensnowmass.com/environment/images/ EnvPolicyPoster2.pdf

http://www.aspensnowmass.com/companyinfo/guidingprinciples/

Practice values-based leadership. Support the concept of life-long learning. Offer opportunities for personal and professional development.

Body Inspire and celebrate athletic achievement. Encourage our staff to experience the challenge of our mountains. Promote physical and emotional wellness.

Provide exemplary hospitality and superior guest service. Uphold a company culture that fosters trust and rewards excellence. Remain responsible cellence. Remain responsible stewards of our mountain environment.

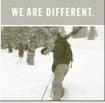
As employees we are committed to the following principles: Be fair and understanding; treat everyone with courtesy and respect. Communicate honestly and often; encourage open discussion. Share a passion for excellence in every aspect of our service efforts.

Ensure the financial success of Aspen Skiing Company. Our job is never finished.

Nor mater where we work or play within Aspen/Snowmass, we have an opportunity to effect positive change and honor both coworkers and guests by sharing our passion for the mountains.

VALUES: Sustain

PURPOSE: Renew



## ENVIRONMENTAL AWARDS, THIRD-PARTY CERTIFICATIONS AND MEMBERSHIPS

ASC is fortunate to be the recipient of many awards and third-party certifications. This recognition is important because it gives us internal momentum; allows us to more effectively share our climate message; provides marketing opportunities; and provides third-party validation for our work, giving us credibility.

ASC is also a member of a number of organizations that expose us to cutting-edge environmental management practices.

#### **RECENT AWARDS:**

- · 2008 Outside Magazine's Top 10 Places to Work
- · 2008 Clif Bar Silver Eagle Award for Environmental Education
- · 2008 Snowmass Club Golf Course Audubon Cooperative Sanctuary Program Certification
- · 2008 National Ski Areas Association Best Overall Marketing Programming (Resorts with 500,000+ skier visits—recognizing our compact fluorescent distribution program)
- 2008 City of Aspen ZGreen Membership—Recognizing Exemplary Environmental Stewardship
- 2007 World Travel and Tourism Council—Tourism for Tomorrow Conservation Award Winner
- 2007 Advertising Age Green Marketing Award—Recognizing our Save Snow Campaign
- · 2007 EPA Climate Leader Award
- · 2007 Future Snowboarding Magazine: Steward of the Earth Award
- · 2006 EPA/DOE Green Power Partner of the Year
- · 2006 Accepted to EPA National Performance Track Program
- 2006 First Choice Responsible Tourism Awards, Best Destination

ASC has won more than forty awards and certifications for its environmental performance since 1994. Details at http://www.aspensnowmass.com/environment/highlights/awards.cfm.

#### **Third-Party Certifications**

It's one thing to say "we're a green company." But what does that mean? It's like saying "I'm a really good guy." Who says? We believe a key to achieving some level of credibility in our environmental programs is to seek third-party assessments of our work. Claim-wise, nothing else really matters.



**ISO 14001. KPMG Performance Registrar Inc.** audits us annually for compliance with the ISO 14001 standard, which helps companies manage and reduce environmental risks. It is the only internationally recognized third-party stamp of approval for how a business manages its environmental programs. ASC was the first U.S. resort to achieve this certification, and has been passing audits since 2004.



**Chicago Climate Exchange (CCX).** In 2004, ASC joined CCX, the country's first legally binding, voluntary market for reducing and trading greenhouse gas emissions. The program includes an annual, third-party audit of ASC's carbon footprint.



**Audubon Cooperative Sanctuary Program.** Our Snowmass Club Golf Course achieved designation as a "Certified Audubon Cooperative Sanctuary," an Audubon International program.



**LEED (Leadership in Energy and Environmental Design)** is the gold standard for green building certification in the U.S., particularly if you score high on the ranking scale (Gold or Platinum). ASC built one of the first 10 LEED certified buildings in the U.S. (the Sundeck restaurant—it only hit the Bronze level) then built the second in the ski industry (the Snowmass Golf Clubhouse, which achieved LEED Silver). We assisted in the LEED certification of two buildings at the Snowmass base village in collaboration with Related WestPac, and we're currently working to LEED certify Sam's Smokehouse at Snowmass, and the Holiday House employee housing in Aspen. We haven't made Gold yet, but we'll get there.

#### Memberships

**U.S. EPA National Environmental Performance Track.** Performance Track is an Environmental Protection Agency program that recognizes and drives environmental excellence by encouraging facilities with strong environmental records to go above and beyond their legal requirements. As part of Performance Track, ASC has committed to increasing its use of renewable energy and recycled products, while reducing use of diesel and water. Entry into Performance Track is screened and requires annual reporting.

**Colorado Department of Public Health and Environment's Environmental Leadership Program, Gold level.** The Environmental Leadership Program is a statewide environmental recognition and reward program that offers benefits and incentives to members that voluntarily go beyond compliance with state and federal regulations and are committed to continual environmental improvement. As with the EPA program, eligibility is screened and membership requires annual reporting.

**CERES.** ASC is a member of CERES, a coalition of investors, environmental organizations and non-governmental organizations united to advance corporate responsibility. ASC engaged with CERES and a team of external stakeholders to review this sustainability report. The CERES stakeholder team is an independent group of individuals drawn primarily from the CERES coalition and represents a range of constituencies that have expertise in environmental, social and governance issues.

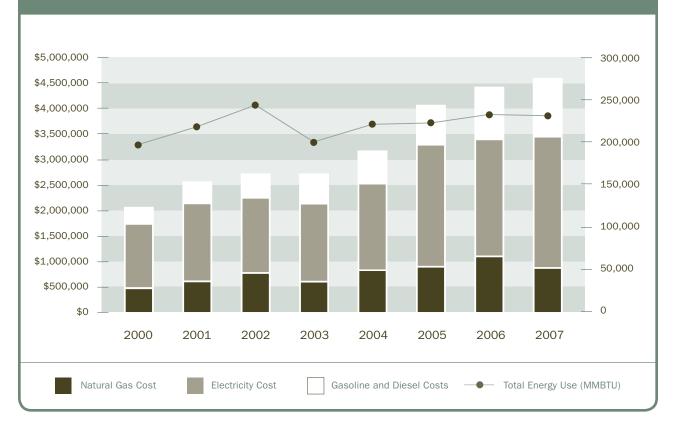






## **ENERGY USE AND CLIMATE CHANGE**

Even though ASC has implemented many successful energy efficiency programs since 2000, our total energy use, and cost of energy relative to operational budget, has risen. Gas and diesel costs have climbed by 218% since 2000. Total energy costs have grown 114%. This is a drag on our profitability, but it's also in conflict with our guiding principles and our desire to reduce our carbon footprint, which is declining slightly (due to a cleaner power mix) but not as fast as we'd like.



TOTAL ENERGY USE AND COST

Given this backdrop, ASC has developed an energy plan to help the company start moving aggressively to reduce energy use, cut greenhouse gas emissions and save money. The absolute CO<sub>2</sub> emissions reduction goals are as follows: 10% below 2000 levels by 2012 even while growing; 25% below 2000 emissions levels by 2020. ASC will be carbon neutral as measured against Sustainability Report emissions indicators by 2020. This plan is available at: http://www.aspensnowmass.com/environment/policies/Energy\_Plan\_2008\_V7.pdf.

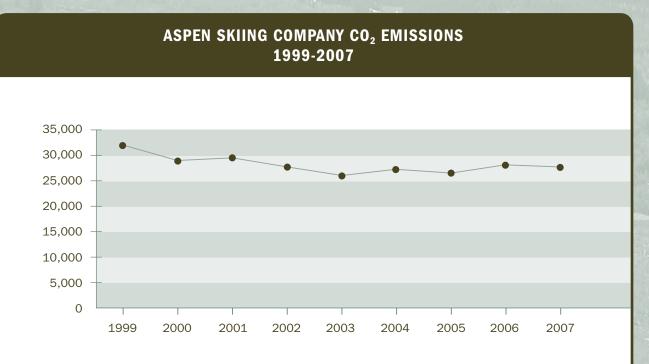
#### To accomplish these goals we will:

- Distribute graphs detailing energy use in specific facilities over time to allow managers to understand the energy impacts of their actions.
- · Develop an incentive program to reduce consumption.
- · Undertake extensive efforts to improve the energy efficiency of existing buildings, a key area we can influence.
- · Develop a companywide focus on energy reduction.
- · Identify opportunities to invest in large scale renewable energy to reduce the carbon intensity of our electricity use.
- · Implement operational changes in snowmaking and grooming that reduce energy use.

#### **Holy Cross Energy Lowers its Carbon Footprint**

A close look at our carbon footprint since 1999 shows a downward trend. In the early years, 2000–2004, this decrease can be attributed to increasing purchases of wind power by ASC directly from Holy Cross Energy (HCE). From 2004 on, the main source of our decreasing carbon footprint is HCE's decision to generate electricity with less carbon intensive fuels such as renewables. This fact struck us as profound, even if it is obvious. If we're looking for a lever, we need look no further than our utility. That's why, as Mike Kaplan discusses in his letter, we'll be working even more closely with Holy Cross on green power options over the coming years.

