



### Energy Use

- A state-of-the-art Energy Management System controls lighting, heating, cooling systems, space temperatures, demand cycling and many life safety functions throughout the resort. This system ensures operation of all of our mechanical systems in the most efficient manner possible.
- During our renovations, additional insulation was installed including all new thermal panes and energy efficient windows. Mechanical distribution piping was replaced with pipes wider in diameter to prevent friction loss and insulation material to become more efficient.
- Overburdened electrical distribution systems were completely redesigned and replaced with new more efficient equipment.
- A waste heat recovery unit is used in our laundry system and recovers heat from the wash cycle to preheat the cold water, causing significant reduction in natural gas usage.
- Occupancy sensor thermostats are installed in the Cottage and original West guest rooms to reduce energy used when not occupied.
- Upgraded boiler at Cheyenne Lodge. (90% efficient gas boiler replaced electric boiler)
- Existing CP boiler upgrades.
- Outdoor pool not heated in winter season to conserve energy.
- Continued upgrades to our DDC systems annually. Adding additional control points for lighting and HVAC controls.
- The conversion of more than 30,000 of our existing light fixtures to compact fluorescents, cold cathode fluorescents and LEDs. Conversion of incandescent lighting and metal halide lighting to efficient T8, T5, Biax, cold cathode fluorescents and LED's improve light levels, reduce energy costs and reduce maintenance concerns.
  - Environmental Impact:
    - Reduction of our annual electrical consumption by over 5,300,000 kWh
    - Reduction of demand by 1,139 kW
    - Pollution reduction of: Carbon Dioxide (in Tons) = 6,430.6
    - Sulfur dioxide ( in Kg) = 53, 588 and Nitrogen Oxide ( in Kg) = 21,435
    - 9,646 Barrels of crude oil and 2,519 tons of coal that will not be burned by electric power plants. The equivalent to eliminating the pollution from 750 cars per year or planting 1,554 trees per year.

### Waste Generation

- A Recycling Manager to oversee our conservation and recycling efforts.
- The hotel brought in a Compliance Officer with the Colorado Department of Public Health and Environment to train our staff and inspect the property. This was performed to assist us in ensuring all of our waste/controlled substances and disposal materials are handled in an environmentally sound and compliant manner, adhering to all applicable

statues and good business practices. This included all Laundry, Grounds and Engineering Operations.

- Four cardboard balers are located on each loading dock are used to process boxes from exhibitors, the kitchens and groups. Employees are trained to use the bailer and to discard cardboard in the bailer instead of the trash compactor.
- Separate dumpsters are used for paper products and co-mingled items: plastic, aluminum and glass.
- Recycle bins are located in each office copy room for staff office paper, as well as co-mingled items.
- Recycling of all refuse metals including copper, brass, and aluminum cans.
- Recycle customer hangers for hotel use and metal recycling.
- Recycle all plastic bags from the dry cleaners.
- Recycle all detergent drums to our supplier.
- Recycle all paper including order invoices.
- In-room recycling program for paper, plastic, and aluminum.
- Full size empty amenity program reduces the amount of plastic waste from personal sized shampoo, conditioner, body wash, and lotion.
- Recycling bins available for groups, along with behind-the-scenes recycling for co-mingled products.
- Select conference cups are biodegradable and made from corn.
- All cooking grease is contained in 55 gallon drums and recycled into bio-diesel.

### **Water Use**

- Ice machines hooked up to closed loop condenser water, eliminating flow-through usage.
- All irrigation systems include: vast drip irrigation systems, rain monitoring systems and remote computer-controlled operation.
- Toilets in all guest rooms are low-flow and showers are flow-restricted.
- Display fountains are run during restricted hours only and all are recirculating.
- The outdoor swimming pool has a state-of-the-art backwash system which minimizes water usage.
- Direct contact water heater is used.
- The Hotel eliminated seven evaporation and mechanical cooling systems throughout the complex during the upgrade of our Central Power Plant. The project reduces water usage, electricity and chemical treatments.

### **West Renovation**

*During the 2014 West building renovation the following improvements were completed:*

- Electric water heaters replaced 95% efficient natural gas boilers.
- Air conditioning chiller equipment replaced with new equipment that is 40% more efficient.
- One cooling tower completely eliminated. Two buildings now fed from a single cooling tower, reducing both electric and water use.
- Heat exchanger installed to eliminate the need for mechanical cooling on days cooler than 75 degrees outside, significantly reducing energy use.

- Variable frequency drives installed on all pumps reducing energy use.
- Occupancy sensing thermostats installed in guestrooms to reduce energy use when rooms are not occupied.
- Installed new guestroom refrigerators that use almost 80% less energy.
- Energy management system modernized.
- Low-E insulated glass in all new exterior doors and windows.
- Majority of lighting replaced with modern LED lighting.
- Low flow, water conserving toilets, sinks and shower heads installed in all guestrooms.

