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STITCHING THE WEST BACK TOGETHER

Conservation of Working Landscapes

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4

BEYOND “STAKEHOLDERS” AND THE ZERO-SUM GAME

Toward Community-Based Collaborative
Conservation in the American West

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IN BRIEF

- A growing trend in attempts to manage land for multiple interests is the formation of community-based collaborative conservation groups (CBCCs); they are successfully facing the challenges posed by invasive species, watershed deterioration, wildfires, economic decline, and loss of open space.
- Often created and led by rural ranchers, forest owners, and other producers, CBCCs include alliances with scientists, conservationists, and agency resource managers all seeking common ground and pragmatic solutions to resource management issues.
- Examples of successful CBCCs include the Altar Valley Conservation Alliance in southern Arizona, the Diablo Trust in northern Arizona, the Malpai Borderlands Group in southern Arizona and New Mexico, and the Laramie Foothills Group in Colorado.
- Collectively, the greatest accomplishments of CBCCs may be the formation of partnerships based on trust in the face of legitimate differences and presenting a unified voice in natural resource management and decision making.

INTRODUCTION

During the past two decades, scores of community-based collaborative conservation groups (CBCCs) have sprung up across the West. They are often cre-

ated and led by rural producers—particularly ranchers and foresters—frustrated by bureaucratic regulations that restrict their ability to make a living from the land, especially if much of that land belongs to states or the federal government. Usually place-based and place-specific, these groups focus much of their attention on achieving tangible conservation goals like erosion control, removal of invasive species, or the restoration of fire to forest and grassland ecosystems.

Unlike traditional industry or advocacy organizations, however, most CBCCs have forged strong alliances with scientists, conservationists, agency resource managers, and other stakeholders. These allies are just as frustrated by the zero-sum game that often dominates resource politics on public lands in the modern West.¹ As legal scholar Cass Sunstein points out, positions grow more extreme and internal diversity diminishes when members of interest groups meet and talk among themselves because like-minded people reinforce rather than challenge one another's positions. In a society marked by the balkanization of "interest groups" who only speak to their own members, CBCCs and their partners represent a countertrend: the search for common ground. Together they form the so-called radical center, a place where people of diverse interests meet and work together to achieve common goals (see the introduction to this volume).²

The collaborative conservation movement is not limited to producer-led groups. There are government-led collaborative endeavors such as the Animas River Stakeholder Group in Colorado, and "hybrid" efforts like the Laramie Foothills Group in Colorado, initiated by the Nature Conservancy (see chap. 13 on Arizona's Sonoran Desert Conservation Plan).³ There are also umbrella organizations like the Quivira Coalition (chap. 5) and the Rural Voices for Conservation Coalition (chap. 6) that bring these different groups together. Westerners are experimenting with an ever-increasing, ever-evolving number of political and economic strategies to stitch the West back together, as the case studies in this volume attest.

Social scientists have made several preliminary attempts to analyze this emerging phenomenon. R. D. Margerum surveys the typologies that researchers have developed to categorize these groups by different criteria, including the outcomes these groups seek to achieve; whether they are directed by governments, citizens, or NGOs; or the scale at which they work.⁴ Margerum also presents a typology of his own, which focuses on institutional analysis and design.

In this volume, we are less interested in classifying collaborative conservation organizations than in exploring their successes and failures on the

ground, especially for those led by rural producers. Our approach is more ethnographic than analytic. We want to capture the contingent, experimental vitality of these groups as they strive to create new ways of fostering conservation across the boundaries that divide the rural West. And even though all three authors of this particular chapter are academics, our insights are derived primarily from our participation in two rancher-led CBCCs, the Altar Valley Conservation Alliance and the Malpai Borderlands Group, both located in the Arizona-Sonora (Mexico) borderlands. We write not as detached, "objective" scholars but as practitioners learning as we go.

Most of the collaborative efforts discussed in the present volume have not been profiled in earlier publications on collaborative conservation.⁵ No single volume, including this one, could ever encompass more than a small subset of collaborative groups in the West. What distinguishes this volume from others about collaborative conservation is that its purpose is not to describe and evaluate CBCCs as political institutions, how they work, and what makes them successful or not. Rather, it is to draw attention to the critical role they play in working landscape conservation by examining the innovative tools and strategies they have developed to keep forests and rangelands producing in an ecologically sound and economically sustainable manner. In this chapter we focus on CBCC in the context of rangeland conservation and ranching to illustrate the many reasons why CBCCs have formed in the West and some of the ways in which they are conserving working landscapes.