Below, a simulation of what wind turbines on the Cirque at Snowmass might look like. We're currently measuring wind speeds to determine the viability of this project, which we're exploring in partnership with the U.S. Forest Service, Leitwind, and Holy Cross Energy.



NOTES: ASC stopped managing Aspen Meadows and Aspen Institute in 2000. In 2004 Holy Cross Energy developed carbon intensity estimates that are specific to its mix of energy sources. Beginning in 2004 these were adjusted. ASC's revenue has grown 36% since 2000. Beginning in 2006 we incorporated vehicle fuel usage data from the Snowmass Club for the first time. (D'oh!) This illustrates how hard it is to accurately measure carbon emissions, and why there's virtue in the idea of a carbon tax that, unlike a cap and trade system, isn't dependent on measurement to assess fees. We aren't trying to game the system, yet we missed a piece of our carbon footprint in our analysis, and even third-party auditors didn't discover the mistake. Imagine the room for graft if you're really trying to bury emissions at, say, a large, complex multinational business or even a government.

SNAFLS and Gratuitous Commentary

#### 2006–2007 Detailed Resource Consumption and Carbon Dioxide Emissions

These aren't seat of the pants figures. Our membership in the Chicago Climate Exchange (CCX) requires third-party review of our fuel, natural gas and electricity use data by the Financial Industry Regulatory Authority (FINRA), the largest non-governmental regulator for all securities firms doing business in the United States.

New to this report are the use of carbon conversion factors provided to ASC by our utility provider Holy Cross Energy. These more accurately reflect the amount of carbon dioxide released into the atmosphere by Holy Cross's specific power mix. We have revised all past carbon footprints using these figures. Updated emission tables are available at http://www.aspensnowmass.com/environment/programs/sustainreport.cfm.

We do not currently attempt to estimate the carbon footprint of commuting employees and guest travel to our resort. Why not? Because we have to draw the line somewhere, and we need to stay on the task of reducing emissions and solving climate change. Our focus on influencing policy reflects the perspective that in the end, we have to fix the whole system in which we live—so that when you fly, ski, or eat out, the carbon impacts are radically less. To focus obsessively on how we can fix our own impact (and that of our guests) seems myopic and perhaps even self-important. Our philosophy: let's do our best on the ground here in Aspen, not waste too much time on the analysis, and work hard to fix the whole enchilada.

What does solid waste generation have to do with climate change? True, recycling does little to reduce our carbon footprint, but it is the barometer by which any organization claiming to be sustainable is initially judged. Quite simply, if we were not recycling the average guest would question our commitment to any of the other initiatives we claim to undertake.

\* We frankly doubt this number – it's too high. States with bottle bills might not hit this figure, but it's what our best numbers show.

#### **SOLID-WASTE GENERATION**

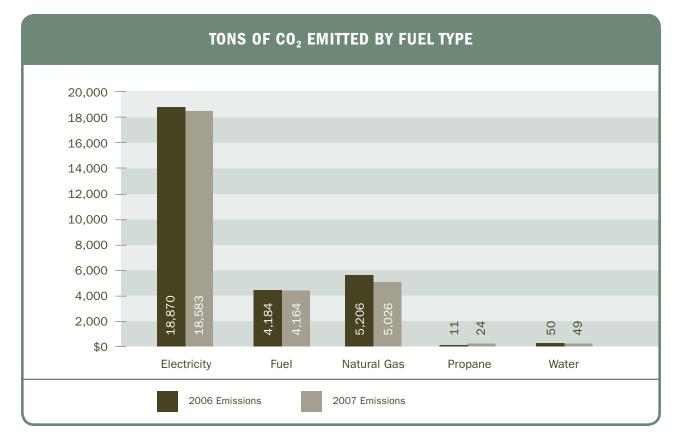
		TONS			
ш		2006	2007		
WASTE	BFI/WM	243.4	262.1		
5	Town of Snowmass	1,942	2,028.1		
	TOTAL	2,185.4	2,292.2		
g		то	NS		
RECYCLING		2006	2007		
ECY	Town of Snowmass	877.4	766.5		
R	Waste Solutions	511.4	727.7		
	TOTAL	1,388.7	1,494.2		
	DIVERSION RATES:	39% (2006 and 2007)*			

2006 AND 2007 BASELINE								
	MEDIA	COS	ST	UN	ITS	CONVERSION	CO2 (TONS)	
		2006	2007	2006	2007		2006	2007
<b>FUEL</b> (GAS+DIESEL) Gallons	Fuel-AH Fuel-SM Fuel-BM Fuel-AM Fuel-SMC SUB-TOTAL	\$111,312.51 \$453,828.27 \$260,617.34 \$210,805.48 \$75,538.19 \$1,112,101.78	\$119,792.35 \$430,174.53 \$340,217.78 \$187,663.61 \$61,930.68 \$1,139,778.95	46,420 181,137 99,022 84,498 27,210 438,288	48,748 175,243 113,611 74,991 23,909 436,502	B20: 18.87 LBS CO <sub>2</sub> /GAL; Gasoline: 19.59 LBS CO <sub>2</sub> /GAL	439 1,726 952 805 265 4,184	461 1,669 1,090 711 233 4,164
<b>SNOWMAKING</b> Gallons	Water-AM Water-AH Water-BM Water-SM SUB-TOTAL	\$89,484.00 \$8,572.28 \$0.00 \$23,910.00 \$121,966.28	\$96,000.00 \$8,394.26 \$0.00 \$36,006.75 \$140,401.02	44,742,000 17,144,566 53,610,456 51,320,000 166,817,022	48,000,000 16,788,528 56,502,603 72,013,504 193,304,635	.0000006308 tons CO <sub>2</sub> /gal	28 0 0 0 28	30 0 0 0 30
ELECTRICITY kWh	Electric-ASC Electric-SMC Electric-TLN SUB-TOTAL	\$1,800,071.93 \$292,003.77 \$269,615.08 \$2,361,690.78	\$2,013,969.15 \$303,412.00 \$308,562.00 \$2,625,943.15	18,480,038 3,333,315 4,248,799 26,062,152	19,177,353 3,364,239 4,435,587 26,977,179	2006: (1.61 lbs CO <sub>2</sub> /kwh) 2007: (1.57 lbs CO <sub>2</sub> /kwh)	13,376 2,378 3,117 18,870	13,207 2,281 3,095 18,583
WIND POWER KWh	Direct Wind	\$25,920.00 \$25,920.00	\$25,920.00 \$25,920.00	1,036,800 1,036,800	1,036,800	2006: (-1.61 lbs CO <sub>2</sub> /kwh) 2007: (-1.57 lbs CO <sub>2</sub> /kwh)	-835 -835	-814 -814
MUNICIPAL H <sub>2</sub> 0 Gallons	Water: Asp. Muni Water-TLN Water-SMC SM Wat and San	\$33,392.99 \$35,544.47 \$68,989.33 \$53,157.40	\$33,662.45 \$37,352.53 \$70,050.92 \$50,854.48	3,809,783 15,759,000 10,120,110 4,928,330	4,887,294 15,499,000 5,658,530 4,527,060	.0000006308 tons CO2/gal	2 10 6 3	3 10 4 3
NATURAL GAS MMBTU	SUB-TOTAL Nat. Gas-ASC Nat. Gas-TLN Nat Gas-SMC SUB-TOTAL	\$191,084.19 \$486,485.95 \$400,101.01 \$228,301.70 \$1,114,888.66	\$191,920.38 \$246,163.79 \$397,898.96 \$248,242.00 \$892,304.75	29,688,893 27,830 39,565 20,838 88,233	26,044,824 27,653 36,895 20,632 85,180	.059 tons CO <sub>2</sub> /MMBTU	22 1,642 2,334 1,229 5,206	19 1,632 2,177 1,217 5,026
<b>PROPANE</b> Gallons	SUB-TOTAL	\$3,564.46	\$7,774.31	1,696	3,752	.00637 tons/gallon	11	24
	TOTAL	\$4,905,296.15	\$4,998,122.55				28,321	27,847
	TOTAL 2006: NUMBER OF SKIERS: 1,444,816 / \$3.40 PER SKIER / 0.020 TONS CO <sub>2</sub> PER SKIER							
	TOTAL 2007: NUMBER OF SKIERS: 1,444,647 / \$3.46 PER SKIER / 0.019 TONS CO2 PER SKIER							

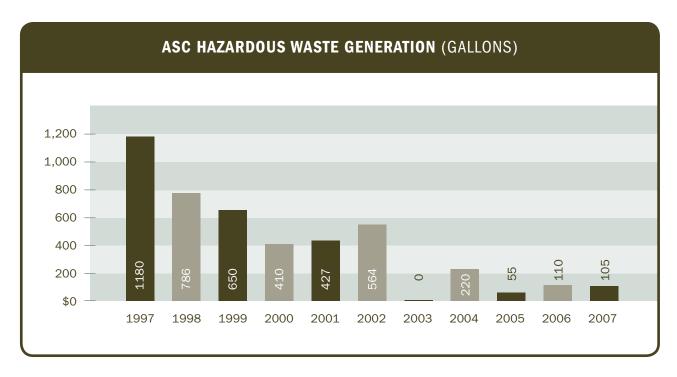
In 2005, we improved our reporting of carbon dioxide emissions for gas and diesel. Those emissions are now calculated based on conversion factors provided by the Aspen Global Warming Alliance.

