

SUSTAINABLE SLOPES

NATIONAL
SKI AREAS
ASSOCIATION



ANNUAL REPORT

JULY, 2006



THE ENVIRONMENTAL CHARTER
FOR SKI AREAS

Sustainable Slopes Annual Report 2006

Prepared by

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ASSOCIATION



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The NSAA wishes to thank the following resorts for their time and dedication in completing the self-assessment process:

Alta Ski Area	Mt. Ashland
Attitash	Mt. Hood Meadows Ski Resort
Beaver Creek Resort	Mt. Rose - Ski Tahoe
Belleayre Mountain	Northstar-at-Tahoe
Blue Mountain	Pats Peak
Bretton Woods Mountain Resort	Powderhorn Resort
Bridger Bowl Ski Area	Snowbird Ski & Summer Resort
Bromley Mountain Resort	Snowshoe
Cataloochee Ski Area	Squaw Valley USA
Copper	Steamboat Ski & Resort Corporation
Crested Butte Mountain Resort	Stevens Pass
Crystal Mountain	Stowe Mountain Resort
Crystal Mountain, Inc.	Stratton
Deer Valley Resort Company	Sugar Bowl Resort
Durango Mountain Resort	Sugarbush Resort
Gore Mountain	Sunburst Ski Area
Grand Targhee Resort	Taos Ski Valley, Inc.
Greek Peak Mountain Resort	Telluride Ski & Golf Resort
Heavenly Mountain Resort	The Canyons Resort
Hunter Mountain	Tremblant
Jackson Hole Mountain Resort	Waterville Valley Resort
Keystone Resort	Whistler Blackcomb
Kirkwood Mountain Resort	Whiteface
Mammoth	Winter Park
Mission Ridge Ski & Board Resort	Wintergreen Resort
Montana Snowbowl	Wisp Resort
Mountain High Resort	

2006 HIGHLIGHTS

Vision:

To be leaders among outdoor recreation providers through managing our businesses in a way that demonstrates our commitment to environmental protection and stewardship while meeting the expectations of the public.

The National Ski Areas Association (NSAA) is pleased to present this sixth *Annual Report* on the Sustainable Slopes Environmental Charter for Ski Areas. The Environmental Charter, commonly known as Sustainable Slopes, was adopted in June 2000 and revised in 2006 as a collection of environmental best practices for ski area owners and operators (visit www.nsaa.org for information on the Environmental Charter). The purposes of this *Annual Report* are to provide information on resorts' progress in implementing the Environmental Principles of the Charter, highlight the contributions of our partners, and set goals for the future.

To date, 180 resorts have endorsed the Environmental Charter, representing over 75 percent of the ski resorts nationally by skier visits. Upon endorsing the Charter, these resorts have identified an environmental contact person, assessed their policies and operations against the Environmental Principles in the Charter, and have taken steps toward improved environmental performance. Given variances in size, technical expertise, financial resources, and geographic location, resorts are at different points with respect to their environmental programs and implementing the Environmental Principles. The challenge of this *Annual Report* is to collectively report on progress to date despite these resort differences.

NSAA released an updated Environmental Charter in January of 2006. The 2006 Charter contains updated principles and "options for getting there," and reflects the latest technologies and best management practices for resorts to follow. The 2006 Charter also includes a Climate Change Policy adopted by the ski industry in 2002 to raise awareness of the potential impacts of global warming. The policy encourages action to reduce greenhouse gas emissions.

NSAA is thankful to all who participated in updating the Charter, including NSAA's Environmental Committee, Partnering Organizations, and other interested parties. The revision has renewed the ski industry's commitment to environmental stewardship and will foster continued improvement in our environmental performance.

Consistent with past seasons, NSAA used an environmental Assessment Tool to collect data from resorts relating to the Principles of the Environmental Charter. This year's tool, like last year's, focused on quantitative, rather than qualitative, data collection. For a sample copy of the 2006 Assessment Tool, visit www.nsaa.org and click on "Environmental Charter." A total of 53 resorts completed the tool this year, and the Assessment Tool results are the factual basis for this *Annual Report*. Over the past 6 years, the Assessment Tool has helped us identify general industry trends and collective results regarding our progress under the Principles. Additionally, the tool has been useful to resorts on an individual basis in helping them identify successes and opportunities



for improvement, setting priorities for the future, and in benchmarking their progress against other resorts.

The primary focus of the Sustainable Slopes program this past season was furthering the Keep Winter Cool campaign to fight global warming. We are pleased to have a new partner on board with the Keep Winter Cool campaign—energy bar maker Clif Bar & Co. Together with the Natural Resources Defense Council (NRDC) and Clif Bar, NSAA released a Keep Winter Cool Resource Guide in the fall of 2005 to encourage more resorts to engage customers in the fight against global warming by selling Green Tags (see www.skigreen.org) and Cool Tags (see www.clifbar.com) to guests. Through the campaign, resorts raise public awareness of the potential impacts of climate change on skiing, snowboarding, and winter recreation and highlight solutions for addressing global warming.

Also helping spread the Keep Winter Cool message this season were a series of public service announcements starring Olympic Gold medalist Picabo Street; Dave Downing, Jeremy Jones, and Romain De Marchi (three top riders); and telemark national champion and Clif Bar athlete Leslie Ross. The public service announcements feature breathtaking scenery and encourage the public to do its part in keeping winter cool. The public service announcement project was a collaboration among Resort Sports Network (RSN), Burton and Rossignol Snowboards, NRDC, Clif Bar, and NSAA. NRDC distributed DVDs to all resorts last year and the RSN network and Fuel TV ran the announcements as well. In addition to the announcements, we feature on-line athlete testimonials about how to help fight global warming on the NSAA and Keep Winter Cool websites (www.nsaa.org and www.keepwintercool.org, respectively).

The Keep Winter Cool campaign has international appeal and served as the model for similar campaigns launched this year in Canada and Australia. Clean Air Champions in Canada, a non-profit organization inspiring Canadians to “slow climate change, reduce air pollution and improve their health by choosing active lifestyles” received permission from NSAA and our partners this year to use the Keep Winter Cool messages and campaign to help spread the word to our neighbors to the north. Clean Air Champions partners with the Ontario Snow Resorts Association, Blue Mountain Resort, and other Canadian members of the Ontario Ski Resorts Association. The Australian Ski Areas Association, with NSAA’s permission, adopted the key components of our Sustainable Slopes Environmental Charter this year, including our policy on climate change. In addition, Australia launched a Keep Winter Cool campaign just last month at the start of its ski season. Ideally, the U.S. Ski Industry would like to see other countries adopt the Keep Winter Cool campaign to raise awareness of this important issue on any part of the globe that offers skiing and snowboarding.

In addition to advancing the Keep Winter Cool campaign, a major focus for the Sustainable Slopes program this year was encouraging resorts to release their own individual annual reports on the environment. Individual reporting was one of the goals identified in last year’s *Annual*



Report. With the assistance of the Brendle Group, NSAA developed a annual report template for resorts to use in issuing their own environmental reports. NSAA offered training on the template and the newly issued 2006 Sustainable Slopes Resource Guide during the Eastern and Western Winter Conferences in February and March of 2006.

After much reflection, NSAA is planning some major changes to the Sustainable Slopes program in the coming years. Over the past 6 years, we have dedicated significant time and resources to measuring and reporting on a collective basis through the Assessment Tool and *Annual Reports*. While this data collection effort has been meaningful and helpful, it is time to shift the focus to individual resort accountability and more concrete results.

In future years, we plan to dramatically increase our focus on energy and climate change-related projects. Rather than dedicate resources to data collection, NSAA will work to significantly increase the number of resorts purchasing green energy for their operations, significantly increase the sale of Green Tags and Cool Tags and similar products to our customers, and provide assistance to smaller resorts interested in energy efficiency and green energy. Through all of these changes, we hope to make a difference in the fight against global warming, improve the Sustainable Slopes program, and ultimately improve the industry's environmental performance across the board.

While major changes lie ahead, many of the core components of the Sustainable Slopes program will remain intact. For example, NSAA will continue to offer the Sustainable Slopes Assessment Tool for resorts to use individually, and will continue to provide calculations of CO₂ reductions for resorts that access the tool to measure the climate benefits of their programs. NSAA also will continue to highlight ski area environmental programs through the web-based Green Room (to access the Green Room, visit www.nsaa.org and click on Environmental Charter). The Green Room is available to the media and the public for information on innovative actions that resorts are taking under the 21 Environmental Principles—from water quality to wildlife habitat to energy conservation. Finally, NSAA will continue to communicate on the progress of the program and, in particular, our successes in meeting established goals with respect to resort participation in our new energy and climate change-related programs.

On a related front, NSAA's SWAG, or Sharing Warmth Around the Globe, program continues to be successful and offers a unique opportunity for resorts to demonstrate their commitment to sustainability. Through the SWAG program, NSAA distributes retired ski resort uniforms and winter garments that would otherwise be discarded to those in need in cold weather countries throughout the world. Since the program's inception, more than 88,500 uniforms and winter garments have been shipped to communities in need in Nepal, Kosovo, Tajikistan, Mongolia, Afghanistan, Sweden, Tibet, Hungary, Tanzania, Poland, Romania, Peru, Iran, Iraq, Pakistan, and Albania.



On behalf of ski areas across the country, NSAA would like to thank all of the individuals, organizations, and agencies outside the industry that have supported Sustainable Slopes with resources, expertise, and input. We want to particularly thank our fourteen Partnering Organizations for the experience and resources they bring to the program, and our Keep Winter Cool Partners, NRDC and Clif Bar & Co., for energizing this important initiative (see Chapter 3 for more detailed information on the contributions of the Partnering Organizations). We continue to strive to raise the bar and make our operations as sustainable as possible. We look forward to working with participating resorts and our Partnering Organizations to address the challenges of the future.

"We continue to strive to raise the bar and make our operations the most sustainable operations they can be."

Michael Berry

National Ski Areas Association President
July 2006



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1.0 THE SUSTAINABLE SLOPES ENVIRONMENTAL CHARTER

1.1 HISTORY AND PURPOSE OF THE CHARTER

Every year, millions of people visit ski areas across North America to enjoy snow sports and to experience the natural beauty of the mountain environment. These visitors place a high priority on environmental concerns. In order to continue to offer quality recreational experiences that complement the natural and aesthetic qualities that draw these visitors to the mountains, the National Ski Area Association (NSAA) and its member resorts have committed to improving environmental performance in ski area operations and management. This commitment is detailed in the Sustainable Slopes Environmental Charter for Ski Areas adopted in June 2000 and revised in 2006.

1.2 OVERVIEW OF ENVIRONMENTAL CHARTER

The Environmental Charter promotes sound environmental stewardship and, more importantly, offers a comprehensive set of 21 Environmental Principles that enable ski area operators to make sustainable use of natural resources. The Principles are key to the Environmental Charter and address the following topics:

1. Planning, Design, and Construction
2. Water Use for Snowmaking
3. Water Use in Facilities
4. Water Use for Landscaping and Summer Activities
5. Water Quality Management
6. Wastewater Management
7. Energy Use for Facilities
8. Energy Use for Snowmaking
9. Energy Use for Lifts
10. Energy Use for Vehicle Fleets
11. Waste Reduction
12. Product Re-use
13. Recycling
14. Potentially Hazardous Wastes
15. Fish and Wildlife Management
16. Forest and Vegetative Management
17. Wetlands and Riparian Areas
18. Air Quality
19. Visual Quality
20. Transportation
21. Education and Outreach

Understanding that ski areas have some unavoidable impacts, the Principles encourage ski areas to adopt the “avoid, minimize, mitigate” approach to natural resource management.

To see the Charter and its Principles in their entirety, visit the NSAA web site at www.nsaa.org.



1.2 Overview of Environmental Charter

For each of the 21 Environmental Principles, the Charter identifies a range of "Options for Getting There" that resorts can implement to achieve the Principles. These "Options for Getting There" serve as a menu of realistic actions ski areas can and are taking, all or in part as their resources allow, to continually improve their operations. The "Options for Getting There" are detailed for each of the 21 Principles in the Charter document available at www.nsa.org.

Because not all resorts have the same concerns and resources, the Charter is designed to allow resorts to use the Principles as a framework and then choose the "Options for Getting There" that make the most sense given their individual circumstances and capacities. We hope that each resort continues to take the challenge to achieve the greatest possible results individually for greater conservation collectively.

It is important to note that the Charter's Principles are voluntary, and in adopting them, resorts have committed to going beyond regulatory compliance in those areas where improvements make environmental sense and are economically feasible. Ski areas already should be meeting all applicable federal, state, and local environmental requirements. The Principles are the means by which the industry can collectively *improve environmental performance*. There are many incentives for going beyond compliance, including reduced environmental impacts, increased monetary savings, reduced regulatory liability, and increased positive public image. Good environmental practices are good business, and quite simply are expected by resort customers, the Partnering Organizations in the Charter, and other key stakeholders.



1.3 PARTNERING ORGANIZATIONS

The Environmental Charter was developed through a collaborative process where input and awareness, not necessarily consensus on every issue or by every group, were the goals. This process was facilitated by the Keystone Center, an independent non-profit public policy and education organization. Input came from a variety of interests, including federal, state, and local government agencies; environmental and conservation groups; other outdoor recreation groups; and academia. The 14 Partnering Organizations listed below support the ski industry's Environmental Principles and are committed to working with the industry to implement the Principles.

- Bonneville Environmental Foundation (BEF)
- Colorado Department of Public Health & Environment (CDPHE)
- Conservation Law Foundation (CLF)
- U.S. Department of Energy (DOE)
- U.S. Environmental Protection Agency (EPA)
- USDA Forest Service (USFS)
- Leave No Trace Inc. (LNT)
- The Mountain Institute (TMI)
- National Fish & Wildlife Foundation (NFWF)
- National Park Service Concession Program (NPS)
- New York State Department of Environmental Conservation (NYSDEC)
- Teton County, Wyoming (TC)
- Trust for Public Land (TPL)
- Wildlife Habitat Council (WHC)

1.4 ENDORSING RESORTS

On an individual basis, ski areas take their stewardship role seriously and continue to take innovative steps each year to address environmental challenges. The Charter represents a collective step toward meeting these challenges. To date, 180 ski areas have endorsed the Charter and are committed to implementing its Principles. (See Appendix A for a complete list of endorsing resorts. This list is also available online and can be sorted by resort name or State/Province location at



www.nsaa.org.) Of the endorsing ski areas, 53 (29.4 percent) participated in the data collection exercise that is the basis for this *Annual Report*. This is 1 resort fewer than the 54 resorts that participated in last year's annual reporting. Chapter 4 addresses NSAA's plans to improve endorsing resort participation as the Environmental Charter moves into the future.

1.5 MEASURING PROGRESS TOWARD THE PRINCIPLES

To help resorts measure their progress under the Environmental Charter, in 2006 NSAA used the same streamlined Assessment Tool used in 2005. Using a version of the Tool identical to the previous two years was intended to promote resorts' response rates in two ways. First, the resorts were more familiar with the data requested by the tool given its use in 2 consecutive years. Second, by requesting the same data, all endorsing resorts were aware of the information they would need to collect in advance of the ski season. Once again, each resort had the option of completing the Assessment Tool on-line at the NSAA web site or submitting a hard copy by fax or mail. As in the past, the results were aggregated across all participating ski resorts and analyzed according to geographic regions.

In its sixth year, the Assessment Tool continues to be an evolving tool. We continue to incorporate feedback from resorts, Partnering Organizations, and previous years' reports so that the tool improves with each successive year (see Chapter 4). For example, the sample savings calculations updated in the 2005 Tool Instructions and the repeated use of the 2004 version of the tool were two ideas suggested by resorts to increase participation and understanding of the tool. Two years ago the tool was streamlined so that resorts no longer reported qualitatively on the 177 best management practices across the 21 Principles of the Charter, reducing the number of questions resorts had to answer by over 200 compared to versions of the tool prior to 2004. Resorts continued to indicate that the qualitative best management portion of the Assessment Tool is a valuable method for internal benchmarking. For this reason, this information continues to be available on the NSAA web site, but data from this portion were again not compiled and analyzed as part of this *Annual Report*.