Collaborative conservation is a subset of a much larger effort to solve public-policy problems through processes that build consensus among stakeholders rather than resorting to litigation or lobbying.⁶ As Donald Snow points out, "Efforts that evolved into collaborative conservation probably got their start in the arena of alternative dispute resolution, as it was applied to environmental issues beginning in the 1970s."⁷ Environmental alternative dispute resolution often limited itself to the resolution of disputes between two parties through the forging of formal agreements. Collaborative conservation, in contrast, usually involves numerous stakeholders.⁸ Moreover, many CBCCs, including those profiled in this volume, seek to create networks of partners that endure through time. Their goal is not just to resolve a single dispute but, rather, to establish a process based on trust that addresses continuing issues of resource management.

In that respect, community-based collaborative conservation offers a new model of resource management in the twenty-first-century West. Moving beyond a political process in which stakeholder interest groups engage in a zero-sum game to advance their own agendas by attacking the agendas of oth-

ers, the collaborative conservation movement strives to bring rural producers, environmentalists, government managers, and others together to find common ground and common solutions to social, economic, and ecological problems. No one knows how many of these CBCCs exist across the West. One of the authors of this chapter (Sheridan) distributed an analytic tool called the "Grassroots Collaborative Conservation Survey" at the annual meeting of the Quivira Coalition in 2009. Eight organizations ranging from the Madison Valley Ranchlands Group in Montana to the Malpai Borderlands Group of the United States–Mexico border responded. Based on those surveys as well as the published literature, we have identified four key themes that many grassroots CBCCs led by rural producers seek to address in the American West. These themes are not meant to be exhaustive, but we feel they capture some of the major political challenges to which these groups are responding.

Community-based collaborative conservation groups:

- react to, and try to overcome, the flaws and limitations of top-down "command and control" regulation and its associated confrontation and gridlock by searching for common ground and pragmatic solutions to problems, especially between environmentalists, rural producers, recreationists, and land management agency personnel;
- contribute to the formulation of site-specific goals and management practices for landscapes that cross jurisdictional and other boundaries that often hamper effective ecosystem management, with some also contributing to the formulation of policy that affects the management of these landscapes;
- involve local people in the definition, design, implementation, and evaluation of conservation efforts, both large and small scale, over time; and
- recognize and build on the long histories of local people in specific places, with an eye to extending those histories into the future—that is, maintaining long-term commitments to place by enhancing both economic and ecological conditions on intermixed private and public lands.

STITCHING THE WEST BACK TOGETHER, ONE WATERSHED AT A TIME

More than a century ago, John Wesley Powell argued that the West should be divided into "irrigation districts" where settlers would "establish local self-government by hydrographic basins" and share water, forests, and range-lands.⁹ Powell tried to convince Congress that instead of 160-acre homesteads,

it should award grants of 80 acres for irrigated farmland and at least 2,560 acres (four sections) of pasture. The rest of the watershed would remain public domain managed by the local irrigation districts themselves: "I say to the Government: Hands off! Furnish the people with institutions of justice, and let them do the work for themselves," Powell growled.¹⁰

Powell's vision of western society made immanent ecological sense. Communities of ranchers, farmers, and foresters would be organized according to the flow of water—the most critical resource in arid and semiarid lands. But one look at a land tenure map of almost any western watershed reveals that such logic has rarely, if ever, been followed. Historical and current patterns of ownership in western watersheds do not conform to topography or hydrology, with the partial exception of the higher mountain ranges, which the U.S. Forest Service often controls. The basins between mountains, in contrast, look like puzzles with different-colored pieces—rectilinear polygons in seemingly random patterns of private, state trust, or Bureau of Land Management possession. Rules and regulations governing one parcel may not apply to its neighbors. Decision making is fractured along lines that have little or nothing to do with the flow of water or the lay of the land.

