SUSTAINABLE OPPORTUNITIES SUMMIT
SPECIAL 16-PAGE SECTION Page C-1

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The state of the s

The retail giant's promise to track the life cycle of every product it sells has raised the bar on what it means to be sustainable. That's old news to Colorado companies like New Belgium Brewing, Vail Resorts and Golden Aluminum.

Page 22

BUSINESS BRACES FOR OBAMA-CARE

WHY LAKE MEAD'S DECLINE MATTERS TO COLORADO

UDI BARON'S FOOD EMPIRE

How has it worked so well for Abelkis and the hospital?

"Personal responsibility and choice," Abelkis said. "In this hospital there is no mandate or policy that says you have to recycle. There is no law and no one can get in trouble, but 99 percent of our employees do it. Why is that?

"Because most people want to do it, they want to participate. This hospital has said, 'This is important to us and we would like you to be part of that effort."

Not every business shares those same values. To those interested in starting a program in a company that doesn't seem to care about sustainability Abelkis suggests finding a narrative, a way to make the issue personal for each individual. It might be cost savings for a manager or limiting emissions for an employee who has a child with asthma.

In many cases, programs are started small. Maybe a recycling program within just one department or just a few likeminded employees who are dedicated and

persistent and encourage others to participate. Abelkis also suggests working with company leaders to craft an environmental statement to be adopted as policy. It can take time, patience and dedication.

"I would say it really is driven by the bottom, but at some point, mindful people at the top will go, 'Oh, that seems to be working. Hmmm, my community supports this. Hmmm, my employees support this. I think we need to support this," Abelkis said.

Abelkis says every business can start somewhere. At BCH it came after steady nudging from employees themselves who started recycling cardboard and aluminum cans and now send expired medical products that, by law, can't be used in the United States to Project C.U.R.E. for use in developing countries around the world.

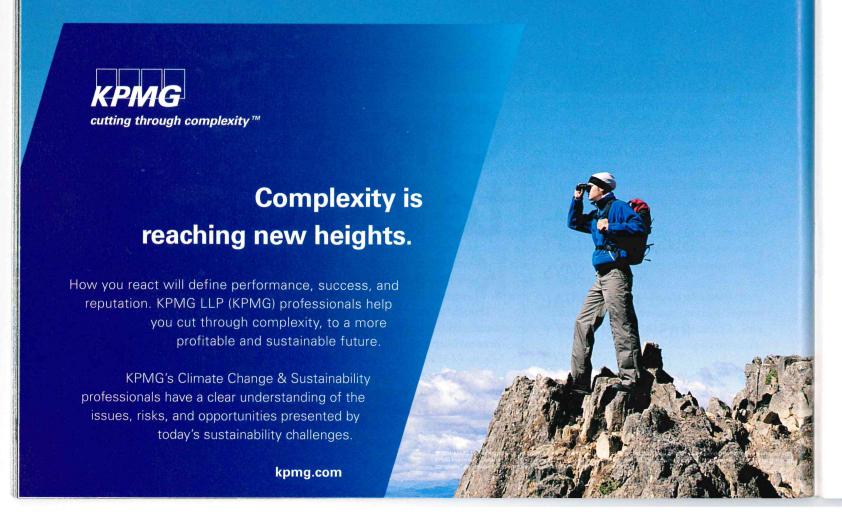
The sustainability program at the hospital originated in the early 1990s with two nurses starting a small recycling program, Abelkis said. In 1995, the hospital hired a recycling coordinator, and it graduated to a