The quantitative measurements of this year's Environmental Indicators Form 1 again focused on *savings or reductions* from individual projects. Reporting was specific to projects of water savings (consumptive/non-consumptive), electric energy savings, renewable generation and purchases, waste recycling and reduction, and transportation demand reduction. Based on their responses in these categories, resorts were given feedback on the climate change impacts of their efforts to put the savings from their projects into perspective. For example, the resorts' climate change impacts were compared to benefits of tree planting, carpooling, shutting down ski lifts when not in use, and



avoiding air travel. Our overall goal continues to be tracking all of these issues as Environmental Indicators. These responses allow us to quantify some basic metrics associated with core Environmental Principles. We asked that resorts provide numbers that reflect using certain resources in their individual operations. The intent of these numbers remains the same – to allow better year-to-year comparisons. Similar to past years, many resorts reported that certain numbers on Form 1 are difficult for them to provide. As a result, many “o” figures again appear in this year’s data.

For more information on “Keep Winter Cool,” visit www.keepwintercool.org.

1.6 “KEEP WINTER COOL” AND GLOBAL WARMING

Global warming, caused by heat-trapping pollution, has the potential to affect ski resorts in many ways over the long term, including fewer ski days and less snow. Because of these potential impacts, ski resorts and NSAA have taken proactive steps to address climate change and global warming. Seventy-one ski resorts from 21 states supported pioneering bipartisan legislation introduced in the 109th U.S. Congress to control global warming pollution. In 2003, together with the Natural Resources Defense Council (NRDC), NSAA introduced a global warming campaign entitled “Keep Winter Cool.” This campaign highlights the effects of global warming on winter recreation, as well as the opportunities both resort operators and their guests have to start solving the problem. More information on the campaign is available at www.keepwintercool.org, including details about the global warming impacts on resorts, climate facts, how ski resorts are addressing global warming issues, and what resort guests can do about global warming. During the 2004-2005 season, the campaign received support from NRDC Senior Attorney Robert F. Kennedy, Olympic Champion Picabo Street, and professional snowboarders Dave Downing, Jeremy Jones, and Romain De Marchi. These athletes were also featured in a series of public service announcements (PSAs) in DVD format. The PSAs feature breathtaking scenery and encourage the public to do their part in keeping winter cool. The PSA project was a collaboration among Resort Sports Network (RSN), Burton and Rossignol Snowboards, Natural Resources Defense Council (NRDC) and NSAA. The RSN network and Fuel TV ran the PSAs this past season. In addition to the PSAs, we now feature on-line athlete testimonials about how to help fight global warming on the NSAA (www.nsaa.org) and Keep Winter Cool (www.keepwintercool.org) websites. Appendix C contains materials related to the campaign.



New this season, NSAA is pleased to have a new partner on board with the Keep Winter Cool campaign—energy bar maker Clif Bar & Co. Together with our partners, NRDC and Clif Bar, NSAA released a Keep Winter Cool Resource Guide in the fall of 2005 to encourage more resorts to engage customers in the fight against global warming by selling Green Tags and Cool Tags to guests (<http://www.keepwintercool.org/whatcanido.html>). Through the campaign, resorts raised public awareness of the potential impacts of climate change on skiing, snowboarding and winter recreation and highlighted solutions for addressing it. Leslie Ross, telemark



1.6 “Keep Winter Cool” and Global Warming

national champion and Clif Bar athlete, also joined the previously mentioned athletes in supporting the campaign this year.

The KWC Campaign apparently has international appeal and served as the model for similar campaigns launched this year in Canada and Australia. Clean Air Champions in Canada, a non-profit organization inspiring Canadians to “slow climate change, reduce air pollution and improve their health by choosing active lifestyles” received permission from NSAA and our partners this year to use the Keep Winter Cool messages and campaign to help spread the word to our neighbors to the North. CAC partners with the Ontario Snow Resorts Association, Blue Mountain Resort, and other Canadian members of the Ontario Ski Resorts Association. The Australian Ski Areas Association, with NSAA’s permission, adopted the key components of our Sustainable Slopes Environmental Charter this year, including our policy on Climate Change. In addition, Australia launched a Keep Winter Cool campaign just last month at the start of their ski season. Ideally the U.S. Ski Industry would like to see other countries adopt the Keep Winter Cool campaign to raise awareness of this important issue on any part of the globe that offers skiing and snowboarding.

Many of the measures implemented by resorts as part of the Environmental Charter are directly related to this campaign and are beneficial for reducing global warming, particularly in the areas of managing energy, using renewable energy, reducing transportation demands, reducing solid waste, and recycling. In order to integrate the results of the Assessment Tool with this campaign, resorts were asked again this year to provide certain information to estimate climate change impacts, along with the other estimated industry-wide Environmental Indicators. For example, resorts were asked to indicate the breakdown of vehicle types (e.g., gas, diesel, hybrid electric, etc.) involved in their various transportation demand reduction strategies. The Assessment Tool then used this information to automatically convert the miles reduced into pounds of equivalent carbon dioxide (CO₂), a unit used to measure climate change impacts. Overall, data reported for climate change impacts focused on electric energy savings, renewable generation/purchases, waste reduction/recycling, and transportation demand reduction. As with the other Environmental Indicators previously discussed, some resorts reported that factors related to climate change impacts on Form 1 are difficult for them to provide.



1.7 "SHARING WARMTH AROUND THE GLOBE" PROGRAM

For more information on "Sharing Warmth Around the Globe," visit www.swagusa.org

As previously noted, principles reducing waste, re-using products, and recycling are key to the Environmental Charter. NSAA's "Sharing Warmth Around the Globe" (SWAG) program incorporates these key principles with the social aspects of sustainability. SWAG is dedicated to distributing retired ski resort uniforms to those in need in cold weather countries throughout the world. NSAA's partners in the SWAG program are listed below:



- U.S. Department of Defense
- Humanitarian International Services Group
- Catholic Relief Services
- Project C.U.R.E.
- Vision International
- Asia Foundation
- Eagle Creek Travel Gear
- International Mountain Explorers Connection
- Assist International
- Boojum Expeditions
- H.E.L.P. International
- Samaritans Purse
- Heuga Center
- Snowboard Outreach Society
- Colorado Business Roundtable/Cap Logistics
- Nepalese Youth Opportunity Fund
- Hungarian Counsel

SWAG has been distributing donations around the world since 2000. The 2005-2006 distributions helped people all over the world:

- Mongolia: approximately 8,200 pieces donated
- Russia: 3,000 pieces donated
- Poland: 6,000 winter uniforms distributed to 19 organizations, including orphanages, homes for the disabled, and centers for the elderly
- Tanzania: 300 winter jackets made available to porters for climbs of Mount Kilimanjaro
- Hungary and Romania: approximately 4,000 winter garments distributed to orphanages, homes for the elderly, and women's shelters
- Romania: 5,000 winter uniforms distributed
- Peru: 1,000 winter uniforms transported



1.7 "Sharing the Warmth Around the Globe" Program

- Nepal: 70 winter uniform coats donated
- Iran: 3,500 uniforms distributed to earthquake victims in Bam
- Albania: approximately 2,500 winter garments, 300 pairs of skis, 50 wheelchairs and miscellaneous winter clothing pieces distributed
- Iraq: 2,000 pieces distributed in the northern part of the country
- Mongolia and Armenia: 2,700 winter garments distributed
- Romania and Nepal: 2,500 winter garments distributed



Ski areas that participate in SWAG include the following:

<i>Aspen Airport Base Operations</i>	<i>Powderhorn Recreation and Development</i>
<i>Aspen Mountain</i>	<i>Schweitzer Mountain Resort</i>
<i>Bear Valley Mountain Resort</i>	<i>Sierra at Tahoe</i>
<i>Beaver Creek Resort</i>	<i>Sierra Summit</i>
<i>Bogus Basin</i>	<i>Smugglers Notch Resort</i>
<i>Breckenridge Ski Resort</i>	<i>Snowbasin</i>
<i>Buttermilk Mountain</i>	<i>Snow Creek Ski Area</i>
<i>Copper Mountain</i>	<i>Snow Summit Mountain Resort</i>
<i>Crested Butte</i>	<i>Solitude</i>
<i>Crystal Mountain</i>	<i>Squaw Valley USA</i>
<i>Dodge Ridge</i>	<i>Steamboat</i>
<i>Grand Targhee</i>	<i>Stowe Mountain</i>
<i>Heavenly Ski Resort</i>	<i>Sugar Bowl Ski Resort</i>
<i>Jackson Hole Mountain Resort</i>	<i>Sugarbush Resort</i>
<i>Jay Peak Resort</i>	<i>Sugarloaf</i>
<i>Keystone Resort</i>	<i>Sundown Mountain Ski and Snowboard Resort</i>
<i>Killington</i>	<i>Taos Ski Valley</i>
<i>Kirkwood Mountain Resort</i>	<i>Telluride Ski & Golf Resort</i>
<i>Loop Mountain</i>	<i>Terry Peak</i>
<i>Mammoth Mountain</i>	<i>Titcomb Mountain</i>
<i>Monarch Ski and Snowboard Area</i>	<i>Vail Mountain</i>
<i>Mount Snow</i>	<i>Wachusett Mountain Ski Area</i>
<i>Mount Sunapee</i>	<i>Willamette Pass Ski Corporation</i>
<i>Osler Bluff Ski Club</i>	<i>Windham Mountain</i>
<i>Park City Mountain Resort</i>	<i>Winter Park</i>

For more information on how to participate in the program and contacts for the program, visit the program's website at www.swagusa.org.



2.0 CHARTER PROGRESS AND CHALLENGES

A total of 53 resorts from 18 U.S. states and 3 Canadian Provinces completed the Assessment Tool in 2006 and have reported on their progress toward achieving the goals of the Charter. Chapter 4 outlines NSAA's future plans to create sources of new momentum for this maturing voluntary program while also continuing efforts to aggregate meaningful data in support of industry benchmark developments.

2.1 SUMMARIES OF RESORT PROGRESS

Alta Ski Area Utah

This year, Alta replaced the old Watson Shelter mid-mountain restaurant. The goal was to create an efficient, sustainable, high-performance building and inform the public on steps Alta is taking to integrate environmentally sound practices into the community. Some of the building features are listed below:

- The Watson Shelter was built on a previously disturbed site and Alta revegetated the old location with a native seed mix. The resort also planted an additional 1,200 native trees and shrubs throughout the ski area.
- The new facility maximizes recycling.
- Using local building materials, including previously excavated stone from Alta, limited transportation energy consumption.
- A non-chemical UV domestic water sterilization system eliminates the use of harmful chemicals.
- New waterless urinals provide savings of 40,000 gallons per year per unit.
- No chemical compounds, including residual salt or sulfides, are used for melting ice and snow around the building.
- Where daylight cannot be maximized, the building has T28 energy efficient fluorescent bulbs with occupancy sensors.
- Energy efficient windows have Low-E glass, double thermal break frames, argon gas-filled panes, and a U-factor of 0.28.
- The building's high-efficiency boilers maintain a 90 percent efficiency rating with 25 percent savings in fuel and emissions.

***Alta's
waterless
urinals save
40,000
gallons of
water per***



2.1 Summaries of Resort Progress

- A computer controlled heating and ventilation system with direct digital automatic temperature controls reduces energy consumption.

Alta Ski Area is the first and only ski area to be recognized as a member of Salt Lake City's e2 environmental monitoring program. The resort also has begun implementing recommendations from an energy audit with Utah Power.

Future goals include pursuing alternative energy sources and starting an environmental research center to study the local ecosystem.

Attitash Bear Peak New Hampshire

Attitash continues to plan and promote environmental improvements, and several examples of work in progress and work ahead are outlined below:

- **Snowmaking.** During the 2005/2006 season, Attitash regularly alternated between electric air compressors and diesel air compressors for snowmaking to manage use and demand. The resort plans to continue this practice next season as well.
- **Carpool Program.** For the 2006-2007 season, Attitash plans to implement a staff carpool program through which staff members can earn money back from the company by carpooling on their daily commute.
- **Recycling Review.** The resort is scheduled to undergo a comprehensive recycling review with an outside agency this summer. The resulting recommendations and timelines will be incorporated at some level into the resort's business plan.
- **Comprehensive Energy Use Audit.** Attitash also is scheduled to undergo a comprehensive energy audit with an outside agency this summer. The resulting recommendations and timelines will be incorporated at some level into the resort's business plan.
- **Low Energy Custom Rebate.** The resort is entering into a rebate plan with New Hampshire Electric Co-op whereby it may earn money toward capital purchases of low-energy snowmaking equipment annually by committing to purchase and actively use this equipment.

Belleayre Mountain New York

Belleayre Mountain continues its progressive approach toward sustainable slopes. In following the NSAA Sustainable Slopes Charter, several environmental initiatives and improvements took place during the 2005-2006 season.



- The resort has increase its recycled office paper use from 50 percent to 75 percent.
- Several hundred native trees were planted on the mountain to minimize visual impact and provide erosion control.
- In addressing climate change caused by greenhouse gas emissions, the resort has replaced six four-stroke snowmobiles with two-stroke engines for ski patrol and snowmaking crew use.
- The resort has added 35 low-energy guns to its arsenal of snow guns.

In looking to the future, Belleayre Mountain is planning to construct the new Discovery Lodge scheduled for ground breaking during the summer of 2007. An overall design minimizing visual impact and maximizing energy efficiency in the water, lighting and heating systems is underway.

Also, in support of renewable energy sources, Belleayre Mountain will be switching to soy-based biodiesel in all on-mountain diesel powered machinery for the 2006-2007 season.

Blue Mountain Ski Area Ontario, Canada

In 2005-2006, Blue Mountain continued to focus on increasing its diversion of waste from the landfill. The resort eliminated take-away polystyrene containers from all staff cafeterias and offered reusable containers to employees as an alternative. Blue Mountain also implemented a program with its Housekeeping Department to collect partially-used room amenities to donate to local charitable organizations, such as women's shelters. Blue Mountain changed waste service providers to further increase the number of recyclables captured (i.e., batteries and waxed paper). Improved training and communication on recycling and composting programs also have helped to increase the diversion rate to approximately 60 percent.

In addition, Blue Mountain expanded the Keep Winter Cool program this year. Green Team representatives developed a workshop for local students to educate them about the potential impacts of climate change. The resort hosted a Keep Winter Cool art contest, and winners were awarded prizes and their artwork was displayed at the resort during March Break. A more interactive Keep Winter Cool event also was hosted at the resort this year.

Blue Mountain has continued to retrofit all remaining areas with compact fluorescent and LED lighting. Furthermore, the resort currently is involved in an Energy Reduction Pilot Project with its utility company, which will be a primary focus for the upcoming year.



Bretton Woods Mountain Resort New Hampshire

In preparing to welcome new ownership and to expand the Bretton Woods Village, resort staff has been working diligently to position the resort as a leading environmental steward for the area.

Steps taken so far include developing a comprehensive Spill Prevention Control and Countermeasure Plan (SPCC Plan) for the entire resort, completing an independent hazardous waste audit, participating in the State of New Hampshire Department of Environmental Services Hazardous Waste Small Quantity Generator program (NHDES-HAZMANT-SQG), and cleaning up all debris sites on resort property.

In the near future, the resort intends to install secondary containment for all existing aboveground storage tanks (ASTs); implement a spill response training program; develop standard operating procedures for fueling tanks and vehicles, performing routine oil changes, and identifying, containing, and removing hazardous wastes.

Other areas of progress include the following:

- **New Reznor Waste Oil Furnace.** Located in the Ski Area Maintenance facility, this furnace burns over 2,000 gallons of waste oil generated by resort operations. The resort no longer pays to transport and recycle this oil, and it has cut heating costs on the Maintenance building by over 45 percent.
- **Valley Pride Day.** Resort employees, friends of the community, and local home owners teamed up for an annual roadside litter clean up. Once the work was completed, everyone was invited back to the Mount Washington Hotel for an appreciation cook-out and prize raffle. Valley Pride Day was a great success and Bretton Woods' commitment to the program will continue in the future.

Bridger Bowl Ski Area Montana

Resort changes for 2006 include logging over snow only to reduce ground disturbance and making plans to use biodiesel next season.

Bromley Mountain Resort Vermont

At Bromley Mountain, water saving strategies, including using low-flow fixtures, self-closing faucets, and pressure reduction and control devices, continue to provide significant benefits in terms of reduced demand and reduced wastewater treatment and disposal. A long-term goal remains to install filtration equipment to provide recycled flush water for all base lodge toilets.