### **Conservation and Green Initiatives by Department**

#### **Golf**

- The golf courses are certified Audubon Sanctuaries, which recognize the highest level in environmental policies.
- The hotel converted over 50 acres of highly maintained turf grass to native varieties of grasses and wildflowers.
- Installed below ground, moisture and temperature sensors communicate every five minutes with central irrigation computers to efficiently control water on the courses.
- Two onsite weather stations communicate directly with central irrigation computers to optimize our watering efforts.
- Continued irrigation audits conducted by an outside water engineering firm to identify inefficiencies with nozzles and seals so they can be replaced.
- Hand watering of high playability areas to reduce water usage, and promote dry and firm playing conditions.
- The golf courses regularly aerify and verticut turf grass in all areas to promote deeper rooting and water infiltration.
- The golf courses installed the highest quality irrigation sprinklers manufactured by Toro Company allowing each sprinkler to be individually adjusted for arc and trajectory. This allows for effective irrigation under trees and saves water in windy conditions.
- Non-potable water is used for irrigation.
- Participant in the USGA Carbon Transfer program.
- Nozzles and seals for over 500 sprinkler heads improved irrigation efficiency by 10%.
- Regular use of wetting agent surfactants improve irrigation distribution.
- The Broadmoor utilizes a fleet of E-Z-GO electric golf carts.

#### **Tennis**

- The Hotel has a partnership with the United States Tennis Association and Bolder Path. Bolder Path collects tennis waste resources (tennis balls, windscreens, banners, signage, etc...) and repurposes those items by remanufacturing other goods and products. For instance, used tennis balls are remanufactured into dog toys. Our used windscreens can be made into bags, totes and accessories.
- We donate all of our used tennis balls for multiple uses. Other purposes for used tennis balls are bumpers on walkers of the elderly, toys for the Humane Society dogs and art classes in the schools. Used plastic tennis ball cans are also repurposed for school projects.

## **Grounds**

- Grass is mowed with mulching mowers so that the grass clippings are returned to the soil.
- All smaller organic materials collected on the ground (old flowers, weeds, leaves, twigs, etc.) are placed in a special dumpster which we pay to have removed and composted at another facility.
- When planting flowers or shrubs all plastic packs or pots are recycled. At the end of the season any leftover “emergency fill in flowers” are hand removed from their packs or pots, with the organic material going into the organic dumpster, and the plastic into our single stream recycling bins. We are currently participating in an experimental greenhouse program that cuts down the amount of plastic used in growing flowers for landscape use.
- At the end of the season most of the flowers in the flower beds (wherever we can get a mower in) are mowed off with a mulching mower and the organic material returned to the soil. Any that have to be pulled go into the organic dumpster.
- The Hotel takes soil tests on various areas of the Grounds in general, but lately have increased the frequency in the flower beds so that we can customize the fertilizer used in each bed depending on its current nutritional status. This helps us keep from overloading the soil with unneeded nutrients that simply leach away into the groundwater (in particular Nitrogen, Potassium and Phosphorus). Organic fertilizer is used where possible.
- The Hotel works very hard and do a lot of research into finding pesticides that will do what we need and be as environmentally (and employee) friendly as possible. Whenever possible insecticides that are completely specific for the targeted pest are used so as to not harm beneficial insects. We do on occasion use beneficial insects and nematodes themselves for insect control.
- The Hotel uses as many natural biological products as possible for disease control, and we are very careful about avoiding products that can harm bees.

## **SPA**

- At the Spa at the Broadmoor, we use various natural and organic products for services and in retail. Our Spa Ritual nail line is 100% Vegan and natural as well as many of the products used during our manicures and pedicures. Our salon also carries ColorScience makeup and Moroccan Oil hair products, which are both natural and organic lines. For our facial services and treatments, we sell and use Emergin-C, Epicuren, and Zents to keep our spa green. Kneipp and Pure Fiji body lines are a few more natural products that are also available. Guests can enjoy a natural and organic tea, Teatulia, during their relaxation times.
- *Organic Spa Magazine* – Top Ten Green Spa 2014.
- As a team at the spa we recycle water used in the serenity showers. Recycling paper and plastic is also an initiative. Agents ensure that paper is used cautiously and recycled.
- Guests enjoy a natural and organic tea, Teatulia.

## **Food and Beverage**

- A variety of vegetables and herbs are organically grown in the onsite vegetable greenhouse and garden and delivered directly to the hotel restaurants, reducing carbon emissions and providing fresher and better tasting produce.
- The vegetable greenhouse and garden is maintained through eco-friendly practices, as the vegetables are grown by seed in the greenhouse until mature enough to be transplanted in the garden and harvested for the hotel restaurants.

