

# ROCKY MOUNTAIN INSTITUTE

---

## NEWSLETTER

### CLIMATE PROTECTION FOR FUN & PROFIT

#### *New RMI Study Strikes a Chord in High Places*

Read this quote and see if it doesn't ring a bell:  
 "If we do it right, protecting the climate will yield not costs, but profits; not burdens, but benefits; not sacrifice, but a higher standard of living. There is a huge body of business evidence now showing that energy savings give better service at lower cost with higher profit. We have to tear down barriers to successful markets and we have to create incentives to enter them."

President Bill Clinton said that on 22 October, when he announced the position that he'll take in December negotiations in Kyoto, Japan for a new global climate-change treaty. To anyone familiar with RMI's work, it should sound very familiar.

Clinton's speech was a watershed event. For months, the Administration had been bogged down in competing claims and choices about what to do about global warming. Environmentalists were advocating a carbon tax or technical standards and other "command-and-control" strategies. Most economists (including those advising the President) warned that such strategies would

be prohibitively expensive and would wreck the economy. The Global Climate Information Project, a coalition led by the coal industry, mounted a \$13-million ad campaign pushing a do-nothing agenda.

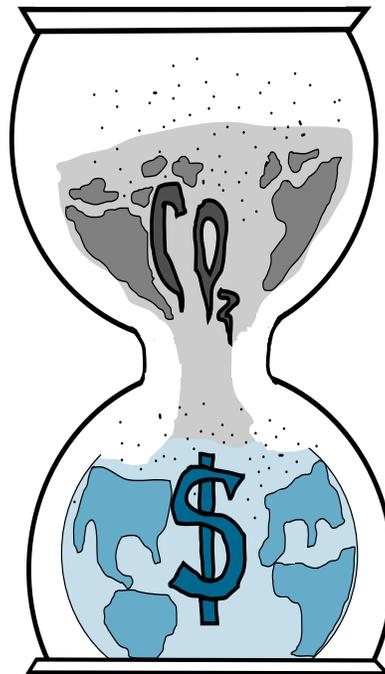
The climate story told so far was about pain: high prices, lost jobs, weakened competitiveness, discomfort, privation, curtailment. The debate had stalemated over who should bear the costs.

Clinton's speech turned the climate debate on its head. Strongly echoing a recent RMI paper, the President made an end-run around costs, and focused instead on initiatives that will reduce greenhouse-gas emissions and boost the economy at the same time (he even mentioned compact-fluorescent lamps). Improved energy efficiency is the key to protecting the climate,

he said, and removing the market barriers to efficiency will spur innovation, speed the introduction of new technologies, and increase economic competitiveness.

While many criticize Clinton's proposed emissions targets, this market-based strategy is likely to make the targets all but irrelevant.

*(continued on next page)*



Jen Uncapher

### Contents

Banking on Kyoto	3
Green Development Book	4
Durable Enterprise	5
Required Reading	6
A Tribute to John Denver	7
South Africa Rebuilds	8
Up Sugar Creek	9
Windstar Trek	9
The Year in Review	12
Institute Supporters	13

(continued from page 1)

## NO REGRETS

Rocky Mountain Institute's long-standing view is that it doesn't matter whether global warming is happening or not, because the most effective climate-protection measures are things we should be doing for economic reasons anyhow.

That "no regrets" position is fully developed in a new RMI study, "Climate: Making Sense *and* Making Money," written by Amory and Hunter Lovins at the request of the President's Council on Sustainable Development and funded by the Energy Foundation. Although the paper wasn't officially released until mid-November, early drafts have been widely circulated among CEOs since August, and Amory discussed it with top Administration officials and attended a White House climate-change conference led by the President in early October.

Aimed mainly at corporate leaders, the paper analyzes the market failures that prevent companies and individuals from being more resource-efficient—and shows how to turn those failures into profitable business opportunities.

Climate change, write the Lovinses, is not the inevitable price of progress, but rather "an unnecessary artifact of the uneconomically wasteful use of resources." They estimate that simply implementing cost-effective energy-efficiency measures—that is, measures that pay a better-than-market rate of return—could eliminate over half the threat of global climate change. Another quarter of the problem can be abated by sustainable farming and forestry practices that are about as profitable as current methods, and the rest will disappear thanks to already-mandated replacement of CFCs with new substitutes.

"So," the Lovinses ask, "if the 'cost' of protecting the climate ranges from strongly negative to roughly zero or irrelevant, what are we waiting for?"

## WHAT ARE WE WAITING FOR?

One of the mistakes economists and their models commonly make is to assume that markets behave perfectly. They don't. The fact that Americans haven't yet cap-

tured cost-effective energy-efficiency investments that could save \$300 billion annually reflects a major market failure, caused by numerous real-world obstacles to the efficient allocation and use of resources.

The guts of "Climate" is its lengthy analysis of practical ways to turn those obstacles into opportunities. For example:

- **Capital misallocation.** Most companies don't assess potential energy-saving improvements the way they do other uses of the same money. Instead, they require a simple payback whose median is 1.9 years, which at a typical tax rate means a 71-percent real after-tax rate of return—around six times the marginal cost of capital. A new energy-retrofit "protocol" (see "Capital Idea" in the summer 1996 newsletter) can help firms finance many such investments with other people's capital.

- **Organizational failures.** RMI staff once visited a semiconductor plant where a pipe took an inexplicable jog in mid-air as if it were going around some invisible obstacle. It turns out the piping design had been copied from another plant that did have a structural pillar in that location—"infectious reptitis" that perpetuates the inefficient status quo. Yet simple incentives can turn employees into efficiency bounty-hunters, resulting in huge benefits to the employer (see "\$100,000 Bills on the Shop Floor" in the fall/winter 1995 newsletter).

- **Regulatory failures.** All but a handful of states and nations reward regulated utilities for selling more energy and penalize them for cutting your bill, so shareholders and customers have opposite goals—with predictable results. Simple accounting innovations in a few states decouple utilities' profits from their sales volumes, and let utilities keep as extra profit part of whatever they save off their customers' bills. The nation's largest investor-owned utility, PG&E, thus added over \$40 million of riskless return to its 1992 bottom line while saving customers nine times that much. Proper restructuring can do the same.

- **Informational failures.** Do you know where to get everything you would need to optimize your own energy use, how to shop for it, and how to get it properly

## Who is That Masked Man?



John Petersen

*Not Mr. Toad: It's RMI research director Amory Lovins, who toured the nuclear aircraft carrier USS John C. Stennis in August as part of the Navy's Distinguished Visitors Program. He found many opportunities for improved energy efficiency.*

installed? If not, you've just observed a market barrier: if you didn't know something is possible, you can't choose to do it. Federal labeling and efficiency standards have taken a bite out of these failures, but far more opportunities languish ungrasped.

- **Risks to manufacturers and distributors.** Faced with the risks of developing and stocking new efficient products, companies often opt to play it safe instead. Governments and large institutional customers can reduce these risks with contests, "golden carrots," and other procurement policies that actually get the chicken to lay the egg.

- **Perverse incentives.** Standard contracts penalize good architects and engineers: those who work harder to eliminate costly equipment earn lower fees, or at best get the same fees for more work. Such backwards incentives have led the United States to misallocate about \$1 trillion to air-conditioning equipment (and utility systems to

power them) that wouldn't have been bought if the same buildings had been optimally designed. Innovative design contracts and leases can realign these incentives (see "Designing Incentives" in the summer 1996 newsletter).

### MORAL OF STORY

RMI's climate study and Bill Clinton's October speech both take an upbeat view of the prospects for reducing greenhouse-gas emissions.

America has done it before. Between 1979 and 1986, the nation's economy grew 19 percent while total energy use shrank 6 percent. It's true that Americans were motivated at that time by high and rising energy prices—but it doesn't necessarily follow that, as economists often argue, it will take equally high energy prices to repeat that success.

Consider the case of Seattle, which has the cheapest electricity of any major U.S. city. During 1990–96, residents saved electric loads nearly 12 times as fast as those in Chicago, even though Seattle electricity prices are about half of Chicago's. Why? Because their utility, Seattle City Lights, showed them how.

Moral of story: making an informed, effective, and efficient market in energy-saving devices and practices can fully substitute for a bare price signal, and indeed can influence energy-saving choices even more than can price alone. That is, people can save energy faster if they have extensive ability to respond to a weak price signal than if they have little ability to respond to a strong one.

Climate need not be a divisive issue. It can unite us around markets, profits, enterprise, and opportunity. As Bill Clinton put it, "climate change can bring us together around what America does best—we innovate, we compete, we find solutions to problems, and we do it in a way that promotes entrepreneurship and strengthens the American economy."

We couldn't have said it better ourselves.

*"Climate: Making Sense and Making Money" (E97-13) is available from RMI for \$8.00 plus shipping & handling (for charges, see page 10). It can also be downloaded from our website (www.rmi.org).*

## BANKING ON KYOTO

By L. Hunter Lovins, Executive Director

Sometimes, watching a TV show, I'll get so exasperated with the characters that I want to yell, "Yo! Can't you see he doesn't love you?" or, "Your father is dying, go to the hospital already!"

That's what it was like during the maneuverings for December's big climate-change conference in Kyoto. I wished I could boink those folks' collective noggins together and tell them to quit obsessing about the costs of preventing global warming. Since fuel costs less to save than to buy, they ought to be figuring out how to split up the *profits!* And why waste time debating the science of climate change? It's irrelevant, from an economic standpoint

(which is all the politicians are really concerned about), because it's cheaper to protect the climate than not to.

Fortunately, Amory's calmer head prevailed, and our latest study, "Climate: Making Sense *and* Making Money" (see cover story), is phrased more diplomatically. It also appears to have had a more helpful effect on the climate debate than my yelling at the TV.

The paper is only one of several things we've been doing this summer and fall to reframe the climate debate, pre- and post-Kyoto. The Energy Foundation has kindly funded us to run with our ideas wherever they lead us: briefing senior Administration officials and industry captains, writing op-eds, informing journalists. We've also teamed up with public-education efforts to publicize positive solutions to climate change. And of course many other groups have been doing great work showing how to reduce greenhouse-gas emissions cost-effectively through efficiency and renewables.

Ironically, much of this work is a response to a \$13-million industry campaign to sow doubt and fear about the

costs of climate protection. I say "ironically" because, while the less sensible elements of industry spend millions saying it can't be done, we're trying to show how doing it can save industry *billions*.

Fear of change is human and understandable, but it's not good corporate strategy. Change is inevitable—and I'm not talking about climate. A few shrewd companies, such as British Petroleum and GM, are quietly backing away from business-as-usual, and instead are exploring how they can profit by selling less polluting products and services. When they succeed, their competitors will have no choice but to follow.



### PERSPECTIVES

And they *will* succeed. I see reasons for optimism everywhere. Did you know that the United States "produces" as much energy each year through increased efficiency as it does from oil? Or that wind power is now the fastest-growing energy source in the world? And just look at the efficiency improvements in cars and fuel cells announced in the past year or so.

If these things are already happening in our decidedly imperfect market, imagine what's possible if we correct the market failures that prevent us from fully profiting from resource efficiency. The result can only be a stronger, more competitive economy and more wealth to go around. If the threat of global warming lights a fire under us to do that, so much the better, but it's something we should be doing anyway.

Bill Clinton's pragmatic approach to meeting the climate targets to be set in Kyoto makes sense. It's a policy that almost everyone can rally behind—which means it has a decent chance of actually working. America is already displacing leaded gas, CFCs, and sulfur at unexpectedly low costs. Carbon is next—and it will be even more profitable.