Municipal water, propane and natural gas usage are now based upon actual consumption, rather than estimating usage based on the average price paid for a commodity during the calendar year, as was our previous practice.

In March 2006, ASC began purchasing wind power credits approximately equal to its electricity use. While renewable energy credits do have value, we have not counted these purchases against our 2006 and 2007 carbon baselines. REC purchases from Community Energy were equivalent to 48% of our electricity use in 2006 (because the contract began mid year) and 80% in 2007 (because ASC energy use was higher than our estimate.)



This graph demonstrates the importance of working closely with our electric utility to reduce the carbon intensity of electricity generation and focusing on efficiency, since electricity consumption is by far the largest component of our carbon footprint.



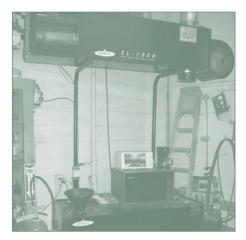
ASC is a conditionally exempt small quantity generator (in EPA speak). This means we generate less than 220 pounds of waste per month.

In early 2008, as this report went to press, ASC was well into its energy efficiency plan. Projects completed or almost complete in early 2008 included:

- Allocation of \$300,000 of capital money to energy projects.
- Lighting retrofits at High Alpine (Snowmass) and Buttermilk patrol buildings, Aspen Highlands Vehicle Shop and Snowmass Club Sanctuary (Note: In the past we have included detailed analysis of CO<sub>2</sub> reductions and energy savings resulting from these retrofits. These retrofits are now so frequent that we no longer produce carbon dioxide savings estimates for each one).
- Installation of energy saving "thermal equalizers" (see page 13) at Two Creeks, The Divide Shop, Snowmass Compressor Building and Bumps.
- Installation of real time energy monitoring screens at Bumps, ABC and Two Creeks.



Inpower's proprietary "Powerview" system shows real time energy use. www.inpowersystems.com



A waste oil heater at Aspen Mountain

- Installation of 4.3 kW of solar at the Snowmass Golf Clubhouse which generates 6,315 kWh per year and reduces CO<sub>2</sub> emissions by almost 10,000 pounds annually, roughly the yearly emissions resulting from natural gas consumption in an average household of two.
- Energy audits at Bumps, Two Creeks and the Snowmass Club, development of implementation plans for those audits, and implementation of improvements.
- Planning for new hydroelectricity projects in multiple locations over all four mountains.
- A comprehensive snowmaking efficiency effort.

## OUR ENERGY PLAN IN ACTION: The Little Nell saves \$16K in 3 months

Here's the note The Little Nell Engineer Mark Fitzgerald emailed the Environmental Department in 2007. (Notes have been added to clarify Mark's engineering jargon.)

Auden Schendler **To:** From: Mark Fitzgerald Subject: Energy Savings at the Nell • Snowmelt Systems: Usually ran 24/7 at approximately 150°F...Turned down to 80°F – 100°F...still melts snow. Turned entire system OFF for 7 days in December when not needed. This saves big bucks. • Pool: Turned pool temperature down from 102°F to 90°F. Never heard one complaint all month. Costing out a cover for the pool to save even more \$\$\$\$. • AHU's (Air Handling Units) - Common Areas: Turned discharge temperatures down 4-6 degrees...no one noticed. Dropped all thermostats in these areas 2-4 degrees too. · Garage MAU (Makeup Air Units, a part of the heating system): Turned stat (thermostat) down from 80°F to 50°F. Snow still melted and not one car complained. • Garage Exhaust Fans (4): Fans ran 24/7 sucking all the heat out of the building. Turned off and set to run on CO emissions only. Run 1 or 2 fans every other day for one hour to vent garage if needed. • Guest Room MAU's (3): Used to discharge variable temperatures according to outside air temp. Set to discharge at 72°F -75°F. No complaints. · Daily Shutdowns: Being aware of daily building usage and turned down heat in unused areas or just plain shutting down units and lights where not needed.



#### Engineer Mark Fitzgerald

For the average person, reading this note from Mark might be sort of a snoozer. But for people trying to actually

solve the climate problem by reducing energy use...it is nothing short of a religious experience, the nectar of life, the fuel that keeps us plugging away. Mark saved 2,259 MMBTUs in natural gas...that means he cut The Little Nell's CO<sub>2</sub> <u>emissions by 2</u>01 tons in three months.

#### **IT Energy Savings**

By Paul Major, Managing Director of IT (or as his team calls him 'El Geek Magnifico'). (Note: editors were forced to cut Paul's long missive due to space constraints...he had a lot to say. This is just a sampling of his work.)

We have identified a number of areas to reduce energy consumption as well as increase overall efficiencies:

#### PCs AND LAPTOPs

- Switching to LCD flat panel monitors average 30-50% energy savings over CRT, plus reducing heavy metals
- Continuing to advocate shutdown of PC's after hours/ weekends, use wake-on-LAN features to perform nighttime maintenance
- Converting to laptops where appropriate up to 50% energy savings over PC's
- Assuring PC's have power strips as opposed to direct plug, reduces power usage 2-3%

#### SERVERS AND DATA CENTERS

• Extensively using multi-processor servers and server "virtualization," which is more efficient and powerful and reduces utility load, in particular air conditioning.

- Working to eliminate remote data centers at mountains/hotels to save power and A/C costs.
- Using outside air ventilation for data centers in winter (see page 14 for a description of a similar system being used in a walk-in cooler...)
- Designing future data center for green best practices
- Design with racks that have self-contained AC and heat removal; only equipment is cooled, not the whole room

#### OTHER TOOLS

- Deploying remote workforce tools that allow staff access to network and office phone tools from anywhere
- May allow some staff to easily work a day a week from home, saving gas and commute time

#### Thermal Equalizers: A Tale of Glory and Triumph from the Energy Trenches

The electric heaters some of our office staff have around their feet in winter are typically 500 watt models. If you've ever toyed around with a wattmeter to see what appliances use the most energy in your house, you'll find that hair dryers blow the doors off any other appliances. They draw far more juice than your fridge, your stereo or your electric razor.

Now imagine a space heater sixty times as big as the one under your desk, or 30 times as big as your blow-dryer. We use three of these to heat the snowmaking compressor building at Snowmass. That's bad, but it gets worse. The ceilings there are sixty feet high. So the incredibly inefficient heat goes straight up, where it is wasted. Most of our vehicle shops mimic this very situation. What's the solution?

It's an Airius Thermal Equalizer, a fancy ceiling fan that takes valuable warm air and sends it back down to the shop floor, where it fans out, then cycles back up to the device. By recirculating the hot air, it allows heaters to work less, and can cut heating energy by 25 percent. By warming the floor, the devices make mechanics more comfortable. Interestingly, the equalizers use electricity. But they then save more electricity by reducing heater use. We find this to be exciting, nay...earthshaking. And that's why we're installing these in all our buildings with high ceilings, starting with the Divide, Elk Camp, the compressor building, and the Two Creeks base lodge.



## How can the location of a walk-in cooler lead to energy savings?

This picture represents the absolute front lines of the climate revolution; the act of replacing a once-scarce commodity (energy) with intelligence (a perhaps even more rare commodity). This is a vent in a walk-in cooler. It is tied to a thermostat outside. When it gets below a certain temperature outside, the vent automatically opens, providing free cooling to the unit, and turning off the compressor. And it all came together because Sundeck engineer Peter Olson was thinking about how to save energy. It cost a few thousand dollars in parts. And it begs the question: If you're designing a new building, why not make sure the coolers have an exterior wall and install one of these? Check. We're doing this at the new Sam's Smokehouse.



Peter Olson's jerry-rigged vent.

#### **D&E** gets Religion at Sylvania Lighting Institute

In March, 2008, Hunter Webster and Pia Halloran scored an all expenses paid trip to beautiful Danvers, MA. Hunter had only one comment: "Sick, brah!" Pia said, "This beats going to Vegas for SIA (the annual snowsport industry convention) any day." Pia and Hunter attended Sylvania Lighting's retail lighting seminar to learn about using the most efficient lighting to increase sales. As a result they will be looking at ways to improve lighting quality in our stores to sell more stuff, but also to save energy. Yes, they learned a lot about lighting. No, they did not meet babes and dudes, and their street cred did not increase in the snowboard community as a result of the seminar. But so it goes.



Pia Halloran and Hunter Webster

#### **Building the Renewable Energy Skills of Our Employees**

In 2008, ASC Electrician Greg Hoffman wanted to take a solar installation course. ASC paid for it. Here are some thoughts from Greg:

"My wife and I wanted to install a Solar PV array on my shop. I normally throw the directions out with the box when I get a new toy but I decided to learn about this before I started. The solar voltaic class was six weeks online and I did the course this winter. They taught energy conservation and how much it can bring down the cost of a PV system. The refrigerator is a huge energy user and replacing it with an energy efficient model can cut its energy usage in half. We



Greg, son Connor, and their solar array.

went through PV sizing for standalone systems, grid tied with battery backup and grid tied systems. Inverters and controllers were covered to convert the DC voltage that PV panels generate to AC voltage that we have in our house. The instructors were very helpful and knowledgeable and I enjoyed learning this.