The resort realizes electrical energy savings primarily through replacing existing equipment with new, energy-efficient equipment from light fixtures up to and including large horsepower motors for lifts,



compressors, and pumps. The load management equipment, while not reducing overall energy use, reduces the peak demand by 15 to 20 percent on any given day.

In addition, the resort substantially increased waste diversion by separating out metal in addition to corrugated cardboard. The higher value of scrap metal provided a good cost/benefit scenario.

Although shuttle bus use this past year was lower, thereby reducing the number of avoided vehicle miles traveled, the resort will continue the service and expects substantial participation next season in view of increasing motor fuel prices.

On the whole, Bromley plans to continue its conservation and recycling programs and will use renewable energy sources as they become available.

Cataloochee Ski Area North Carolina

The biggest improvement Cataloochee has made in the past year is to replace 2,500 HP compressors with 250 HP fan guns for snowmaking. This change has saved considerable electric costs and 100 gpm of water preciously used for cooling.

Copper Colorado

This year, Copper made a renewed commitment to environmental stewardship by hiring an environmental manager. In keeping with this commitment, the resort's approach for 2005-2006 was a back-to-basics focus on understanding current environmental impacts and programs, increasing recycling efforts, and beginning to educate employees and guests on Copper's environmental values. For 2006-2007, Copper plans to produce its first sustainability report detailing current impacts and future goals, purchase renewable energy credits, and continue to increase environmental awareness among guests and employees.

A specific example of Copper's efforts is the resort's purchase of three fuel-efficient buses to move guests from the parking lots throughout the resort. These commuter buses are almost 60 percent more efficient per passenger than other resort buses.

Crested Butte Mountain Resort Colorado

Crested Butte Mountain Resort has added another 110 energy efficient HKD tower snowmaking guns for a total of 180. In addition, the resort has spent 1.6 million dollars on the snowmaking system to increase efficiency and reduce electricity use. Crested Butte also is buying green power in the coming season to operate one detachable quad chairlift at the resort. In addition, during the 2005-2006 season, the resort encouraged guest carpooling by offering free parking for cars with four or more people. Crested Butte also is planning to intensify a resort-wide recycle program.



2.1 Summaries of Resort Progress

Because Crested Butte is very active in preserving Open Space, one-percent of its Food and Beverage and Retail sales is donated to a local group called One Percent for Open Space. Also, four percent of resort Prospect development real estate sales is divided and donated to the Rocky Mountain Biological Laboratory (RMBL), the Legacy Fund, and the Crested Butte Land Trust.

Crystal Mountain Michigan

Crystal Mountain has formed an official green team to investigate and encourage further improvements at the resort, and the team is hopeful that it can report additional concrete results next year.

Crystal Mountain, Inc. Washington

Crystal continues with water conservation efforts that began in 1985. The resort estimates that it has saved more than 45 million gallons of water since the program started. In addition, Crystal eliminated broadcasting over 5,600 yards of road sand annually since 2001 by using a chemical de-icing agent on 6 miles of the access road. This change improved vehicle traction and reduced accidents by 95 percent a year.

Durango Mountain Resort Colorado

Purgatory at Durango Mountain Resort continues to set the mark for environmental conservation efforts in southwest Colorado by upgrading and streamlining programs under the direction of the Environmental Practices Committee. As a result, the resort was a finalist for two Silver Eagle awards, one for Recycling and one for Water Conservation.

The resort continues to provide a recycling station for all north La Plata County residents and businesses. Better marked and more frequent collection bins, increased signage for guest awareness, and improved employee education at orientation have contributed to an increase in recycling and a corresponding reduction in waste. Oil and oil filters, both considered hazardous materials by the EPA when discarded, also are recycled for all resort equipment. Recycling assures these materials will not be improperly discarded into landfills, taking up valuable space and posing a threat of seeping into ground water.

In addition, the resort reduced its volume of trash sent to the landfill by a massive 25 percent, or 550 tons, in 2004-2005. Even with such large gains, the resort improved on that amount again in 2005-2006, diverting 605 tons from the landfill for a 10 percent increase.

Water conservation has been a part of resort policy since its inception. As practices and technologies have improved over time, Durango Mountain has stayed at the forefront of efficient water use and seeks to continue to improve each year to reach maximum water use efficiency under normal resort operations.



A high output, energy efficient fan gun was the newest addition to the snowmaking system in an effort to continually improve output while reducing energy costs. In addition, resort polices have been streamlined and staff more expertly trained regarding water use around the resort, including housekeeping practices.

Durango Mountain continues to improve on its water and energy conservation practices. However, the resort was challenged this past season with a lack of early snowfall forcing it to extend its snowmaking efforts beyond the normal operating season.

During the 2005-2006 winter season, Durango Mountain continued using biodiesel in on-mountain machinery as well as in the bus fleet, one of only three resorts in Colorado and a handful nationwide to do so. The resort upped its use of biodiesel from 19,000 gallons last year to 22,000 gallons this year. The 20 percent (B20) biodiesel blend currently used in resort machinery reduces particulates, carbon monoxide, and hydrocarbons approximately 20 percent compared to petroleum diesel.

Other efforts to reduce greenhouse gas emissions included purchasing six four-stroke snowmobiles. The resort increased the number of four-strokes in the fleet from 30 percent to 55 percent this season, and will continue until the changeover is complete.

The greatest gains in reducing greenhouse gas emissions were seen in resort bus and carpool programs. Along with running two round-trip buses during the 2005-2006 season, 35 percent of Durango Mountain employees use the carpool program daily. These efforts totaled a savings of 621,000 vehicle miles traveled on the 25-mile trip between the resort and downtown Durango.

In other conservation efforts, Durango Mountain's state-of-the-art air quality monitoring system (likely the only one of its kind in Colorado) continues to ensure the San Juan Mountains maintain some of the cleanest air in the country.

Gore Mountain New York

Gore Mountain continues to make progress under the Charter using modern technology and operational efficiencies to reduce energy consumption. Nearly all resort waste is reduced, reused for other purposes, or recycled. The resort continues to educate the public and its employees through environmental interpretive programs. The resort also conducts watershed monitoring and implements best practices in strategic and land use planning.

Grand Targhee Resort Wyoming

Resort progress this year has been spirited by writing and adopting the Grand Targhee Sustainability Charter. Highlights of this year include the following:

***Grand Targhee
is going with
biodiesel in
groomers and
buses.***



2.1 Summaries of Resort Progress

- Using biodiesel fuel in the diesel fleet of groomers and busses
- Installing a solar array to determine future viability of solar energy production for the resort
- Contracting to purchase 25 percent of electricity as green energy
- Introducing corn starch cups and bags to replace plastic products
- Working with the U.S. Forest Service to treat over 200 acres of old growth Douglas-fir with beetle pheromone
- Distributing \$11,000 to non-profit environmental projects through the Environmental Foundation and the resort

This coming year, Grand Targhee plans to produce an annual sustainability report for the public, complete a lighting audit and retrofit buildings with more energy efficient lighting, increase purchase and use of environmentally sound products, and reduce energy use through better management practices.

Greek Peak Mountain Resort New York

Education and outreach efforts on the Sustainable Slopes and Keep Winter Cool programs endorsed by Greek Peak Mountain Resort have produced positive results. The response to conservation efforts and the use of recycled materials is encouraging. The resort also is embarking on its first Green Building project, with the first phase scheduled for completion in 2007.

Heavenly Mountain Resort Nevada

During the 2005-2006 ski season, Heavenly purchased and operated three new low-emission diesel-powered shuttle buses to improve fleet reliability and reduce air quality emissions. This was the first phase of a 4-year program funded by a Federal Transit Administration grant to completely replace the Heavenly shuttle fleet with low-emission vehicles. The grant was provided to the Tahoe Transportation District, of which Heavenly is a partner. Heavenly provided the local matching funds used to purchase the vehicles.

In addition, Heavenly continued the successful "Compost Your Combustibles" project following the end of the 2004-2005 ski season at its Boulder Lodge Parking Lot. Local residents dropped off their pine needles, slash, and landscaping yard wastes, which were recycled into organic mulch that Heavenly and the state Department of Transportation used on erosion control projects.

And finally, Heavenly replaced older, inefficient air-water nozzle-type snowmaking guns on its famous Gunbarrel ski run with new, energy-efficient fan guns, resulting in additional electrical savings.



**Jackson Hole Mountain Resort
Wyoming**

**Jackson Hole
achieves
ISO 14001
registration.**

Over the last 2 years, Jackson Hole Mountain Resort has worked hard to develop and implement an Environmental Management System (EMS), and the work has paid off with the resort achieving third party ISO 14001 registration on April 7th, 2006, from Michael L. Alexander - President, KPMG Performance Registrar Inc. The resort is particularly proud of achieving this objective since only a small percentage of businesses around the world have reached this stage.

**Keystone Resort
Colorado**

Keystone Resort continued to achieve significant waste diversion in the 2005-2006 season through recycling and composting, keeping 1,300 tons out of the landfill. The resort hopes to start a larger-scale kitchen waste composting program in partnership with the County landfill in the summer of 2006 to further increase waste diversion. Significant accomplishments in the last year related to energy efficiency include upgrades to the snowmaking system that are estimated to save over 800,000 kWh per year and lighting upgrades at Keystone Lodge that will save 70,000 kWh per year. Renewable energy commitments include a continued purchase of 707,000 kWh of wind energy annually (enough to offset the electricity use of night operations) for the ski area, and the first ever wind energy purchase by a Keystone lodging outlet, with the Keystone Lodge buying 148,000 kWh of wind energy over the course of a year. Keystone is expecting to increase its commitment to renewable energy in the coming year. In addition, Keystone Laundry has further reduced water use by adding a water softener system that reduces water and chemicals used and extends the life of the linens being washed. The water softener system is estimated to save 1,250,000 gallons of water per year.

**Kirkwood Mountain Resort
California**

**Kirkwood using
sugar cane-
based bowls
and plates in
food service**

Prior to the 2005-2006 season, Kirkwood purchased an additional 11 high-efficiency snowmaking guns. This brought the total new purchase of air/water snow guns to 21 in the last 2 years. The resort has begun to completely phase-out the old air-hog style of snowmaking gun to reduce electrical consumption. Kirkwood is required by the EPA to use electric compressors for snowmaking and, while difficult to quantify, the new equipment has greatly reduced the number of compressors needed on a snowmaking night. In addition, Kirkwood's Mountain Operations department has made a philosophical decision over the last 2 years not to make snow when temperature conditions are marginal. While the results of this effort also are difficult to quantify, the resort has definitely reduced water and electric energy waste.

And finally, the food service department now is using sugar cane-based bowls and plates in many food service establishments instead of paper products. Furthermore, the resort is using only large pump-style condiment dispensers instead of small individual packets.



Mammoth Mountain California

Notable developments at Mammoth Mountain in 2005 included pushing the limits of the resort's current energy conservation efforts by planning a new on-site geothermal heating system for the future Eagle Lodge. Mammoth also actively participated as a founding member of the new nonprofit High Sierra Energy Foundation, whose mission is to promote energy conservation and the use of renewable energy throughout the High Sierra region.

During the summer, Mammoth finally was able to get biodiesel into its entire diesel fleet for ongoing use on- and off-road. In terms of water conservation, the resort tested new waterless urinals in a remodeled facility, which led to the decision to install them in all upcoming remodels and new builds. In addition, summer naturalist tour attendance at the top of the mountain tripled and Mammoth moved ahead to develop its new Top of the Sierra Interpretive Center that will be open to the public in November 2006.

***Mammoth
pushing energy
conservation
with planned
geothermal
heating system.***

Mission Ridge Washington

Mission Ridge continues to support Link Transit bussing for guests and purchased a new passenger bus to support employee transportation. In addition, the resort upgraded its snowmaking system using more efficient technology. The resort also plans to reseed and conduct summer grooming to reduce water runoff, which will improve the watershed area within the ski area boundary permit area.

Mount Ashland Oregon

Mount Ashland continued its dedication to meeting and exceeding the principles put forth by the Environmental Charter through existing programs and by evaluating and establishing goals for new programs.

Existing programs are described below:

- Recognizing the need to further address climate change, the resort purchased 58,000 kwh of alternative energy, which powered one chairlift (day/night) and all night skiing lights for the entire season while offsetting 116,000 pounds of CO₂.
- Mount Ashland avoided 151,248 vehicle miles traveled through its Employee and Guest Shuttle programs.
- The resort continued its award-winning Youth Summer Service Program whereby local youth performed 672 hours of community service focusing on restoration work.
- The Winter Snow Science Program had 402 youth participants who studied human impacts and considered tradeoffs associated with various ski area uses.



Resort goals for next year include the following:

- Continuing and expanding the Green Chair Program with the intent to purchase alternative energy for powering all chairs and night lights for the season.
- Instituting a quantitative recycling program in hopes of providing more detailed information for baseline utility analysis.
- Incorporating an environmental component during employee training.
- Instituting quantifiable energy saving measures.
- Conducting a feasibility study of expanding the winter and summer educational programs.

Mountain High Resort California

The NSAA's Environmental Charter has led to three major areas of conservation at Mountain High Resort. The first area of conservation comes in the area of snow production. Mountain High has reduced its demand for energy by installing energy-efficient fan guns that produce snow using very little energy. In addition to producing snow, these same fan guns convert approximately 20 percent more water to snow than traditional air-water snowmaking guns. This increased conversion rate of water to snow is Mountain High's second area of conservation. The third area of conservation is how the resort deals with the byproduct from oil-water separators. By changing the operational method for handling waste, the resort has reduced the amount of waste generated each year. Mountain High Resort is committed to moving forward with projects that benefit the environment and its guests.

Mt. Hood Meadows Ski Resort Oregon

Over the last season, Mt. Hood Meadows has increased its efforts to improve its environmental stewardship when and wherever possible. To this end, Mt. Hood Meadows is researching the feasibility of converting to biodiesel for as much of its equipment as possible.

Further, the resort has made strides to reduce the amount of waste in its offices, including using recycled paper for printing and photocopying whenever reusing previously printed pages was not reasonable. Additionally, the resort has sought to eliminate all unnecessary and unsolicited printed materials coming to us via fax or mailings (i.e., junk mail). This effort has reduced by approximately 80 percent the amount of these materials received so that they do not have to be being recycled.

Mt Hood Meadows also promoted sustainable energy solutions, such as wind energy, by continuing its relationship with Bonneville



2.1 Summaries of Resort Progress

Environmental Foundation and by purchasing Green Tags for the resort and selling them to the public.

In addition, Mt. Hood Meadows sponsored an Earth Day celebration promoting green energy, recycling, and environmental stewardship. This event included an Earth Day mural that was painted by a local artist with the help of some talented kids eager to lend their creative enthusiasm for the cause.

The resort's relationship with the Confederated Tribes of Warm Springs has just earned it national recognition from NSAA in the form of the Silver Eagle award in Stakeholder Relations.

Mt. Rose – Ski Tahoe Nevada

Mt Rose Ski Tahoe continues its dedication toward maintaining a sound and successful environmental policy that will both sustain and strengthen its precious natural resources. The ski area strives to provide a quality outdoor recreational experience in a manner that complements the natural and aesthetic qualities that draw all of us to the mountains. Mt Rose is committed to improving environmental performance in all aspects to allow for continued enjoyment by future generations.

Some of the resort's current environmental practices include the following:

- Incorporating energy and water efficiency design both on the hill and in the lodges.
- Improving water quality by incorporating erosion and sediment controls.
- Employing two on-site certified erosion control and pollutant containment specialists.
- Successfully recycling and reducing waste.
- Promoting conservation and enhancing habitat for the rare Tahoe draba and other naturally occurring species.
- Increasing public outreach through ski-ecology programs and continuing to support projects that increase sustainable recreation in the area.

Future plans include:

- Research into LEED-certification for constructing a new lodge located on the Slide Bowl
- Feasibility studies of alternative energy sources, such as solar and wind power at the Main Lodge



**Northstar-at-Tahoe
California**

In conjunction with the California Alpine Resort Environmental Co-op initiatives, Northstar-at-Tahoe is employing erosion control and revegetation techniques as it expands resort trails. This effort includes recycling pine needles to use as mulch and using on-site compost from the horse stables for soil amendment. The resort also is employing techniques to reuse wood waste from disturbed areas to increase water infiltration/holding capacity in these areas. This tactic also helps to control erosion, improves water quality, and minimizes sedimentation

In addition, Northstar-at-Tahoe is pursuing LEED certification for its new village development, which includes more than 200 condominiums and 120,000 square feet of retail space.