## GREEN DEVELOPMENT

## DOING WELL BY DOING GREEN

*A New Book and CD-ROM Show Real-Estate Developers How*

Let's face it, real-estate developers aren't known for sticking their necks out for the environment.

Many would like to—after all, they work with the land—but like most businesspeople, they've been conditioned to believe that they've got to choose between saving the planet and making money. Going "green," they fear, would delay project schedules and raise costs. And nobody wants to be a guinea pig.

In reality, many green projects have already been built or are under way. And

book and CD-ROM distill proven procedures, potential pitfalls, and practical lessons for every stage of the development process.

Written primarily for real-estate professionals, the book describes an exciting new field where environmental considerations are viewed as opportunities to create fundamentally *better* buildings and communities—more efficient, more comfortable, more appealing, and ultimately more profitable. Increased profits can in turn be used as a financial engine for habitat restoration,

reduce environmental impacts. The savings came from making the streets narrower, minimizing impervious concrete sidewalks, and using natural alternatives to conventional storm sewer systems. (Some of the savings were spent on enhancing open space and other amenities, further increasing value.)

Green developments also typically cost less to operate, which for the developer can mean higher building values or rents, or faster lease-ups. By incorporating energy-efficient measures, the Denver Dry Goods building is saving at least \$75,000 a year in operating expenses, increasing the building's value by \$750,000 when capitalized. In Vancouver, British Columbia, the developer of a 55,000-square-foot mixed-use development is saving his tenants \$57,000 a year on energy, enabling him to increase rents over the long term while decreasing tenants' operating costs.

The same Vancouver developer also saved \$850,000 in leasing and sales fees, thanks in part to the media exposure the project got for its environmentally sensitive features.

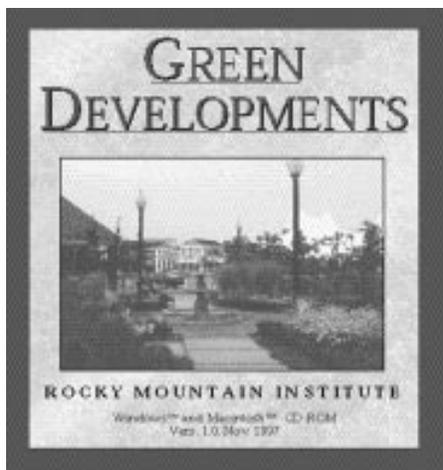
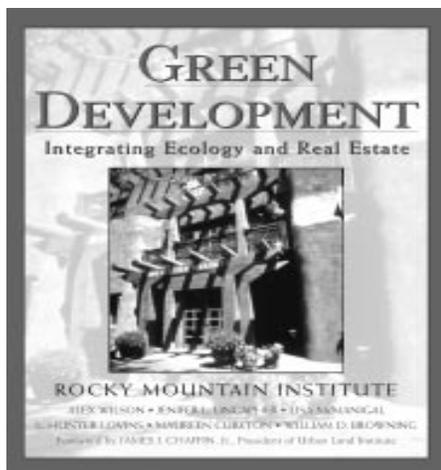
Taking a responsible attitude toward the environment and occupants reduces the risk of future litigation over "sick building syndrome" and other complaints. Some insurers even credit the reduced risks that some green features bring—for example, a building with high-thermal-mass walls may qualify for lower insurance premiums because the walls reduce the risk of fire.

Gaining early respect and support from a community can also greatly speed up project approvals and cut financing costs. The developers of Central Market, a grocery store in Poulsbo, Washington, say that the decision to enhance an on-site wetland and offer it to the city as a park not only reduced maintenance costs, but also avoided delays by generating strong community support.

**'A WORLD OF WOUNDS'**

If green developments are so profitable and so marketable, why aren't all developments green?

There are many reasons, but the biggest is lack of awareness of the opportunities.



guess what? Done right, they perform extremely well financially and are eagerly received in the marketplace.

That's the message of *Green Development: Integrating Ecology and Real Estate*, the long-awaited book from RMI's Green Development Services, and a companion CD-ROM, *Green Developments*. The book has just been released, and the CD is due out in December.

Since 1991, the GDS team has been showing developers and designers how to plan resource-efficient projects that work with the environment and support the community. From that wide experience and from dozens of other case studies, the

community development, and other improvements.

**CAPTURING OPPORTUNITIES**

In real-estate development, as in so many other fields, the benefits of more efficient ways of doing things are often uncounted or undervalued. Through numerous case studies, the book highlights several important advantages of developing green.

For example, green projects often save on capital costs. The developer of Prairie Crossing, a residential development in suburban Chicago, saved \$4,400 per lot by designing the project's infrastructure to

Most developers simply don't yet understand what green real-estate development is, how big the market for it is, why it's beneficial, how to do it, and why it makes so much sense financially. Hence the *Green Development* book and CD-ROM.

Other factors also slow green development's entry into the marketplace. It's a discipline that involves a significant learning curve and more than the usual amount of initial planning. Financial institutions may balk at the risk of what they consider untried techniques. Sometimes it's hard to find willing partners.

Learning from the experiences of others is one of the best ways to overcome these barriers. By seeing and hearing how successful green projects were envisioned, financed, built, and marketed, developers can gain confidence that this approach *is* possible. That, too, is the purpose of *Green Development*.

Developers don't have to choose between saving the planet and making money. *Green Development* offers them a way they can do both, and challenges them to do so. What it would be like, the book asks, if developments produced more energy than they consume? What if they increased habitat and biodiversity, produced food and clean water? What if they were woven deeply into the social and economic fabric of a community?

Aldo Leopold once said that to be an ecologist is to live in a "world of wounds," conscious of the environmental damage around us. The task of real-estate development in the twenty-first century will be to heal those wounds. And that process of healing may also restore a measure of respect and societal value to the profession of real-estate development.

*"Green Development" (D97-11) is 525 pages, hardback, with 150 photos and an extensive appendix of resources. It's available from RMI for \$54.95 plus shipping & handling (see page 10 for charges). The companion CD (D97-12), featuring more than 400 images and 30 minutes of audio and video clips (including voiceover by Robert Redford), is free to purchasers of the book, or can be bought separately for \$7.00 plus shipping & handling.* 

## DURABLE ENTERPRISE

By Auden Schendler

*I understand that corporations are powerful agents of change, but what, exactly, can they do to become more sustainable?*

—Douglas Vilnius, Salt Lake City, Utah

Corporate sustainability is a huge field—it would take a book just to define the term adequately, let alone discuss all its nuances.

In this column, we'll look at a few things businesses can do to become more sustainable, and why it's in their interest to do so.

For the sake of discussion, imagine a widget manufacturer that uses an expensive and toxic solvent to wash machinery. Not only does the solvent cost a lot, but the company has to pay to dispose of it. Occasional spills cost millions of dollars in fines and environmental remediation. What can the company do? Enter the concept of industrial ecology.

This relatively new discipline models industrial processes on ecosystems, which waste nothing and reuse everything. In a nutshell, industrial ecology assumes that waste is simply a resource out of place, and explores how it can serve as "food" for other processes. Using this approach, the hypothetical widget maker might develop a way to reuse the solvent, saving on purchasing and disposal costs—or better yet, redesign the process to eliminate the need for solvent altogether.

At this point you might be thinking, "Well duh, what's so smart about that?" True, it's just common sense, yet you'd be surprised how many companies fail to investigate obvious ways to increase efficiency—usually because they're so fixated on supply-side solutions, assuming that the way to increase profits is to increase throughput.

A great example of industrial ecology in action comes from Kalundborg,

Denmark, where several industries are opportunistically and profitably linked. A power plant supplies gypsum for a plasterboard operation, fly ash for a cement factory, and waste heat for fish farms. The power plant uses surplus gas and waste and cooling water from a nearby oil refinery, which in turn supplies sulfur for an acid plant. Meanwhile, waste steam from the power plant supplies the refinery and a nearby pharmaceuticals maker. The sludge from the pharmaceuticals maker goes back to a greenhouse heated—surprise!—by waste heat from the power plant.

Products also eventually become waste, so efficient manufacturers design for disassembly or reuse. The water pump on an old car is a good example: the price of a new pump (which is often remanufactured) credits back a deposit on the old one. This "lifecycle stewardship" helps change a linear, unsustainable process into a non-polluting, closed-loop one. Next: Swedish automakers have just been required to take back the *whole car*.

Industrial ecology is just one aspect of corporate sustainability. Whole schools of thought have been created around another key component: management. The crux of the argument is that barriers to sustainability are more institutional than technical—the technology needed to achieve sustainability already exists. In *Lean and Clean Management*, former RMI research scholar Joe Romm outlines what all lean companies have in common: they ask their customers what they want, encourage internal criticism, and use integrated teams and a systems approach to improve constantly. One example is Toyota, which used worker-suggestion programs to help dominate the industry. In 1982, the company solicited close to 2 million suggestions (32 per worker) and

*(continued on page 11)*



DEAR ROCKY

## ECONOMIC RENEWAL

## REQUIRED READING

*RMI Books Go to the Head of the Class*

Two Rocky Mountain Institute books have found unexpected niches—as college textbooks.

At the University of Oregon, Professor David Povey is using RMI's *Economic Renewal Guide* in a graduate-level planning course and preparing to test it in another. Although written with community activists in mind, the guide also works well as a manual for student planners, Povey says.

Published last year, *The Economic Renewal Guide* sets out a public process that's designed to help communities develop sustainably, fight less, and have more fun. It's a process that also lends itself to 10-week semesters, offering students a crash course in community-development issues.

Students enrolled in Povey's "Planning Practice" graduate course take Economic Renewal out of the classroom and into real communities throughout the Oregon coast. They're each required to conduct research, take photographs, and interview residents in a particular community. Their on-site

work enables them to prepare a community profile and preliminary action plan, then join with other nearby communities in developing a regional sustainable-development strategy. Class lectures come from the guide and from case studies of Economic Renewal efforts being conducted by 30 grad students throughout Oregon.

*The Economic Renewal Guide* "is a good text for our students to help improve the planning and problem-solving capacity of the rural communities and watershed that we serve," Povey says. He also plans to use the guide in a graduate regional-planning course to supplement a statewide study on rural community goals and challenges.

Meanwhile, students at Allegheny College in Meadville, Pennsylvania are practicing Economic Renewal methods with *The Community Energy Workbook*, which outlines a process for strengthening local economies through improved energy efficiency. Professor Michael Maniates developed around it an ongoing junior

seminar in environmental studies, in which students focus on projects to develop new business ideas and generate more local dollars.

"It seemed tailor-made for the junior seminar," Maniates says. Last spring's class collected information about Meadville's energy expenditures, use, and demographics. Students found that Meadville residents spend almost 20 percent of their total personal income on energy. Case studies of successful community energy-saving programs, a survey of local citizens, and a public presentation helped raise community support and input.

"Students came back very impressed with how well they were received," says Maniates. Having started the semester doubting their ability to make a difference, they were inspired to find that their concerns were taken seriously by city officials.

"Meadville," Maniates explains, "is the home of the zipper. The zipper factory moved south 10 to 15 years ago. Things have gotten sufficiently bad that folks are open to new ideas." *The Community Energy Workbook* worked in a place where many didn't believe it could, he adds. "It's not like trying to pitch sustainability in Boulder or Berkeley. Our success shows the power of the workbook."

Of the 14 students who enrolled in Maniates' seminar last semester, six have asked to continue the project as an independent study. This fall, a new group of students is using the workbook to help build a community coalition to improve tenant-landlord relations.