After the course I spent a month pricing systems which saved us a lot of money on the final price. I bought thirty-two 180 watt PV panels based on the size of my roof. This gave me a 5.7 kW system. The output so far is 35 kWh a day. This was a fun project and my three-year-old son can tell you how electricity is generated from solar, wind and water."

#### We love these emails...

"Auden, this is pretty techi stuff! Three inch foam insulation that roofers use, eight R's per inch, or r-24 per panel." Peter Hoffman, Property Services, getting all excited about the new spray foam he installed at the Snowmass Elk Camp Gondola top terminal.

Joe Nichols, from purchasing, used the same foam when he redid the roof on ASC's Basalt warehouse.



Peter and daughters Madeline and Lauren. Behind the family-man guise is an energy efficiency radical.



Joe Nichols, hanging out on the company climbing wall. (Which he helped install.)

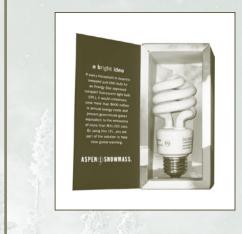
For years, we have tried to reduce our energy consumption. This led ASC to consider radically increasing renewable energy purchases from Holy Cross energy. The cost of this green power (which wasn't really green power per se, but credit for green power ) was too high (it would increase total energy costs by 33%), and at the same time virtually every business in the U.S. that was buying "green power" was buying it in the form of "renewable energy credits." We decided to buy credits too, but eventually came to the conclusion that these RECs were not actually doing much for the planet. So we scrapped the program, and didn't look so good in the process (a blanket apology from Auden is hereby formally made).

Meanwhile, after six years of using clean, renewable biodiesel in our snowcats, federal diesel standards changed, meaning the pollution reduction from biodiesel was negated. Simultaneously, concerns have arisen about the use of food crops to create fuel when people are starving, even in America. As a result, we discontinued the use of biodiesel in the fall of 2008.

All this makes people—internally and externally—wonder if we know what we're doing. The short story is this: pursuing sustainability is dynamic, and we're learning as we go. We'll never continue to spend money on something that doesn't have environmental value, just for the image. Time is too short, and the problems too great. So bear with us. Think of the field of sustainability as a teenager: messy, unpredictable, but learning quickly and growing every day.

SNAFUS sort of





#### A Bright Idea

ASC has a tradition of sending gifts to our best guests. And we have a lot of best guests—about 40,000, to be precise. Historically we've sent journals and day planners, but in 2007 our marketing department decided they wanted to send something that would both be good for the environment and also carry a green message. So we did: we sent out 40,000 compact fluorescent light bulbs, neatly packaged with information on the climate challenge, and the energy savings associated with the bulbs. If the bulbs get used—and our sense from guest feedback is that they will—the total energy savings will be 18,400 megawatt hours, or enough power to run 20 average American homes for a year.

All was not perfect with the light bulb campaign. The bulbs were beautifully packaged... in four layers of various forms of cardboard: including a SAVESNOW sleeve, the manufacturer's box, a decorative box, and a mailing box. Some recipients of the gift expresased justifiable dismay. We say: "Fair enough. But we'd add that the packaging was designed to prevent breakage, and the point of the bulb wasn't even the resulting energy savings: it was to deliver a message to a high leverage audience, our very influential guests." Hitting the right person or two, with a message on the need for urgent climate action, might even have been worth the solid waste.

This story reveals conclusively once again that, we are not perfect. But Rachel Bower is, and we thank her for her incredible work on this campaign.

# snafis

#### Letter from One of Our Fans:

Green Burg Wi, aspen SNowmass P.O. Box 1248 Изрин Colo, 1612-1248 To where it may concern I would return This changewer M leder leghtbulk you sent vraget it l' had already gone aut in the purbage Where it belongs & only hepe it sweart contribute to the merceny- laster atomorphic yee are Trying to walubat to und using as a record to destroy and carenty, I supert year on Island forist tenvourts. du quiring green relnes as glabal warming suts. PLEASE STOP.

#### **Renewable Development: On and Offsite**

If we want to radically cut our carbon footprint, the key is going to be getting our power from legitimate, clean, renewable sources. That's because of the nature of our business, which has lots of fixed energy costs we can't reduce, like lift operations and snowcat miles. To that end, ASC has made a push in the direction of actually developing clean, renewable power on a large scale.

The 147 kilowatt CRMS system on the cover of this report was our first large foray into this arena. The array will power the school's science building with excess energy fed into the town of Carbondale's power grid. It will produce 200,000 kWh annually (enough electricity for 20 average American homes) and keep 330,000 pounds of carbon dioxide out of the air each year. Partners in the project include Colorado Rocky Mountain School, which owns the land; ASC, which is financing the project; the Town of Carbondale; the nonprofit Community Office for Resource Efficiency, which did all the upfront conceptual work and planning for the project; and Xcel Energy, the utility that receives the excess solar power generated. While ASC won't get the power from the project, our investment made it happen.

On a smaller scale, ASC installed a 10.64 kW system on our Thunder River Lodge affordable housing complex in Carbondale. That project was made possible through rebates from Holy Cross Energy's carbon emissions reduction program WE CARE, and from the Community Office for Resource Efficiency. This system will generate about 15,000 kWh of clean electricity annually, keeping 27,000 pounds of climate changing CO<sub>2</sub> out of the air each year, and covering about a third of the building's electricity use. In 2008 we completed another 4.3 kW system at the Snowmass Club, and another 5 kW system at The Little Nell. The Little Nell system is an educational opportunity—we want to create a "green room" where energy use and solar power delivered will be metered on the in-room computer.

Solar is good, but it's not producing energy at the scale we need. To that end, ASC is working with hydro consultant Thierry Burckhart to explore micro-hydro electricity projects on all four of our mountains. Thierry is developing a four-mountain master plan.

www.hpbhydroelectric.com



The CRMS Solar project



The Thunder River Lodge 10.64 kW solar



The Snowmass hydroelectric plant generates 10,000 of clean energy each summer. Frank White runs the system.

## EDUCATION, PUBLIC POLICY AND OUTREACH

ASC has long argued that the best and biggest role the ski industry can play in solving global warming is to use its influence as a business to drive policy change.



NSAA President Michael Berry giving testimony

#### The Ski Industry Comes Alive on Warming

In March 2007, Auden Schendler testified to the House Subcommittee on Energy and Mineral Resources at a hearing called "Towards a Clean Energy Future: Energy Policy and Climate Change on Public Lands." Auden's testimony is available here: http://www.aspensnowmass.com/environment/images/ASC\_House\_Climate\_Testimony.pdf.

To be honest, in the past we've expressed frustration that the industry as a whole hasn't moved more rapidly or aggressively to influence climate policy. That situation is changing, and kudos are therefore due to the people and entities driving that change. According to the

Vail Daily: "Industry representative Michael Berry testified before a U.S. Senate committee in late May about global warming. His message was one he could not have given several years ago. 'We said it's time for action,' said Berry, who is president of the National Ski Areas Association, 'and it's time for the U.S. government, instead of dragging its feet at every opportunity, to take a leadership role in this worldwide.'" Berry, as head of the NSAA, was staking out an industry position on climate that was new, high profile, and high leverage. Meanwhile, in June of 2008, Geraldine Link and others at NSAA organized a letter from more than 63 resorts urging senators to support the Lieberman Warner Climate Security Act. Importantly, the letter went not just to the bill sponsors but directly to the key swing votes in the Senate, like Colorado's own Ken Salazar. While the legislation failed, the ski industry clearly had an impact, with Salazar recognizing ski industry concern in his remarks on the senate floor.

#### Massachusetts v. EPA

Continuing in this vein, the most important thing ASC ever did as a company might not have been opening its doors in 1947...or even allowing snowboarders on Aspen Mountain.\* It might have been the Amicus Brief we filed on August 30, 2006, to the U.S. Supreme Court in support of twelve states and three conservation organizations that sued the Environmental Protection Agency to regulate carbon dioxide as a pollutant.

When our friends at the Natural Resources Defense Council asked us to file the Amicus Brief on Massachusetts V EPA, we had only two questions. "What's an Amicus Brief?" and "What's Massachusetts V. EPA?"

