

## **Introduction**

Since the April 2000 publication of *Blueprint for a Green Campus*, this award-winning strategic framework and implementation plan has received acclaim from campus, local, state, and federal officials for its visionary yet practical approach to advancing sustainability and environmental quality.

*Blueprint 2006* builds on the University of Colorado at Boulder's (CU-Boulder) tradition of leadership by introducing vision, strategy, and implementation plans designed to achieve sustainability on an institutional scale. True sustainability effectively integrates sustainability's so-called "three spheres," *environmental preservation, social equity, and fiscal prudence* in all phases of an organization's mission and operations. Advancing the practical integration of these priorities is a key mission of *Blueprint 2006*.

As the CU-Boulder campus grows and changes, *Blueprint 2006* details how environmental impacts and additional demands for energy, transportation, and resources can be met through increased efficiency and innovation rather than increased consumption and cost. At the same time, *Blueprint 2006* seeks to identify and integrate pathways toward improved campus cultural climate and community relations by leveraging environmental benefits into social progress.

*Blueprint 2006* is offered both to guide specific actions and policies that can be directly implemented and as a policy initiative that spurs serious discussion with campus leadership. The benefits envisioned in this document can be delivered through partnerships between campus administrative units working to forge more integrative links between sustainability's three spheres. Developing these links will not be without difficulty, risk, or error. However, the history of CU-Boulder is noted for the leadership capacity sufficient to pioneer innovative sustainability approaches.

The University of Colorado houses many globally respected academic, research, and administrative programs and professionals that have made significant contributions toward sustainability and environmental preservation. That collective wisdom, legacy of achievement, and responsibility for leadership underpins *Blueprint 2006's* goals and vision. And that leadership is based, first and foremost, on a strong environmental commitment.

### ***Reducing Our Ecological Footprint***

As a major institution, CU-Boulder's ecological footprint is significant. *Blueprint 2006* adds a "how-to" for the current campus Environmental Policy and the Environmental Management System. By greening campus operations, CU-Boulder reduces its

environmental impacts—from waste generation and resource consumption to climate-altering emissions. *Blueprint 2006* defines how CU-Boulder can improve its environmental performance within individual departments and on a campus-wide scale.

**Climate:** *Blueprint 2006's* climate chapter introduces the ambitious goal of achieving a zero or positive net impact on the climate by the year 2025 by consistently reducing emissions, improving air quality and encouraging sustainable behavior. The climate chapter focuses on greenhouse gas emissions, life cycle costing, local air quality, human health and workplace productivity. This chapter contains three sections: transportation, energy, and green building.

**Water:** The water chapter supports the goal of reducing the campus ecological footprint and has the following vision: “CU-Boulder will educate every campus user on how and why to conserve, appropriately use, and protect the quality of water sources. CU-Boulder will act on water conservation opportunities to reach our minimum annual goal of a five percent water reduction each year for the next five years and continue to be a national campus leader, setting and exceeding the standard in water conservation and quality efforts.” The chapter outlines how water-related goals can be achieved against a backdrop of growth in enrollment and new construction.

**Recycling:** CU-Boulder’s recycling partnership envisions “a waste-free campus that includes operations and facilities capable of diverting the majority of solid waste from landfills, equitable and incentive-based funding mechanisms, and innovative educational programs.” Significant opportunities exist for CU-Boulder to enhance partnerships on and off campus to achieve a “zero-waste” or “waste-free” environment. “CU-Boulder Recycling’s mission is to divert recyclables from the waste stream cost-effectively while promoting the benefits of recycling and resource conservation and providing opportunities for meaningful student involvement.” *Blueprint 2006* details a well-researched and significant opportunity to nearly double current recycling efforts while remaining cost-effective. A combination of waste reduction initiatives, collecting additional types of materials, and composting can reach the goals described in this section of *Blueprint 2006*.

**Safe and Healthy Campus:** *Blueprint 2006* creates a plan for “a safe and healthy learning and working environment through efforts to minimize hazardous waste, advance pollution prevention programs, and minimize exposure to toxic chemicals and pesticides.” The groundwork entails an integrated pest management (IPM) approach for campus buildings and grounds, managing for high indoor air quality, and reducing hazardous waste and hazardous material generated on campus.

These climate, water, recycling, and safe campus initiatives collectively advance *Blueprint 2006's* goal of institutional sustainability by reducing CU-Boulder’s overall ecological footprint over a pragmatic yet ambitious timeline. The next question undoubtedly revolves around cost.

## *Sustainability and Fiscal Prudence*

As detailed in the 2004 publication *Green Investment, Green Return*, campus environmental efforts collectively return upward of \$5-million per year in direct avoided costs and future opportunity costs. These savings are likely higher now. In the two years since the report was published, energy costs, for instance, have risen considerably and related savings have increased proportionately.

This is not to say that all environmental initiatives come with built-in funding or all directly save money. However, a number of institutional issues cloud the ability to evaluate full costs or recognize paybacks. Still other fiscal structures impede substantive behavioral and infrastructure changes that would catalyze conservation programs and create cost savings.

**Institutional Incentives:** Accordingly, *Blueprint 2006* sets out a plan to “identify and promote incentives to overcome institutional and structural barriers to the implementation of economically and environmentally beneficial decision-making and action.” *Blueprint 2006* offers a pathway to sort through those issues and detail solutions, but this decision-making process requires the full support and involvement of campus administration.

**Environmental Literacy:** *Blueprint 2006* provides win-win scenarios. As fiscal barriers are eliminated, CU-Boulder’s environmental programs will develop even greater cost savings for the university. *The manner by which those savings are distributed in support of related efforts is a crucial element of needed fiscal reforms.* The success of one such goal, “Creating a culture of sustainability across the campus via education efforts and increasing environmental literacy,” would go directly to the university’s bottom line as incentives and education enable behavioral changes among the campus community to take root and produce cost savings.