Although neither *The Economic Renewal Guide* nor *The Community Energy Workbook* was originally conceived as a textbook, their popularity with faculty is heartening. If you're an educator interested in using Rocky Mountain Institute publications in your classes, RMI staff can assist you in locating other faculty who are already doing so. 🌐

Check out page 98 of the October *Yahoo! Internet Life*. Guest website reviewers Ben and Jerry gave our site four cones—their highest rating.

*Economic Renewal Seminar at RMI*

RMI will host its first "at home" seminar on sustainable community development strategies in March 1998. Community development agents, government officials, and concerned citizens from around the world will convene in Colorado for three and a half days to learn how to conduct RMI's Economic Renewal process in their own communities.

Institute staff have taken Economic Renewal training to communities in four countries and 10 states, but this will be the first time they've invited communities to come to them.

The seminar will include RMI's new Critical Thinking Workshop—which introduces the principles of sustainable

economic development and systems thinking—plus standard training in the "ER" process. Participants will be able to network with others interested in sustainable development, tour RMI's famous headquarters, join in a Western hoedown at the Windstar Land Conservancy, and enjoy the area's world-class skiing, hot springs, backcountry, and nightlife.

"Sustainable Community Development Strategies" is scheduled for 25–29 March at the historic Hotel Colorado in Glenwood Springs. The registration fee is \$470 per person, and the registration deadline is 31 January. Please contact Amy Seif or A.J. Thompson at Rocky Mountain Institute for more details.

## TRANSPORTATION

## ME FIRST

### *Toyota's Bold Move*

One of the most interesting guests at December's Kyoto climate-change conference will be the new Toyota Prius sedan.

Shown to the press in October, the Prius is the closest thing yet to RMI's hypercar concept: the world's first mass-produced hybrid-electric passenger car doubles the efficiency and halves the emissions of a comparable conventional car, despite being 330 pounds heavier. If a "tank conversion" like the Prius tests at 66 miles per gallon, imagine what an ultra-light, ultraslippery hybrid can do!

Indeed, more exciting models may be waiting in the wings. Honda has announced a hybrid-electric vehicle that's lighter, simpler to produce, and even more fuel-efficient than the Prius (70 miles per gallon, reportedly). Honda hasn't said when it will begin selling the car, but it might take a year or more. Nissan and Audi also plan to bring out hybrids in 1998.

Yet the Prius is potentially more interesting, on account of Toyota's audacious marketing strategy. The automaker plans to price the Prius at the equivalent of \$17,700—more than \$25,000 below its rumored break-even point at initial volumes. Analysts say that's an indication of just how badly Toyota wants to be the first to bring out a hybrid, and how much it expects that leadership to boost its image.

That's good news for hypercars. For several years, RMI has been arguing that the first company to bring a true hypercar to market will enjoy substantial competitive advantages. Toyota's bold move suggests that at least one carmaker has gotten the message. And all it takes is one.

The Toyota Prius is initially being sold only in Japan, but the company says it will consider introducing it in the United States within six months.

## JOHN DENVER, 1943–1997

John Denver's death in October deeply saddened all of us at RMI. He was a good friend, a neighbor, and, in recent years, a member of RMI's Board and a partner in our successful effort to protect a fragile mountain valley.

John's driving passions were the environment and human rights. He wasn't afraid to take stands before they became politically popular. His leadership and vision will be missed.

As anyone familiar with his music knows, John had a special love for the Colorado mountains, so it's not surprising that our strongest connection with him was through the land. In 1979, he bought and donated a 957-acre ranch in Snowmass, Colorado to the Windstar

Foundation, an environmental organization he'd co-founded three years earlier with aikido master Tom Crum. It is a special piece of land—a rare undeveloped remnant of bottomland and hillsides, rich in scrub oak and elk sedge and mountain mahogany, and providing critical winter range and a migration corridor for hundreds of deer and elk. By 1982, when RMI began building its headquarters about a mile down the road, the Windstar land had become a hub and a demonstration site for a bustling international organization.

On one level, the founders of RMI and Windstar couldn't have been more different—Hunter and Amory Lovins were more left-brained, John Denver more right—and this was reflected in the personalities and constituencies of our respective organizations. Yet we shared the goal of a sustainable future, a faith in human ingenuity and common sense, and a global perspective. Our styles and

strengths were complementary. Indeed, many of RMI's staff got their start with Windstar.

The relationship got closer in 1992, when RMI, needing office space for its growing research division, rented part of the Windstar ranch house. The arrangement worked out so well that in 1995, when the Windstar land came under

threat, the two organizations joined forces to save it.

The story of saving the Windstar land has been told in previous newsletters. As president of the Windstar Foundation, John played a key role in forging the partnership that placed the land under perpetual protection and transferred its title to a new independent entity, the Windstar

Land Conservancy. John joined RMI's Board, and he, Amory, and Hunter filled three of the five seats on the Windstar Land Conservancy's Board.

At the time of his death, John was happier than he'd been for years. One thing that was no longer worrying him was the fate of the Windstar land.

"John loved this land," recalls Hunter Lovins. "It was a continual source of joy to him to know that the Windstar valley was finally protected. It'll be our memorial to him to be sure that it is."

John's family has named the Windstar Land Conservancy as one of the organizations to which gifts in his memory may be made. Such gifts will help complete one item of unfinished business in John's dream for the Windstar land: the creation of a \$1-million endowment for its permanent stewardship. As of late October, about \$200,000 had been raised toward this final goal of RMI's \$3-million Securing the Future campaign.



Edgar Boyles

*John Denver with Tom Crum, in the Windstar greenhouse.*

## ENERGY

## A GROUND-BREAKING OPPORTUNITY

### *South Africa's Rebuilding Offers a "Teachable Moment"*

Five years after the end of apartheid, South Africa hovers between wild optimism and violent pessimism. Having vanquished oppression, everything else looks pretty easy by comparison, yet funds are limited and material progress has been slow.

South Africa is unique: a high-tech industrial society where most people live in developing-world conditions. Millions still inhabit spartan shacks with no running water, sanitation, electricity, or heat. To improve conditions, President Nelson Mandela's government has launched an effort through the Reconstruction and Development Program to build, renovate, or electrify up to 2 million homes in the next few years. Big job, big potential benefits. But can the government afford to do it right?

Can it afford not to?

During a September visit to South Africa, RMI research director Amory Lovins and researcher Chris Lotspeich met with senior officials and found them very receptive to integrated, highly efficient design concepts for—or to displace—infrastructure. Despite huge challenges, the massive building program offers a tremendous opportunity to meet the needs of the poor majority at least cost instead of repeating wasteful past mistakes.

A keynote speech at the National Water Conservation Campaign's conference paid the airfare and opened doors to a week's worth of other meetings. The most exciting were with the Minister of Water Affairs and Forestry, senior officials from the Department of Housing and Department of Minerals and Energy, and the chair and senior staff of South Africa's giant electrici-

ty-generating monopoly, ESKOM.

Each of these partners in the Reconstruction and Development Program has incentives to shift costs to the others. The housing department could save money by



Chris Lotspeich

*From left: South African Water Minister Kader Asmal, Water Conservation Director Guy Preston, U.S. Deputy Secretary of the Interior John Garamendi, and RMI's Amory Lovins.*

building less efficient houses, forcing the utilities to supply more electricity and water. The utilities could invest in inefficient, centralized supplies and stick ratepayers with the bill. In South Africa, as in the rest of the world, there are no prizes for spending more money from your own

budget to help cut society's total costs.

Fortunately, the officials Lovins met with were already aware of these dangers, and looking for reasons to work together. It was, as they say, a "teachable moment." Concrete suggestions emerged for reducing the societal cost (and improving the environmental performance) of the rebuilding program—creating jobs and boosting the economy at the same time.

For example, South Africa has been slow to implement widespread energy-efficiency programs, in part because electricity is priced very cheaply. Yet even where electricity is cheap, people save it when they're shown how (page 3). One of several RMI recommendations: South Africa should create resource-efficient demonstration projects, from passive-solar single-family homes with solar water heating and high-performance fixtures to a full-scale retrofit of the pumps, compressors, motors, and lights in a financially marginal goldmine.

Another idea is to help launch South African manufacturing of efficient devices, such as high-performance showerheads and windows. These are keys to making newly built homes more efficient, and thus cheaper and more comfortable to live in. And manufacturing them would create needed jobs in a country with a 40-percent unemployment rate.

No formal actions have yet resulted from the meetings, but RMI will continue to support South Africa's resource-efficiency efforts from afar, and a revisit is likely. 

### *Small is Profitable is Late*

A number of readers have been inquiring about *Small Is Profitable: The Hidden Economic Benefits of Making Electrical Resources the Right Size*, originally scheduled for summer.

Um...would you believe February 1998?

Meanwhile, the 300-plus-page tome has mutated into what we call a "proprietary strategic report," which means it's

intended for a specialized corporate and institutional readership, and is priced accordingly: \$995 postpaid (\$900 for orders placed by 31 December). Discounts are available for multiple copies and for certain nonprofit purchasers. For details, please call our Publications Department.

Apologies for the delay, but we think it'll be worth it.

## WATER

## UP SUGAR CREEK

*The Army Corps of Engineers Gets a Paddling in Illinois*

**F**ail to consider all reasonable alternatives and you're likely to be sent back to the drawing board, as water officials in Marion, Illinois are finding.

The town has been trying since 1989 to get permission to dam nearby Sugar Creek to create a 1,200-acre reservoir. This past July—eight years, two lawsuits, and \$2 million later—Marion's long-awaited Army Corps of Engineers permit was yanked by a federal appeals court, which found that the Corps' environmental impact statement (EIS) had failed to adequately consider all the alternatives.

In official comments to the Corps' 1995 draft EIS, RMI water researcher Scott Chaplin highlighted potential least-cost alternatives to the dam, documenting how a similar community was able to avoid building a reservoir by implementing a comprehensive conservation program. Since the program "created" the same amount of water at a much lower cost, both the environment and water users were winners.

In ruling against the Army Corps, the appellate court didn't specifically mention efficiency as an alternative that should have been considered. But, says Tom Bik of the local Sierra Club chapter, the testimony of RMI and other groups was essential for establishing that there *were* alternatives worth considering.

It's still not over—these things are never over. Marion's water officials have now hired a new water consultant and vowed to submit the proposal once again to the Army Corps.

But there are a couple of lessons in this. First, the Army Corps is in need of reform. The file on the Sugar Creek Reservoir probably would have been closed long ago were it not for the agency's schizofrenia

about water conservation. While some of its regional divisions recommend state-of-the-art water conservation, others completely ignore it (for example, the division that serves Marion requires no conservation, while neighboring Rock Island does). RMI believes the time is ripe for the Army Corps to develop a consistent, conservation-oriented policy, as the Bureau of Reclamation has already done.

Second, groups fighting dams and other projects would do well to learn how to research least-cost alternatives. Arguments based on protecting endangered species and dwindling wetlands, while they may be morally and legally strong, often fail because they put the focus on the costs of protection. When the environment is pitted against the economy, guess which one

is going to lose? In contrast, showing how a community can satisfy its water needs more cheaply through efficiency is usually more effective because it offers a way for both sides to get what they want.

Marion, Illinois is one of several communities where RMI has been helping groups trying to protect threatened rivers and wetlands. Work in British Columbia seems to have concluded peaceably (see the spring 1997 newsletter), while cases in Virginia and Connecticut are still pending.

To help other communities work constructively with utilities, RMI has recently teamed up with the nonprofit River Network in the hopes of developing training materials for do-it-yourself analysis of utility proposals. This effort is as yet unfunded, however.