We figured out the answers in short order because we had only a month to write the thing. The case challenged the EPA's 2003 decision that carbon dioxide ( $CO_2$ ) is not a pollutant, arguing that the Environmental Protection Agency has clear authority under the Clean Air Act to set limits on carbon dioxide emissions. Because this is the first global warming case to be heard by the court it could heavily influence EPA and Congressional action on global warming in the future. Environmentalists

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Co	unsel for Amicus Curiae
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\*Sorry, dudes!

are calling this the most important environmentally related case ever to be heard by the Supreme Court. ASC's "Amicus" or "friend of the court" brief simply supports the lawsuit, arguing that climate change is a direct economic threat to the ski industry. Other briefs came from California Governor Arnold Schwarzenegger, former Secretary of State Madeleine Albright, and Calpine and Entergy, two of the largest utilities in the United States. ASC was the only resort filing a brief. Plaintiffs included California, Connecticut, Illinois, Maine, Massachusetts, New Jersey, New Mexico, New York, Oregon, Rhode Island, Vermont and Washington, and several cities and conservation groups including the Sierra Club and the Natural Resources Defense Council. You might think our act was meaningless, and that we're fairly self-involved to think we made a difference. But having Aspen involved was so curious, so unique and strange to the press, that the story was often reported this way: "12 states, 3 environmental groups, *even a ski resort in Colorado*...supported the suit..."

In April of 2007, the Supreme Court ruled in favor of the plaintiffs, requiring the EPA to regulate carbon dioxide as a pollutant. If the story ended there, it would be pretty cool. A small ski resort helped influence what has been called the most important environmental lawsuit ever to go to the Supreme Court. But the story gets better. On Friday, October 19, the Washington Post reported the following: "One does not discover new continents without consenting to lose sight of the shore for a very long time."

— Andre Gide

## Friday, October 19, 2007 The Washington Post

#### Kansas cites carbon emissions in blocking coal plants

#### By Steven Mufson

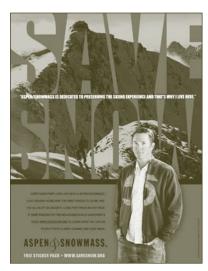
WASHINGTON—The Kansas Department of Health and Environment on Thursday became the first government agency in the United States to cite carbon-dioxide emissions as the reason for rejecting an air permit for a proposed coal-fired plant.

The decision marks a victory for environmental groups that are fighting proposals for new coal-fired plants across the country. It may be the first of a series of similar state actions inspired by a Supreme Court decision in April that asserted that greenhouse gases, such as carbon dioxide, should be considered pollutants under the Clean Air Act.

ASC's brief came together thanks to the good and timely work of Ed Ramey at Issacson Rosenbaum P.C. in Denver, with support from ASC's Sustainability Department, including Dave Bellack.

#### Solving Climate Change is a Marketing Problem

When you go home to your family in (New Jersey, Oklahoma, etc.) and talk about climate change around the dinner table, the odds are that someone, Uncle Frank perhaps, will say "Isn't there some debate on the science there?" That discussion happens not because there is any debate on the science, but because groups like ExxonMobil have funded, to the tune of tens of millions of dollars, one of the most effective marketing campaigns in history, designed entirely to create doubt in the minds of the public on climate change. Given this...it becomes clear that solving climate change is, in large part, a marketing challenge, and that somebody needs to fight fire with fire. So what are we doing about it?





#### Save Snow

When you open a ski magazine, all the pictures are the same: great skier in powder on blue-sky day. The ads are the same as the stories. So if your goal were to simply differentiate yourself from the other ads, you'd do something new. But if your goal were to drive change in public perception about climate, you'd kill two birds with one

advertising campaign on climate. Better yet, by targeting skiers who care deeply about snow, you'd have potentially hit a high leverage audience likely to act on your campaign. And that was the genesis of SAVESNOW, now in its third year. We've featured samples of the first two years of the campaign. On the back cover is our most recent ad along the same lines. Our companion website, www.savesnow.org, provides education and tangible action steps,

focusing on political action. Ads run in Powder, Ski, Outside, Freeskier, Snowboarder and TransWorld Snowboarding, and we have posters on kiosks at our resorts. The campaign won an Advertising Age Award, and has been widely covered in the press. The people who made the campaign sing include our Senior V.P., Mountain Division's David Perry, and the Marketing Department's Jeanne Mackowski, Steve Metcalf and Rachel Bower.



#### **Reggie, Gretchen, and a Climate Revolution**

In the winter of 2007-2008, ASC received calls from two well known professional snowsports athletes: ex-racer and extreme skier Reggie Crist, and snowboarding's top female, Gretchen Bleiler. They weren't calling about sponsorships or upcoming races, they were calling about the environment, and in particular, climate change. Crist was planning an event called "Green Your Scene: Climate Change and the Mountain Lifestyle," in Sun Valley, with the event production group 48STRAIGHT, to coincide with the Jeep King of the Mountain series in March. Gretchen (who was featured in our SAVESNOW ads that year) was hosting a new event called "Snow Angels Invitational" that integrated competition with education on climate and, even, down the line, activism. This represents a sea change in the snow sports industry, which is increasingly aware of climate change. In fact, most snowsports

athletes—Bode Miller, Ted Ligety, Lindsey Vonn, Shaun White, and our local friends Casey Puckett and Chris Davenport, as well as many others, are working to promote action on climate change. Gone are the days of sports for sports sake. Now we've got bigger problems on our hands, and professional athletes are stepping up to reach a huge audience with an important message. ASC sent Auden Schendler to speak at both Reggie's and Gretchen's events.

#### Maplinks: Advertising for the Planet

Maplinks are ingenious resort maps bolted to the safety bar on our chairlifts. They eliminate the need for paper maps (which guests invariably drop), preventing litter and cutting printing runs. Maplinks are funded by small advertisements. As part of our agreement with the vendor, we are able to include some public service announcements. Other maplinks talk about climate change, local fauna, or educational opportunities in the region.



#### **Kleenex Ban**

In the winter of 2006, ASC banned Kimberly Clark (KC) paper products because of the company's destructive logging practices, low use of recycled fiber, and unwillingness to meet with environmental advocates. (ASC used to spend about \$25,000 on



KC products, a not inconsequential sum, but hardly significant for the \$32 billion company.) Details on this boycott—and its surprising results, are in Auden's letter at the end of this report.

#### Green Mountain Coffee Roasters

Sometimes the stars align and you get a product sponsor that's also a really green company. That's the case with Green Mountain Coffee Roasters (GMCR), our new official coffee. (Actually, VP of Sales and Events, John Rigney *made* the stars align...he actively worked with Green Mountain because we liked their environmental leadership.) GMCR, working with Native Energy, offsets 100% of their direct emissions as well as a large piece of their indirect emissions; they market Fair Trade and organic coffee (13% of their total sales) and have a strong corporate philanthropy program. In addition, GMCR will be providing our restaurants with a green hot cup lined with corn polymers instead of plastic.

#### Aspen's Story: At Fine Bookstores Everywhere

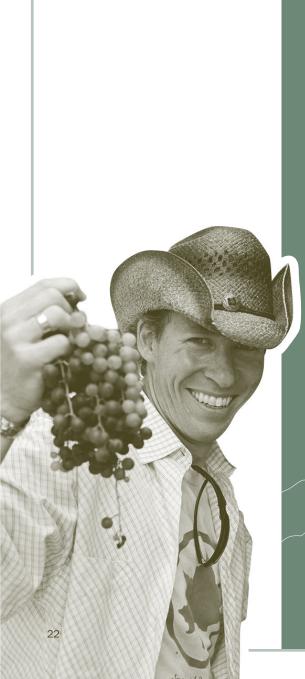
We've been in the trenches implementing sustainable business practices for a decade now, with lots of success, and ample failure. So...it's probably time to write a book. We've got lots of good stories to tell, most of them funny, all of them instructive, and many featuring unique characters from the ski business. Auden Schendler's new book "Getting Green Done: Hard Truths and Real Solutions from the Front Lines of the Sustainability Revolution," (Public Affairs, February 2009) tells ASC's own story about making green happen, warts and all. It's available through Amazon and at fine stores near you.



<sup>Great Tasting Coffee Crafted wi<sup>th Ca</sup></sup>



Andreas Fischbacher, Cloud Nine's chef, works to source as much of his food locally as possible. This is difficult because Cloud Nine is a seasonal establishment located at 10,900 feet at Aspen Highlands. Before the season starts, Andreas can be found canning produce from Paonia and foraging for mushrooms in the forest. In season, he can be found ripping past you in a cloud of white smoke. (When he's not cooking.)



#### **Green Purchasing Update**

Since 2006 we've accomplished the following:

- For 2008-2009, 70 of 95 snowmobiles use high-efficiency 4-stroke or direct injection motors.
- Purchased more than 200 tons of green office supplies and earthfriendly disposable foodservice products, including Cascades Rolland Enviro 100 for all office paper. It's 100% post-consumer fiber, processed chlorine-free.
- Continued to lease the most-efficient snowcats available. Using a 2-year rotation for these vehicles allows ASC to have one of the least-polluting fleets in the industry.
- Established a relationship with Sylvania lighting to provide low-cost energy efficient lighting.

Below, details on more initiatives.

#### **Eliminating Water Bottles at The Little Nell**

The Little Nell is now providing guests with pitchers of cool, refreshing Aspen tap water instead of Evian. The pitchers are from Anderson Ranch Arts Center, located in Snowmass, and were designed/sculpted by Doug Casebeer. This switch saves \$37,000 and eliminates more than 52,000 bottles annually, while supporting local artisans. (As a bow to reality, however, bottled water will still be available for purchase.) Kudos to Sr. VP of Hospitality Paul Cherrett, General Manager John Speers and Rooms Division Manager Lisa Price.