Most of that decision making is vested in different levels of government, with the federal government dominating resource management because it controls so much of the West. Because of the National Environmental Policy Act and other laws, federal agencies are mandated to inform the public and solicit public opinion whenever they review or change the administration of public lands under their jurisdiction. But those solicitations were not designed to develop consensus or achieve compromise. Instead, they were informational rather than deliberative; their purpose was to convey and gather information, not to bring interest groups together to make decisions. As such, the process often encouraged posturing and adversarial behavior by pitting interest groups against one another as each struggled to advance its agenda, often at the expense of others (the zero-sum game). Interest groups may have formed temporary political coalitions with one another, but the process rarely forced them to sit down with one another and hash out compromises. On the contrary, decision making resides with the agencies, not the public.

The grassroots collaborative conservation movement has been trying to reverse this top-down, command-and-control flow of power and information in the rural West. Rather than being clients of government agencies, CBCCs often define their own agendas and then invite agencies and nongovernmental organizations to join them as partners. If successful, the result is an ongoing

ing dialogue about resource issues and conservation goals that reduces the friction between regulators and producers and increases the communication between them. It also recasts their roles to a certain extent by creating a metaphorical roundtable around which producers, agencies, and nongovernmental organizations can gather as equals to discuss common problems and find solutions to them. Differences of mission—or of opinion—do not disappear, but the collaborative process concentrates the attention of all parties on the common ground that unites them rather than the lines of ideology or jurisdiction that divide them.

This is not an easy process, even within CBCCs themselves. As this chapter reveals, CBCCs sometimes take no position on controversial issues that divide their own members. Members of a group need to reach consensus among themselves before they try to reach consensus with their partners or other stakeholders. Not all issues can be addressed through collaboration. Litigation, lobbying, and regulation will probably never disappear in the rural West.

Nonetheless, CBCCs are trying to piece together a modern version of Powell's vision by providing an enduring framework for conservation that cuts across jurisdictions and land ownership boundaries. Echoing Powell, many CBCCs organize themselves by watershed and are often labeled "watershed groups."

One example of a watershed group is the Altar Valley Conservation Alliance (AVCA) in Arizona, which began in 1995 and became a 501(c)3 not-for-profit organization in 2000.¹¹ The Altar Valley consists of more than 600,000 acres of desert grassland drained by Altar Wash and its tributaries, including Arivaca Creek. In part because it is located southwest of Tucson, the birthplace of Earth First! and headquarters of the Center for Biological Diversity (CBD), the Altar Valley used to be ground zero in the western range wars. Jim Chilton, one of AVCA's founding members, was engaged in a bitter battle with the CBD and its allies in the Forest Service and U.S. Fish and Wildlife Service over grazing on the Montana Allotment of the Coronado National Forest. When the Forest Service renewed Chilton's grazing lease, the CBD appealed, contending that Chilton's cows endangered the threatened Sonora chub (*Gila ditaenia*). It also published 21 photos on its website that purported to show degradation of the allotment due to grazing. When Chilton found out about the photos, he sued the CBD for malicious libel in 2003. He and his lawyers also rephotographed all 21 locations. Four were not even on the allotment. The others were either hunters' campsites, old mining roads, or tight shots that, when shown in panorama, revealed healthy landscapes. The coup

de grâce was a photo of a dry lake bed where several hundred people, including the CBD's photographer, had celebrated May Day a few days before the shot was taken. In 2005, a jury in Pima County Superior Court concluded that the CBD had made "false, unfair, libelous and defamatory statements" against Chilton on its website and in a press release. It awarded Chilton \$100,000 in actual and \$500,000 in punitive damages. The CBD appealed but both the Arizona Court of Appeals and the Arizona Supreme Court upheld the verdict.¹²

The long battle with the CBD understandably embittered Chilton and his family. Tensions also simmered between AVCA ranchers and the nearby Buenos Aires National Wildlife Refuge, which in 1985 had converted a huge ranch at the south end of the Altar Valley into a 118,000-acre preserve for the endangered masked bobwhite (*Colinus virginianus ridgwayi*).¹³ During the same period, Pima County was launching its ambitious Sonoran Desert Conservation Plan (see chap. 13). Even though the county identified ranch conservation as one of its five major goals and pledged that it would only acquire land from willing sellers, many ranchers were deeply suspicious of the county's intentions. Polarization, paranoia, and interest-group politics made collaboration exceedingly difficult during the first decade of AVCA's existence. Angry confrontations occasionally erupted at AVCA meetings, creating an atmosphere of mistrust.