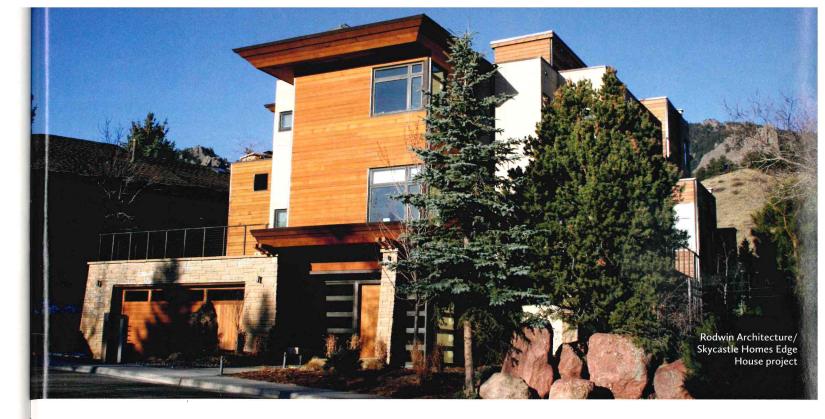
sustainability coordinator when Abelkis was hired in 1999 after moving to Boulder from Chicago. In the years since, the program has grown to save BCH more than \$600,000 a year "in cost savings and cost avoidance."

Abelkis said an important step for any company in truly pursuing that same level of savings and efficiency is hiring or assigning a sustainability coordinator. He said the job is much more than organizing recycling efforts.

It's about finding ways to save electricity and water, use fewer products, modify transportation, make the building itself more efficient. Abelkis works with the city, county and state as well as manufacturers every day. His is a growing field with more companies and government agencies hiring sustainability coordinators each year.

"There is no one way to do it with each organization," Abelkis said. "You really have to mold it. At the end of the day, you really have to do the work."





Sustainability Champion Awards

STATE PROGRAM CELEBRATES BUSINESS. GOVERNMENT AND NONPROFIT EFFORTS TO CONSERVE ENERGY, REDUCE WASTE AND PROMOTE RECYCLING

o be a true champion of sustainability, you need to do more than replace your old light bulbs with compact fluorescents. Do you know how much energy you use? How much waste are you recycling? How much power are your computers draining from the grid when you're not using them?

The Colorado Department of Public Health and Environment and the Colorado Environmental Partnership have partnered with Connected Organizations for a Responsible Economy (CORE) and ColoradoBiz to present the awards.

A team of judges from the state of Colorado and CORE selected the winners from dozens of entries. They examined how each team met criteria for the environment, economy, innovation, society and education. The profiles on these pages offer a snapshot of how the winners and finalists addressed those issues.

Rodwin Architecture/ **Skycastle Homes** Finalist, small category (Less than 50 employees)

Rodwin Architecture and its construction and sustainability consulting arm, Skycastle Homes, provides a comprehensive approach to green building, which has helped the company defy the building slump of the last couple of years, its founder says.

"Sustainability has been a key principle of the architecture firm since I started it in 1999," Scott Rodwin said. "It has really helped us from a business perspective ride out this recession. We found that the one sector of the design and construction economy that is still active has been the sustainable design portion."

Focusing on sustainable design has helped the firm reclaim the "master builder" concept that architects have struggled to maintain as engineers, builders and specialists take over responsibilities once handled by architects, Rodwin said.

"It means we have greater responsibility. We have to become experts in a wide range of things," Rodwin said. "We saw that as an opportunity, which we eagerly pursued. It's been very exciting to say that we really take responsibility for the entire delivery of the project, from the design to the energy to the construction of the project to even the testing of the project. That gives us the opportunity to improve the quality of what is delivered and the integrity of the initial

In Boulder County, energy-saving measures that might be an ideal rather than a requirement elsewhere have been written into the building code.

"Here in Boulder County, if you're building a 4,000-square-foot house, you need to hit a HERS (Home Energy Ratings System) of 50, which is 50 percent less energy than a conventional code-compliant house. That's not easy," Rodwin said. "To do that you to have to have a high degree of integrity from beginning to end in the project in order to not lose that particular parameter in the design and engineering of the house."