***Pats Peak
focusing on
building
shell
efficiency.***

***Pats Peak
New Hampshire***

Resort facilities—both base area and mountain—have undergone a major upgrade over the years. As with any business plan, it is a matter of prioritizing the punch list and getting the most bang for the buck. With that in mind and having addressed most major savings areas, Pats Peak has turned its attention to the lower return items. With all new

construction, green options are considered based not on conventional paybacks but on whether they are the right thing to do. This has been the resort attitude going forward. While willing to subsidize the marketplace for green materials in the short term, the goal is to create real competitive, technology-driven markets in the future.



Pats Peak now has entered into phase two of a base area expansion. The focus continues to be on water use and heating as the resort continues to upgrade base area facilities. The main objective is concentrating on building shell efficiency.

Insulation updates fight the rising costs of heat, and water conservation equipment continues to minimize water use. As Pats Peak modernizes and updates its shell, the resort incurs little to no additional energy costs.

***Snowbird Ski and Summer Resort
Utah***

In its continuing effort to support the Sustainable Slopes charter, Snowbird Ski and Summer Resort has participated in the following projects this year:

- Worked together with Tree Utah to plant 1,000 native species seedlings.
- Donated a portion of lift ticket sales to the local Utah chapter of the Nature Conservancy.



2.1 Summaries of Resort Progress

- Paved the Gad Valley parking lot this year, and installed a curb and gutter system and a sediment pond filtering system that keep much of the automobile and parking lot waste out of Little Cottonwood Creek.
- Installed waterless urinals in Snowbird's new day lodge, Creekside Lodge.
- Built Creekside Lodge with energy-efficient lighting.
- Increased signage in Snowbird's four lodges for linen and towel reuse.
- Increased signage around Snowbird reminding guests and employees to conserve at the Bird (turn lights off and turn heat down).
- Designed a new chair lift that will not go to a ridgeline. This enhances the view shed of Peruvian Gulch and Mineral Basin.
- Working together with Trout Unlimited, the U.S. government, and volunteers to clean up polluted historical mines.
- Working together with the Cottonwood Canyon Foundation to create a noxious weed ratification program. Areas with noxious weeds will be surveyed and treated with herbicides that do not harm the watershed but get rid of all non-native invasive plants.
- Plan to upgrade Snowbird Center lighting with energy-efficient bulbs by next year.

Snowshoe West Virginia

Snowshoe Mountain is benchmarking with Green Globe 21, along with the Environmental Management System.

In partnership with the U.S. Fish and Wildlife Service, Snowshoe has completed the first ever Habitat Conservation Plan in the state of West Virginia. This plan helps protect the two endangered species found on resort land - the Northern Flying Squirrel and the threatened Cheat Mountain Salamander.

In addition, once the resort is 100 percent open, snowmaking is limited to conserve water and energy.

Squaw Valley USA California

Squaw Valley USA is involved in a variety of programs that meet the criteria outlined in the Sustainable Slopes Program. In an effort to increase natural vegetation, Squaw Valley plants hundreds of pounds of seeds each summer to disturbed areas. This season, 100 percent of the

***Snowshoe
completes first
Habitat
Conservation
Plan in West
Virginia***



water used for snowmaking came from recaptured snowmelt. By using recaptured snowmelt, the resort did not decrease surface water flows, saving a total of 15,030,000 gallons of water this season. In addition, Squaw Valley reduces energy use through systems such as a new drive motor in the Cable Car (which is 96.85 percent more energy efficient than the old motor), revolutionary heat exchangers in the Children's Center facility and at High Camp, plus an incinerator to dispose of waste.

Squaw Valley has ambitious plans for new environmental programs for the future. Next season, the resort will build on the success of the Squaw Ecology program. In a new Tree Huggers Kids Zone in a wooded area at the top of the mountain, children can take a break from their ski day to learn about the trees, animals, and streams that make up Squaw's ecosystem, as well as learn fun tips on what they can do to preserve the natural beauty around them.

Steamboat Ski & Resort Corporation Colorado

Steamboat Ski Resort has an amazing story to tell the public about its environmental stewardship programs. The resort is proud of its environmental record and stands by it. Some of the highlights are described below:

- The resort has achieved membership status with the EPA Green Power Partnership program as a result of offsetting 3 percent of its mountain power with clean, renewable energy.
- Steamboat's Burgess Creek Lift is wind powered – one of only five wind-powered lifts in the United States. The new Sunshine Lift also will be partially powered by solar energy.
- Steamboat has implemented energy conservation/reduction measures, such as tower-mounted snowmaking, converting to four-stroke snowmobiles, etc.
- Steamboat's land stewardship efforts are second to none, using a light-on-the-land approach whenever possible and best management practices as a minimum standard.
- The resort recycles over 110 tons of waste each season.
- Steamboat's Employee Environmental Fund awards grants to environmental non-profits annually throughout the community.
- Steamboat has won many environmental awards.

At Steamboat, the focus is on environmental practices that foster sustainability.



Stevens Pass Washington

Stevens Pass continued its successful employee transit program, which was used heavily this past winter because of the longer than average operating season. The Guest Shuttle from the gateway community of Sultan (43 miles) also operated for the 2005-2006 season, with considerable levels of use. In addition, recycling quantities grew this season because of an increase in skier visits over the 10-year average.

As in past years, Stevens Pass donated a bill surcharge to its utility provider, supporting the local (in county) production of solar and wind power. And new this year was a partnership with Clif Bars that resulted in 264 Green Tags (1,000 KW each) from the Bonneville Environmental Foundation. This effort supports the production of enough alternative power to operate one of the resort's chairlifts for the season. Costs are equally divided between Stevens Pass and Clif Bars.

Stowe Mountain Resort Vermont

Stowe Mountain Resort continues to implement its 10-year Master Plan, which provides ongoing opportunities to improve environmental practices, including constructing energy efficient buildings, improving stormwater management practices, and continuing environmental education throughout the resort. As a result, the first phase of Mt. Cabin town homes was awarded a 5-Star Energy rating from the Environmental Protection Agency. Next year, the resort hopes to establish an environmental education center and improve existing recycling efforts and energy management systems.

Stratton Vermont

Stratton continues to support and grow its ongoing programs, which including recycling, a partnership with the Vermont Insititue of Natural Science in its tenth year of Bicknell's Thrush research, shuttle service from surrounding towns, a Water Quality Remediation Plan, maintenance of seven conservation areas, and efficiency upgrades.

Stratton's two newest programs are the Junior Mountaineering program for the seasonal ski school and "Fresh Tracks: Protect, Conserve, and Enjoy," a new environmental campaign. Both of these programs blossomed last year and will continue to grow in the years ahead, bringing sustainability to resort guests.

Sugarbush Resort Vermont

Since 2002, Sugarbush Resort has concentrated on five areas of environmental programming: water conservation, water quality, energy management conservation and efficiency, improved programming for solid waste, and community outreach and environmental education. The programs and projects initiated by the resort have earned Sugarbush two Governor's Awards, qualification for and acceptance into the 10 Percent

Sugarbush earns two Governor's Awards and is accepted into the 10 Percent Challenge as a result of environmental initiatives.



Challenge, and the honor of participating as an Environmental Partner in the Vermont Business Environmental Partnership.

For the 2005-2006-season, Sugarbush concentrated on two stand-out projects that focus on energy conservation and energy management. The first effort included expanding the 2004-2005 season biodiesel pilot program. The program began in 2004 as a pilot program for the Mount Ellen off-road diesel fleet. The biodiesel program achieved many successes and warranted expansion to include both the Mount Ellen off-road diesel equipment and the entire off-road diesel fleet at Lincoln Peak for the 2005-2006-season. The second program involved purchasing and retrofitting 230 low-energy nozzles for Sugarbush's snowmaking equipment. The energy-efficient nozzles significantly increased the efficiency of air production, thus reducing the need for diesel air production. This improvement alone provides Sugarbush with the same air capacity and quality of snow using eight fewer diesel air compressors.



Sunburst Ski Area Wisconsin

Sunburst continues to educate customers on the values of recycling.

The Canyons Resort Utah

Over the past year, The Canyons has continued to make strides supporting the Environmental Charter. Below are a few highlight efforts.

The resort continues to recycle the following products, offsetting approximately 10 percent of the resort's waste:

- All anti-freeze (95 gallons per year), oil (1,300 gallons per year), skimmed oil (1,000 gallons per year), and tires (4 to 10) recycled within vehicle maintenance operations
- Electronic equipment
- Newspaper, colored paper, white paper, toner cartridges, batteries, glass, plastic, and aluminum within individual departments
- Cardboard by retail operations and within all offices
- As many materials as possible reused within building maintenance

The Canyons also purchased more efficient snowmaking guns, which offer a variety of benefits.

- HKD Rangers: low air use allows more efficient coverage; pumps the same amount of water with less air and less power.



2.1 Summaries of Resort Progress

- **Techno Alpine:** lowers overall horsepower use for fan guns. The resort will be capable of pumping more water for less horsepower (energy consumption) than fan guns that have been used in the past. The guns are controlled remotely, eliminating the need to waste fuel traveling on the mountain.

The Canyons has made progress in its lodging facilities by recently installing flat plate heat exchangers in the Sundial Lodge and Grand Summit Hotel. These flat plates allow the facilities to cool using outside air when conditions allow, ultimately using less power than a traditional cooling system.

In addition, The Canyons is the single largest private contributor to the newly formed Regional Transit System. This is a huge commitment to further reduce emissions. The Regional Transit System at The Canyons Resort was developed as part of the Summit County Planning and Development process for the Specially Planned Area or SPA. The objective was to develop an automobile-free environment and culture with a pedestrian friendly village that was conveniently connected to the surrounding community. The Canyons village design is pedestrian friendly and the Cabriolet Lift is located away from the village to reduce emissions at the resort's center.

It is also worth noting that The Canyons is the first resort to use ELC, or extended life coolant. Rather than requiring a coolant change every year on every vehicle, resort vehicles can go 5 years. So in 5 years, the resort generates approximately 100 gallons of waste coolant for its entire fleet. If The Canyons used conventional coolant, it would generate 500 gallons of waste in the same amount of time, or 100 gallons every year.

*The Canyons
using
extended life
coolant,
eliminating
400 gallons of
waste coolant
over 5 years.*

The Canyons also has renewed its agreement to purchase 6 percent of its total energy as renewable wind energy from Utah Power, which is equivalent to 282 blocks of Blue Sky energy. Purchasing one block of Blue Sky energy over one year is equivalent to offsetting more than a ton of carbon monoxide emissions.

Over the next year, the resort will set a goal of offsetting approximately 15 percent of The Canyons' waste. The resort has established partnerships with Recycle Utah and Swaner Nature Preserve, which will help it reach its goal of supporting local and state environmental initiatives. With the cooperation of the local power company, The Canyons will work to use its power more efficiently and perhaps limit overall power use.

Below are additional goals built into The Canyons business plan:

- Continue to participate in the NSAA Sustainable Slopes Programs as outlined in the Environmental Charter for Ski Areas.
- Continue to develop participation with the Blue Sky program.
- Investigate alternative fuel sources.



- Create an annual environmental report and baseline goals.
- Implement measures and recommendations from the regional watershed committee.
- Promote and expand the resort's positive recycling and conservation program.

Tremblant

Quebec, Canada

In 2005, Tremblant implemented its recycling program. The service now is available throughout the resort. Tremblant also has begun two initiatives designed to increase biodiversity. First, the resort created a wetland on one of its golf courses to filter drainage water. And the resort plans another wetland for this fall on the other golf course. Second, Tremblant has restored a nearby creek with new wildlife habitat.

The resort presently is studying different alternatives in terms of energy sources. The Maintenance Department already has acquired a hybrid vehicle. Other initiatives are under study for the upcoming year.

The base lodge on the north side of the mountain has undergone major renovations in 2005. Not only has its appearance been enhanced, but the building is now more energy-efficient because of better insulation and more effective sanitary equipment that requires much less water.

In order to reduce emissions, the golf course Le Diable has replaced its entire gas cart fleet with electric carts. Furthermore, both resort golf courses now are focusing on reducing pesticide use. Tremblant also has presented a reduction plan to the Government of Quebec, the goal being to reduce pesticide use by 25 percent over the next 3 years.

Waterville Valley Resort

New Hampshire

The 2005-2006 season was difficult in terms of making headway with conservation as the resort had to go back to cover trails a number of times to recover from the weather events. However, the resort hopes to get back on track in 2006-2007. There are a variety of programs Waterville Valley hopes to take part in that involve working with the local electrical power supplier and fuel suppliers.

Whistler Blackcomb

British Columbia, Canada

Whistler Blackcomb is looking hard at areas where it can make great improvements. These areas include transportation, energy management, and waste. One of the resort's greatest successes this year has been to begin composting all organic waste at certain areas, with the goal of eventually composting organic waste resort-wide. This is a challenge since some resort restaurants are at 6,000 feet. Whistler Blackcomb also is working with an energy consultant to evaluate all resort buildings and how to reduce their energy use. As a result, the resort has implemented



2.1 Summaries of Resort Progress

energy savings measures at two of its major on-hill restaurant buildings, with other savings measure to come for other buildings. In addition, Whistler Blackcomb has a carpooling program and has begun to encourage ride sharing among staff members with the goal of reducing greenhouse gas emissions.

Whiteface New York

According to New York State's Executive Order #111, 10 percent of Whiteface Mountain's electrical energy was purchased from green sources. In addition, Whiteface added 35 new low-energy snow guns to its inventory for better efficiency and reduced power consumption. Plans also are underway to replace 12 aging rotary screw air compressors with 6 environmentally friendly, oil-free centac electric air compressors, from which the resort expects a 30 percent savings on electric power.

Furthermore, Whiteface Mountain has installed two band screen filters to remove frazzle ice and other debris out of river water as it enters the snowmaking pump chamber. In addition, the resort previously used a portable propane furnace to warm water that was sprayed on the filter screen to remove frazzle ice. This old approach required approximately 8,000 gallons of propane for the season. In order to eliminate this use of propane, the resort will pipe compressor cooling water warmed through the cooling process to the screens to complete this function.

Winter Park Colorado

Winter Park Resort put forth significant effort in 2005 to address the current mountain pine beetle (MPB) epidemic currently affecting the ski area and surrounding area. Thousands of trees have died as a result of the epidemic, increasing the potential for fire and wind scour, and modifying the visual landscape of the area. Winter Park removed over 5,000 trees last year that were infested with MPB and thinned tree islands highly susceptible to MPB. No new roads were constructed, and the resort used snowcats and a helicopter to remove timber to minimize ground disturbance. In addition, the resort replaced more than 300 trail signs at 130 locations with new signs manufactured from recycled beetle kill and thinned trees.

Winter Park Resort continued to expand its commitment to reduce electrical consumption. AreaNet, an integrated computer program designed to manage electrical power consumption, was expanded to include one additional lift and two buildings. The resort also purchased renewable energy to provide power for the new Super Gauge chairlift. Furthermore, in implementing the Super Gauge chairlift, the resort employed a number of planning and construction practices to help avoid wetlands and to minimize visual impacts. And finally, as a result of installing the Super Gauge chairlift, the resort was able to recycle 22 lift towers.



Wintergreen Resort Virginia

Wintergreen is keenly sensitive to the delicate balance between nature and development. The resort has long been a champion of preserving the natural beauty of its surroundings. Since its inception, Wintergreen has carefully thought out its growth, and continues to work closely with The Wintergreen Nature Foundation, a non-profit organization that shares the common goal of preserving and protecting the Blue Ridge Mountains of Virginia.

At Wintergreen Resort, we know our greatest asset is the environment. Formed millions of years ago during a collision of continental plates, the Blue Ridge Mountains are some of the oldest in the country. The unique characteristics of these mountains give them an unmatched grandeur and provide guests with some of the most spectacular views in Virginia.

Wintergreen Resort proudly endorses NSAA's Sustainable Slopes program, and is committed to preserving the character of the Blue Ridge Mountains. The value of this preservation effort holds today, and Wintergreen is a showcase of quality recreation opportunities for skiers, snowboarders, and countless summer guests.