Chaplin hopes to create a manual describing the "detective work" necessary to assess the assumptions built into utility proposals. Typically, he says, utilities assume unrealistically high demand for water and very little potential for efficiency, and it often takes a lot of digging to determine whether those assumptions are valid.



## RMI NEWS

## WINDSTAR TREK

*The Next Regeneration*

**S**winging steel blades and pitchforks, RMItes spent hours "thumping" thistle in August and September, signaling the Institute's shift from acquisition to maintenance of the Windstar land.

The thistle war is one of many new projects on the 957-acre property that RMI helped place under permanent protection at the end of 1996. Others include the completion of a land-use plan and an archeological survey, the appointment of a new staff member, and the discovery of some ancient trees.

Thistles are a major local problem. Non-

native species displace native ones, take over agricultural land, and hog water. Cattle will normally keep the plants in check, but the Windstar land hasn't been grazed in the past 20 years. A small herd, partly owned by the Windstar Land Conservancy, grazed sections of the property this summer, and will be moved to other sections as fencing is improved. (Existing barbed wire fence is a relic of early homesteaders, and now mostly serves to snare deer and elk. Removing it is an ongoing process.)

The weed-eradication program was

*(continued on next page)*

*(continued from previous page)*

motivated in part by a bounty: the county launched a thistle-cutting competition, offering more than \$1,000 to the organization thumping the most thistle. RMI took first place by delivering a whopping 4,307 pounds.

In a less violent August project, four people joined hands around a juniper tree. They weren't having a seance—the group was making a preliminary measurement of what seems certain to be the biggest Rocky Mountain juniper in Colorado. They estimate the circumference at 15 feet 1 inch; official confirmation is awaited. (The Colorado record is 9 feet 10 inches; the world record, held by a Utah tree, is 20 feet.)

Ensuring that such treasures are protected and understood is up to newly appointed Windstar Land Conservancy program coordinator A.J. Thompson. She is organizing educational information, signs and trail construction, and has started a lecture series featuring RMI staff and visiting scholars. Eventually, A.J. hopes the Conservancy can host classes for children and offer guided tours in all seasons.

One of A.J.'s tools is a land-management plan drafted this summer by county wildlife biologist Mike Villa and RMI intern Julia Kertz. In addition to making

recommendations about biological monitoring, staffing, and public access, the plan outlines how to restore Windstar to ecological stability. The valley bottom was once wetland: restoring it will provide more forage for a 600-strong elk herd, improve water quality, reduce pond siltation, and increase fish and migratory bird habitat. The plan proposes introducing native grasses to help stabilize the soil, filling ditches to reroute the stream to its natural course, and perhaps reintroducing beaver—the “furry engineers” designed for this role.

Habitat restoration will support an already vibrant wildlife population. Visiting scholar J. Baldwin can attest to the health of the existing community. Early one morning he saw an unusually large yellow cat with a long tail skulking around a garbage can. It proved to be a mountain lion. Another night, hearing a thunderous crash, he saw our local black bear, Bob (Big Ole Bear), who had jumped from a fence into a dumpster.

The Windstar valley was originally known as Bohan Gulch after John Bohan, who homesteaded the area in 1895 to raise livestock and hay for the booming local mining towns. John Jurick built a cabin on the land in 1906, the remnants of which may be eligible for listing in the National Register of Historic Places.

To identify and preserve such cultural resources, the Windstar Land Conservancy commissioned an archeological survey of the land. For the survey, archeologist Teri Paul interviewed John Jurick's grandson Bernie, who was born on the land in 1931. His family grew oats and potatoes; the latter was a cash crop in good years.



Janet Urquhart

*Windstar's record-breaking juniper.*

Relatively high along the road to the wildlife pond is a stone retaining wall. It marks the cabin where Bernie was born, now surrounded by a grove of cottonwoods. Pointing to one of the larger trees, Bernie said: “My grandfather planted that.... He was, I guess, proud to be in America—he was from Yugoslavia. So he wanted his house up here, so he could see what was his.” From the Jurick homestead and other vantages on the land, we hope visitors to Windstar feel similar pride.

*To support education and restoration activities on the land, the Windstar Land Conservancy is forming a “Friends of the Windstar Land” membership group. People can join and receive the RMI newsletter for a minimum contribution of \$25 for individuals and \$35 for families. For more information, please contact RMI.* 🌐

**RMI Shipping & Handling Charges**

Order Amount	U.S.	Canada
\$ 0.00–12.00	\$2.50	\$3.00
12.01–20.00	3.50	4.50
20.01–35.00	4.50	5.50
35.01–50.00	6.00	7.50
50.01–100.00	7.00	9.00

We normally ship by first-class mail or UPS. For larger orders, express delivery, or shipments outside North America, please call RMI. All charges are in U.S. currency.

*New Staff*



Kate Mink

*Left to right: Windstar Land Conservancy land manager Steve Atterby, researcher Amy Seif, receptionist Sinda Wood, and researcher Lee Novak. (Not pictured: Christine Schubert and Dan LeBlanc.) Farewell to Kate Mink, Carrie Scholl, and summer folks J. Baldwin, Gregg Osofsky, Karen Kho, Raphael Edinger, and Julia Kertz.*

## CHEAPER, SIMPLER, SCARIER

In September RMI closed on a \$599,000 building that will provide housing within walking distance of the Institute for up to eight staff. Several RMItes have already moved in and begun brainstorming ideas for fixing up what has come to be known as the “Cliff Dwelling” (after its vague resemblance to an Anasazi ruin). Such as:

- How about including it in the RMI tour as a passive-solar replica of Mesa Verde, complete with live demonstrations of corn grinding given by residents dressed in period costume?
- Or should RMI show Disney how it’s done by creating the world’s first photo-voltaic-powered Haunted House that uses 90 percent less electricity, 50 percent fewer cobwebs, and 10-fold fewer ghosts, yet is cheaper, simpler, scarier, and easier to haunt? (Remember, a 1-percent gain in productivity alone pays for the combined capital cost of tombstones, crypts, and fog machine.)

Call to register your vote today!  
But seriously, RMI is still seeking low-interest loans to restructure its debt on the Cliff Dwelling. We need to replace a \$400,000 three-year bank bridge loan with long-term notes (preferably 10–20 years) at mutually attractive interest rates.

If you would like to make a loan of \$10,000 or more, please call comptroller Christy Otis or treasurer Amory Lovins at 970-927-3851. Our 40-plus private note-holders enjoy a perfect repayment record, and this new financing will bring RMI’s debt service for all internal purposes up to only about 6 percent of total income. 🌐

### RMI CATALOG

The 1998 *RMI Catalog* is now available. Call, fax, or email us for a free copy. You can also order publications from our secure website ([www.rmi.org](http://www.rmi.org)).

## DURABLE ENTERPRISE

(continued from page 5)

implemented 95 percent of them. A perk: valuing workers for their ideas fosters company pride and loyalty.

Energy efficiency is another tool for sustainable business. During difficult economic times in the early ’80s, Southwire Corporation cut its energy use per pound of product by half. The savings accounted for almost all of the company’s profits for six years, and probably saved 4,000 jobs. This is what Paul Hawken means by “firing unproductive kilowatts,” not workers.

Energy savings apply to facilities as well as to industrial processes. Typically, “green” building design not only saves money but also improves worker productivity. This is a crucial point, since energy savings alone are not always enough to motivate CEOs. As a 1994 RMI study documented (see “Greening the Bottom Line,” fall/winter 1994 newsletter), efficient design can increase postal workers’ piecework rate and accuracy, improve the quality of engineers’ draw-

ings, and reduce absenteeism among bank employees—all adding measurably to profits and customer satisfaction.

Benefits cascade and interrelate: sustainable practices mean good public relations, and good PR adds to business longevity. A 1996 survey by Roper Starch International showed that 76 percent of Americans would rather buy from retailers affiliated with good causes. Half of Americans, the study reports, think more highly of companies that back green causes. As an executive of Amsterdam’s NMB Bank, one of the companies profiled in the 1994 RMI study, notes: “The building has done wonders for NMB’s image... NMB is now seen as a progressive, creative bank, and the bank’s business has grown dramatically.”

Any way you look at it, sustainable practices pay off. As Yvon Chouinard, founder of Patagonia and no sustainability slouch, once said: “Every time we’ve done the right thing, it’s ended up making us more money.” 🌐

## The Newsletter

The Rocky Mountain Institute *Newsletter* is published three times a year and distributed to more than 22,000 readers in the U.S. and throughout the world.

Please ask us before reproducing, with attribution, material from the *Newsletter*.

### LETTERS TO THE EDITOR

We want to hear your comments, criticism, or praise relating to any article printed in the *Newsletter*.

Please address all correspondence to:  
Newsletter Editor  
Rocky Mountain Institute  
1739 Snowmass Creek Road  
Snowmass, CO 81654-9199  
(970) 927-3851 / fax (970) 927-3420  
Email: [dreed@rmi.org](mailto:dreed@rmi.org)  
Web: <http://www.rmi.org>

EDITOR.....Dave Reed  
WRITERS.....Dave Reed, Auden Schendler  
LAYOUT.....Ema Tibbetts

## About the Institute

Rocky Mountain Institute is an independent, nonpartisan, nonprofit research and educational foundation with a vision across boundaries.

Seeking ideas that transcend ideology, and harnessing the problem-solving power of free-market economics, our goal is to foster the efficient and sustainable use of resources as a path to global security.

Rocky Mountain Institute believes that people can solve complex problems through collective action and their own common sense, and that understanding interconnections between resource issues can often solve many problems at once.

Founded in 1982, Rocky Mountain Institute is a §501(c)(3) /509(a)(1) public charity (tax-exempt #74-2244146). It has a staff of approximately 45 full-time, 48 total. The Institute focuses its work in several main areas—corporate practices, community economic development, energy, real-estate development, security, transportation, and water—and carries on international outreach and technical-exchange programs. Its E SOURCE subsidiary (1033 Walnut, Boulder, CO 80302-5114, 1-800-E SOURCE, [esource@esource.com](mailto:esource@esource.com), [www.esource.com](http://www.esource.com)) is the leading source of information on advanced techniques for electric efficiency.

## 1997: THE YEAR IN REVIEW

Here are the highlights of RMI's year so far:

### Energy

- ✦ Wrote a 300-plus-page semitechnical report, *Small is Profitable: The Hidden Economic Benefits of Making Electrical Resources the Right Size*.
- ✦ Influenced the climate-change debate with "Climate: Making Sense and Making Money" (see cover story).
- ✦ Advised South African ministers and addressed audiences in nine other countries on energy efficiency.
- ✦ Analyzed and proposed more efficient alternatives to three separate proposed power plants in Hawaii.

### Green Development

- ✦ Published *Green Development: Integrating Ecology and Real Estate*, a book for developers and other real-estate professionals, and a companion CD-ROM (see page 4).
- ✦ Secured the final two (of five) projects—a high school and a federal courthouse—for a multi-year experiment to test contractual incentives for designing more efficient buildings.
- ✦ Continued to participate in the winning bid to create an energy-efficient solar athletes' village for the Sydney 2000 Olympics.
- ✦ Consulted on dozens of green projects, including the renovation of a Monsanto corporate campus, the Smithsonian National Museum of the American Indian, and an environmental education center at Oberlin College.

### Transportation

- ✦ Held dozens of high-level meetings with American, European, and Asian carmakers to promote the hypercar concept and to create a consortium of manufacturers to build a prototype hypercar.
- ✦ Addressed the National Hydrogen Association, National Academy of Sciences, and many other influential audiences, and hosted a three-day workshop for the Partnership for a New

Generation of Vehicles.