- The Natural Epicurean has a sincere focus on sustainability and natural foods, as noted below:
  - In addition to Broadmoor Farms and Greenhouse, a large majority of the Natural Epicurean's food is sourced through our own former Executive Chef, Sigi Eisenberger's farm Bio Herbs and More.
  - Natural Epicurean makes every attempt to use only sustainable fish and seafood.
  - The back wall of the Natural Epicurean kitchen is made from recycled glass and plastics.
  - The wood floor is repurposed Cyprus.
  - All lighting fixtures hanging from the ceiling, and the ceiling itself, are made from repurposed items.
  - The server uniforms are made from a percentage of recycled plastics.
  - Natural Epicurean's "to-go" wares are provided by BottleBox, made entirely from recycled plastics, along with silverware, napkins, etc., all of which are recycled.
  - The water glasses in Natural Epicurean are recycled from our wine bottles.

### **Housekeeping**

- Scrap paper is reused for notes.
- Linens / towels / blankets / pillows donated every six months to a partner group that takes the items to South Dakota Indian Reservations to be reused.
- Marion House /product donations-again old linens, towels, blankets.
- Old table cloths are donated to a printing company for rag use.
- Linen Reuse Program implemented to cut down on waste.
- Soaps, amenities, toilet paper partial rolls are donated to a local Women's Shelter.
- Newspaper recycling daily.
- Due to new amenity program, smaller numbers of physical newspaper copies are being distributed as guests now have access to online, digital newspapers.

### **Retail**

- All the hotel shopping bags and boxes are made from recycle materials and the ink used is earth friendly.
- We issue water bottles to our staff for daily use so they do not use plastic water bottles.
- We feature organic cosmetics in the Cosmetic Shop
- We use only the purest, most effective fair trade, natural and organic ingredients available. We travel the globe to find the highest quality ingredients to formulate our products. Each ingredient is selected with great care to ensure a sustainable and eco-friendly supply chain.
  - Acure: We use only the purest, most effective fair trade, natural and organic ingredients available. We travel the globe to find the highest quality ingredients to formulate our products. Each ingredient is selected with great care to ensure a sustainable and eco-friendly supply chain.
  - Juice Beauty: At Juice Beauty our mission is to bring skincare with the highest percentage of certified organic ingredients to customers worldwide. To that end, we have come up with a unique formulation method, our certified organic juice base.

- All packing materials are reused to ship items from our department.
- The Pet Boutique sells recycled Pet toys (from old tires, tennis balls and climbing rope).
- The Hotel sells mittens by a local company who recycles old sweaters. Rocky Mountain Mittens
- Elite Therapeutics (In Room Amenity) developed a unique amenity line specifically for The Broadmoor. The company was founded by Dr. Kevin Schewe who lives and practices oncology in Denver. Dr. Schewe started Elite Therapeutics to help his cancer patients heal while undergoing radiation and chemotherapy. All products are paraben-free, sulfate-free and made with natural ingredients.
- The Hotel carries children's puppets that are made from recycled scrap fabric (Kate and Levi), knives that are made from found antlers and wood, wood cutting boards made from reclaimed wood, products made from driftwood, leather and canvas goods that reintroduce and reconstitute vintage into modern products, and products that incorporate invasive wood that attacks indigenous North American trees.
- In room amenities are paraben-free, sulfate free, and made with natural ingredients.
- The resort sells items made from recycled yarn, antlers, wood and plastic bottles.

### **Social Impact**

- We award up to \$6,000 in scholarships to employees who are seeking degrees each year.
- Once an employee reaches 6 months of service, they are eligible for tuition reimbursement. The longer the employee has been here the more reimbursement they can receive. An employee who has been here for 5 years can receive \$5,000 per year in reimbursement for school.
- In addition, we have a food bank that we stock internally to take care of any employees who may need assistance.
- Internationally based employee programs both supporting work travel and educational VISAs which have been viable and life changing for many participants. Such as our Jamaican family members, some who have been part of the program since the beginning, over 14 years ago.
- We also do a school supply drive each Fall and distribute school supplies to employees with school age children.
- We have organized Broadmoor employees to volunteer each month for a local cause. Year to date, we have given over 500 hours to volunteerism as an organization in 2013. United Way Campaign
  1. Our employees have been contributing to United Way for nearly 15 years.
  2. We have over 30 Leaders in Giving (individuals who give \$1,000 or more each year).

### **Volunteerism**

PRIDE Committee members each hosted several volunteer opportunities for all Broadmoor Employees to participate in based on their time and passion. As of February 2013, we have had 116 Broadmoor employees volunteer 510 hours of community service. The organizations that were partnered with are as follows:

- ARC
- Boo at the Zoo

- Breast Cancer Race for the Cure
- Brain Injury Alliance
- Christmas Unlimited
- Cystic Fibrosis
- Derby for Diabetes
- Dream Power Animal Rescue
- Fire Mitigation Team
- Habitat for Humanity
- Marian House Soup Kitchen
- Namaste (Alzheimer's)
- Silver Key
- Susan G Komen Race for the Cure
- Trails and Open Spaces, Cheyenne Canon
- Traumatic Brain Injury, Pikes Peak Challenge