Wisp at Deep Creek Mountain Resort Maryland

During 2005, Wisp Resort has replaced both the hot water boiler systems servicing public areas and kitchens and the HVAC systems in the Wisp base lodge. The new systems are state-of-the-art, high-efficiency systems that will significantly reduce propane gas consumption. The resort will calculate savings over the 2006 calendar year.

Additionally, for the 2006 ski season Wisp Resort opened the largest expansion of skiable terrain in its 50-year history: 34 acres with lighting, snowmaking, and two new fixed grip quad chairlifts. The expansion features the most advanced, energy efficient, automated technology in snowmaking systems available. The resort made every decision related to the expansion, from erosion control and water retention to energy efficient lighting, with resource conservation in mind.

2.2 ENVIRONMENTAL INDICATORS

In 2006, NSAA used the same four Environmental Indicators used in 2005 to characterize the environmental state of the industry for the sixth *Annual Report*: (1) water conservation; (2) electric energy savings, renewable generation, and renewable purchases; (3) waste diversion through recycling and material use reduction; and (4) transportation demand reduction. Similar to 2005, resorts were asked to report savings or reductions on a project specific basis (*total* utility use and waste generation were again not requested this year). Indicators normalized according to skier visits have proven to be the most relevant and useful information for ski resorts. Resorts can use normalized Indicators to compare their own performance against other industry-wide and regional norms. For this reason, this year's report focuses on the development and



2.2 Environmental Indicators

discussion of these normalized Indicators. This year's Assessment Tool also continues to consider climate change impacts based on resort actions. Climate change results are discussed in detail in Section 2.3.

The Assessment Tool breaks out water conservation into two categories: snowmaking operations (non-consumptive) and all other operations (consumptive). By definition, non-consumptive water use indicates the resource is *returned to the watershed* following its use, as opposed to treated before release to the watershed. Energy savings also are broken down into savings related to achieving electric energy efficiency, generating onsite renewable energy, and purchasing certified renewable energy from a utility or through a program such as Green Tags.

The Environmental Charter encourages resorts to establish systems for routinely quantifying both their environmental impacts (in terms such as resource use and waste generation) and their avoided impacts (such as transportation demand reduction) through their collective projects. At the same time, the Charter continues to recognize that measuring detailed resource consumption takes expertise and resources that may not be available for all resorts. As discussed in Chapter 4, NSAA will continue to work with Partnering Organizations to maximize opportunities for resorts to report meaningful information regarding their progress toward the Environmental Charter goals.



Aggregated Industry Data

Table 2-1 summarizes the quantitative results from the Assessment Tool using the high and average responses from reporting resorts for each indicator.



**Table 2-1
Environmental Indicators Response Summary**

Environmental Indicator	High	Average
Snowmaking Operations Water Savings (gallons)	73,573,500	5,264,000
Consumptive Water Savings (gallons)	12,000,000	1,084,458
Electric Energy Savings (kWh)	5,320,000	589,932
Renewable Energy Generated (kWh)	300,000	6,211
Renewable Energy Purchased (kWh)	4,272,000	419,039
Waste Diverted (tons)	3,193	231
Avoided VMT	16,779,951	926,747

This year’s reporting demonstrated significant increases in average performance over 2005 for a number of the indicators. In particular, the average consumptive water savings, renewable energy purchases, and waste diverted increased by 73 percent, 39 percent, and 59 percent, respectively.

The data normalized per skier visits (e.g., energy savings per skier visits, etc.) are not affected by the number of reporting resorts and allow a direct comparison with the 2005 data. It should be noted, however, that each year the group of responding resorts changes slightly, which can influence some of the sensitive Indicators (e.g., renewable energy generated). Other external factors, such as weather, also can influence the normalized Indicators. The industry-wide normalized factors (detailed in Table 2-2) for each indicator reflect the following:

- Resorts are conserving approximately 12.1 gallons of water in snowmaking operations per skier visit—an estimated 2.5 percent increase from 2005.
- Resorts are conserving approximately 2.5 gallons of water for consumptive uses per skier visit—a 44 percent increase from 2005.
- Resorts are saving approximately 1.35 kWh of electric energy per skier visit—a 24 percent decrease over 2005.
- Resorts are generating approximately 0.014 kWh of renewable electric energy per skier visit—a 70 percent decrease over 2005.
- Resorts are purchasing approximately 0.959 kWh of renewable electric energy per skier visit—a 16 percent increase over 2005.
- Resorts are diverting approximately 1.06 pounds of solid waste per skier visit, either through reduced use or recycling—a 32 percent increase over 2005.
- Resorts are avoiding approximately 2.12 VMT per skier visit—a 1 percent decrease from 2005.



2.2 Environmental Indicators

Overall, on a per skier basis, improvements were observed in four areas: snowmaking water use, consumptive water use, renewable energy purchases, and solid waste diversion.

Analysis by Region

In addition to looking for overall trends, NSAA analyzed the data collected by geographic region. The regions used for this analysis are defined below:

Northeast (NE)

Maine
Vermont
New Hampshire
Connecticut
Massachusetts
Rhode Island

Southeast (SE)

Virginia
West Virginia
North Carolina
South Carolina
Tennessee
Georgia

Midwest (MW)

North Dakota
South Dakota
Nebraska
Minnesota
Iowa
Missouri
Wisconsin
Illinois
Indiana
Michigan
Ohio

Mid-Atlantic (MA)

Pennsylvania
Maryland
New Jersey
New York

Northern Rockies (NR)

Idaho
Montana
Wyoming
Utah

Pacific Northwest (PN)

Washington
Oregon
Alaska

Sierras (SI)

California
Nevada
Arizona

Canada (CN)

Central Rockies (CR)

Colorado
New Mexico

Table 2-2 displays the normalized environmental indicators from the 2006 Assessment Tool by geographic region.



Table 2-2
Normalized Environmental Indicators by Region

Environmental Indicator	CN	CR	MA	MW	NE	NR	PN	SE	SI	All Resorts
<i>Snowmaking Operations Water Savings</i> (gallons/skier visit)	24.2	2.3	24.2	10.0	12.2	15.5	6.8	63.7	4.3	12.1
<i>Consumptive Water Savings</i> (gallons/skier visit)	3.27	1.13	1.14	0.50	6.75	0.45	2.69	14.64	1.21	2.48
<i>Electric Energy Savings</i> (kWh/skier visit)	1.22	1.50	2.90	0.68	2.28	0.63	0.27	2.87	0.88	1.35
<i>Renewable Energy Generation</i> (kWh/skier visit)	0.00055	0.00066	0	0	0	0.00016	0.00646	0	0.06942	0.01422
<i>Renewable Energy Purchased</i> (kWh/skier visit)	0	0.27	1.42	0.001	1.98	0.59	2.26	0	2.08	0.96
<i>Waste Diverted</i> (pounds/skier visit)	0.50	0.98	0.34	0.77	3.45	1.06	0.75	2.61	0.51	1.06
<i>Avoided VMT</i> (VMT/skier visit)	0.55	0.65	0.12	0.06	1.83	3.15	4.33	1.71	5.05	2.12

When comparing the normalized 2006 results of Table 2-2 to 2005 data, all regions reported improvement for at least one environmental indicator. The following list presents the improvements related to normalized indicators for each region (percentage increase compared to 2005):

- Canada (CN): snowmaking water savings, consumptive water savings, and renewable energy generated
- Central Rockies (CR): consumptive water savings, renewable energy purchases, and waste diverted
- Mid-Atlantic (MA): consumptive water savings and renewable energy purchases
- Midwest (MW): snowmaking water savings and consumptive water savings
- Northeast (NE): snowmaking water savings, consumptive water savings, electric energy savings, renewable energy purchases, waste diverted, and vehicle miles reduced
- Northern Rockies (NR): renewable energy generated and vehicle miles reduced
- Pacific Northwest (PN): renewable energy generated and waste diverted
- Southeast (SE): consumptive water savings, electric energy savings, waste diverted, and vehicle miles reduced



2.3 Climate Change Impacts

- Sierras (SI): snowmaking water savings, consumptive water savings, renewable energy purchases, waste diverted, and vehicle miles reduced

Interpreting the Data

Although the quantitative aspects of the Assessment Tool are approximate, the results do offer some useful information. Table 2-2 quantifies savings indices based on skier visits for each of the Assessment Tool questions. For example, the normalized indicator of water savings in consumptive use for the Central Rockies (CR) region is 1.13 gallons per skier visit. A resort in that region with approximately 200,000 skier visits is projected to save approximately 226,000 gallons of water each year for consumptive uses. Actual savings quantities then can be applied to determine if the resort's efforts are greater than or less than this benchmark.

2.3 CLIMATE CHANGE IMPACTS

We made order of magnitude estimates to measure climate change impacts related to the following:

- Conserving electrical energy, generating renewable energy, and purchasing renewable energy
- Reducing waste and recycling
- Reducing transportation demands

To determine climate change impacts related to electrical energy conservation, we applied the respective statewide CO₂ emission factor (from the DOE's Energy Information Administration) to the resorts' estimated energy (kWh) savings or use of renewable energy (through onsite generation or purchase). For waste reduction and recycling, we asked resorts to estimate the percentages of materials (office paper, cardboard, etc.) that they either reduced or recycled to account for the total amount of diverted waste. We then applied the relevant equivalent CO₂ emission factors related to recycling or reducing the various materials (based on data from the EPA). Finally, for transportation demand reduction, we asked resorts to indicate the breakdown of vehicle type (gas trucks, diesel buses, hybrid electric cars, etc.) involved in their various transportation demand reduction strategies. We then applied fuel efficiency factors (miles per gallon [MPG]) and equivalent CO₂ emission factors related to the fuel type to determine reduced pounds of CO₂ resulting from transportation measures.

Table 2-3 summarizes the overall results of resort responses related to climate change impacts. This table indicates the high, average, and total response for each associated environmental indicator.



**Table 2-3
Climate Change Impacts Summary**

Climate Change Impacts of Environmental Indicators	High	Average	Total
Electric Energy Savings, Renewable Generation, Green Purchases (lbs CO ₂ reduction)	10,775,970	954,562	48,682,657
Waste Reduced/Recycled (equivalent lbs CO ₂ reduction)	43,006,587	1,938,715	98,874,455
Avoided VMT (equivalent lbs CO ₂ reduction)	52,583,555	2,591,250	132,153,771

Collectively, reporting resorts are reducing their impacts on climate change by:

- Reducing 48,682,657 pounds CO₂ emissions by conserving electrical energy and generating or purchasing renewable energy
- Reducing 98,874,455 equivalent pounds of CO₂ emissions by reducing waste and recycling
- Reducing 132,153,771 equivalent pounds of CO₂ emissions by reducing transportation demands
- Reducing 279,710,883 total pounds of CO₂ emissions from all energy, waste, and transportation reduction measures

In 2005, VMT efforts nearly outweighed efforts related to energy and waste combined. Once again this year, how skiers arrive at resorts is almost equally as important as on-mountain operations in terms of climate change.

To add perspective to the CO₂ reductions quantified above, consider the following:

- Eliminating 25 pounds of CO₂ emissions each year is equal to planting one tree. Collectively, the reporting resorts' total efforts are equal to planting more than 11 million trees.



- Eliminating 1,750 pounds of CO₂ emissions each year is equivalent to shutting down one 250-horsepower ski lift for one day. Collectively, the reporting resorts' total efforts are equal to shutting down almost 160,000 ski lifts for one day.

- Eliminating 2,530 pounds of CO₂ emissions is equivalent to avoiding one round-trip airplane flight from New York to San Francisco. Collectively, the reporting resorts' total efforts are equal to avoiding over 110,000 round-trip flights between New York and San Francisco.

Analysis by Region

In addition to looking at overall CO₂ emission reduction, we also analyzed the data collected by geographic region. Table 2-4 displays these results normalized by skier visits.

**Table 2-4
Normalized Climate Change Impacts by Region**

Climate Change Impact	CN	CR	MA	MW	NE	NR	PN	SE	SI	All Resorts
<i>Electric Energy Saved, Renewable Energy Generated, Green Energy Purchased</i> (lbs CO ₂ /skier visit)	0.1	3.4	3.7	1.1	0.5	2.4	0.7	5.1	2.1	2.2
<i>Waste Reduced/Recycled</i> (equivalent lbs CO ₂ /skier visit)	1.0	3.9	1.3	2.4	22.7	3.8	2.7	2.0	1.9	4.4
<i>Avoided VMT</i> (equivalent lbs CO ₂ /skier visit)	1.7	1.1	0.2	0.2	7.9	6.5	12.8	3.7	15.0	5.9
<i>Total of All Impacts</i> (equivalent lbs CO ₂ /skier visit)	2.8	8.4	5.2	3.7	31.1	12.7	16.1	10.8	19.1	12.6

Comparing the results in Table 2-4 to 2005 results, many regions demonstrated improvement related to the normalized climate change indicators. The following list presents the specific indicators that resulted in improvements for each region:

- Canada (CN): avoided VMT
- Central Rockies (CR): waste diverted
- Northeast (NE): waste diverted and avoided VMT
- Northern Rockies (NR): avoided VMT
- Pacific Northwest (PN): waste diverted
- Southeast (SE): electrical energy saved, renewable energy generated, green energy purchased, and avoided VMT
- Sierras (SI): electrical energy saved, renewable energy generated, green energy purchased, and avoided VMT



3.0 CONTRIBUTIONS OF PARTNERING ORGANIZATIONS

NSAA and the endorsing resorts are fortunate to have outside organizations playing a key role in Sustainable Slopes. Our Partnering Organizations, which are listed in Section 1.3, were instrumental in the initial development of the Environmental Charter, and continue to provide their expertise and perspectives as the program evolves. In addition to these Partnering Organizations, NSAA has two partners in the Keep Winter Cool Campaign to fight global warming: NRDC and Clif Bar & Co. Information on all of these Partners is provided below.

The **Natural Resources Defense Council (NRDC)** is a national, non-profit organization of scientists, lawyers and environmental specialists dedicated to protecting public health and the environment. Founded in 1970, NRDC has more than 1 million members and e-activists nationwide. NRDC began partnering with the ski industry on Keep Winter Cool in 2003. Together, NSAA and NRDC have lobbied Congress on mandatory caps on CO₂ emissions, educated guests and the public about solutions to global warming, provided training to resorts on communicating on the topic of global warming and helped raise the visibility of the issue.

Based in Berkeley, Calif., **Clif Bar & Co.** is a leading maker of all-natural and organic energy and nutrition foods committed to sustainability from the field to the final product. The company has received local, state and national awards for its environmental efforts, including multiple initiatives to combat and educate the public about global warming. Learn more at <http://www.clifbar.com/environment>. Clif Bar is a partner in Keep Winter Cool and administers the Golden Eagle Awards for Environmental Excellence.

Clif Bar has helped energize the Keep Winter Cool Campaign as well as the Golden Eagle Awards. Together with NRDC and BEF, Clif Bar provided input on NSAA's Keep Winter Cool Resource Guide issued last fall. Clif Bar offered a first-ever cash prize to the winner of the Golden Eagle Award, and awarded a purchase of green energy to offset emissions for the operation of one lift for a year at resort winning the Silver Eagle Award for Energy Conservation/Clean Energy. Clif Bar also planted trees for the first 25 resorts that submitted applications for the Golden Eagle Awards. Clif Bar has brought a number of new judges into the Golden Eagle Awards. Judges from outside the industry for the 2006 Awards included Doug Robotham, Trust for Public Land; Kenneth Karkula, U.S. Forest Service; Erika Smith, Wildlife Habitat Council; Jill Abelson, EPA; Christopher Juniper, Natural Capitalism Solutions; Billy Connelly, Native Energy; Patrick Nye, Bonneville Environmental Foundation; Hank Cauley, Ecos Corporation; Kirk Mills, Colorado Department of Public Health & Environment, Elysa Hammond, Ecologist, Clif Bar; and Leslie Ross, Babes in the Backcountry.



3.1 Why Partnering Organizations Are Participating

3.1 WHY PARTNERING ORGANIZATIONS ARE PARTICIPATING IN SUSTAINABLE SLOPES

There are several common reasons why the Partnering Organizations are involved in Sustainable Slopes:

- The Charter fits in well with the mission and goals of the Partnering Organizations.
- The Charter provides a vehicle for Partnering Organizations to get their environmental information and technical assistance out to those who may benefit.
- Partnerships and collaboration are a large part of how many of the Partnering Organizations do business.