Environment: Rodwin/Skycastle's Edge House project, which introduced Boulder's first legal gray water system, was named Green Home of the Year by the Home Builders Association of Metro Denver in 2009 and won a first place award in the residential category in the Colorado Sustainable Design Awards (sponsored by ColoradoBiz). One example from the Edge House project: Diverting 91 percent of the material that came from deconstructing the existing structure from the landfill.

Economy: Rodwin/Skycastle grew from five to nine employees between 2008 and 2010 and likely will grow additionally this year, the company said. The company also has hired dozens of contractors to work on

Society: One of the company's projects, Columbine Elementary School, reduced its peak energy demand 42 percent below code for a new school through energy modeling and sustainable design.

Innovation: Rodwin/Skycastle has pioneered several technologies, including a ground source heat pump drilling technique for alluvial fields and an insulation system.

Education: The company has taught nearly 1,000 code officials, architects, engineers, builders, construction material providers, home owners, energy specialists and Realtors its "Green Building 101" course.



Aircraft Service International Group Finalist, small category

Aircraft Service International Group operates and maintains the fueling system at Denver International Airport, a 27-mile system of underground piping that delivers more than 410 million gallons of fuel annually to the DIA concourses.

ASIG also is responsible for six aboveground jet fuel tanks at the airport. The system is capable of pumping 1,000 gallons of iet fuel per minute.

Environment: ASIG participated in an energy-savings project at the airport that included construction of a solar array next to the DIA fuel farm. The company later installed variable frequency drives on 12 hydrant system pump motors. The solar array project is expected to reduce greenhouse gas emissions by 6,100 tons of carbon dioxide, the company says. To date, the array has generated nearly 2.4 million kilowatts of power.

ASIG also completed a retrofit of the lighting in the operations and maintenance buildings, installing high-efficiency electronic ballasts, low-wattage fluorescent lamps and wall-mounted occupancy sensors in all the rooms. The company also upgraded the heating, ventilating and air-conditioning system in the operations buildings.

Economy: The energy savings project reduces the number of trips necessary by the companies that maintain and repair the electrical systems in the tank farm.

Society: "By integrating sustainability as a centerpiece of a sound business strategy, we have kept our costs to the airlines and the traveling public as low as possible without sacrificing quality or reliability in support of the country's fifth business airport," ASIG said in its entry materials.

Innovation: The DIA Fuel Committee meets annually to review and approve special project requirements along with the proposed operating budget. Members of the committee are also members of fuel committees at other airports and can share information about the benefits of the energy savings initiatives at DIA.

Education: ASIG's marketing department publicizes information about the awards the company receives for its work at various airports and also explains the energy savings project to visitors of the fuel tank farm at DIA.

National Center for Craftsmanship -**DeConstruct program** Finalist, small category

The nonprofit National Center for Craftsmanship works with industry, institutions and government to provide edu-

cation, training, community service and research to promote and preserve quality craftsmanship. The NCC DeConstruct training program helps adults and youth learn construction skills.

Environment: Buildings that are slated to be torn down are carefully dismantled. The materials are salvaged, sold or recycled. To date, the program has diverted hundreds of tons of material from land-

Economy: Property owners benefit because they are able to credit the reduction of waste for new construction projects under the U.S. Green Building Council's Leadership in Energy and Environmental Design certification program.

Society: The program has helped troubled youth and women transitioning from prison back into society by teaching them new skills and helping to place them in jobs.

Innovation: The DeConstruct program has helped to stimulate land development in a stagnant real estate market.

Education: Hundreds of students have participated.

"We're excited about the nomination because we feel like it acknowledges something we started trying to achieve from the beginning, and that was a create model that on every metric is considered highly sustainable," said Neil Kaufman, NCC executive director.

Fruita 8/9 School Finalist, medium category (50 to 500 employees)

What began as a modest recycling program at a Fruita school has grown into a comprehensive energy-efficiency plan and a student blog that attracts visitors from around the world.

Fruita 8/9 School educates nearly 800 eighth and ninth graders in lower Grand Valley. Mesa County School District No. 51 opened the school in 2006 to alleviate crowding at the west end of the valley.