**Environmentally Responsible Purchasing:** Purchasing policies directly reinforce and illustrate the link between reduced environmental footprint and reduced costs. *Blueprint 2006*’s goal of creating “an environmentally responsible purchasing program that stimulates the purchase of cost-competitive products and services,” would do just that. As prices for natural resources increase and disposal costs soar, a fiscally and environmentally responsible purchasing (ERP) program returns substantial value to the university.

In addition to bottom line savings, a robust ERP program presents an outreach and educational vehicle that can reinforce all the conservation elements of *Blueprint 2006* and enlist greater behavioral support. This opportunity will be maximized if structural barriers are mitigated thus clarifying links between environmentally-responsible behavior and resultant benefits. And nowhere is the need for stronger links between actions and benefits more profound than in the realm of social equity.

## *Social Equity as an Environmental Conservation Driver*

Proponents have long cited the role of social equity as a crucial partner in sustainability's environmental, fiscal, and social triad. Yet few integrative mechanisms have evolved that illustrate linkages from environmental or fiscal efforts into social equity initiatives. *Blueprint 2006* advances a goal of increased social equity as a result of environmental efforts. This mission can be fulfilled through the success of many different initiatives. *Blueprint 2006* seeks additional avenues for the benefits of environmental conservation to flow toward populations, people, and cultures historically under-resourced.

**Social equity from conservation efforts:** In 2005 the Environmental Center conducted a successful computer recycling program that collected, rebuilt and delivered more than 50 first-class computer systems to minority populations. While diverting these valuable computer resources from the landfill, this practice also saved money for both the university and the recipients. Future programs may look to harness the contributions of student mentors to further leverage the development potential of this program. And as an outreach and education tool, this type of program presents a powerful nexus, showing how preserving the environment directly benefits deserving populations.

**Environmental justice and health:** Taking actions on campus to prevent pollution through hazardous waste reduction and least-toxic building and grounds management helps CU-Boulder create social equity solutions. By generating less hazardous waste, we reduce disposal practices that disproportionately expose under-resourced populations to toxins. By using effective, healthy, least-toxic cleaners, custodial staff and building occupants are exposed to fewer pollutants. By utilizing least-toxic pest controls in buildings and on campus grounds, we create a safer and healthier learning and working environment.

**Climate change and equity:** *Blueprint 2006* recognizes that under-resourced populations may be most at risk from the effects of climate change. Health concerns, population displacement, natural calamities, and crop losses are all first order effects of climate change that touch the under-resourced first and most harshly. As environmental leaders, we are ethically obligated to focus our efforts both on abating climate change and mitigating its effects on those most at risk.

**An enhanced conservation message:** The climate change arena also provides a critical proving ground on which to refine a strategy of environmental and social leadership that stimulates conservation and cost savings. For example, CU-Boulder in 2005 accrued \$2 million in savings derived in part from energy conservation programs that also reduce emissions of climate-harmful gases. Were the university to commit a fraction of those saved dollars to efforts that both mitigate climate change and respond to the disproportionate risks climate change poses for under-resourced peoples, CU-Boulder would be sending out a powerful message that could help improve campus diversity and cultural climate. This vivid nexus between conservation and social equity would likely stimulate further participation in conservation efforts and resulting cost savings. In short,

tying social benefits to environmental efforts puts a face on conservation that broader constituencies can identify with.

**Environmental literacy and the bottom line:** The many initiatives discussed herein all contribute toward the environmental literacy goal of “promoting] environmental stewardship and sustainability practices among all members of the campus community.” Furthermore, these initiatives are crucial if we are to attain the efficiencies, cooperation, and overall strategic objectives detailed in this document. To further those goals, *Blueprint 2006* proposes CU-Boulder implement an Environmental Literacy course as part of its core curriculum. By educating students on today’s critical environmental and ecological issues, such a program would be beneficial not only for its instructive value, but also from the added value it can return to the operation of the campus and community through enhanced participation in the cost-saving sustainability initiatives envisioned in *Blueprint 2006*.

Through education we can most effectively advance the programs and policies needed for CU-Boulder to move into an era of sustainability. Maximizing the return of these efforts to the benefit of the broader campus community would be enhanced through a greater synergy with university leadership.

### ***Organizational Leadership and a Renewed Mission***

The original 2000 *Blueprint for a Green Campus* offered goals for CU-Boulder related to greenhouse gas emissions, transportation levels, hazardous materials and toxic chemical uses, solid waste reduction, and environmentally-responsible purchasing. While substantial inroads have been made towards those goals, progress toward the 2000 vision could be improved.

The urgency and opportunity for enhanced organizational leadership on these issues is unprecedented. Just as fiscal and environmental pressures are forcing new and sometimes unpleasant realities, social inequities continue to vex the campus, the community, and our country.

Never before has the opportunity for innovation and leadership offered such substantial and needed rewards. A coherent organizational mission that links and advances social, fiscal, and environmental equity will put CU-Boulder on the forefront of global sustainability. The organization that cracks the code of this riddle will write the book on prosperity in this age of disquieting global realities.

We hope that *Blueprint 2006* sketches out the first traces of a Rosetta stone by which a language and plan toward campus, community and global sustainability can be authored. Many voices, ideas, and experiments must follow.

This conversation is best voiced throughout the University of Colorado system. A system-wide sustainability vision and initiative would necessarily include greater expertise and experience and yield more innovative leadership. System-wide long term

planning coupled with advocacy for sustainability practices by state leaders would reaffirm Colorado as the national and global originator of a sustainability doctrine that truly benefits people while preserving the environment.

With leadership, all these things are possible.