However, the number one reason for supporting Sustainable Slopes, expressed either directly or indirectly by all Partnering Organizations, is that it leads to improved environmental performance. As Mark Sinclair of CLF noted from the start, “Regulations can prevent the worst in the ski industry, but they can’t bring out the best.”

*...the number one
reason for
supporting
Sustainable
Slopes...is that it
leads to improved
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performance.*

Testimonials on motivations for partnering are provided below.

Getting Their Message Out

Having relationships with ski areas through the Sustainable Slopes program allows us access to potentially millions of consumers who, independent of their electric utility or their geographic location, will be able to support alternative energy resources through our programs.– (BEF).

Without the Sustainable Slopes program, most resorts would not be able to learn about and take advantage of EPA’s voluntary programs and other available assistance.– (EPA).

The Charter offers a vehicle for us to get our Responsible Use message out to visitors who enjoy these destination spots.– (LNT).

The Sustainable Slopes program is an efficient way to communicate with hundreds of resorts whose land holdings include important wildlife habitat.– (WHC).

Fitting in with Their Missions and Goals

The concepts fit in well with our own missions and goals (TC).

Sustainable Slopes as a concept is on point and on mission with what we are trying to promote where we work in mountain communities (TMI).



3.1 Why Partnering Organizations Are Participating

We are very interested in seeing the process because we are building our program ground up now too. The Charter also is very consistent with the NPS mission of protecting the environment and developing evaluation tools that can be applied to our winter sport programs (NPS).

Energy is a thread that touches almost all aspects of ski areas' operations. This certainly fits within our strategic plan of leading the nation in the research, development, and deployment of affordable, advanced, clean energy (DOE).

The NYSDEC supports the NSAA and the application of the Environmental Charter's Principles at ski areas in New York because it fits in with the mission of building partnerships that foster an understanding of how to use and protect the environment and how to work to become better stewards of land, infrastructure, and natural resources (NYSDEC).

The principles encouraging enhancement and restoration of wildlife habitat are consistent with our organization's mission to increase the overall amount and biological value of wildlife habitat on private land (WHC).

Improving Environmental Performance

Improved environmental performance by resorts using cleaner energy sources and reducing CO₂ emissions is an important step toward improved sustainability (BEF).

Improved environmental performance by ski areas translates into improved environmental and health benefits to citizens and the state (CDPHE).

The Charter allows us to move away from our historical regulatory battles with the industry to a more cooperative dialogue. Regulations can prevent the worst in the ski industry, but they cannot bring out the best. The Charter raises the bar for environmental performance beyond compliance toward true sustainability (CLF).

Whatever we can contribute to help the ski industry improve its environmental performance directly benefits us because these efforts help to maintain high environmental quality on national forest service lands that are permitted to ski areas (USFS).

EPA's mission is to protect human health and the environment. Actions a ski area takes through Sustainable Slopes help to achieve this goal. With greater participation and effort, the ski industry is capable of reducing its impacts in a measurable and significant way. The ski industry could play an exemplary role for improved, quantified environmental performance both nationally and worldwide for the tourism and recreation industry. The Sustainable Slopes partnership and this *Annual Report* are a step toward that end (EPA).

“The Charter raises the bar for environmental performance beyond compliance toward true sustainability” (CLF).



3.1 Why Partnering Organizations Are Participating

WHC is interested in pursuing a demonstration project with members of NSAA as ski areas typically own or operate large tracts of land featuring high biodiversity and/or conservation value. One such demonstration program could involve habitat certification. WHC offers a *Corporate Habitat Certification/International Accreditation Program* that recognizes commendable wildlife habitat management and environmental education programs at individual sites. WHC certification adds value to programs by providing third-party credibility and an objective evaluation of projects. Individual ski areas could work with WHC biologists to achieve Habitat Certification under this proposal. A second opportunity for ski area collaboration with WHC is enrollment in the *Corporate Campaign for Migratory Bird Conservation*. The fundamental goal of this program is to increase migratory bird populations by expanding habitat through engaging corporations and other private landowners in conservation activities. This is an important conservation effort since birds perform a variety of functions vital to maintaining ecosystem vitality, including roles in seed dispersal, pest control, and pollination. Furthermore, birds are an important link in the trophic (food) chain. Moreover, bird populations serve as highly visible indicators of habitat quality; the presence or absence of an assemblage of bird species can be used to gauge overall ecosystem health. When management activities create, restore, or maintain indigenous habitat types for birds, many other species benefit as well.

Collaboration is the Key

BEF's partnership with the NSAA is intended to help build public awareness for the Sustainable Slopes program and to promote support for clean, alternative energy (commonly referred to as green power) among participating ski areas and their guests (BEF).

Our whole charter is to embrace and underwrite public/private partnerships on both public and private lands (NFWF).

In our partnering with other industries, we have seen excellent results when this type of proactive visioning occurs (DOE).

WHC collaborates with a number of different entities to accomplish its objectives and broaden the understanding of wildlife values, including 120 corporations, more than two-dozen conservation organizations, and individuals dedicated to enhancing and restoring wildlife habitat (WHC).



3.2 HOW PARTNERING ORGANIZATIONS ARE GETTING INVOLVED

Not only do Partnering Organizations have valuable expertise to share, they are providing other key services as well:

“In partnering with other industries, we’ve seen excellent results when this type of proactive visioning occurs” (DOE).

- Resources
- Direct technical assistance to resorts
- Training
- Communication/education/outreach
- Referrals to relevant programs and resources
- Integration of Charter Principles into development reviews
- Initiation of regional and resort-level projects
- Improving the Sustainable Slopes Program

A brief summary describing the contributions made by Partnering Organizations to Sustainable Slopes is provided below.

Resources

The **USFS** provided a grant to NSAA to support the 2003 Assessment Tool data collection and self-assessment effort that form the basis for this *Annual Report*. The USFS also helped fund the initial stakeholder process that NSAA instituted to develop the Environmental Charter in 1999 and 2000.

NFWF provided grants to NSAA for the 2000/2001 and 2001/2002 seasons to develop and implement the data collection and self-assessment process that serves as the basis for this *Annual Report*. NFWF also participated in the Sustainable Slopes Outreach Campaign in Colorado in 2002.

DOE partnered with Aspen Skiing Company, Jiminy Peak Ski Area, and NSAA to sponsor the educational Public Broadcast System (PBS) show “Spotlight On: The Environment,” which featured Sustainable Slopes and aired on 300 PBS stations for 3 months during the 2001 ski season. The show aired 991 times and was seen by 5 million viewers.

DOE's Office of Industrial Technologies funded a study in 2004 to explore the role that distributed energy resources (DER) can play in optimizing energy management at ski resorts. The study, completed by The Brendle Group, Inc. and Spirae, Inc., was based on a compilation of existing DER practices across the industry as well as a more targeted analysis of potential opportunities for two Colorado ski resorts: Aspen Skiing Company and Vail Mountain. The study was aimed at examining adopting mature DER technologies within ski area operations.

Direct Technical Assistance to Resorts

CDPHE and the Colorado Governor’s Office of Energy Management and Conservation (OEMC) partnered to assist small- and medium-sized



3.2 How Partnering Organizations Are Getting Involved

businesses, including ski resorts, with energy efficiency through its *State Partners for Energy and the Environment* program. This program resulted in completed energy assessment of Beaver Creek Resort, Sunlight and Keystone Resorts. More information on the program can be found at <http://www.state.co.us/oemc/programs/commercial/index.htm>.

Additionally, **CDPHE**, with joint funding from the **EPA**, has provided direct technical assistance to two Colorado ski resorts, Arapahoe Basin and Aspen Skiing Company, through a multi-year pilot program. The pilot program included a top to bottom audit of resort practices and analyses for improving environmental performance and efficiencies. The results of the project were compiled in the *Greening Your Ski Area – A Pollution Prevention Handbook* and disseminated to the industry nationally through NSAA last year. (A link to a copy of the *Handbook* is available on NSAA's website at www.nsaa.org. Click on "Environmental Charter" to find it. Hard copies are available through NSAA by emailing katep@nsaa.org.)

With assistance from CDPHE, Tetra Tech EM Inc., and The Brendle Group, NSAA provided training to resorts on the *Handbook* during the Eastern and Western Winter Conferences in January 2002, and also through a special training workshop hosted by Keystone Resort in April 2002. The training sessions were well received and have sparked further progress toward improving environmental performance in the industry.

The *Handbook* includes chapters on most of the on-mountain aspects of the Charter, including Lift Operations, Snowmaking, Vehicle Maintenance, Buildings, and Construction. It also offers guidance on program elements, such as setting performance goals and metrics, marketing successes, and conducting public relations. Finally, the *Handbook* details demonstrated cost savings by the participating resorts in an unprecedented manner.

DOE's Office of Industrial Technologies has provided energy audits at Aspen Skiing Company and Stratton Mountain Ski Resort in conjunction with the **CDPHE** pilot program. The goal was to provide the industry with two case-specific audits. Contacts for the ski industry have been provided to DOE's regional offices for alternative fuel vehicle programs (Clean Cities). DOE's regional offices will continue to provide front-end support to ski resorts interested in deploying alternatively fueled vehicles and purchasing wind power.

Although it has not worked directly with ski resorts yet, **TMI** has technical expertise available for hire on a contract basis. TMI's mission and expertise is three-fold: (1) protecting habitat, (2) protecting culture, and (3) advancing the economics of the regions. TMI is poised to help resorts with an objective outside environmental audit or to help design a constructive program around the three principles listed above. TMI's services include auditing, planning, and fine-tuning environmental programs.



3.2 How Partnering Organizations Are Getting Involved

NYSDEC collaborated with White Face in 2005 on a school program focused on environmentally friendly snowsports. NYSDEC provided a tree for planting for every child who participated in the resort's snowsports school youth program. The trees were planted along trails to provide windbreaks and reduce the amount of snow that blows off trails during and after snowmaking. The program educates kids and provides energy savings as well.

BEF has a mission of supporting and developing new sources of alternative energy, including wind, solar, and biomass power. BEF supplies clean, alternative energy products to utilities, individuals, and corporations located across the United States, including 11 ski areas. BEF encourages all ski areas to consider supporting alternative energy as part of their broader goals related to sustainability.

Training

Clif Bar & Co will assist NSAA is providing training to resorts at NSAA's 2007 Winter Conferences on the sale of Green Tags and Cool Tags to offset CO₂ emissions.

DOE conducted training seminars for ski areas during NSAA's 2000 Fall Education Seminars. The training sessions were held in eight regions across the country and helped resorts identify opportunities for becoming more energy efficient and for applying clean energy technology.

EPA conducted training workshops on waste reduction, energy and water efficiency for resorts, and EMS in conjunction with NSAA's Eastern and Western Winter Conferences in January of 2001.

CDPHE, as part of its joint project with **EPA** (see description under technical assistance above), shared the results of its project with the rest of the industry in resort training workshops held in conjunction with NSAA's Eastern and Western Winter Conferences in January of 2002.

BEF provided input on the Keep Winter Cool Resource Guide, released in the fall of 2005 to increase the number of resorts selling Green Tags and Cool Tags to their guests and the public.

NYSDEC developed a training video this year for ski areas entitled "Pollution Prevention for New York State Ski Areas: Doing Your Part." The video addresses four areas of environmental performance: (1) Energy Conservation and Use, (2) Habitat Protection, (3) Waste Management, and (4) Water Resources. It addresses principles of pollution prevention that ski areas can use to ensure sound environmental stewardship. The training video addresses simple as well as technical operational procedures that can improve overall environmental performance and contribute to cost savings, and it reinforces many of the Principles laid out in the Sustainable Slopes Charter. Copies of the training video (in VHS or DVD format) are available through the NYDEC Pollution Prevention Unit at (518) 402-9469.



3.2 How Partnering Organizations Are Getting Involved

Communication/Education/Outreach

BEF partnered with eleven (11) ski areas in the Pacific Northwest in the 2004/05 season to address global warming through a regional Green Tags program. The resorts (Cooper Spur, Hoodoo, Mission Ridge, Mt. Ashland, Mt. Bachelor, Mt. Hood Meadows, Timberline Lodge, Ski Anthony Lakes, Stevens Pass, Schweitzer Mountain and Summit at Snoqualmie), are purchasing green energy for their operations as well as making "mini green tags" available for purchase by resort customers. Green Tags enable consumers everywhere, independent of their electric utility or their geographic location, to be able to support alternative energy resources and the environmental benefits that result from reducing our reliance of burning fossil fuels to produce electricity. Visit www.skigreen.org for more information.

LNT provides materials on outdoor ethics to resorts for Sustainable Slopes Day each February. In March 2003, LNT participated in Ski For Nature Day with several Utah resorts to benefit the Utah Chapter of the Nature Conservancy. In the future, LNT would like to create some educational pieces (booklets, hang tags, signage, etc.) that more actively present the sustainability message to the end user. This could be done in partnership with NSAA or even with particular resorts in a more customized fashion.

EPA sponsored environmental outreach materials for the Sustainable Slopes Outreach Campaign in February 2001.

BEF, CDPHE, EPA, TPL, and USFS are judges for the Golden and Silver Eagle Awards for Environmental Excellence. This national award program recognizes resorts that have excelled in particular areas of environmental concern.

The Wildlife Habitat Registry, created through a grant from **NFWF**, incorporated entries from the Wildlife section of NSAA's Green Room in 2006. The Registry is a web-based mapping tool providing an opportunity for users to document on the ground wildlife habitat projects.

NYSDEC supports the efforts of its Pollution Prevention Unit, which is advocating the Charter Principles within the agency through its outreach programs to ski areas and through its partnership with the statewide ski area association, Ski Areas of New York (SANY).



The **USFS** celebrated its Centennial in 2005. In conjunction with this celebration, the USFS raised the visibility of its longstanding partnership with the ski industry in protecting natural resources and its support of the Sustainable Slopes program.

...four EPA programs that can provide direct assistance to ski resorts:

- *WAVE*
- *Energy Star*
- *Waste Wise*
- *EMS*

Referrals to Programs and Resources

During training at NSAA's 2001 conferences, EPA highlighted four programs that can provide direct technical assistance to ski resorts: (1) WAVE (water alliance for voluntary efficiency — www.epa.gov) (2) Energy Star program, which has a broad array of energy efficiency information, software tools, product lists, and a certification program; (3) Waste Wise, which is a waste reduction and recycling technical assistance program; and (4) EMS, a tool for identifying, prioritizing, and addressing environmental impacts. EMS is the holistic tool that can provide a systematic structure for resorts to completely implement the Environmental Charter. These are just four of EPA's voluntary programs; there are many other resources and programs available to resorts through the EPA.

Integration of Environmental Principles into Development Reviews

Teton County uses the Environmental Charter as a guide in interacting with ski resorts on its Master Development Plans.

The **USFS** continually works with public land resorts on planning new developments, and provides its specialized expertise to enhance the environmental performance of these specific projects. In September 2002, NSAA and the **USFS** renewed a national Memorandum of Understanding on their partnership, highlighting the agency's support of the Sustainable Slopes program. The USFS anticipates that a case-by-case learning tool on resort environmental practices can be used and distributed by NSAA to the member organizations.

Initiation of Regional-level Projects

As mentioned above, **BEF** partnered with eleven (11) ski areas in the Pacific Northwest in the 2004/05 season to address global warming through a regional Green Tags program. This was the first regional effort of its kind. The resorts (Cooper Spur, Hoodoo, Mission Ridge, Mt. Ashland, Mt. Bachelor, Mt. Hood Meadows, Timberline Lodge, Ski Anthony Lakes, Stevens Pass, Schweitzer Mountain and Summit at Snoqualmie), are purchasing green energy for their operations as well as making "mini green tags" available for purchase by resort customers. Visit www.skigreen.org for more information.



3.3 Future Work With Partnering Organizations

CLF and the **NFWF** hope to get more involved in partnering with eastern resorts on climate change-related projects.

The **USFS** is represented on the steering committee of a unique ski area environmental partnership among the Sierra Business Council, Lahontan Regional Water Quality Control Board, Alpine Meadows, Heavenly, Mammoth Mountain, and Northstar-at-Tahoe resorts in California. The goal of the partnership is to reduce soil erosion and improve water quality at ski areas in the Sierra Nevada.