#### Fine Dining That's Good for the Earth

Ryan Hardy, Montagna's chef, brings sustainability to the plate every night. He eliminated all commercial beef, using grass-fed Milagro Ranch beef from Carbondale instead. Niman Ranch, a leading purveyor of sustainable meats, now supplies The Little Nell with 6,200 pounds of bacon annually in addition to a variety of other pork products. Ryan also cures his own ham, salumi, and pancetta – using all organic pork and as few nitrates as possible. Fifty percent of Montagna's summer produce comes from local farms, and they buy 15% of their winter produce locally. The Little Nell spends over \$1 million on local food each year. These purchasing decisions are major contributions to the local economy. And the word is getting out: Ryan was recently featured on CNN.

#### Organic/Locally Grown Food Fair at Buttermilk

On November 15th, 2007, former Snowmass Club Executive Chef Scott McCurdy organized an organic food show at Bumps at Buttermilk for area restaurants and ASC restaurant managers. Vendors included Organic Valley, Colorado Pride, Coleman and Horizon Organic. During the 2007-2008 season Tracy Duhe at the Sundeck and Lee Solomon at Merry-Go-Round served Bobo's Organic Breakfast Bars from Boulder. In addition, Sundeck served Coleman Natural beef burgers and Merry-Go-Round offered a burger using locally raised Milagro Ranch beef.

#### **Jet Towels**

Each year the Sundeck uses 120 cases of paper: unrolled it would stretch almost 95 miles – that's equivalent to riding the gondola and skiing down Aspen Mountain 24 times while unrolling paper the whole time. In 2007, Tracy Duhe installed two Mitsubishi Jet Towels, air powered dryers that work in six seconds, and is planning on installing two additional units in 2008. Guests, and trees, love them. (This product represents a compromise between waste and energy use. The units draw .65 kW, equivalent to a small space heater. However, there are impacts to hauling trash up and down the hill, too. Did we do the analysis as to which had the least impact? No. We have bigger fish to fry.)



#### **Greenware Corn Cups**

ASC restaurants feature corn-based cold cups from Greenware by Fabri-Kal that advertise the Aspen Recreation Center. The cups are compostable but since we don't compost food waste the cups go in the garbage. Without composting these cups will take many years to degrade...but at least they're not made from oil. When these cups do end up in the recycling with other plastics they do not contaminate the waste stream. As the conflict between use of corn for food and products evolves, we'll reevaluate this program.



#### Laying Pipe for the Future

The Buttermilk Snowmaking team of Don "Ogre" Paullin, Jim Hamlin, Curt Clemetson, Alex Hohenzollern, Kevin Parcott, Gabe Ross, and Harry Lynk installed 1,500 feet of iron ductile pipe in 2007, and a total of 6,000 feet since 2006. The installation is part of a multi-year plan to replace 25-year-old steel snowmaking pipe with iron ductile pipe, a green product made from recycled steel in Austria. The pipe lasts for more than 50 years and is coated with a smooth cement liner that nearly eliminates hydraulic friction while creating efficiencies for the pumps, as well as minimizing water leaks over time. Once pipe is installed it can be backfilled right away, minimizing the amount of open ground, run-off and erosion. Buttermilk was the first ski area to adopt this product in the U.S. Since then many ski areas in North America have followed suit…including our own Aspen Mountain.

## COMMUNITY PARTICIPATION AND ACCOUNTABILITY



#### Sustaining the Soul

By Matt Hamilton, Sustainability Manager

As I ride a RFTA bus into Aspen I notice the lanes next to me teeming with cars, pick-up trucks and dump trucks. The bus never slows while all of these vehicles stand in traffic anxiously awaiting their turn to go through traffic circles, lights and finally the famed S-curves that announce your arrival into Aspen. My bus's journey is aided by dedicated lanes being added to part of the last three miles of the commute.

The bus lanes that make my commute so painless were built with funds approved through a voter initiative that ASC and its employees supported with sweat equity and money. These lanes help sustain the soul of the entire Roaring Fork Valley workforce. This might seem like a stretch, but by reducing the stress of sitting in traffic employees arrive at work and home on time with a bit better attitude.

Part of my job is to protect and enhance the natural environment that is the lifeblood of our business; we're also trying to cultivate a working environment that nourishes the soul. Employee satisfaction and happiness are integral to our success. Whether it is mechanic Don Mushet shuttling 20 young people around the valley to learn about river conservation, our Human Resources department spending the day hanging sheetrock at a Habitat for Humanity house, or the new climbing wall at the main building, ASC recognizes its role in the community as a vital contributor to the Roaring Fork Valley, not just an employer.

Sustaining the soul of the Roaring Fork Valley means taking an active role in enhancing the community. New to this report are articles on our efforts to develop affordable housing for our employees, and examples of some of the \$1.2 million in cash, product and services we donate annually. We've included these because we believe that being a sustainable business requires a focus on more than climate and energy; our employees are part of the equation too; and that means we've got to ensure that this region is a desirable place to live as well as work.

#### **Employee Housing**

It's expensive to live in the Roaring Fork Valley, and as a result, providing worker housing is crucial—otherwise, it may be hard to find and retain employees. But there's an environmental and quality of life benefit as well: by housing workers near their work, transportation impacts can be eliminated. ASC owns units throughout the Roaring Fork Valley, but prioritizes housing close to our slopes. Since 2006 we've added housing at Thunder River

#### EMPLOYEE HOUSING SUMMARY

ASC Existing Bed Base Year 2000 - 80 beds Year 2007 - 396 beds

Projects in Progress ClubCommons II – 108 beds Holiday House – 52 beds Total in Progress – 160 beds

Total 2008 = 556 beds

Lodge and Keator Grove in Carbondale, Sopris View Apartments in El Jebel, and begun construction on the Club Commons Il project in Snowmass. We're also rebuilding the Holiday House in Aspen.

In addition to continuously growing our employee housing pool, ASC supports local affordable housing projects so that employees can live in, or close to, the communities they work, and even own their own place in a market where housing would otherwise be unattainable. In 2007 ASC provided bridge financing for the 52-unit Keator Grove affordable housing project in Carbondale, and committed to pre-purchasing 30 of those units, helping to make the project possible.

#### ASC's Charitable Activity Supports Many Valley Nonprofits

ASC and its employees donate almost \$1,200,000 annually in product, services and cash to nonprofits and community events throughout the Roaring Fork Valley. ASC supports three entities that actually make these contributions. They are: SPRING 2006

FALL 2006

SPRING 2007

FALL 2007

- The Environment Foundation;
- ASC Family Fund; and
- ASC Corporate Contributions.

We break out some of these contributions on the next page.

#### **Environment Foundation**

The Environment Foundation is funded by contributions from employee paychecks. Those contributions are matched by the ASC Family Fund (up to \$65,000 annually) and Aspen Community Foundation (up to \$50,000 annually).

During 2006 and 2007 the Environment Foundation donated more than \$310,000 to 47 projects protecting the Roaring Fork Valley environment. 2007 was a momentous year, as the foundation celebrated its 10th anniversary and crossed the \$1 million mark in grants. In addition, in 2007, a record number of employees—2,195—donated close to \$57,000. When the foundation began in 1997, 229 employees donated \$5,000. Hats off to foundation Executive Director Matt Hamilton and the board for this success, and thanks to all those employees.



Environment Foundation founded by employees of Aspen Skiing Company



ORGANIZATION	AMOUNT
LoVa Trails Group ACES - Hallam Lake: Birds of Prey and Operations Solar Energy International WRNF - Ozone Study CORE - Solar Ramada Project PitCo Landfill Composting Dandelion Days Tomorrows Voices WRNF - Aspen Staff Western Colorado Congress - Oil Shale Roaring Fork Outdoor Volunteers - Summer Trail Maintenance	\$5,500 \$8,000 \$5,000 \$5,200 \$10,000 \$7,588 \$650 \$3,600 \$3,250 \$10,000 \$8,000
<ul> <li>Western Colorado Congress - Gasfield Toxics Campaig Environment Colorado - Western Slope Climate Policy Development</li> <li>Western Resource Advocates - Green Communities</li> <li>Wilderness Workshop - Forest Watchdog Program Trust for Public Land - High Elk Corridor General Operating Support</li> <li>Rock Bottom Ranch General Support and 1/2 Mile Trail Loop</li> <li>Colorado Mountain Club - Protecting Wildlife in the Energy Boom</li> <li>Sustainability Center of the Rockies - Initial Project Support (Green Development Guide, 1st Building Architecture, Marketing Materials, Fund-Raising Support)</li> <li>Solar Energy International - Renewable Energy Kits Roaring Fork Conservancy - Programs and Operations Support</li> <li>Carbondale and Rural Fire Protection District- 4kW PV System at HQ</li> </ul>	gn \$10,000 \$10,000 \$10,000 \$5,000 \$3,000 \$5,000 \$7,500 \$2,500 \$3,000 \$5,000
<ul> <li>ACES - Summer Naturalist Wage Increases</li> <li>CFI - Maroon Bells Planning Project</li> <li>Ferdinand Hayden Chapter of Trout Unlimited - Roaring Fork River Cleanup</li> <li>Independence Pass Foundation - Braille and Discover Trail Rehabilitation</li> <li>Roaring Fork Conservancy - Climate Change Impacts on the Roaring Fork Watershed</li> <li>Roaring Fork Outdoor Volunteers - 2007 Trail Projects</li> <li>Sonoran Institute - Community Energy Workshop: Bas Spring Gulch - Roller and Track</li> <li>Tomorrow's Voices: Geopolitical Studies Class</li> <li>Western Colorado Congress - Slowing the Onrush of Oil Shale, Year Two</li> <li>Western Resource Advocates - Clean Energy Alternatives to 3 Coal Plants</li> <li>Wilderness Workshop/Colorado Mountain Club: White River Wilderness Campaign</li> </ul>	\$3,000 \$7,500 \$3,000 \$4,500 \$10,000 \$10,000

