

## **Park City Mountain Resort “Green” Initiatives**

Park City Mountain Resort is leading the way in our community to become more environmentally sound. We recognized that as an organization we needed a better understanding of how the Resort operation impacts our environment. Therefore, we purchased a specific software package that made it possible to do an in-depth internal audit to learn what type of greenhouse gases we release, where they are generated from within the organization and the amount we introduce into the atmosphere. This information was used to set goals for carbon reduction and allow us to track and quantify the success or failure of our goals. In response to the findings, Park City Mountain Resort has officially formed a Green Team – made up of employee volunteers with one goal in mind – to reduce Park City Mountain Resort’s carbon output within each facet of our organization.

Since 2005 our energy reduction initiatives have reduced our carbon footprint by over 11,992 tons of CO<sub>2</sub>. In addition, our purchase of alternative energy to offset 100 percent of our power use has reduced our carbon footprint by over 29,433 tons. These combined efforts result in a reduction of our carbon footprint by 55 percent since 2005. Avoiding the emission of 41,425 tons of CO<sub>2</sub> is equivalent to taking 7,185 cars off the road for one year or saving the electricity use of 4,561 homes annually.

In an effort to reduce our carbon footprint, here’s a look at what Park City Mountain Resort is doing:

### **Recycling and Product Reuse**

- **Resort:**
  - The Resort recycles and/or reuses recyclable materials including: aluminum, glass, plastic, cardboard, tires, antifreeze, batteries and paper, among other materials.
  - Since 2007/2008 season we’ve recycled 114,780 pounds of commingled material that would have been taken to the landfill and 138,903 pounds of cardboard.
  - The Resort uses toilet paper from sustainable resources and recycled paper towels in all restroom facilities.
  - Lift bull wheel and sheave wheel rubber, steel, antifreeze, batteries and tires are recycled once they are no longer useable and all waste oil is reused for heat.
  - The Summit House, Legacy Lodge and Mid Mountain Lodge use washable plates and silverware saving approximately 450,000 disposable plates, bowls and utensils from the landfill every ski season.
- **Corporate Offices:**
  - The Resort has initiated an in-house recycling program by collecting newspapers, office paper, aluminum cans, cardboard, glass and plastic bottles.
  - The Resort trail maps and employee handbooks are recyclable.
  - The offices reuse paper that has been printed on one side, and have substantially reduced paper use by emailing reservation confirmations rather than mailing them out.
  - "Junk faxes" received by the Resort offices are recycled and the sender is contacted to remove the Resort’s fax numbers from their distribution list.
  - Employees use provided metal silverware, rather than using disposable spoons and forks.

### **Facility Energy Use**

**Christmas lighting gives the Resort Plaza a holiday feeling year round however we use them as security lighting as well. Since they are on during dark hours year round we realized the need for more efficient lights. In the Fall of 2009 we upgraded the Christmas lights from incandescent to LED. We estimate our savings on electricity will be over \$1100 annually and we'll reduce our carbon footprint by over 23,000 pounds of CO2.**

**For the second year in a row Park City Mountain Resort has received the Energy Star designation from the US EPA for their Team Building and it's outstanding performance in energy conservation and in reducing carbon emissions. The Team Building has exceeded the EPA's Energy Star requirements by reducing its greenhouse gas emissions by 45% below the national average office building (adjusted for size and climate). This represents a reduction of 175 metric tons of carbon dioxide in a year, a remarkable contribution to the greening of Park City.**

- Park City Mountain Resort has purchased over 45 million kWh's hours of wind power, for the last two years we have offset 100% of the Resorts power consumption. The use of wind power has offset the Resort's carbon footprint by over 29,000 tons.
- The Resort has installed lighting timers, controllers, dimmer switches, more accurate programmable thermostats, motion sensors for lights, more efficient heaters, energy efficient appliances and lighting as well as shuts down mountain buildings almost completely during the summer months and off season. These energy saving initiatives reduced our carbon footprint by 932 tons per year.
- The Resort installed 33 new fully automated SMI Super Pole Cat Fan Guns. The area in which these snow guns were installed represents 30 percent of the Resort's total snowmaking operations. These fans are more energy efficient and allow us to make snow at slightly warmer temperatures as well as eliminate the need to operate our air compressors to run them, therefore saving electricity. The installation of these snowmaking fans has reduced our carbon emissions by over 800 tons per year.
- We have installed six Variable Frequency Drives in our cooling tower (three are on 25 HP fans and three on 20 HP transfer pumps). These drives will decrease our power consumption by 25 percent, with an estimated reduction of carbon by 129 tons per year.
- We replaced our 1 1/8-inch round nozzles with 1-inch oval nozzles and re-chambered 30 Ratnik II+II snow guns. This will increase the guns air to water ratio by 30 percent and reduce our carbon offset by an estimated 664 tons per year.
- The Resort utilizes a waste oil heater, which is designed to produce heat via waste oil rather than commonly used propane. The Resort generates between 1500 to 1700 gallons of waste oil per year and uses this waste oil to heat the maintenance shop, instead of using nearly 2600 gallons of propane to heat the same building.