The school's sustainability efforts began in 2006 when students began a paper recycling program that now includes plastics and composting. Teachers and students have made energy efficiency a priority, which led to the installation of

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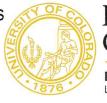






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timers on lights and controlled heating and cooling systems. The school received more than \$1,500 to invest in ways to accelerate energy savings. It earned Energy Star status in 2010.

"It's producing leaders in the community," said Kelli McClean, whose 14-year-son Maximillian participates in the program. "Other people are going to look at that and try to copy it. It's already affected the high school, which is right next door."

McClean, a teller at Alpine Bank, alerted David Miller, who directs the bank's "green team." Miller was aware of the Sustainability Champions program – Alpine Bank was a winner in 2009 – and told teacher Kenton Main that he wanted to nominate the program.

"They were doing at a school with 8th and 9th graders the types of projects that Alpine Bank was doing with 500 employees in 37 locations bank-wide with adults," said Miller, a vice president at the bank.

"When we sit around and talk about what

will it take for America to get off of oil and change the way we think about energy, oftentimes what people say is that it has to be a generational thing," he said. "You really have to create a whole new ethic, a whole new culture, a whole new way of looking at things, and you do that with your students."

Environment: Benefits to the environment include the recycling of paper and plastic and reduced utility use.

Economy: The program has led to savings of \$36,000 to \$40,000 a year for the school district.

Society: Through the program, students have been promoting energy conservation in their community.

Innovation: What began as a program to save money for the school district and achieve Energy Star status has expanded into volunteer recycling and composting.

Education: Students have shared their findings on a blog about energy called "Afterburn." Students are challenged to take action and solve problems.

City of Golden Finalist, medium category

In 2007, the city of Golden adopted a set of seven sustainability goals and 15 targets to achieve by 2017. At its core: a "pay-asyou-throw" waste and recycling collection program designed to reduce the city's solid waste stream by 25 percent over 10 years.

"The biggest impact of this program has been in having residents learn about their trash and their consumption: what they can control, how much they can recycle and how much they can reduce their bills by doing that," said Theresa Worsham, sustainability coordinator for the city of Golden. "It's getting people to think about trash in a different light that we don't traditionally think about."

Environment: Under the former system, several waste haulers traveled city streets each week to service customers. Through







We fly around the earth and know how precious it is. We take actions to protect it.



the city's curbside waste collection program, one locally owned hauler under contract with the city (EDS Waste Solutions) collects waste and recyclable material and works with an organic compost company (A-1 Organics) and a facility that sorts recyclable material.

"We reduced the amount of trucks that are traveling over the city roads," Worsham said. "We hope that it will have some impact on reducing road maintenance, reducing some air pollution, increasing safety for the residential areas."

Economy: The pay-as-you-throw program allows residents to select a level of service that meets their needs. Many residents saw their monthly trash bills reduced by 50 percent; some as much as 75 percent. EDS Waste Solutions hired additional staff, bought two new collection trucks and was able to expand operations. EDS offers residents credits for recycling that they can use to buy items at local businesses.

"A small family or a one- or two-person household was subsidizing the trash for their neighbors who might be generating larger amounts," Worsham said, "I think it empowers residents to get some control over their bills, but it also gets them thinking about sustainability and recycling."

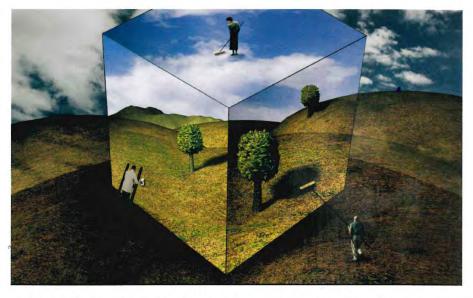
Society: Prior to establishing the program, Golden could not measure the volume of waste generated in the city. Now the city and residents can make more informed decisions about reducing waste.