Basalt Town Council and Green Team - Solar Heating	\$8,000
Arbaney Park Pool	
Carbondale Middle School - Solar Car Challenge	\$1,400
Colorado Mountain Club - Economic Impacts of Roan	\$5,000
Plateau Drilling	
Crystal River Elementary School - Kids Exploring	\$5,000
Earth Project	
EcoFlight - Support of Wilderness Workshop Hidden	\$2,000
Gems White River Project	
Environment Colorado - Organizing to Support State	\$20,000
Climate Policy	
Forest Conservancy - Volunteer Ranger Program	\$4,420
Red Hill Council - Study to improve access to Red	\$7,500
Hill Complex	
Rock Bottom Ranch - Community Garden Improvements,	\$9,500
Naturalist Wages, Wetlands Banking Seed Money	
Split Estate - Documentary on the Health Impacts of	\$7,500
Natural Gas Drilling	
Western Colorado Congress - Gasfield Toxics	\$10,000
Western Resource Advocates - Advocacy to Protect	\$11,802
the Roan Plateau	
Wilderness Workshop - Forest Watchdog Program	\$8,000

#### **ASC Family Fund**

ASC's Family Fund was established to support the Roaring Fork Valley community in 2003. The Family Fund contributes to early childhood education, healthcare, college scholarships for needy students, and environmental organizations.

In 2007 the Family Fund donated \$175,000.

- \$60,000 matched ASC employee contributions made to the Environment Foundation;
- \$24,000 to the Pre-Collegiate Program, providing academic and financial support to middle and high school students who would be the first generation in their families to graduate from college;
- \$10,000 to Roaring Fork Kids;
- \$10,000 to Little Red Schoolhouse;

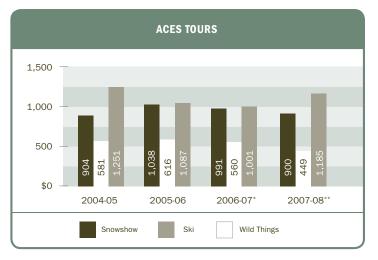
- \$8,000 to Blue Lake Preschool;
- \$8,000 to Our School;
- \$30,000 to a new healthcare program in Basalt's public schools; and
- Small grants of less than \$2,500 each to Raising a Reader, Komen Race/Ride for the Cure, Mountain Rescue, YouthZone, Aspen Youth Center, Aspen Education Foundation, Roaring Fork School District, and Congregations and Schools Empowered.

#### **Corporate Contributions**

Of the \$1.2 million, ASC contributed \$700,000 to local nonprofit organizations. A complete list of organizations receiving contributions is available online at http://www.aspensnowmass.com/environment/world/local\_community.cfm.

#### ACES/ASC On-Mountain Nature Tours

ASC hosts on-mountain environmental education programs thanks to our partnership with the Aspen Center for Environmental Studies, ACES. **www.aspennature.org.** 



\*An additional 1,200 contacts made on lifts and at the Wapiti Wildlife Center \*\*An additional 1,600 contacts made on lifts and at the Wapiti Wildlife Center

## PLANNING, DEVELOPMENT AND CONSTRUCTION

ASC was the first ski resort in the business to implement a green building policy for all new construction. New projects focus on energy efficiency, trying to beat code by at least 30%. Making new and existing buildings energy efficient is a key part of our plan to reduce our carbon footprint, because we can reduce energy use in buildings more easily than we can in other areas like lifts or snow grooming.

#### Sam's Smokehouse at Snowmass

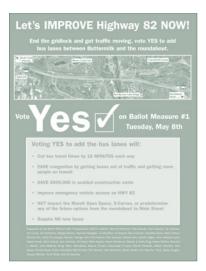
ASC is currently redeveloping Sam's Smokehouse restaurant at Snowmass, and will be LEED certifying that building with an emphasis on energy efficiency. Leading this project is Chris Kiley from the Planning Department.

#### **Base Village**

While ASC sold the Snowmass base village to Related WestPac, not only did most of our efficiency and environmental measures get incorporated, but the new owners committed to LEED certifying the entire village under LEED for Neighborhood Development's pilot program, as well as LEED certifying every individual building in the village. We are supporting them in that effort. Check out www.snowmassliving.com and click on 'Sustainable Snowmass' for more information.

"Lord, we know what we are, but we know not what we may be."— Ophelia, in *Hamlet* 

An artist's rendering of the new Sam's Smokehouse, which replaces an older, less efficient structure.



The bus lane flyer ASC produced.

#### **Biker Incentives**

At CEO Mike Kaplan's urging, ASC bought five commuter bikes available to all employees. The bikes allow people to ride to and from Aspen from our main office at the airport, often passing standstill traffic along the way. ASC also offers incentives for bike commuters, including free jerseys for people who bike to work at least once a week. We also hold an end of season raffle for bus riders and car and van poolers.

#### **Bus Lanes and Commuter Programs**

Despite well-funded opposition that out-spent us more than 2-1, ASC and a coalition of transit advocates, in particular county commissioner Rachel Richards, helped pass an Aspen ballot measure to build bus lanes from Buttermilk to the roundabout, the final section of highway that leads to Aspen.

Right now, traffic jams trap commuters and frustrate guests. The traffic problem in the area threatens our business, quality of life and environment. ASC sees implementing local transportation solutions as one of its highest priorities.

By adding a bus lane now, while the Maroon Creek Bridge is under construction, taxpayers avoid \$500,000 in construction costs. In addition, adding the bus lane will:

- Cut the bus ride by 15 minutes each way, incentivizing mass transit over car use.
- Ease congestion for car traffic.
- Allow four lanes (two bus only) on the Maroon Creek Bridge instead of two.

All told, ASC contributed almost \$2,000 to the campaign and more than 12 person-hours of envelope stuffing and labeling. About 20 ASC staff at the ABC helped in the campaign, and marketing's Rachel Bower spent days developing a postcard and newspaper advertisement. In the end, 63% of Aspen voters said yes to bus lanes to be completed in 2008. Without this legislation, Maroon Creek Bridge would have been a clogged single lane in both directions.

## WATER USE AND WATER QUALITY

ASC is always trying to increase water storage capacity. The benefits of any on-mountain storage project include:

- Increased snowmaking efficiency by allowing us to make snow in large volumes with precooled water when temperatures are coldest.
- Protecting local streams by using storage as a buffer when instream flows are lowest.
- · Decoupling the resort from streamflows, which is good for operations and the environment.

#### Expanding Rayburn's Pond and Building a Pond at Buttermilk

The Rayburn's Pond project at Snowmass increases holding capacity from 1 to 3.5 million gallons. Rayburn's Pond has never been "plumbed" into the snowmaking system but will be as part of this project. At Buttermilk, we're developing 4.8 million gallons of storage.

#### Water Testing on Brush Creek

Since 2000 a group of ASC employees have tested the waters of Brush Creek at its confluence with the Roaring Fork River. Now we're also testing above, below and in the middle of the Snowmass Golf Course. The goal: document the impacts ASC is having on Brush Creek and take action if parameters head south.

#### A Big Win: Ziegler Reservoir

"After more than ten years of discussions and negotiations, the Snowmass Water and Sanitation District entered into a contract to purchase Ziegler reservoir, located above the Town of Snowmass Village. The district plans to expand the reservoir in partnership with ASC and use it to provide water for its customers and for snowmaking at the Snowmass ski area. The reservoir will allow ASC and the District to reduce impacts on Snowmass Creek from direct diversions for snowmaking and increase the reliability of flows available to protect aquatic habitats."— ASC Sr. VP of Administration Dave Bellack

## WASTE MANAGEMENT

ASC sees waste management and recycling as things all businesses should do well. Here, we focus on what we're doing beyond that baseline work.

#### **Boneyard Cleanup**

The cover shot of our last sustainability report was a notorious ski area bogeyman, the boneyard. We wanted to highlight a problem that needed fixing as an illustration of the challenges we face. We're pleased to report progress on this front.