Improving the Sustainable Slopes Program

BEF, **CDPHE** and **EPA** provided useful feedback on how to improve the Sustainable Slopes Program in 2005. Their insights and suggestions were invaluable in helping the industry overhaul the Sustainable Slopes program through its five-year review.

3.3 FUTURE WORK WITH PARTNERING ORGANIZATIONS

While the contributions outlined in Section 3.2 are impressive, another major benefit from Partnering Organizations' involvement in Sustainable Slopes comes from putting their expertise to work as we continue to improve the Charter and the Assessment Tool. Many of the Partnering Organizations have more to offer:

- Direct experience with developing voluntary environmental programs for other industries
- A long history of working with ski resorts and/or mountain communities on environmental issues
- Technical expertise in specific subject areas covered by the Environmental Principles

In combination, this experience is invaluable toward improving the Sustainable Slopes program. NSAA also wants to encourage new Partnering Organizations to join in the Sustainable Slopes program.



4.0 GOALS FOR THE FUTURE

In its 6th year, Sustainable Slopes continues to gain momentum in terms of leading the way for endorsing resorts as they strive to achieve ever greater environmental performance. During the year, NSAA completely updated the Environmental Charter to reflect continuing best management practices and resort results using the latest technologies to date. In addition, NSAA identified program enhancements, provided training at the Winter Trade Shows in Vermont and California, and conducted the annual reporting that makes up the bulk of this document. The organization also continues to emphasize climate protection through the “Keep Winter Cool campaign,” which has been quite successful at a number of resorts and has the potential to reach many more skiers in the years to come.

As Sustainable Slopes matures, the nature of its goals continually changes to meet the needs and expectations of member resorts and Partnering Organizations. In order to remain fresh and relevant in 2007, NSAA recognizes the need to shift from facilitating group reporting and blanket accountability to supporting the individual resorts in their efforts to improve their environmental performance. As a result of this shift, NSAA plans to develop additional tools and provide training opportunities, as

well as create meaningful incentives for Sustainable Slopes members and potential members. In this way, NSAA hopes to create sources of new momentum for a maturing voluntary program and recognize ever higher levels of performance while continuing to encourage broad participation and efforts across the industry.



In its role as facilitator, coordinator, and supporter for an industry-led initiative to raise environmental performance, NSAA plans to enhance its services in the areas of self-reporting and publishing. Rather than focusing on aggregated data collection next year, NSAA will assist resorts in gathering and preparing data that they can publish

themselves. The advantages to individual resort accountability include an enhanced sense of corporate and social responsibility on the part of resorts, and a public tool resorts can use to showcase individual achievements and examples of increased environmental performance.

NSAA commits to continue serving endorsing resorts in the following areas:

- Support the Assessment Tool for individual resort use.
- Improve the support provided to resorts so that they will be equipped to fulfill their commitments as endorsing resorts as the program requirements evolve.



4.0 Goals for the Future

- Recruit more resorts to endorse the Charter and to report their environmental performance progress.
- Look to Partnering Organizations to generate pilot program ideas; foster better sharing of learning; and provide more training, direct technical assistance, and resources to endorsing resorts.

Also in 2007, NSAA plans to support resorts with these new services:

- Facilitate the collective buying power of member resorts to negotiate competitive rates for renewable energy credits and support resorts in making associated purchases.
- Publish a Small Resort Energy Guide and associated training materials to enable resorts of all sizes to achieve measurable energy savings.
- Develop an annual environmental report template and encourage and recognize those resorts that self-report and publish their results.

NSAA is pleased with and encouraged by the progress made to date under the Sustainable Slopes program, and enthusiastically embarks on the changes described here and the opportunities ahead. However, the success of the Environmental Charter is directly proportional to the individual successes achieved by each endorsing resort. And it is by these successes, both great and small, that our overall goals for a sustainable future are made possible.



APPENDIX A
LIST OF ENDORSING RESORTS
AND CONTACT INFORMATION

Endorsing Resort	State	Charter Contact Person	Contact Phone	Contact Email
49 Degrees North Winter Resort	WA	John Eminger	(509) 935-6649 x614	jeminger@ski49.com
Alpine Meadows Ski Resort	CA	Matt Janney	(530) 583-4232 x311	mjanney@skialpine.com
Alpine Meadows Ski Resort	CA	Ed Lahr	(530) 583-4232 x333	edlahr@skialpine.com
Alta Ski Area	UT	Onno Wieringa	(801) 799-3333	onnnow@alta.com
Alta Ski Area	UT	Mark Pollish	(801) 7992260	markp@alta.com
Alyeska Resort	AK	David Wilson	(907) 754-1111	dwilson@alyeskaresort.com
Angel Fire Resort	NM	Jon Mahanna	(505) 377-4281	jmahanna@angelfireresort.com
Angel Fire Resort	NM	Todd Maculady	(505) 377-4349	tmacalady@angelfireresort.com
Arapahoe Basin	CO	Debbie Fritz	(970) 496-7041	debf@a-basin.net
Arapahoe Basin	CO	Alan Henceroth	(970) 513-5722	alanh@a-basin.net
Arizona Snowbowl	AZ	Eric Borowsky	(928) 779-1951 x119	
Ascutney Mountain Resort	VT	John Plaustainer	(802) 484-7711	
Aspen Highlands	CO	Auden Schendler	(970) 925-1220 x7152	aschendler@aspensnowmass.com
Aspen Mountain	CO	Auden Schendler	(970) 925-1220 x7152	aschendler@aspensnowmass.com
Attitash	NH	Tom Chasse	(603) 374-2603	tchasse@attitash.com
Attitash	NH	Krissy Fraser	(603) 374-2368	kfraser@attitash.com
Attitash	NH	Russ Van Deursen	(603) 374-2604	rvandeursen@attitash.com
Balsams Wilderness	NH	Richard Harris	(603) 255-3951	dharrisdninc.com
Bear Creek Ski & Recreation Area	PA	Mark Schroetel	(610) 682-7100 x332	marks@skibearcreek.com
Bear Mountain Resort	CA	Brent Tregaskis	(909) 584-0201	brent@bearmtn.com
Beaver Creek Resort	CO	Jim Funk	(970) 949-5750	jfunk@vailresorts.com
Beaver Mountain Ski Area	UT	Travis Seeholzer	(435) 753-0921	beaver@cache.net
Belleayre Mountain	NY	Patricia McVitty	845) 254-5600 x447	pgmccvitt@gw.dec.state.ny.us
Big Mountain Resort	MT	Jami Phillips	(406) 862-1940	jamip@bigmtn.com
Big Mountain Resort	MT	Fred Jones	(406) 862-1930	fredj@bigmtn.com
Big Sky Resort	MT	Madeleine Bessire	(406) 995-5000	
Bitterroot Resort	MT	Jim Gill	(406) 273-2223	jgill@betterrootresort.us
Black Mountain of Maine	NH	John Fichera	(603) 383-4490	johnf@blackmt.com
Blacktail Mountain Ski Area	MT	Steve Spencer	(406) 844-0999	skiing@blacktail.com
Blue Mountain Ski Area	ON	Lindsay Ayers	(705) 445-0231 x 6611	layers@bluemountain.ca
Bogus Basin Mountain Resort	ID	Steve Shake	(208) 332-5305	steve@bogusbasin.com
Bolton Valley Resort	VT	Mike Gallas	(802) 434-3444 x1049	mgallas@boltonvalley.com
Boreal Mountain Resort	CA	John Booth	(530) 426-3666	castle@thegrid.net
Boston Mills/Brandywine Ski Resort	OH	Kent Graham	(330) 467-2242 x3000	kgraham@bmbw.com
Boston Mills/Brandywine Ski Resort	OH	Sue Kananen	(330) 467-2242	skananen@bmbw.com
Breckenridge Ski Resort	CO	Cat Blackman	(970) 453-5000	
Bretton Woods Mountain Resort	NH	Jason Doyle	(603) 278-3302	jdoyle@brettonwoods.com

Endorsing Resort	State	Charter Contact Person	Contact Phone	Contact Email
Bridger Bowl Ski Area	MT	Randy Elliott	(406) 587-2111	bridgerbowl@imt.net
Brighton Ski Resort	UT	Zane R. Doyle	(801) 532-4731	rdoyle@skibrighton.com
Bristol Mountain Winter Resort	NY	Daniel Fuller	(585) 374-1130	dfuller@bristolmt.com
Brodie Mountain Resort	MA	Jim Van Dyke	(413) 443-4752	jvandyke@jiminny.com
Bromley Mountain Resort	VT	John Cueman	(802) 824-5522	jcueman@bromley.com
Brundage Mountain Resort	ID	Rick Certano	(208) 315-2742	rcertano@brundage.com
Bryce Resort	VA	Horst Locher	(540)856-2121 x225	skischool@bryceresort.com
Buttermilk	CO	Auden Schendler	(970) 925-1220 x7152	aschendler@aspensnowmass.com
Camelback Ski Area	PA	Richard Wiseman	(570) 629-1661	wiseman@skicamelback.com
Cannon Mountain	NH	Lorri Souza	(603) 823-8800 x721	lsouza@dred.state.nh.us
Cascade Mountain Ski & Snowboard Area	WI	Rob Walz	(608) 742-5588	robwalz@cascademountain.com
Cataloochee Ski Area	NC	Chris Bates	(828) 926-0285 x310	cbates@cataloochee.com
Copper	CO	Jen Schenk	(970) 686-2822	schenkj@coppercolorado.com
Cranmore Mountain	NH	Jim Mersereau	(603) 356-5543 x214	jmersereau.mc@boothcreek.com
Crested Butte Mountain Resort	CO	Mary Jo Somrak	(970) 349-2333	msomrak@cbmr.com
Crested Butte Mountain Resort	CO	Roark Kiklevich	(970) 349-2273	rkiklevich@cbmr.com
Crystal Mountain Resort	MI	Michael Call	(231) 378-2000	michaelcall@crystalmountain.com
Crystal Mountain, Inc.	WA	Lorna Fluegel	(360) 663-2265	mainoffice@skicrystal.com
Crystal Mountain, Inc.	WA	Bill Steel	(360) 663-3006	bill@skicrystal.com
Dartmouth Skiway	NH	Doug Holler	(603) 795-2143	doug.holler@dartmouth.edu
Deer Valley Resort Company	UT	Christa Graff	(435) 645-6522	christa@deervalley.com
Deer Valley Resort Company	UT	Erin Grady	(435) 645-6522	erin@deervalley.com
Deer Valley Resort Company	UT	Bob Wheaton	(435) 645-6669	bwheaton@deervalley.com
Devil's Head Resort & Convention Center	WI	Joe Vittengl	(608) 493-2251	joe@devilsheadresort.com
Discovery Ski Area	MT	Peter Pitcher	(406) 563-2184	peter@skidiscovery.com
Diamond Peak Ski Resort	NV	Jack Coughlin	(775) 832-1285	jack_coughlin@ivgid.org
Diamond Peak Ski Resort	NV	Ed Youmans	(775)- 832-1129	ed_youmans@ivgid.org
Dodge Ridge Ski Area	CA	Frank M. Helm, Jr.	(209) 965-4444 x306	frankhelm@dodgeridge.com
Durango Mountain Resort	CO	James Hards	(970) 385-2176	jhards@durangomountain.com
Durango Mountain Resort	CO	Mike McCormack	(970) 385-2148	mmcormack@durangomountain.com
Durango Mountain Resort	CO	Elizabeth Edwards	(970) 247-9000 x5162	eedwards@durangomountain.com
Eaglecrest Ski Area	AK	Gary Mendivil	(907) 790-2000	gary_mendivil@ci.juneau.ak.us
Eldora Mountain Resort	CO	Rob Linde	(303) 440-8700 x243	rob.linde@eldora.com
Elk Ridge Ski & Outdoor Recreation Area	AZ	James Justham	(928) 635-9434	mountaindreams@netscape.com
Gore Mountain	NY	Michael Pratt	(518) 251-2411 x1100	mike@goremountain.com
Gore Mountain	NY	Kurt Wisell	(518) 251-2411 x1101	kurt@goremountain.com
Grand Targhee Resort	WY	Larry Williamson	(307) 353-2300 x1300	lwilliamson@grandtarghee.com

Endorsing Resort	State	Charter Contact Person	Contact Phone	Contact Email
Grand Targhee Resort	WY	Andy Steele	(307) 353-2300	asteel@grandtarghee.com
Greek Peak Mountain Resort	NY	W. Scott King	(607) 835-6111 x134	sking@greekpeak.net
Gunstock Area	NH	J. Douglas Irving	(603) 293-4341 x106	doug@gunstock.com
Heavenly Mountain Resort	NV	Andrew Strain	(775) 586-2313	astrain@vailresorts.com
Hidden Valley Ski Area	MO	Tim Boyd	(636) 938-5373 x3311	timboyd@skihv.com
Holiday Valley Resort	NY	Jane Eshbaugh	(716) 699-2345 x4004	jeshbaugh@holidayvalley.com
Holiday Valley Resort	NY	Dennis Eshbaugh	(716) 699-2345 x4000	deshbaugh@holidayvalley.com
Hoodoo Ski Area	OR	Chuck Shepard	(541) 822-3799	umbrella96@aol.com
Hunter Mountain	NY	Scott Berwick	(518) 263-4223	sberwick@huntermtn.com
Hyland Ski and Snowboard Area	MN	Fred Seymour	(763) 694-7805	fseymour@threeriversparkdistrict.org
Jackson Hole Mountain Resort	WY	Tom Spangler	(307) 733-2292	toms@jacksonhole.com
Jackson Hole Mountain Resort	WY	Jerry Blann	(307) 733-2292	jerryb@jacksonhole.com
Jiminy Peak Mountain Resort	MA	Jim Van Dyke	(413) 738-5500 x3700	jvandyke@jiminy.com
Keystone Resort	CO	David November	(970) 496-3645	dnovember@vailresorts.com
Killington Resort	VT	John Cole	(802) 422-3333	jcole@killington.com
Kirkwood Mountain Resort	CA	Dave Myers	(209) 258-6000	davemyers@kirkwood.com
Liberty Mountain Resort	PA	Lonny Whitcomb	(717) 642-8282 x3388	lwhitcomb@skiliberty.com
Lookout Pass Ski Area	ID	Phil Edholm	(208) 744-1301 x10	phil@skilookout.com
Loon Mountain Recreation Corporation	NH	Ralph Lewis	(603) 745-8111 x5641	rlewis.lm@boothcreek.com
Lost Trail Ski Area, Inc.	MT	Bill Grasser	(406) 821-3742	ski@losttrail.com
Loveland Ski Area, Inc.	CO	Ken Abrahamson	(303) 571-5580 x135	kena@skiloveland.com
Mammoth	CA	Rusty Gregory	(760) 934-0731	rusty@mammoth-mtn.com
Mammoth	CA	Lisa Isaacs	(760) 934-2571 x3443	lisaacs@mammoth-mtn.com
Massanutten Ski Resort	VA	Steven Showalter	(540) 289-4950	sshowalter@massresort.com
Mission Ridge	WA	Michael Bourton	(509) 663-6543 x217	mbourton@nwi.net
Mohawk Mountain	CT	Carol Lugar	(860) 672-6100 x11	mmtn2@mohawkmtn.com
Monarch Ski and Snowboard Area	CO	Rich Moorhead	(719) 530-5040	rich@skimonarch.com
Mont Orford Int'l Tourist Area	PQ	Marc Beaudoin	(819) 843-6548	mbeaudoin@orford.com
Mont Ste-Marie Resort	PQ	Pascale-Isabelle Godin	(819) 467-5200	
Montana Snowbowl	MT	Bradley Morris	(406) 549-9777	brad@montanasnowbowl.com
Mount Bohemia	MI	Lonie Gliberman	(906) 487-9757	
Mount Snow/Haystack Ski Resort	VT	Heath Woods	(802) 464-1100 x4331	hwoods@mountsnow.com
Mount Snow/Haystack Ski Resort	VT	Gina Sarlo	(802) 464-3333	gsarlo@mountsnow.com
Mount Snow/Haystack Ski Resort	VT	Heath Woods	(802) 464-1100 x4331	hwoods@mountsnow.com
Mount Sunapee Resort	NH	Jay Gamble	(603) 763-2356 x168	jgamble@mtsunapee.com
Mount Tone Ski Area	PA	Ray Handley	(570) 842-2544	