Innovation: Curbside collection uses automated trucks that reduce labor needs. It also improves upon programs that required residents to bring their items for recycling to public drop-off sites.

Education: The pay-as-you-throw program allows residents to see a direct connection between their actions and the city's sustainability goals. The program also allows them to take control over their bills and see the financial benefits of sustainability.

The PROS Team, Highlands Ranch Metro District Finalist, medium category

As this master-planned community of 93,000 people has reached build-out, the Highlands Ranch Metro District's PROS Team (an acronym for Parks, Recreation &



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Open Space) has transitioned from development to maintenance, with an emphasis on sustainability.

PROS supervisors have looked for ways to meet the community's needs that also benefit the environment and reduce the Highlands Ranch Metro District's carbon footprint, with measures such as reducing water usage, reducing waste, saving energy and preventing pollution.

"Our sustainability effort started a few years ago when we started taking a look at the quality of our services and how efficiently we were delivering them," says Carrie Ward, director of Parks, Recreation & Open Space for the Highlands Ranch Metro District. "Our parks and recreation team supervisors really took on the challenge of looking at the detail level of all of our operations and trying to figure out ways we could increase the quality of our services and be more efficient at it. And then we really started taking a look at the sustainability practices."

Environment: Measures include installation of solar-powered locks, lights and waterless urinals in park restrooms; installation of dog-waste bag dispensers made of recycled materials; and adding hybrid and electric vehicles to the PROS' fleet. Through the Metro District's Tree Planting Program, about 150 new trees are planted in Highlands Ranch every year.

Economy: The PROS Team's sustainability efforts save the Metro District nearly \$250,000 annually. These include water-conservation initiatives (such as re-using water for irrigation), gas savings from electric and hybrid vehicles, and the aforementioned solar-powered locks and lights at public urinals. In 2009, 24 million gallons of water were saved using reuse water to irrigate grass at Redstone Park, saving \$24,000.

Society: The Metro District has three community gardens — all organic — that provide learning opportunities for families and students. The PROS Team oversees the largest youth T-ball, baseball and softball program in Colorado in addition to more than 20 other adult and youth recreation programs. Recycling is encouraged, as recycling bins have been placed at adult softball fields to collect discarded materials.

Innovation: One of the many innovative measures was the implementation of a no-

idle policy in 2009. Staff frequently stops along roads to perform maintenance, land-scape repair and other tasks, and the policy of turning vehicles off when not driven allows vehicles to gain 20 more travel miles per tank.

Education: In 2009, the PROS Team created the Open Space Information Center to educate residents about living near or adjacent to open spaces. Subjects include tips on living with wildlife, noxious weed management and how residents' watering practices impact natural areas.

Colorado Main Streets Team Finalists, large category (More than 500 employees)

The Colorado Sustainable Main Streets Initiative is a partnership made up of many: the Five Points neighborhood in Denver, the town of Fowler, the cities of Monte Vista and Rifle, state and federal government agencies and various nonprofits, foundations and private-sector stakeholders.

Through executive order, former Gov. Bill Ritter assembled the team to complete the pilot Sustainable Main Streets Initiative in less than a year, and the four pilot communities accomplished several projects ranging from historic preservation to transit-oriented downtown development.

"This is really an award for the four pilot communities," said Tareq Wafaie, community development specialist for the Colorado Department of Local Affairs. "It was just a remarkable example of how four pilot communities and multiple state and federal agencies – and local agencies, for that matter – were able to get a lot of things done in a very short time.

"Typically, applicants have to fit their needs into an agency's program criteria. This was different in that the agencies had to find a way to make their programs meet the needs of the pilot communities," Wafaie said.

Environment: One community, through the installation of seven solar panel arrays, will reduce the cost of municipal energy payments by \$20,000 in the first year and drastically reduce the carbon dioxide released into the environment.