To reverse these negative dynamics, AVCA turned to Dr. Kirk Emerson, the first director of the U.S. Institute for Environmental Conflict Resolution of the Morris K. Udall Foundation in Tucson. A professional facilitator, Emerson had worked with several members of AVCA on the Arizona Common Ground Roundtable, a statewide forum that began in 1997 when the Arizona chapter of the Nature Conservancy asked the Udall Center for Studies in Public Policy at the University of Arizona to help it improve relations with Arizona ranchers. Emerson knew the ranchers and understood their issues. With her guidance, AVCA established ground rules and learned how to run meetings where agency officials and representatives from conservation nongovernment organizations felt welcome, not threatened. Meanwhile, U.S. Fish and Wildlife Service removed the manager of the Buenos Aires refuge and replaced him with leaders who reached out to AVCA. Finally, the county demonstrated its commitment to working landscapes by signing management agreements with ranchers who sold their spreads to it, including two members of AVCA (the Rowley family of Rancho Seco and the Chilton family of Diamond Bell Ranch). Meetings became civil and productive. Slowly but surely, bonds of trust began to develop among ranchers, scientists, conservationists, and agency personnel.

Today AVCA and Buenos Aires National Wildlife Refuge are partners, not antagonists, in the valley they share. The refuge routinely cooperates with AVCA on conservation projects on private and state trust lands. When Buenos Aires received federal economic stimulus funds in 2010, its new manager asked former AVCA restoration coordinator David Seibert, one of the authors of this article, to conduct a gully restoration project on refuge lands. Today AVCA and the refuge utilize the project's four coordinated restoration sites and others as demonstration areas for students, agency personnel, and private interest groups. Completed in 2011, perhaps no other project better symbolizes the spirit of collaboration that now characterizes conservation in the Altar Valley.

NATURAL ELEMENTS: FIRE

Political concerns such as endangered species issues are not the only reasons ranchers come together to form CBCCs. For those in business to raise cattle or sheep, not speculate in real estate, the health of the land they work is of fundamental importance. Like ancient philosophers, they focus on the natural elements, especially earth (soil), water, and fire. Grass cannot grow unless soil is held in place and water captured. Preventing and reversing erosion therefore become major goals, especially in the arid and semiarid Southwest. Another problem is the invasion of woody shrubs because of fire suppression. Thus two major goals of many western CBCCs are the restoration of eroded watersheds and the reintroduction of fire into desert grasslands and forests.

A paradigm shift that began around 1990 has revolutionized fire management across the West. Once considered a monster that destroyed both property and nature, fire is now seen as a natural process in certain ecosystems, as necessary to their long-term health as rain or snow.¹⁴ Properly used, fire is also a tool to restore and maintain healthy landscapes—one that indigenous peoples around the world have employed for thousands of years.¹⁵ Primarily because of fire suppression, shrubs have encroached on more than 84 percent of the grasslands in the southwestern United States.¹⁶ “Had fires continued to sweep the grasslands down through the years to the present with their original frequency,” ecologist Robert Humphrey has observed, “the desert grassland would probably occupy about the same area today as it did prior to the white settlement of the Southwest.”¹⁷

Fire led to the formation of the Malpai Borderlands Group, the granddaddy of ranching CBCC organizations.¹⁸ The Malpai planning area encompasses a

1,250-square-mile triangle of ranchlands in southeastern Arizona and southwestern New Mexico. On July 2, 1991, a blaze started next door to Warner and Wendy Glenn's Malpai Ranch near the United States–Mexico border. The fire was not threatening any structures, so the ranchers urged the Forest Service to let it burn. A Forest Service crew put it out anyway because that's what fire crews did in those days. In response, the Glenns and their neighbors began meeting in September of that year. They invited others as well, including scientists like ecologist Ray Turner and political activists like Jim Corbett.¹⁹ Corbett and a few like-minded landowners in the San Pedro River Valley had formed the Saguaro-Juniper Association in 1988, which envisioned using livestock to live in harmony with, rather than taming, wildlands. The Malpai's idea of “working wilderness” sprang in part from Corbett's covenant between humans and “untamed communities of plants and animals.”²⁰