#### **Facility Water Use**

- The Resort uses battery operated sinks and low-flow flush valves in all public buildings. When faucets need to be replaced they are replaced with 32% more efficient fixtures.
- The Yurt has waterless toilets that compost waste.
- The Resort has installed 59 waterless urinals. It is estimated that each one of these urinals can save 40,000 gallons of water per year.
- During summer months, all culinary water is shut off to buildings.
- The King Shop (maintenance building) uses recycled water for steam cleaning areas and separates any oil from water to use for heating.
- The Resort teamed with the town of Park City to dredge the main snowmaking pond and restore it to its original depth. Up to eight feet of sediment was removed to increase storage as well as maintain minimal downstream flows with cleaner water.

## **Air Quality**

- The floor in Legacy Lodge is VOC (Volatile Organic Compound) compliant. \*\*VOC compliant means the materials used do not produce harmful air pollutants.
- All the paint that is used in or on Resort buildings are VOC compliant.
- The carpet cleaning company that the buildings department hires is VOC compliant.
- The Resort has decreased the snowmobile fleet by 30 percent, therefore reducing carbon emissions by over 31 tons per year.
- The use of bio-diesel in all of the Resort's snowcats, heavy equipment and lift apu's reduced our carbon emissions by 1,128 tons over the last five years.
- The Resort's vehicle fleet has reduced warm-up time for snow cats by parking inside whenever possible.
- The Resort's individual departments set goals for fuel efficiency such as a no idle policy, less idle time for equipment when needed, car pooling up the mountain, better organization of the work day to reduce unnecessary vehicle trips, snowcat operators running the equipment with the foot pedal instead of the hand throttle, close tracking and management of fuel use and 4-day work weeks. These department initiatives reduced our carbon emissions by over 4000 pounds per year.

## **Summer Activities and Landscaping/ Water Use**

**The Resort used a wood chipping service to chip old lumber instead of sending it to the landfill. We got over 40 cubic yards of wood chips and we'll use those on property.**

- The Resort replaced most sod with gravel and wood chips to reduce the daily use of water for ground maintenance.
- The Resort replaced sprinkler system parts to reduce leaks and make its water use more efficient.
- The majority of the plants and landscaping require minimal maintenance and water.
- Overall the manmade landscaping is minimal, keeping a majority of the natural environment on the mountain.
- Lights for summer evening activities are on a timer, assuring they are not running when it is not necessary.

## **Fish, Wildlife, Forest and Vegetative Management**

**Cutting new trails with saws, brush cutters and a portable tree chipper is used instead of heavy equipment when possible.**

**The Resort has put gravel on several miles of interior access roads to reduce erosion.**

- The Resort has a weed control plan in place utilizing appropriate broad-leaf herbicides as well as using grazing goats for area management in the areas that are less appropriate for spraying. We did stop using the goats after a couple years. We couldn't keep them contained and they didn't eat thistle as well as expected.
- Resort areas are seeded with appropriate native vegetation for erosion control.
- The Resort has in-house GPS mapping of the weed control areas and forecasting to streamline the process and reduce excess energy use.
- The Resort has a "weed team" in place during spring and summer and uses weed specific equipment including a tank sprayer to maintain forest management.
- The entire staff takes part in the annual Park City Mountain Resort Mountain Clean-up Day, following the snow melt.
- The Resort has a series of bird boxes installed in Mountain Bluebird Habitat along Ski Team Ridge.
- During the fall hunting season, the Resort is monitored to keep hunters off the land, which creates a "safe haven" for deer and elk.

- Wet season vehicle traffic is minimized in most areas, especially the Shadow Lake area and wet lands, to prevent erosion.
- The catchment area below King Con lift provides wildlife habitat and improves water quality flowing out Thaynes Canyon.

Do it Yourself: Help Save Our Snow:

- Replace a single 60 watt incandescent light bulb with a 15 watt cfl. This will save enough energy to power 2.5 million homes over the 5 to 8 year life of the cfl. It's equivalent to taking 800,000 cars off the road. If you can replace one, why not replace the 5 most frequently used bulbs in your home with cfl's!  
**P.S.** The production of electricity is responsible for 40 percent of global warming pollution in the U.S.