Economy: The partnership focused on

existing community infrastructure as a key to enhancing economic viability. Planning for redevelopment and revitalization has led to a successful grant application to the federal government and has encouraged thoughtful use of tax dollars committed to activating the commercial core.

Society: The partnership demonstrated to other Colorado communities that working with state agencies can be an effective way to leverage resources to accomplish great things. Three of the four pilot communities chose projects to improve the pedestrian friendliness of their main streets.

Innovation: The SMSI approach was innovative in and of itself. By reaching out to such a range of stakeholders to leverage resources, the pilot communities were able to build new partnerships and enhance their existing relationships.

Education: A key component of SMSI was engaging all segments of the community, including seniors, business owners, residents, government and school children. Some students as young as 9 were made to feel they were part of a meaningful community process.

Xcel Energy Green Facilities Teams Finalist, large category

In 2008, Xcel Energy's property-services organization launched its sustainable-buildings initiative and has since organized eight "green teams" to reduce the impact of Xcel Energy's facilities on the environment.

"It really began as way to save energy at our facilities but it expanded to water conservation, educating our employees, green business practices and expanding our inhouse recycling program," said Pam Butler, Xcel Energy's manager, environmental communications. "Eight teams actually work on this project throughout the year. I think it is truly looking at what we're encouraging our customers to do in terms of energy efficiency and how can we be a leader in that and be a good example."

Environment: Each year Xcel's Green Facilities Teams identify and incorporate new technologies, systems and practices that reduce the impact of its facilities and achieves measurable results with clear benefits for the environment. In 2010, the Water Qual-

ity and Conservation team replaced fixtures and made other water-conservation improvements that will save an estimated 2.2 million gallons of water. Other teams took similar steps.

Economy: In 2010, the Green Facilities Teams invested about \$18 million in upgrades and changes to facilities. When ordering parts and materials, it seeks reusable materials to help stimulate the recycling and reuse markets.

Society: Xcel is serving as an example to its customers. As an electric utility, it offers rebates and programs to customers to help them save energy and natural resources.

Xcel "walks the talk," demonstrating at its own facilities the savings and benefits that are achievable.

Innovation: Most notable is the new 1800 Larimer Street building that serves as Xcel Energy's Colorado headquarters. It is the first downtown high-rise in Denver to feature the LEED Core and Shell platinum rating.

Education: Through its Green Business Practices Team, promotes an education/outreach program that encourages employees to reduce their environmental impact at work by recycling, using reusable lunch and drinking containers, limiting printing or printing double-sided and other measures.

Sustainability Team, Poudre School District Finalist, large category

The Poudre School District established a Green Team in 1999 to develop sustainable-design guidelines for the construction of new buildings and for renovations of existing schools. The resulting six new schools were recognized nationally by the U.S. Green Building Council and Green Globes.

Building on the success of these guidelines, the school district established a Sustainability Management System for all its operations in 2006, likely making it the first K-12 district in the nation to develop such a program.

Pete Hall, director of facilities for the school district, describes the district's efforts as not a project but as a comprehensive way of approaching the environmental, financial and sociological aspects of sustainability.

"It's just how we operate and what we've embraced," Hall said.

Environment: Since first reporting green-



house gas emissions in 2005, the school district has reduced levels from 34,207 tons to 30,614 tons. In 2009 the school district recycled 514 tons of material, 60 tons more than the previous year. Six schools currently are hot composting all their food waste, including milk cartons; another two schools joined the program in January.

Economy: Poudre School District completed 181 energy-efficiency projects from 1994 to 2009, resulting in a cumulative savings of \$1,983,000.

Innovation: The school district's Op-

erations Center building and Kinard Middle School are heated and cooled with geothermal exchange. The district's most recent high-performance school, Bethke Elementary, was the first school in the nation to receive three Green Globes and the LEED Gold for Schools.

Education: As the principal of the district's Bethke Elementary put it: "This building showcases our commitment to educate current and future generations about the importance of being responsible stewards of our environment."