- ✦ Published papers on hypercar recycling, lifecycle, and control issues, and fuel-cell hypercars.
- ✦ Began creating web-based and print publicity materials designed to introduce the hypercar concept to a mass audience.

### Economic Renewal

- ✦ Wrote a booklet highlighting case studies of sustainable-development initiatives in forest-dependent communities, and prepared to launch field tests.
- ✦ Developed a tool to help community leaders make important decisions more sustainably.
- ✦ With the Florida House Foundation, helped pioneer a new approach to land-use planning.
- ✦ Conducted the Economic Renewal process in nine communities in six states, and made introductory presentations in 19 other communities.

### Water

- ✦ Launched the Soft Water Path program, a multi-year effort to promote significant reductions in human water use.
- ✦ Provided assistance in British Columbia, Connecticut, and Virginia in support of alternatives to dams and other supply expansions.
- ✦ Made numerous presentations on water efficiency, including a conference keynote in South Africa.
- ✦ Helped incorporate a section on water efficiency into the international "protocol" for measuring and financing efficiency.
- ✦ Led a scenario-building workshop on future management of wastewater plant biosolids.

### Corporate Sustainability

- ✦ Helped guide an annual sales conference for Interface that encouraged participants to make resource-efficiency improvements at a Hawaiian resort hotel, and used that experience as a metaphor for the company's own move toward sustain-

ability.

- ✦ Addressed the Conference Board and other key industrial audiences.
- ✦ Under the auspices of the Systems Group on Forests, coordinated nine task forces in exploring ways to make the global forest industry sustainable.
- ✦ Continued to write (with Paul Hawken) *Natural Capitalism: The Worthy Employment of People and Resources*, for publication in late 1998 or early '99.

### Windstar Land Conservancy

- ✦ Raised \$200,000 toward endowing the perpetual stewardship of the Windstar land, bringing the total raised to over \$2.2 million for its acquisition and protection.
- ✦ Sponsored workshops, lectures, and kids' activities on the Windstar land, and hosted a June benefit for the Windstar Land Conservancy.
- ✦ Drafted a land-management plan and archaeological and biological surveys.
- ✦ Eradicated thistles and began limited cattle grazing as first steps to restoring the land.
- ✦ Repaired the Walker Wonder ditch and the main building's roof and septic system, and converted a garden shed to an environmental-education classroom.

### Facilities & Operations

- ✦ Purchased a building within walking distance of the Institute to provide housing for up to eight staff.
- ✦ Continued to upgrade photovoltaic systems and windows in RMI's headquarters building.

### Communications & Outreach

- ✦ Redesigned and greatly expanded the RMI website.
- ✦ Created a broadcast-quality video reel of RMI for publicity purposes.
- ✦ Fielded nearly 2,000 queries on topics related to RMI's work.
- ✦ Obtained coverage of RMI's work in hundreds of media.
- ✦ Hosted over 1,000 visitors.

## BEGS, ASKITS, AND AN INSTITUTE COMING OF AGE

Dear Friends,

We used to call RMI's annual donor appeal "Putting All Our Begs in One Askit." We can't call it that anymore, since we're now in the middle of a year-round capital campaign to create an endowment for the stewardship of the Windstar land, which RMI helped purchase and place under perpetual protection late last year.

Nevertheless, we remain committed to our low-key approach to fundraising, and to our policy of not selling, renting, or lending our mailing list. And although we no longer can put all our begs in just one askit, we do still manage to avoid the pitfalls experienced by many organizations: RMI is still focused on what it *gives* rather than on what it can *get*.

As we move through RMI's 16th year, it is interesting to look at the Institute's development in "people" terms. Traditionally, 16 is an age at which young Americans begin to reach maturity and become aware of themselves as independent entities. So, too, RMI is increasingly being sought for advice by corporations and governments, and is bringing to market the products of its research. The Institute is not only growing but maturing: becoming more insightful, more effective, perhaps even more wise. As it does, your gifts of support go further: in 1997 we expect to earn more than one-third of our total revenue.

Our end-of-the-year request for general operating support will be sent out separately. As corporate doors open wider, our long-term goal of financial self-sufficiency is looking more realistic; but for now, we still need and ask for your donations. As the Institute matures further, we shall continue to need your partnership in developing and distributing our work, but trust that we will gradually become able to ask more for your sense than for your dollars.

Everyone at the Institute joins us in thanking you for your support and in sending best wishes for the season to you and yours. May peace be with you and with the world.

Sincerely,



L. Hunter Lovins  
President & Executive Director



Amory B. Lovins  
Vice President & Treasurer

## INSTITUTE SUPPORTERS

Our sincere appreciation is offered to these friends who have contributed to RMI.  
Please let us know if your name has been omitted or misspelled so it can be corrected in the next issue.

## GENERAL SUPPORT DONATIONS

*Donations received between 1 May and 31 August 1997 are listed. Numbers in parentheses indicate multiple donations.*

### BENEFACTORS \$10,000 AND OVER

The Compton Foundation  
The Charles Stewart Mott Foundation  
The Energy Foundation  
The Surdna Foundation  
The Turner Foundation  
The W. Alton Jones Foundation  
Mary & John A. Frantz  
John A. (Jay) Harris IV  
Lee Eng Lock  
Kobra International, Ltd, on behalf of Nicole Miller, in memory of Eric Konheim

### PATRONS \$1,000-\$9,999

Anonymous (1)  
Ben & Jerry's  
Earth Share (5)  
Home Depot  
R.E.M./Athens, L.L.C.  
The Tides Foundation  
Michael Edesess & Dyan Zaslowsky  
Colleen & Bud Konheim, in memory of Eric Konheim  
Theodore Papalexopoulos  
Susan & W. Ford Schumann  
Helen C. Severinghaus  
Frances K. Tyson  
Kay Unger Pitman, in memory of Eric Konheim

### SPONSORS \$100-\$999

Anonymous (1)  
Energy Plus, Inc.  
The Quaker Hill Foundation  
Venetia's Boutique, Inc., in

memory of Eric Konheim  
United Way of Santa Clara County (2)  
United Way of King County  
John Abrams  
Henry E. Allen  
Lorraine P. Anderson  
Peter Andreyuk  
John Backstrom  
Maurice A. Benoit  
Carolyn & Daniel Berger  
Esther & Francis L. Bligh  
John W. Christensen  
Arthur Cole  
Sarah R. Cole  
Bill C. Coleman  
Margaret & Charles D. Evans  
Mark Friedman  
Gayle & Lars A. Garrison  
Jack W.L. Goering  
Sara & Eugene Goin  
Roger A. Goldman, in memory of Eric Konheim  
Arthur Goldstein  
Dr. & Mrs. Richard H. Goodwin  
Sadja Greenwood, in honor of Sylvia Earle

Hildegarde K. Hannum  
Nancy Hanson  
Dorothy B. Hesse  
John Hirschi  
Beth C. Hollister, in memory of David Thomas Chase  
Nancy Jackson & Eberhard Ramm  
Jane & Joseph Kasov, in memory of Eric Konheim  
Howard Klee  
Mr. & Mrs. Walter Lamb  
David Lamb  
Mike Leuck  
Barbara & John Lewington  
Ricardo Pasada Magona  
Mr. & Mrs. Bill Mahoney  
Myron A. Mann  
David Marsland  
Brett J. Meyer, in memory of Eric Konheim  
Kai Millyard  
Drs. Robert C. Murphy & Georgia E. Foster  
Sawu Tet Ng  
Edwin B. Parker  
Dr. & Mrs. Robert H. Potts Jr.

William R. Price  
William & Elizabeth Reilly  
Steven & Estelle J. Rose, in memory of Eric Konheim  
Joan Simon, Inc.  
Mr. & Mrs. John Stevens, IV  
Bob Stoll  
James L. Townsend Jr.  
Helen & Avery Tucker  
Judy & John Tyler  
Karen Walker  
Jonas Weil  
Mr. & Mrs. William E. Westerbeck  
Francis M. Wheat, Esq.  
Dr. Raymond Wright

### ASSOCIATES \$1-\$99

Anonymous (4)  
Aspen Writers' Foundation  
United Way of King County  
Dr. & Mrs. Donald Aitken Jr.  
Lorraine P. Anderson  
E. Coury Armstrong  
Nancy & John Artz

William M. Baldwin  
Gordon C. Baskett, III  
Mary Catherine Bateson  
Maureen & Joe S. Benincasa  
William & Margaret Berry  
Jacqueline Bogard  
Kathie K. Brown  
Kent Buhl  
Irene & Clark W. Bullard, III  
Gail Bundy  
Molly Butler  
Jane Campbell & Ted Zilius  
Ralph O. Canaday, Jr.  
Mr. & Mrs. Jim Cantele  
Margarida Carvalho e Silva  
Michael E. Champagne  
Cheryl A. Chipman, in memory of Henry Filip  
Susan & Michael Clements  
Sy Coleman  
Peter Condakes  
Ada & George Allen Cook  
R.L. Dale  
Barbara & James Daniels  
Lois-Elin Datta (4)  
Lawrence Davino  
Donald D. Davis

*(continued on next page)*

*(continued from previous page)*

David E. Dean  
Mike Derzon  
Mr. & Mrs. John A. Distler  
Mary K. Dougherty  
William J. Duffy  
Mr. & Mrs. Brad Dunn  
Barbara & John A. Eisele  
John M. Ely, Jr.  
Rhea & Larry Estes  
Kim & Marshall Evans  
Marshall D. Farrier  
Avis & Jeff Fisher  
Honey S. Fishman, in memory of  
Eric Konheim  
Nancy Flynn-Silva  
Marjorie & Brian Gaffikin  
Mr. & Mrs. George G. Gardner  
Jacek Ghosh  
Irma & Norman Gillespie  
Sandy Gold  
Bobby Grayson  
Charmaine & Kinard Haden  
Mr. & Mrs. Arvid Hagen

Cheryl Hardy  
Kelly L. Harris  
Janet & Michael Harrison  
Bach Mai & Russell L. Hart  
Daniel L. Hart  
Robert A. Hays  
Karen & Thomas Heikkala  
Barbara & Joe H. Hindorff  
Thomas E. Hitchins & Shelly  
Shapiro  
Dwight Holmes, in honor of  
Douglas B. Holmes for John  
Wilson  
Mary C. Houser, in memory of  
Henry Filip  
Margaret E. Houts  
Raymond L. Hubbard  
Charles Hudson  
William A. Hughes  
Marvina Lepianka & Charles  
Jaffee  
Donna & Jeffrey A. Jaffee  
Dixie & Maan Jawad

Caroline A. Johnson  
Dana Judy  
John E. Kassay  
John Katzenberger  
William O Keith  
Corinne Domecq & Daniel C.  
Kenner  
Philip W. Klein  
Rocky & Cordula Koga & Family  
Kristina & Rob Krakovitz, M.D.  
Gerald L. Kreger  
Sue & George A. Kresovich  
Joseph Kruth  
Chris Kuykendall  
Betty J. Leech  
Robin Leenhouts  
Timothy E. Lehane  
Marion B. Leonard  
Neil F. LePla  
Geoffrey H. Lester  
Walter Linck  
Barbara & Irwin Linden  
Deanne R. Lindstrom  
Nicholas S. Lowell

Judy A.I. Lyle  
Sandra Mallory  
David A. Martens  
Stephen S. Matter  
Mavis McCormick  
Jean & Daniel K. McCoubrey  
Sarah S. McCoy  
Shannon Rose McEntee  
John E. Menger, in honor of  
Jenny Menger, Christina  
Paulsen, Theodor Glysen, and  
Victor "Vick" Reinders  
Annette Mercer & Alexis P.  
Wieland  
Sylvia & Sam Messin  
Nation Meyer  
Walt Mizuk  
Joseph & Cynthia Moffat  
Tim Morrisette  
Cherry Moyer  
Thomas Nelson  
Louise & Erik Nelson  
Russell Nerlick  
Joyce & Tom Nipper