By July 1992, the group had written the “Malpai Agenda for Grazing in the Sonoran and Chihuahuan Bioregions.” One of the goals of the Malpai agenda was to reverse the polarization between ranchers and environmentalists by identifying “the conservational common ground that unites all of us who love the land, then to create programs in which we can work together to implement the values we share.” Another was to recognize the environmental contributions of ranchers. “In the Sonoran and Chihuahuan bioregions and most of the arid West, ranching is now the only livelihood that is based on human adaptation to wild biotic communities . . . conservationists who are ranchers are divided from many other conservationists by their belief that ranching can be stewardship that preserves the health and unreduced diversity of the native biotic community.”²¹

The development of a fire management plan was one of the primary ways the Malpai ranchers put their principles into action. Gathering several times in 1993, they invited representatives from the state and federal agencies that managed public lands in the region. After a two-day meeting, the agencies agreed to let their fire control policies be “informed and guided by the management goals of the ranchers.” Everyone then pledged to engage in “a coordinated, comprehensive ecosystem management approach” that would “enhance and restore the use of natural processes in these ecosystems, to improve their renewable resources, to provide for wildlife habitat and productivity of grasslands, and to sustain rural and grazing livelihoods.” The Radical Center was being born.²²

In 1994, the ranchers formalized their loose network as the Malpai Borderlands Group, a 501(c)3 not-for-profit corporation. A year later, the Malpai Group and the Forest Service conducted their first prescribed burn, Baker I,

on 6,000 acres in the Peloncillo Mountains. The next was the Maverick Burn (9,014 acres), where concerns about the endangered lesser long-nosed bat (*Leptonycteris curasoae*) and New Mexico ridge-nosed rattlesnake (*Crotalus willardi obscurus*) triggered consultation with U.S. Fish and Wildlife. After a year of discussion, Fish and Wildlife authorized an incidental take permit that allowed the burn to take place in June 1997.²³ In return, the Forest Service agreed to monitor the effects of fire on the two species.

The study concluded that fire had little effect on nectar and pollen production of the agave (*Agave palmeri*) on which the bats fed.²⁴ But planning the third and largest prescribed burn, Baker II, was considerably more contentious, because concerns about the ridge-nosed rattlesnake persisted. Only one of nine rattlesnakes radio-tagged before the Maverick Fire had been killed by the burn (and it wasn't a New Mexico ridge-nosed), but snake biologists argued that fuel buildup due to fire suppression had created conditions for fires so hot they might damage the snakes' habitat. The biologists squared off against the Forest Service and the ranchers, and accusations of bad faith flew from both sides. It took more than five years of planning and debate before Baker II was set in June 2003. The controversy revealed how concern over a single species could hold ecosystem management hostage. "A fire that kills an individual of a listed species constitutes 'take' regardless of long-term benefits to the species as a whole," geographer Nathan Sayre observed, "whereas activities that have no direct effect on listed individuals (e.g., fire suppression) do not constitute take even if their indirect effects may be significantly detrimental. The Fish and Wildlife Service must somehow resolve these trade-offs and potential contradictions."²⁵

When Baker II did finally burn, it spread across 46,000 acres in the Peloncillos, reputedly the largest successful prescribed fire ever in the western United States. Between 1989 and 2005, prescribed and naturally ignited fires covered more than 300,000 acres in the Malpai Borderlands, including 250,000 acres on the Gray Ranch, which the Animas Foundation had purchased from the Nature Conservancy using funds from the Hadley family. Patient collaboration has returned fire to the landscape, overcoming dissension and bureaucratic infighting along the way.