In 2006 vehicle mechanics Jason Tomlinson and Bob Trost, and summer trails crew members Chris Halsey, Tim Grogan, Aaron Smith and Pat Mitchell filled four 20-yard roll-off dumpsters at Highlands. Hans Hohl organized a crew at Buttermilk

and Aspen Mountain and filled three 20-yard dumpsters. And Doug Mackenzie at Snowmass put a crew on cleanup for 80 hours. Work continued in 2007 at Aspen Mountain. Material had been accumulating for 30 years! There were literally tons of pipe, hydrants, pump parts, air compressor parts, lift parts, etc. This big heap of rustiness—five 30-yard dumpsters in all—was recycled. Wes Blasberg, Harry Lynk, Steve Fischer, Frank White, Andy Wood, and Eric Reische were instrumental in getting this work done.

In 2008 Hans Hohl is holding an all-mountain tag sale for surplus boneyard items. In addition he reports that a spring cleanup has become an annual activity at all mountains to remove the scrap metal and other items that seem to accumulate each year.

#### Lifts, Reincarnated

Over the past two years four lifts have been recycled or found new homes throughout the world. The Funnel lift on Snowmass is now in Pakistan. We sold the Sheer Bliss lift towers as scrap, but gave the chairs to the Carbondale Community School for a fundraiser. The Assay Hill lift at Snowmass can now be found shuttling skiers at Eaglecrest Ski Area near Juneau, Alaska. The Naked Lady lift is now carrying skiers at Lutsen Mountain, connecting the main chalet to advanced runs at the top of Eagle Mountain.

Wax Ecstatic

In 2007, John Norman (Norm) at Highlands started using Purl Wax, manufactured in Dillon, CO with 100% wind power. Purl ships their product without shrink-wrap or any other excess packing materials. It's also the first non-toxic ski and snowboard wax. Most others contain perfluorocarbons (PFCs) that break down into a carcinogen linked to birth defects and liver damage. In addition, the global warming potential of PFCs is 6,000 times that of carbon dioxide. Norm uses about 150 pounds of Purl Wax each season and is happy to give the business to environmentally conscious colleagues.

 $Thanks \ to \ Norm, \ all \ of \ ASC \ is \ making \ the \ switch. \ http://purlracing.com/osc/catalog/privacy.php$ 

#### **Uniform Donation**

As we do every four years, instead of sending our old uniforms to the dump, we sent them to needy people in Eastern Europe. Thanks to Consul General of the Republic of Hungary Gene Megyesy and the SWAG program. http://www.swagusa.org/









## WILDLIFE HABITAT AND LAND USE MANAGEMENT

In our 2006 report we discussed the Burnt Mountain project extensively. Since that time no activity has occurred. In other news we achieved Audubon International certification for our Snowmass golf course, a seven-year process that is finally complete.

#### Audubon International's Cooperative Sanctuary Program

In 2008 the Snowmass Club Golf Course secured designation as a "Certified Audubon Cooperative Sanctuary." Course superintendent Al Ogren and his staff operate the course sustainably by incorporating a nature trail, maintaining wetlands and using natural roughs, among other measures. Jim Sluiter, an ecologist for the Audubon Society, said: "The Snowmass Club Golf Course has shown a strong commitment to its environmental program. It is to be commended for its efforts to provide a sanctuary for wildlife on the golf course property."



"The wonder of the world, the beauty, and the power, the shapes of things, their colors, lights and shades, these I saw. Look ye also while life lasts."

Gravestone Inscription, Cumberland, England

### LETTER FROM EXECUTIVE DIRECTOR OF SUSTAINABILITY



In the summer of 2007, we installed something called "iron ductile pipe" at Buttermilk. It's a recycled product that is coated so that it lasts 50 years (unlike most snowmaking pipe that rots out much more quickly). After we installed it, I found myself wondering if we'll still be skiing at Buttermilk in 50 years. And this illustrates a salient point about ski industry environmental action: a lot of what we do on the ground won't matter, in the end.

We're a fairly energy intensive industry, and we're going to be able to cut our own emissions somewhat, but not all that much. Most of our energy consumption is fixed, and comes from equipment that is only as efficient as we can find: lifts and snowcats, for example. And in the end, you could eliminate all the emissions in the ski industry and we'd still be out of business by end of century. So while ski industry efficiency is important and we're deadly serious about it, the industry needs to look at how it can have the greatest impact on driving broad policy change on climate. We need to find our biggest lever.

In Aspen, that lever is influence: because the name carries weight; because the ski industry, as a business, has pull with politicians; and because skiing is a way for people to understand the complex issue of climate change.

To that end, ASC has retooled its environmental programs. We still do the on-the-ground stuff—efficiency, organic food, solar, etc. But we're much more focused on policy. In the last two years, we filed a Supreme Court brief (see page 18) and testified before Congress about climate change. But not all our advocacy work is so clean.

In 2007 we banned Kleenex on our mountains because we are not happy with Kimberly Clark's forestry practices and the fact that there's no post consumer waste in their consumer tissue. This move was seen by some as craven green-washing and hypocritical; it was not a huge effort for us to ban the tissues. And as a polluting business, who are we to criticize? The local papers made fun of us with headlines like "ASC says Kleenex Nothing to Sneeze at." And yet... shortly after announcing the boycott, we received a letter from the CEO of this \$32B company. In fact, Kimberly Clark sent out a team, including their senior VP of Environmental Affairs, to Aspen to talk to us. In our talks, we asked KC to meet directly with the Natural Resource Defense Council, and help broker that meeting. The talks weren't successful, but we were able begin a process of changing this large, powerful corporation. I think of this as "asymmetric warfare" on ASC's part; in our case, a small business was able to exert influence disproportionate to its size.

Our work is increasingly controversial. But that's what happens when you are working on societal change. People don't like it. They get mad, and the process is messy. Think about the American revolution, the battle for civil rights, or the French revolution. This climate challenge is greater than all those combined—we have to remake the world to save it.

A friend of mine who recently overcame cancer told me he had a new perspective as a result of the experience. It wasn't a good thing, but it changed him for the better. He didn't worry about the cost of dinners out. He was grateful just to be walking around on a beautiful day. The perspective adjustment is happening to us as a result of climate change, which, like a cancer on business, threatens our very livelihood, if not our lives. Our efforts to match the scale of the problem with proportionate action has led us along a new path that begs questions we might never have considered in simpler times. In a sustainable world, will people really be flying and skiing, or flying to ski? If not, what then is our role in the interim? In fact, what is the role of business? Like government, can it help provide people with the tools to live better lives? Is part of our role to provide meaningful, stable work, and as such, doesn't the sustainability of our business bear not just on profit, but on human lives? Matt Hamilton spoke to that point in his essay on page 24.

Answering these questions is one thing, but acting on the answers—living the change—is entirely another. Perhaps we have a societal responsibility not just to protect the environment but also to stay in business. And to do that, perhaps we need to redefine who we are. Poma, the ski lift manufacturer, is moving in the direction of making wind towers and turbines through their company Leitwind. It's probably as smart a business move as IBM moving away from the typewriter.

Maybe there will be a business in Aspen 100 years from now that makes its money generating renewable energy; it would have the oddly mismatched name of Aspen Skiing Company. It would still be a fun, vibrant place to work, offering meaningful employment to thousands of people. But the name...the name might always seem incongruous and strange. Surely it will make our great grandchildren react in wonder.

Sincerely,

All &

Auden Schendler

"One of the oldest dreams of mankind is to find a dignity that might include all living things. And one of the greatest of human longings must be to bring such dignity to one's own dreams, for each to find his or her own life exemplary in some way."

— Barry Lopez

#### **SEVENTH EDITION**

DESIGN: Natalie Kitamura Design | PRINTING: UTAP Printing

## ASPEN () SNOWMASS.

www.aspensnowmass.com/environment



WAX ON: This winter, all of our Four-Mountain Sports locations will be using the industry's first all natural wax – devoid of the cancer-causing, liver damaging, global warming perflourocarbons (PFCs) found in traditional toxic waxes. While our business isn't perfect, the work at Four-Mountain Sports is symbolic of our mission to protect the environment. To join our movement to fight climate change and save snow, visit savesnow.org.

FREE STICKER PACK | SAVESNOW.ORG !

ASPEN () SNOWMASS.

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NEW LEAF PAPER

CARSON GAZLEY READIES ANOTHER BOARD WITH SOME PFC-FREE PURL WAX. PHOTO: DANIEL BAYER

#### NEW LEAF PAPER\*

ENVIRONMENTAL BENEFITS STATEMENT of using post-consumer waste fiber vs. virgin fiber

Aspen Skiing Company Sustainability Report saved the following resources by using New Leaf Imagination (FSC), made with 100% recycled fiber and 100% post-consumer waste, processed chlorine free, and manufactured with electricity that is offset with Green-e® certified renewable energy certificates.

trees	water	energy	solid waste	greenhouse gases
<b>14</b>	<b>5,876</b>	10	650	<b>1,284</b> pounds
fully grown	gallons	million Btu	pounds	

Calculations based on research by Environmental Defense Fund and other members of the Paper Task Force.

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