Tyler Norris & Juliana Forbes  
William E. Oneill  
Arthur Payne  
Clayton Pederson  
Jane Walker Pfister  
Diana & Gary G. Phelps, in  
memory of Glenn Phelps  
Richard F. Plage  
Richard M. Puskar  
Paul M. Raether  
Joanna Reese  
Michael D. Rettagliata, in memo-  
ry of Eric Konheim  
Kathleen & Marc Ringel  
Catherine L. Robbins  
Sheryl Robinson  
Anne P. Robison  
Eli Rubinstein  
W. Ralph Schaefer  
Mr. & Mrs. John Schukman  
Rosemary Cseh-Senn & James  
F. Senn  
Carol & Ted Skowronek  
Doug Smith

Janet M. Smith  
Jack J. Snyder, IV  
Elaine V. Stannard  
Kim Stevenson  
Elaine S. Cook & Zhaihai Stewart  
Dale Stille  
Beverly & James Taylor  
Laurel Toussaint & Tom Bik  
Mr. & Mrs. W. Henry Tucker  
John C. Twombly, in memory of  
Leonard Kalal  
Lynn Vincentnathan  
James S. Weinberg  
Rosemary L. Wessel, in honor of  
Bonnie Barnes  
Phil White  
Mark S. Wiger  
Mr. & Mrs. Jeffrey A. Wilkinson  
Mr. & Mrs. Sam K. Williams  
Gregory Wolfe  
Elizabeth & John G. Yingling  
Alan Young

## SECURING THE FUTURE CAMPAIGN

*Included are all 1995-  
97 gifts and pledges as  
of 31 August 1997.  
RMI appreciates the  
generosity of all the  
anonymous donors.*

**LAND LEGACY  
CIRCLE**  
\$100,000 and over

Anonymous gift in honor of the  
wisdom of the grandparents,  
as exemplified by Farley  
Sheldon and Miriam & Gerald  
Lovins  
Gates Family Foundation  
Great Outdoors Colorado Trust  
Fund  
The Kresge Foundation  
John D. & Catherine T.  
MacArthur Foundation  
Monsanto Fund  
Pitkin County Open Space &  
Trails

**PHILANTHROPISTS**  
\$50,000 to \$99,999

Give to the Earth Foundation  
Hunter & Amory Lovins  
Susan & W. Ford Schumann

**GUARANTORS**  
\$25,000 to \$49,999

Mary & Myron Curzan  
Lee Eng Lock  
Helen & James T. Mills  
Diana & Jonathan Rose  
Mary Jane & Michael  
Underwood

**BENEFACTORS**  
\$10,000 to 24,999

Annie & Mac Stewart Bell  
Susanne B. Bush  
Steven M. Fox  
John B. Gilpin

**SUSTAINERS**  
\$5,000 to \$9,999

Dorine & Seymour Levine  
Natural Resources Conservation  
Service  
Carol Noyes  
Tina Robinson & Irvin Bupp  
Rocky Mountain Elk Foundation  
Margaret & Byron Wolfe

Drs. Mary & John Frantz  
Tom Hormel  
Ruth Kapes  
Robin Henry Photography  
Michael Stranahan  
Andrew Tobias  
Dyan Zaslowsky & Michael  
Edesess

**SUPPORTERS**  
\$2,500 to \$4,999

Wayne Cogswell  
Rosamond A. Dean  
Susan Krivin & David  
Ohanesian, in honor of Albert  
P. & Eleanor S. Krivin  
Judith Moffatt, in memory of  
Glenn Olson  
Joan Norris  
Hensley & James Peterson  
Franz P. Reichsman  
Robert J. Schloss

**PATRONS**  
\$1,000 to \$2,499

Leyna Bernstein Barnes  
Jim, Regina, Becky, & Logan  
Bock  
Robert M. Boyar  
William Browning  
Joan & Rob Carne  
Virginia M. Collier  
Anne S. Cooke  
Michael Cummings, in memory  
of Marcia Bohnen  
Rolanda & Kev Derderian  
GAG Charitable Corporation  
Esther & Richard H. Goodwin Sr.  
Don Henley  
Barbara & Gerald Hines

Richard L. Jentgen  
Sara & Bill Joy  
Ward T. Kane, The Kane Family  
Foundation  
Ruth & Robert Kevan  
Joan & James Leary  
George M. Marko  
Gary Mullard  
Anthony P. Pennock  
Mariann Quinn  
Frank R. Schiavo, in memory of  
Dick Davis  
Cathleen & Peter Schwartz  
Bradford G. Stanback  
Frances Tyson  
Elizabeth & Tom Wagner

**SPONSORS**  
\$500 to \$999

Natalie & Daniel Alpert  
Peter Barnes  
Barbara & David Butler  
Victor Daniels  
Lucy Fellowes, in memory of  
N.A. Fellowes  
Richard C. Goodwin  
Sarah Groves  
David B. Hartwell  
Connie Harvey  
Kate & Geir Jordahl  
Denise Jurgens & Kevin  
Messerschmidt  
Linda and Robion Kirby  
Jean & Walter Lamb  
Kristin & Craig Laughlin  
McFlynn Pickett Doremus &  
Whitsitt  
Maxwell Milton  
Gary Mullard  
Barbara & Daniel Packard  
Mark M. Paulsen, M.D.  
Dr. & Mrs. Robert H. Potts, Jr.  
Mr. & Mrs. Robert T. Reed  
St. Benedict's Monastery  
Lynda Simmons  
Dr. Richard Steckel  
Stubbs, Collette & Associates,  
Inc.  
Elizabeth & Michael Thele  
Maggie Woods  
Susan, Ralph, Leah, Evan, &  
Joey Wrons

**FRIENDS**  
\$100 to \$499

Above It All Balloon Co., Inc.  
Kris & John Abshire  
Jennifer & Paul Adams, in mem-  
ory of Marion B. Adams  
Martha & David Allee  
Natalie & Daniel Alpert  
Alpine Bank, Basalt  
American Bass Assn., Inc.  
Christina & Christopher  
Anderson  
Dorothy Anderson  
Lorraine Anderson  
Robert A. Anderson  
Stuart H. Anderson  
Peter Andreyuk  
Ingrid Antony  
Mary & Richard Ash  
Christine A. Asher & Mark R.  
Campbell  
Aspen Camp School for the Deaf  
Aspen Wilderness Workshop  
Arthur A. Atkinson  
Arthur H. Atkinson  
Mary J. Baggerman & Philip W.  
Johnson  
Wanda S. Ballentine  
Monica & Paul Bancroft III  
Judith Barnard & Michael Fain  
Mary Louise & Joseph Bates  
Jacque Battle & David Frank  
Cecilia & William Bennett  
Janie & John Bennett  
Mary & Keith Blackmore  
John L. Boehne  
Daniel H. Boone, in memory of  
Daniel R. Boone  
Jean & Ernest Boyce  
Cheryl & Ralph Braden  
Cabell Brand  
Eleanor Brickham  
Laurie A. Brittain  
Mary & William Bundy  
Shelley Burke  
William Busick  
Judith Byrns & Joe Berquist  
Kenneth P. Cantor  
Margaret & Chris Cappy  
Barbara & Bruce Carney  
Center for Energy Studies  
Peter Chan  
Annie Chappell  
Patricia Cherney

Joe R. Chovan  
Albert Christensen  
Clanton Engineering  
Amy & Paul Clark  
Dr. John & Jean Cobb Jr.  
Dr. Joseph & Sally Conklin  
Steve Connor  
Ada & George Cook  
Criterion Engineers/Planners  
Anne & John Cronin  
Mary Catherine & Ruben  
Davalos, M.D.  
Sandra & Robert Dawyot  
Elizabeth & W. Mark Day, in  
memory of Andrew  
Woodhouse Valentine  
Design Group Architects  
Rosemary Di Nardo & Michael  
Kenniston  
Jean & John Distler  
Marilyn & Robert Dixon  
Arthur Dubow, Arthur Dubow  
Foundation  
Hans Dumoulin, M.D.  
Katheryn & H. Brad Dunn  
Barbara & John Eisele  
Fred Elmer  
Environmental Futures, Inc.  
Peter Ewing  
Linda B. Fabe  
Dorothy & John Fankhauser  
Debra & Patrick Farver  
Linda & Leon Fisk  
Judy & Kenneth Foot  
Dottie Fox  
Martha & Ralph Frede  
Mark Friedman  
Gatley & Assoc.  
Carol Gault  
Marian & August Gerecke, Jr.  
Sara & C. Eugene Goin  
Gordman Investments/Real  
Estate  
Graham Contracting, Inc.  
Granny Gear Productions, Inc.,  
in memory of Lt. Col. H.E.  
Knight  
Dale Gray  
Sadija Greenwood, in honor of  
Sylvia Earl  
Margie & John Haley  
David C. Hall  
Ann & Patrick Halter  
Sonia Ruth Weinstock Hamel &  
Jean-Francois Hamel

Kalen & Karin Hammann, Ph. D.  
Hammerhead Construction  
Shawn & Dustin Harris  
Robert A. Hays  
Richard Heede  
Edward H. Helm  
Anne Hillman & George E.  
Comstock  
Cpt. & Mrs. William A. Hinger  
Hirschi Investments, in honor of  
Jean Ann Hirsch  
Steven R. Hirschtick  
Nancy Hirschberg  
Kathryn S. Hok  
Carolyn & John Holton  
David J. Houghton  
Rebecca & Jonathan Howard, in  
memory of Peg & Saul  
Buxbaum  
Damon P. Howatt  
Deborah & Fisher Howe  
Robin & Mike Hoy  
Thera Joyce & Bruce Hunn  
Kermit Hunter, in honor of  
Amory Lovins  
Thomas L. Ickes  
Innsbruck Inn  
Catherine & Jud Ireland  
Dana L. Jackson  
Erik Jansson, M.D.  
Anne Fitten Jones & Andrew  
Jones  
John C. Jones, Jr.  
Donald Keck  
Kenneth H. Keller  
Sarge Kennedy  
Peter F. Kilkus  
Michael Kinsley  
William A. Kint  
Terry Kinzel  
Samuel Kjellman  
Konrad Plastics, Inc.  
Gari Krogseng  
Kristin Kron & G. Theodore  
Davis  
Denise & Brock Kwiatkowski  
Dr. & Mrs. Patrick Lally  
Carol & Thomas Lamm  
Josh Lamp  
Carol R. Langner & Fritz  
Fritschel  
Eulah C. Laucks  
Peggy Lauzon & Tim Kelly  
Peter Lawrence  
Lowell Lebermann