NATURAL ELEMENTS: EARTH AND WATER

Both the Malpai and the Altar Valley Conservation Alliance have also conducted extensive erosion control projects in their watersheds. Most of the

work has concentrated on the restoration of small upland gullies using rock check dams and other simple, inexpensive structures. One principle guiding these efforts is, "first, do no harm." Too often in the past, land managers have unintentionally triggered even greater erosion by installing large gabions or concrete dams that were subsequently overwhelmed or undercut by heavy floods. Instead, AVCA and Malpai have been guided by retired Forest Service biologist Bill Zeedyk and his colleagues, independent consultants who have developed low-tech, low-impact techniques to "let the water do the work" (see chap. 5). The principles that underlie these restoration techniques mirror those of successful CBCCs in the West—working with existing elements (soil, water, vegetation), rather than attempting to alter or remove them, and in coordination with existing ecosystem processes (e.g., sediment deposition and the movement of water in gullies) rather than against them.²⁶

What CBCCs cannot accomplish, however, is the restoration of major arroyos that were carved through the alluvium of Southwestern basins in the late nineteenth and early twentieth centuries.²⁷ One such arroyo is Altar Wash. Before 1900, Manuel King, the founder of the Anvil Ranch, could ride his horse faster than any flood because stands of giant sacaton grasses (*Sporobolus wrightii*) slowed the waters down and spread them across the valley floor, where they recharged valley aquifers. The sacaton floodplain also sheltered masked bobwhite and other species of birds and animals. But overgrazing and fuel wood cutting in the late 1800s denuded the uplands while the construction of a wagon road and reservoirs like Aguirre Lake removed riparian vegetation. When heavy rains in 1904–5 poured into the drainage, Aguirre Lake burst its dam and sliced a channel down the wagon road.²⁸ Today that channel is twenty feet deep and more than 1,440-feet wide in places. Floodwaters now roar out of the valley, and the sacaton is long gone. Because the grade of the main trunk has dropped, Altar Wash causes head cutting up its tributaries as well, a dynamic that today affects the wildlife refuge and working ranches alike. The Natural Resource Conservation Service estimates that about seven acres of land and 100 acre-feet of sediment wash away each year.²⁹

Overgrazing is largely a thing of the past in the Altar Valley. Stocking rates are 65–90 percent lower than they were when Altar Wash was created. Most ranchers have implemented rotational grazing systems that allow pastures to recover. They also have installed wells and pipelines to provide additional sources of water for their cattle and spread them across the landscape. But Altar Wash remains an open and erosive wound. For more than 30 years, the Kings and other ranchers have advocated the construction of grade control/sediment retention structures along Altar Wash itself. They point to 19 such

structures built by the Civilian Conservation Corps, Natural Resource Conservation Service, and Bureau of Land Management in the San Simon Valley of southeastern Arizona between the 1930s and the 1950s. According to a 1992 report by the Soil Conservation Service (predecessor of Natural Resource Conservation Service), those retention dams have aggraded 10 miles of the San Simon floodplain and captured about 19 million tons of sediment.³⁰

But neither individual ranchers nor AVCA have the funds or expertise to construct such structures on their own. The Altar Valley Conservation Alliance therefore turned to Pima County's Natural Resources, Parks and Recreation Department for help. The department, which manages all the Pima County ranches purchased with open-space bond funds under the Sonoran Desert Conservation Plan (see chap. 13), wrote a \$1.5 million proposal for the next open-space bond election, which was supposed to occur in 2008 but has been postponed because of the economic recession. Such partnerships are critical for CBCCs like AVCA to engage in landscape-level conservation endeavors.

Before any structures are built, however, a hydrological study of the Altar watershed will have to be carried out. Many hydrologists and geomorphologists have grown increasingly skeptical about manipulating drainage systems. Western landscapes are littered with failed experiments to modify the flow of water across them. In some cases, the experiments have done far more harm than good. That is why it is necessary for CBCCs to consult with appropriate scientists in their areas before they spend precious time, labor, money, and social capital on restoration projects. They also need to monitor the experiments they do carry out. Even one-rock check dams need to be evaluated over time. The Civilian Conservation Corps built thousands of similar structures during the 1930s, but the impacts of its work have never been systematically investigated. Anecdotes are poor substitutes for rigorous empirical research.

ECONOMIC DIVERSIFICATION

Another goal of some CBCCs is economic development and diversification. Ranching is a notoriously difficult way to make a living.³¹ Stock raisers from Montana to Arizona tell variations of the same joke: "How do you make a small fortune in ranching? Easy: you start with a large fortune."³² The operating costs of beef production—fuel, feed, veterinary care, and so forth—have risen much faster than the price of beef. Small wonder that so many ranchers have sold their private lands to real-estate speculators and left the business.³³

Economic diversification is not a new trend in the ranching industry.³⁴ Many "dude ranches" started out as working outfits that ran a few guests on the side. In states that allow it (Arizona does not), other ranchers make some of their income by selling deer and elk tags to hunters who want to hunt on their private lands. Others are exploring leases to energy companies to install wind- and solar-energy projects on their properties.