Endorsing Resort	State	Charter Contact Person	Contact Phone	Contact Email
Mount Washington Alpine Resort	BC	Don Sharpe	(250) 334-5739	donsharpe@mountwashington.ca
Mountain Creek	NJ	Michael Renfrew	(973) 827-2000	mrenfrew@mountaincreek.com
Mountain Creek	NJ	Shannon McSweeney	(973) 827-2000	smcsweeney@mountaincreek.com
Mountain High Resort	CA	Paul Bauer	(760) 316-7806	pbauer@mthigh.com
Mt. Ashland	OR	Kim Clark	(541) 482-2897	kclark@mtashland.com
Mt. Bachelor, Inc.	OR	Janette Sherman	(541) 382-2442	jsherman@mtbachelor.com
Mt. Bachelor, Inc.	OR	Dan Rutherford	(541) 382-2442	drutherford@mtbachelor.com
Mt. Hood Meadows Ski Resort	OR	David Riley	(503) 337-2222 x259	driley@skihood.com
Mt. Hood Meadows Ski Resort	OR	Heidi Doss	(503) 337-2222	hdoss@skihood.com
Mt. Hood Skibowl	OR	Kirk Hanna	(503) 272-3206	khanna@skibowl.com
Mt. La Crosse	WI	Todd Schini	(608) 788-0044	info@mtlacrosse.com
Mt. Rose – Ski Tahoe	NV	Mike Pierce	(775) 849-0704	mp@skirose.com
Mt. Rose – Ski Tahoe	NV	Paul Senft	(775) 849-0704	ps@skirose.com
Mt. Shasta Board & Ski Park	CA	Gary Nordell	(530) 926-8600	skipark@snowcrest.net
Mt. Spokane Ski & Snowboard Park	WA	Brad McQuarrie	(509) 238-2220 x207	bradmquarrie@mtspokane.com
Northstar-at-Tahoe	CA	Terri Viehmann	(530) 562-2235	tviehmann.ns@boothcreek.com
Northstar-at-Tahoe	CA	John Loomis	(530) 562-2213	jloomis.ns@boothcreek.com
Nub's Nob Ski Area	MI	James Bartlett	(231) 526-2131 x10	bart@nubsnob.com
Okemo Mountain Resort	VT	Bruce Schmidt	(802) 228-4041	bschmidt@okemo.com
Otis Ridge	MA	Al Hewett	(413) 269-4444	ahewitt@otisridge.com
Panorama Mountain Village	BC	Gordon Ahrens	(604) 343-6941	gahrens@intrawest.com
Paoli Peaks, Inc.	IN	Felix Kagi	(812) 723-4696	fkagi@tds.net
Park City Mountain Resort	UT	Peter Curtis	(435) 649-8111	peterc@pcski.com
Pats Peak	NH	Kris Blomback	(603) 428-3245 x107	kris@patspeak.com
Pebble Creek Ski Area	ID	Mary Reichman	(208) 775-4452	info@pebblecreekskiarea.com
Pebble Creek Ski Area	ID	Dana Barrow	(208) 775-4452	danab@pebblecreekskiarea.com
Peek 'n Peak Resort & Conference Center	NY	Brad Gravink	(716) 355-4141	skiinfo@pknpk.com
Pomerelle Mountain Resort	ID	A.W. Anderson	(208) 673-5599	andwood@atcnet.net
Powder Ridge Ski Area	CT	Kenneth Leavitt	(860) 349-3454 x330	leavittkr@aol.com
Powder Ridge Ski Area	MN	Jerry Wahlin	(320) 398-5295	jerryw@powderridge.com
Powderhorn Resort	CO	W. Steven Bailey	(970) 268-5700 x2028	sbailey@powderhorn.com
Powderhorn Resort	CO	Jim O'Loughlin	(970) 268-5700 x2081	jimo@powderhorn.com
Red Lodge Mountain Resort	MT	Rob Ringer	(406) 446-2610 x109	
Red River Ski Area, Inc.	NM	Mike VanOrmer	(505) 754-2223	redriver@newmex.com
Saddleback, Inc.	ME	Tom McAllister	(207) 864-5671	tom@saddlebackmaine.com
Seven Springs Mountain Resort	PA	Scott Bender	(814) 352-2035	sbender@7springs.com
Shawnee Peak Ski Area	ME	Chet Homer	(207) 647-8444	chomer@mac.com
Sierra Summit Mountain Resort	CA	Richard Kun	(909) 866-5766	rck@snowsummit.com

Endorsing Resort	State	Charter Contact Person	Contact Phone	Contact Email
Sierra-at-Tahoe Ski Resort	CA	Evan MacClellan	(530) 543-3113	emacclellan.st@boothcreek.com
Ski Anthony Lakes	OR	Amy Barnes	(541) 856-3277 x16	abarnes@anthonylakes.com
Ski Bluewood	WA	Bruce Goodell	(509) 382-4725	bruce@bluewood.com
Ski Cooper	CO	Clint Yant	(719) 486-2277	info@skicooper.com
Ski Denton	PA	Joyce Knefley	(814) 435-2115	skidentn@penn.com
Ski Plattekill Mountain Resort	NY	Laszlo Vajtay	(607) 326-3500	laszlo@plattekill.net
Ski Plattekill Mountain Resort	NY	Ed Dalski	(607) 326-3500	
Ski Roundtop	PA	Gayle Kosyk	(717) 432-9631 x3712	gkosyk@skiroundtop.com
Ski Roundtop	PA	Lonny Whitcomb	(717) 432-9631	lwhitcomb@skiliberty.com
Ski Snowstar Winter Sports Park	IL	Ed Meyer	(309) 798-2666	info@snowstar.com
Ski Wenworth	NS	Leslie Wilson	(902) 895-9281	ljwilson@kerrcontrols.ca
Sleepy Hollow Sports Park, Inc.	IA	Rick Flatt	(515) 262-4100	
Smugglers' Notch Resort	VT	Mark Delaney	(802) 644-8851	mdelaney@smuggs.com
Smugglers' Notch Resort	VT	Tom McGrail	(802) 644-8851	tmcgrail@smuggs.com
Snow Creek Ski Area	MO	David Grenier	(816) 640-2200	dgrenier@skisnowcreek.com
Snow Summit Mountain Resort	CA	Richard Kun	(909) 866-5766 x120	rck@snowsummit.com
Snowbasin, A Sun Valley Resort	UT	Michael Jenkins	(801) 620-1000	mjenkins@snowbasin.com
Snowbasin, A Sun Valley Resort	UT	Denzel Rowland	(801) 620-1000	drowland@snowbird.com
Snowbird Ski & Summer Resort	UT	Jim Baker	(801) 933-2222	jbaker@snowbird.com
Snowmass	CO	Auden Schendler	(970) 925-1220 x7152	aschendler@aspensnowmass.com
Snowshoe	WV	Bill Rock	(304) 572-5611	brock@snowshoemtn.com
Snowshoe	WV	Ruth Bachman	(304) 572-5601	rbachman@snowshoemtn.com
Soda Springs Ski Area	CA	Matt Janney	(530) 426-3901	mjanney@borealski.com
Solitude Mountain Resort	UT	David L. DeSeelhorst	(801) 536-5706	dave@skisolitude.com
SolVista Basin	CO	Marise Cipriani	(970) 887-0506 x380	mcipriani@granbyranch.com
Spirit Mtn. Recreational Area	MN	Renee Appel Mattson	(218) 624-8501	renee@spiritmt.com
Spirit Mtn. Recreational Area	MN	Savannah Cowley	(530) 581-7130	savannah@spiritmt.com
Spirit Mtn. Recreational Area	MN	Derek Moore	(530) 583-6985	dmoore@spiritmt.com
Squaw Valley USA	CA	Ernst Hager	(530) 583-6985	
Steamboat Ski & Resort	CO	Lyn Halliday	(970) 871-5454	lhalliday@steamboat.com
Stevens Pass	WA	Chester Marler	(206) 812-4510 x4244	cmarler@stevenspass.com
Stowe Mountain Resort	VT	Robert Apple	(802) 253-3000	rapple@sprucepeak.com
Stratton	VT	Sky Foulkes	(802) 297-4242	sfoulkes@intrawest.com
Stratton	VT	Jenna Pugliese	(802)297-2200	jpugliese@intrawest.com
Sugar Bowl Resort	CA	Janell Adams	(530) 426-9000	
Sugar Bowl Resort	CA	Chris Parker	(530) 426-6705	cparker@sugarbowl.com

Endorsing Resort	State	Charter Contact Person	Contact Phone	Contact Email
Sugar Bowl Resort	CA	Sara Taddo	(530) 426-9000	staddo@sugarbowl.com
Sugarbush Resort	VT	Margo Mears	(802) 583-6300	mmears@sugarbush.com
Sugarbush Resort	VT	Bob Ackland	(802) 583-6301	backland@sugarbush.com
Sugarloaf USA	ME	Kimberly Truskowski	(207) 237-2000	ktruskowski@sugarloaf.com
Sunburst Ski Area	WI	James Engel	(262) 626-8404	jim@skisunburst.com
Sundance	UT	Julie Mack	(801) 223-4045	
Sunday River Ski Resort	ME	Marvin Collins	(207) 824-3000	mcollins@sundayriver.com
Sunlight Mountain Resort	CO	Thomas Jankovsky	(970) 945-7491 x205	tomj@sunlightmnt.com
Swain Ski & Snowboard Center	NY	Jon Gorton	(607) 545-6511 x3018	jgorton@swain.com
Taos Ski Valley, Inc.	NM	Gordon Briner	(505) 776-2291 x1222	gb@newmex.com
Tamarack Resort	ID	Hilary Heist	(208) 325-1058	hheist@tamarackidaho.com
Telluride Ski & Golf Resort	CO	Deanna Belch	(970) 728-6900	dbelch@tellurideskiresort.com
Tenney Mountain Ski Area	NH	Albert Bronander	(603) 536-4125	abronander@snowmagic.com
Terry Peak	SD	Thomas Marsing	(605) 584-2165	gmgr@terrypeak.com
The Canyons Resort	UT	F. Scott Pierpont	(435) 615-3302	spierpont@thecanyons.com
The Homestead	MI	Adriene Kokowicz	(231) 334-5000	akokowicz@thehomesteadresort.com
The Summit At Snoqualmie	WA	Dan Brewster	(425) 434-7669	dbrewster.sl@boothcreek.com
The Temple Mountain Ski Area	NH	Thomas Dill	(603) 924-6949	templemntskiarea@monad.net
Timberline Four Seasons Resort	WV	Tom Blanzly	(304) 866-4801	tomblanzly@yahoo.com
Timberline Lodge & Ski Area	OR	Jon Tullis	(503) 622-0707	jtullis@timberlinelodge.com
Tremblant	PQ	Christine Tremblay	(819) 681-2000	ctrembla@intrawest.com
Triple M-Mystical Mountain	NM	Chris Sparling	(505) 682-3698	rcs@hauns.com
Vail Mountain	CO	Luke Cartin	(970) 476-5601	lcartin@vailresorts.com
Wachusett Mountain Ski Area	MA	Tim McGuire	(978) 464-2300	tim@wachusett.com
Waterville Valley Resort	NH	Rob Batchelder	(603) 236-8311 x3172	rbatchelder.wv@boothcreek.com
Welch Village Ski Area, Inc.	MN	Leigh Nelson	(651) 222-7079 x21	welchvillage@usinternet.com
Whistler Blackcomb	BC	Allana Hamm	(604) 932-3141	ahamm@intrawest.com
Whistler Blackcomb	BC	Arthur DeJong	(604) 932-7080	adejong@intrawest.com
Whistler Blackcomb	BC	Kathy Jenkins	(604) 932-3134	kjenkins@intrawest.com
White Pass Ski Area	WA	Kevin McCarthy	(509) 672-3101	kevin@skiwhitepass.com
Whiteface	NY	Jay Rand	(518) 946-2223 x201	jrand@whiteface.com
Whitetail Mountain Resort	PA	Mike Schuman	(717) 328-9400 x3558	mschuman@skiwhitetail.com
Wildcat Mountain Ski Area & Summer Gondola	NH	Tom Caughey	(603) 466-3326 x211	tomc@skiwildcat.com
Willamette Pass Ski Corp.	OR	Charles Wiper, III	(541) 345-7669	cw3@willamettepass.com
Windham Mountain	NY	Daniel Frank	(518) 734-4300 x1350	dfrank@skiwindhammountain.com
Winter Park Resort	CO	Doug Laraby	(303) 316-1509	dlaraby@skiwinterpark.com
Wintergreen Resort	VA	Bob Ashton	(434) 325-2200	bashton@wintergreenresort.com
Wintergreen Resort	VA	Sarah Lovejoy	(434) 325-2200	slovejoy@wintergreenresort.com

Endorsing Resort	State	Charter Contact Person	Contact Phone	Contact Email
Wisp at Deep Creek Mountain Resort	MD	Jerry Geisler	(301) 387-4911 x2173	jgeisler@wispresort.com
Wolf Creek Ski Area	CO	Davey Pitcher	(970) 264-5826	

APPENDIX B
ENVIRONMENTAL CODE OF THE SLOPES



SUSTAINABLE SLOPES

The environmental charter for ski areas

WHAT YOU CAN DO

6 Steps To Sustainable Slopes

1. PACK IT IN — PACK IT OUT

Leave nature how you found it.

2. RESPECT WILDLIFE

by observing trail closures and ski area boundaries.

3. SHARE A RIDE

so we can breathe fresh air and see the views.

4. BE CONSIDERATE

of others' experiences and let nature's sounds prevail.

5. GET INVOLVED

in your local resort or community's environmental programs.

6. SPREAD THE WORD

to your liftmates, friends and family.

www.nsaa.org

Get online at www.nsaa.org for participating resorts and events that promote Sustainable Slopes.

APPENDIX C
CLIMATE CHANGE/"KEEP WINTER COOL" MATERIALS



CLIMATE CHANGE POLICY

Ski areas across the country adopted an Environmental Charter in 2000 to address the environmental concerns of our industry. The Charter, commonly referred to as “Sustainable Slopes,” identifies climate change as a potential threat to the environment and our business. Although we are not a major source of greenhouse gas (GHG) emissions, many resorts across the country already are taking steps to reduce their own, limited GHG emissions.

To collectively address the long-term challenges presented by climate change and continue our commitment to stewardship under the Sustainable Slopes program, we hereby adopt this climate change policy. Through this policy, we aim to raise awareness of the potential impacts of climate change on our weather-dependent business and the winter recreation experience; reduce our own greenhouse gas emissions; and encourage others to take action as well. We are committed to working toward solutions that will keep both the environment and economy healthy and preserve quality of life. To this end, we will take the following actions:

- Educate the public and resort guests about the dependence of winter sports on natural ecosystems and the potential impacts of climate change on the winter recreation experience; educate guests on how they can help reduce GHG emissions.
- Raise policy maker awareness of the dependence of winter sports on natural ecosystems and the potential impacts of climate change on the winter recreation experience.
- Advocate the national reduction of GHG emissions through legislative, regulatory or voluntary measures.
- Support sound, science-based solutions to climate change, including the use of renewable energy technologies.
- Partner with appropriate organizations and agencies to assess opportunities to reduce resort emissions and increase energy efficiency; invest in new, more efficient products, practices and technologies; and measure our emission reductions.



Keep Winter Cool

SUSTAINABLE SLOPES
The environmental partner for all seasons

Help Stop Climate Change

- **SHARE A RIDE** carpool, drive an efficient car or take shuttles to help reduce greenhouse gas (GHG) emissions.
- **BE AN EFFICIENT CONSUMER** buy energy-efficient household appliances and replace normal lightbulbs with compact fluorescent bulbs.
- **TURN OFF LIGHTS AND HEAT** when you leave a room at our resort or your home.
- **BUY CLEAN ENERGY FOR YOUR HOME** contact your local utility to see if "green electricity" is available to power your home through renewable energy sources like wind power.
- **CONTACT YOUR ELECTED REPRESENTATIVES** and ask them to do more to reduce CO₂ emissions and keep winter cool for skiing and snowboarding.
- **SPREAD THE WORD** to your liftmates, family and friends.

www.nsaa.org
Go online at www.nsaa.org for more information on Sustainable Slopes and climate change.

PHOTO: TIM HANCOCK