Elaire & Robert LeBuhn  
 Wolfgang Lechleitner  
 Neil F. LePla  
 Robert Levin, M.D., J.D.  
 Line & Space Architects  
 Darcey & Steven Lober  
 Wendy B. Loren  
 Ethel Lossing  
 Linda Loy, in memory of S.W. Anderson  
 Daniel B. Lucachick  
 Sam Luxton  
 Margaret & Daniel Lynch  
 The Mace Family, in memory of Stuart Mace  
 Laura P. Maggos  
 Joel Makower  
 Myron A. Mann  
 Jan & Robert Marker  
 Constance & David Marlow  
 Mardie & Robert Marshall  
 Miriam & William Marshall, in memory of Paul Lappala  
 John J. Maxwell  
 Jean & Joel McCormack  
 Ronald L. McLinden  
 Dr. Judy Messer  
 Margarita & Donald Metzger  
 Gail & Andrew Meyer  
 Peter C. Milholland  
 Peter H. Miller  
 Peter M. Miller  
 Kate Mink  
 Peggy & Barry Mink, M.D.  
 Johnny M. Mullen, in memory of Benjamin Mullen  
 Kazuhiko Nagayama  
 Robin Brown-Newberg & Stephen Newberg  
 J.D. & V.R. Newbold  
 Scott Newman  
 Stephen Nichols  
 Morris J. Nicholson, M.D.  
 Georgiana & Kenneth Nielsen  
 Ann Richards Nitze  
 Barry Northrop, in memory of Stan Niemczycki, Sr.  
 Edwin Nystrom, Jr., in honor of Kittie Spence  
 Patricia T. O'Connor  
 Avis R. Ogilvy  
 Lisa Ortiz  
 Lynn & William Osborn  
 Kyle & Thomas Osborne, III  
 John Osgood  
 Overly Construction Co.  
 Katherine & Paul Page  
 Edwin Parker  
 Virginia Parker  
 Amy & Kent Patton  
 Glenda C. Pehrson  
 Holly G. Pence & Elliot J. Zais  
 Dr. Gregory K. Penniston  
 Margaret & David Penoyer, Jr.  
 Alison G. Peters  
 Susan S.H. Phillips  
 Rick Pietrusiak  
 Paul O.H. Pigman  
 Diana Prechter & Kent Cole  
 Niki Eir Quester  
 Nan & Andrew Quiroz  
 Adele & Christopher Rathbone  
 RCL Agencies, Inc.  
 Red Hill Dezigzn, Inc.  
 Robert T. Reed  
 Andrea & Kelly Reiman  
 Alice Kleberg Reynolds  
 Jack Roberts  
 Blake Rodgers  
 Marietta & Pier Luigi Rosellini  
 Karen M. Rossie & William J. Rehm  
 Karen S. Runyon  
 Anita E. Russel  
 Gary D. Sabula

Marnie Schaefti & John Branscombe  
 Barbara Jean Schickler & George Lawrence  
 Mimi Schlumberger  
 Randy K.R. Schmidt  
 Dorna Schroeter  
 Joyce & John Schwartz  
 Joyce & Paul Schwer  
 Elaine & John Seastrom, in memory of "Pat" Hook  
 Gillian & Basil Seaton  
 Sherman Selden  
 Christine & William Shahan  
 Mary Jo & Robin Shaw  
 Burnette T. Sheffield  
 Dwight Shellman  
 Dr. & Mrs. Edward M. Shepard  
 Sloan Shoemaker  
 Luis Silva, in honor of Caderno Verde  
 Louise & John Singleton  
 James Skinner  
 Kathryn & Robert Sloan, in honor of Mary Beth & Jeff Sloan  
 Mary & Peter Smith  
 Victoria Smith  
 Louise & Florian Smoczynski  
 South Mountain Co., Inc.  
 F.T. Sparrow & Assoc.  
 Stacy Standley  
 Steamboat Architectural Associates, P.C.  
 Ellen & Doc Stephens  
 Gordon Stewart  
 Geraldine St. Onge  
 Duncan Storlie  
 Angelica & William Sturm  
 Phyllis & Robert Throm  
 Thunderbolt Services, Inc.  
 Timberland Company  
 Michael P. Totten  
 John C. Twombly, in memory of Leonard Kalal  
 Joanna Underwood  
 Cheryl L. Vallone  
 Sally & John Van Schaick  
 Nina Veregez & Douglas Brew  
 James W. Versocki  
 Paul Wack, AICP  
 Judy Waite, in honor of Carol Young  
 Barbara Warren, M.D., M.P.H.  
 Tom Warren  
 Susan & Seward Weber  
 Fred E. Weed  
 Margaret & William Westerbeck  
 Francis Wheat, Esq.  
 Priscilla & Timothy White, in memory of Alex White  
 Pam Wicks & Ted Flanigan  
 Harry R. Wilker  
 Lynn & Louis Wille  
 Ellen & Bruce Williams  
 Billie Ann & Sam Williams  
 Tina & Calvin Willis  
 Koichi Yamauchi  
 Anne Marie Siu Yuan & Peter Bacchetti  
 Conradine G. Zarndt, in honor of John Zarndt

#### ASSOCIATES \$1 to \$99

Anonymous gift in memory of Evelyn S. (Gahm) Patrick  
 Dr. & Mrs. Donald Aitken, Jr.  
 Dorothy & David Allen  
 Susan & Eric Anderson  
 Michael P. Andreyuk  
 E. Coury Armstrong  
 Janie Arnold  
 Nancy & John Artz

Layne Badger  
 Mary-Lane Baker  
 Nancy & Marvin Ballantyne  
 Paul Barnes  
 Mr. & Mrs. Robert C. Barrett  
 John Barrie Associates Architects  
 Thomas John Barry  
 Teresa Barth  
 Eleanor & Albert Bartlett  
 Rex L. Bavousett  
 Diane Pitcher Bedell  
 Elizabeth & Edward Beeley  
 Dominic Belardo  
 Maureen & Joe Benincasa  
 Lundette & Edward Bennett  
 John Bentley  
 Marjorie & Gary Bergstrom  
 Michelle A. Berkowitz & Anthony M. Leofsky  
 Carol & Robert Bertrand  
 Bart Bickle  
 Cheryl L. Birdsall  
 Rebecca A. Biscaro  
 Laura & Kurt Bittner  
 Lesly Black & Vance Lemley  
 Margaret Blankley  
 Stuart Blood  
 Dorothy & James Borland  
 Jill & Mark Boyce  
 Alan L. Boyer  
 Dorothy & Rick Bradley  
 The Bradylong Family  
 Margot A. Brauchli  
 Sally & Dick Brigham  
 Susan & William Brooks  
 Kathie K. Brown  
 Emily & Sylvester Brown  
 Lt. Col. & Mrs. Donald G. Browning  
 Charlotte Fineberg-Buchner & Clark Buchner, III  
 B. Russell Buck, III  
 Kent Buhl  
 Anne & Jim Burks  
 Stephen Burns  
 Bob Burrow  
 Matthew M. Burt  
 Renee Cady  
 Bradley W. Cameron  
 Beverly A. Campbell  
 Jennifer & Jim Cantele  
 Kathryn & Jefferson Carleton  
 Bob Carpenter  
 Linda & Kit Caspar  
 Joy M. Caudill  
 Cynthia & Roy Chamberlin  
 Norene & Thomas Chase  
 Cheryl A. Chipman  
 Tracy & Jim Claffin  
 Victoria & John Clancy  
 Anne K. Clare  
 Theresa & Rodney Clary  
 Theresa E. Collins, in honor of Katherine G. Collins  
 Kurt J. Conger  
 John Connell  
 Bruce Connery  
 Elaine S. Cook & Zhahai Stewart  
 G. Allen Cook  
 Mary Lou & Courtney Cook  
 Peter B. Cook  
 Patricia A. Cooper  
 Nancy & Joe Corpening  
 Sherilyn J. Coulter  
 Toby Craig  
 Jacqueline & Douglas Crockett  
 Susan Crow  
 John Cummings  
 Jill Curran  
 C.W. Dahlgreen  
 R. Gordon Dailey, Jr.  
 R. L. Dale  
 Steve Darrow  
 Christine Daum

Davi & Leaman, Inc.  
 Lawrence Davino  
 Catriona Davies & Dean Kubani  
 Don Dean  
 Margaret DeAnda & Daniel Gallagher  
 Tony Dearsley  
 Vivianne DeBell & Michael R. Grier  
 Lynda & John Del Nero  
 Paul DeMaio  
 Andrea De Majewski & Nikola Davidson  
 William L. Denneen  
 Marilyn & Robert Derrickson  
 Alison & A. Gardner DeWitt, III  
 C. Dillow  
 Karen Di Matteo, in honor of Fourth Grade Classes at Land O' Pines Elementary School  
 Displays for Jewelry  
 Susan Clairmore Dix & Michael Dix  
 Geoffrey E. Dolbear, Ph.D.  
 Doyle A. Dornier  
 Susan Kerns Durnell & D. T. Durnell  
 William W. Durrell  
 Donald H. Dyall  
 Eber Construction  
 Evan D. Ela  
 Eric C. Eldering  
 Elyse Elliott & Jeremy Bernstein  
 Marion & Merritt Elmore  
 Thomas J. Elpel  
 John M. Ely, Jr.  
 Emanon, Inc.  
 Steven Epstein  
 E-Roof, Inc.  
 Rhea & Larry Estes  
 Brent Eubanks  
 Kim & Marshall Evans  
 Richard Fagerstrom  
 Christopher J. Fastner  
 Eileen Faughey & Ronald G. Haddad  
 Donna Feiner  
 Sandra & Peter Fessenden  
 Lisa A. Figueroa  
 Douglas J. Fink  
 George N. Finley  
 Avis & Jeff Fisher  
 Elizabeth Mysterdt Fletcher & Richard A. Fletcher  
 Kim & David Floria  
 Penney Floyd & Chuck Lakin  
 Fluid Applied Construction Technology  
 Nancy Flynn-Silva  
 Carolynne Foltz  
 Juliana Forbes & Tyler Norris  
 Monica & Raleigh Foss  
 Susan O'Terra Foster  
 Tad S. Foster  
 John J. Fritz  
 Mario Gatti  
 Richard G. Gelwick  
 Ray V.D. Gerhart  
 Carla S. Gerrard  
 Cheryl Lynne Gersch  
 Mark Gibson  
 Jean Giddings & William Butler  
 Rebekah & Thomas Gilpin  
 Mary & Mark Giorgetti  
 JoAnn Glassier  
 Joe Gleason  
 Alice & George Gless  
 Marshall Glickman  
 Martina Sue & Louis Goldman  
 Bobby Grayson  
 Jean & Michael Green  
 P.A. Greenberg  
 Kate Greenspan & Steven Epstein  
 Judd R. Groden

Col. Wesley A. Groesbeck  
 Richard L. Grossman  
 John Gusdorf  
 Sherry & Ted Guzzi  
 Diane Hall  
 David M. Halpern  
 Curtis Hamilton  
 Sandra Hamilton & Harvey Schwartz  
 Bruce Hanson  
 Nancy Caroline Harney  
 Kelly L. Harris  
 Bach Mai & Russell Hart  
 Richard Hathaway  
 Shirley Hathaway  
 Linda L. Heald  
 Garvin Heath  
 Karen Di Hecht  
 Heffron Investments  
 Carol & Tony Henderson  
 Carl L. Henn  
 Jan & George Hernandez  
 Molly K. Hiatt  
 Barbara J. Hibbard  
 David Hiser  
 Tina Hobson  
 Loren Hockemeyer  
 Elizabeth A. Hoffmann  
 Arvid Hogen  
 Margaret & Charles Hollowell  
 Katherine R. Hopkins  
 Mary & Wilfred Howarth  
 Peter G. Howse  
 Patricia A. Huberty  
 Miriam Huelsmann  
 Ron Huffmeier  
 William A. Hughes  
 Roy W. Hunter  
 Michael P. Hydro  
 Rob Hyks  
 Jean & Stephen Hsley  
 Dr. G.K. Ingham  
 David W. Inouye  
 Katia & John Jacobs  
 John Jeffries  
 Jane & William Jennings  
 Eric D. Johanson  
 Carla Johnson & Michael Guilfoil  
 Eric Seth Johnson  
 Kathleen & George Jones  
 James G. Jones  
 Maggie Jones  
 Patricia & Robert Jones  
 Kate & Geir Jordahl  
 Dana Judy  
 Irene & Al Juvshik  
 Debora & Keith Kaback, M.D.  
 Jacob H. Kahn  
 Jeffrey L. Kaplan  
 Joanna Karl  
 Sally & Franklin P. Kearney  
 Mary Louise & Joseph Kearns  
 Julie & Russell Keaten-Reed  
 William O. Keith  
 Ann & C.W. Keller  
 Carol & Bruce Kelley  
 Elizabeth & William Kellogg  
 Kathleen Kent  
 Irene & Charles Kilzer  
 Lois Barty King  
 Nancy & Bryan Kirkpatrick, in honor of Camp Winona  
 Loretta & Allan Kiron  
 Jonathan C. Kirschner  
 Dolores & Tarver Kitchens, Jr.  
 Kenneth Klacik  
 Stacie A. Knapp, in memory of Dell Knapp  
 Evelyn V. Knazek  
 Jeffrey P. Knight  
 Harold M. Knowlton  
 Carolyn A. Koch, in memory of Russell Gagnon  
 Dinah Koehler, in honor of Isabelle Headrick & Michael

Horewitz  
 Jeanne Deignan-Kosmides & George Kosmides  
 Kraft Construction  
 Joseph Kruth  
 Robert Kuchta  
 Richard Kuehner  
 Vivianne & Robert Kurzweil  
 Cynthia & Michael Lamberti  
 Daisy & Daniel LaPoma  
 David M. Larsen  
 Knud Larsen  
 Katherine & Lee Larson  
 Lois & Donald Laughlin  
 Suzanne & Kevin Law, in honor of Ethan Thomas Putnam  
 Jeffrey M. Leahy  
 Mary & Joseph Lechuga  
 Patrick Leeds  
 Robin Leenhouts  
 Jeanette H. Leete  
 Timothy E. Lehane  
 Barbara Wertz-Leiden & Charles Leiden  
 Marion & Lee Leiserson  
 Marvina Lepianka & Charles Jaffee  
 Geoffrey H. Lester  
 Rob Leventhal  
 LifeStream, Inc.  
 Martha J. Lillie & Anthony G. White  
 Roger Lippman  
 David N. Little, in memory of Neil Little  
 Linda M. Lockwood  
 Patricia Logan & Karl Citek  
 Frances A. Ludwig  
 Michael MacDonald, dba Mobil Wax Systems  
 Mr. & Mrs. Joseph E. Mackey  
 Leslie P. Madsen  
 Robert A. Marker  
 John Paul Masone  
 Frank M. Masters  
 Capt. Jeffrey M. Mathieu  
 Joseph Maty  
 M.W. Maxwell  
 Andrew H. McCalla  
 Laura Mazza-McNerney & Timothy McNerney  
 Cynthia Metzep-McCarty & Shawn McCarty  
 Sheryl & Michael McCloud  
 Jean & Daniel K. McCoubrey  
 Diana McCourt  
 Sarah S. McCoy  
 Sheila McElhinney  
 Laura E. McNeill  
 James F. McVay  
 Robert S. Means  
 Chad Medcroft  
 John Menger, in honor of Jenny Menger, Christina Paulsen, Theodor Glysen, & Victor "Vic" Reinders  
 Annette Mercer & Alexis P. Wieland  
 Wayne Messere  
 Sylvia & Sam Messin  
 Connie & Philip Micklin  
 Michaela E. Millard  
 Bonnie & Gabor Miskolcay  
 Walt Miziuk  
 Ellen & Charles Moon  
 Betty & Robert Moore  
 Jennifer Moore  
 Cindy E. Moran & Todd M. Broadie  
 Frank A. Moretti  
 Marleen & Seth Morgan  
 Pam Morgan  
 Byard W. Mosher, IV  
 Tatyana & Milton Moss

(continued on next page)

*(continued from previous page)*

David Mueller  
 Mary Ellen & Herman Muenchen  
 William T. Murphy  
 Linda & Frederick Muschenheim  
 Eileen & Guido Muzzarelli  
 Edward Myers  
 Herminia & Thomas Neet  
 Edward J. Nelson, Jr.  
 Jacqueline A. Neurauter  
 Virginia Newman  
 Jane M. Nicolich  
 Lynda J. Nicolls, in memory of  
 Frank E. Nicolls  
 Ed Nieman  
 Jonathan K. Niermann  
 Denise M. O'Connor  
 Judy & Neil O'Donnell  
 William S. O'Donnell  
 Nancy & Clifford O'Neill  
 Elna & Greg Otto  
 John C. Otto, in honor of  
 Amanda Otto  
 Mathew E. Overeem  
 Robert F. Paashaus  
 Pacific Technology Associates  
 Joseph A. Padula, in memory of  
 Angela DeVito Padula  
 Joseph T. Parisi  
 Linda K. Paulman  
 Arthur Payne  
 Clayton Pederson  
 Pemd Education Group  
 Judith & Terry Penney  
 Margaret & David Penoyer  
 Kristine Permild & Sam Harris  
 Thomas A. Perrigo  
 Donna M. Petrangelo

Charles Petty  
 Elsie & Charles Petty  
 Jane Walker Pfister  
 Diana & Gary Phelps, in memory  
 of Glenn Phelps  
 Ina & Mason Phelps  
 Margaret E. Philbrick  
 Marci & Lance Pittleman  
 Jean & James Pletcher  
 Shawn Porter  
 Robert H. Potts, Jr.  
 Geoffrey Pritchard  
 Nancy K. Quinn & Ronald D.  
 Freund  
 Nancy W. Rathborne  
 Mark Raulston  
 Chad Reese  
 Shelagh & Terrence Regan  
 Jill & Charles Reiter  
 Gretchen Renshaw & Robert A.  
 Zwissler  
 Don Revis  
 Barbara & John Rhead  
 Larry Rice  
 Al Richardson  
 David A. Richie  
 Dan Ridgeway  
 Don Riggs  
 Vickie M. Rightmyre  
 Carrie & Roger Ringer  
 Robin & David Rittenhouse  
 Jill Robinson  
 William J. Robinson  
 Marc Rosenbaum  
 Andrea Rowan  
 Sylvia Skolnick  
 Mary & Siegfried Roy  
 Chris Royer

John Rubel  
 Eli Rubinstein  
 Bryan J. Ruffner  
 Hans A. Sack  
 Catherine I. Sandell  
 Mary & Robert Sanz  
 Michael E. Saxe, in memory of  
 Don Lamson  
 W. Ralph Schaefer  
 James P. Schaeffer  
 Meyer Scharlack  
 Betty Jane & Arthur Schlachter  
 Mariene & Raymond Schneider  
 Linda & John Schukman  
 Louis J. Schuitz  
 Kathleen & Jon Scott  
 Suzanne M. Scott  
 Shirley & Roland "Bud" Seaton  
 John M. Seitz  
 Rosemary Cseh-Senn & James  
 F. Senn  
 Shelly Shapiro & Thomas E.  
 Hitchins  
 Lori Shields & Stephen G.  
 Connor  
 Fawn & John Shillinglaw  
 Gabriel Shirley  
 Nancy & Dip Sidhu  
 Sierra Solar Systems  
 Signs & Designs by Wanda  
 Anthony Simmonds  
 Eve & Ernest Simon  
 Matthew Simon  
 Nancy Lampka Simpson &  
 Walter Simpson  
 Randall Sinner  
 Sylvia Skolnick  
 Peter B. Sloan, in honor of Mary

Beth & Jeff Sloan  
 Alyce & David Smith  
 Barbara W. Smith  
 Jennifer Smith  
 Mitchell Smith dba SolarSmith  
 Shane Smith  
 Susan Fralick Snyder & William  
 Snyder  
 Marie-Dolores E. Solano  
 Narvel Somdahl, in honor of Dad  
 Rebecca G. Sparks  
 Louise & Timothy Spears  
 Gail & Gregory Speer, M.D.  
 Terrence P. Spencer  
 Nicole Spiegelthal & Bradley Ack  
 Chris Springer  
 Wanda & Bob Stadum  
 Charles E. Stanzione  
 Ellen M. Stapenhorst  
 Dorothy & Walter Stark, in  
 memory of Irene Dickinson  
 Belle Starr  
 Sana Starr  
 Dierdre A. Stegman & Oliver R.  
 Bock  
 Pegi & James Stentz  
 Gail Stewart  
 Dale Stille  
 Nancy Jo Stockford & Mark  
 Huston, in honor of Chip  
 Stockford & Wally Huston  
 Forrest S. Stoddard  
 Susan & Geoffrey Stone  
 Marion & Thomas Stoner  
 William M. Straser  
 Nancy & Byron Stutzman  
 H. Cassidy Sumrall, Jr.  
 Sunheart

Richard L. Sweeney  
 Doris & L. Bob Swehla  
 Diana Taracena & Richard  
 Figge II  
 Jesse S. Tatum  
 Virginia E. Taylor  
 Harry Teague Architects  
 Ken Thomas  
 Thompson Woodworks  
 Carol M. Thompson  
 Donald K. Thompson  
 Linda & John Thornton  
 Peggy & Tod Tibbetts  
 Nancy W. Fry Todd  
 Leah & Ed Tuter  
 David R. Twitchell  
 Molly & John Ugles  
 Lucile & Allan Ulrich  
 Sandra & James Ussery  
 Judith & Terry Valen  
 Roger W. Valentine  
 Marie Valleroy & Alan Locklear  
 Hank W. Van Berlo  
 Ventec  
 Deborah Vogel  
 Jay Voss  
 Erika D. Walker & Donald  
 Weinschenker, in honor of Jerry  
 Walker  
 Susan & Tom Wasinger  
 Bob Wallace  
 Scott Wallace  
 Margaret Watson & Bruce  
 Erickson  
 Diane L. Weber  
 Marion Weber  
 Richard Weeks  
 James S. Weinberg

Adam Werbach, in honor of  
 Amory's & Hunter's vision  
 Rosemary L. Wessel, in honor of  
 Bonnie Barnes  
 Philip West  
 Don Westbrook  
 Robert Westby  
 Cathy & Craig Wheeler  
 William H. Wheeler  
 David J. Whitbeck  
 Mr. & Mrs. Gerald R. Whitcomb,  
 in memory of George L.  
 Whitcomb  
 Virginia J. Whitcomb  
 Dr. Mary-Alice White  
 Phil White  
 Donna & Charles Whitley  
 Barbara & O.J. Whittemore  
 Sharon & Michael Wildermuth  
 Bette & Perry Wilkes, Jr.  
 Consuelo & Jeffrey Wilkinson  
 Mark J. Wilbie  
 Lorraine Wittse  
 Roy Wood  
 William S. Woodruff  
 Jay Woods  
 Alexis Woods  
 Paul Yahnke, in memory of my  
 grandfather, Ted Yahnke  
 Elizabeth & John Yingling  
 Trudy & Richard Zauner  
 Karen & Robert Zellman  
 Holly A. Zimmerman, in honor of  
 Peter De Crescenzo, Lori  
 Austin & Tom Bantz, and  
 Bonnie Nitta & Jack Scherrer  
 John S. Zinner

NONPROFIT ORG.  
 U.S. POSTAGE  
 PAID  
 DENVER, COLORADO  
 PERMIT NO. 1278

CHANGE SERVICE REQUESTED

Rocky Mountain Institute  
 1739 Snowmass Creek Road  
 Snowmass, Colorado 81654-9199