Perhaps the most widespread initiative, however, is to capture more value for their beef or lamb by selling it directly to consumers (see spotlight 5.1). Vertical integration is not as complete in the beef industry as it is among poultry and pork producers. Most cattlemen remain independent businessmen in the sense that their cow-calf or steer operations are not owned by the big feedlots and packing companies that dominate beef production in the United States. But those conglomerates form an oligopsony—a small number of middlemen who can dictate prices to large numbers of both producers and consumers.

Betty Fussell exposes the nature of that oligopsony in her *Raising Steaks: The Life and Times of American Beef* (2008). During the 1960s, there were 200,000 feedlots in the United States. By 2005, their number had shrunk to 800, and only 2 percent of them were processing 85 percent of the approximately 34 million cattle slaughtered each year.³⁵ The Big Four packing companies—Tyson Foods; Cargill Meat Solutions, a subsidiary of Cargill; JBS USA, a subsidiary of Brazilian-based JBS S.A., the largest beef packer in the world; and National Beef Packing Company—control more than 83 percent of U.S. slaughtering and processing.³⁶ Five retailers—Wal-Mart, Kroger, Safeway, Albertsons, and Ahold USA—control 46 percent of the marketing. "Despite their endless business talk and cowboy costumes, the majority of the 800,000 ranchers today who raise cattle cannot make a living out of cattle alone," Fussell points out. "Only big-time feedlots in conjunction with packers in conjunction with retailers—in other words, the industrial beef chain, supported by government agencies—make big-time money."³⁷

It's not easy to evade the clutches of the conglomerates. In most areas of the West, the infrastructure to slaughter, process, and market one's own beef or lamb is not accessible or has very limited capacity to accommodate many ranchers. United States Department of Agriculture-certified slaughterhouses in particular are few and far between. Even when ranchers live near major metropolitan centers like Phoenix, they are able to slaughter only a fraction of their calves, steers, or lambs. Then, they have to rely on farmers' markets and online sales to reach consumers. The lack of infrastructure ensures that locally produced grass-fed beef and lamb remains a niche market,

not a mainstream food choice. There are a few exceptions, like Country Natural Beef (see spotlight 10.1) or the Diablo Burger restaurants in Flagstaff and Tucson, Arizona (discussed below). But they are the happy exceptions that prove the rule.

SLOWING THE SUBURBS: THE FIGHT AGAINST SPRAWL

Diablo Burger is an independent offshoot of the Diablo Trust, a collaborative group created in 1993 by the Prosser family, who own the Bar T Bar Ranch, and the Metzger family, who own the Flying M Ranch, in northern Arizona.³⁸ The Diablo Trust provides most of the beef used by Diablo Burger, thereby pioneering retail and direct marketing of beef in Coconino County, where livestock constitutes 93 percent of the agricultural sector, 99.5 percent of which gets exported for processing and consumption elsewhere.³⁹ Located southeast of Flagstaff, Arizona's third largest city, the two ranches comprise 426,000 acres ranging from desert grasslands to ponderosa pine forests. About one-third is part of Coconino and Apache-Sitgreaves National Forests. The rest is private and state trust lands, much of it locked into a checkerboard of alternating sections that the U.S. government originally granted to the Santa Fe Railroad in the nineteenth century.

The Diablo Trust's greatest success has been to preserve the Bar T Bar and Flying M as working ranches. During the real-estate booms of the 1980s and early 2000s, the price of land in and around Flagstaff skyrocketed faster than in other Arizona markets. The private parcels of the Bar T Bar and Flying M were therefore hot commodities in the land-starved speculative frenzy. As the Prosser and Metzger families surveyed their domain in the early 1990s, selling those parcels seemed very attractive at times. Their cattle competed for forage with Arizona's exploding elk herds. Their management came under increasing scrutiny from environmentalists, especially on their Forest Service allotments. But instead of cashing in, the Prossers and Metzgers formed the nonprofit Diablo Trust and held a public meeting to ask for help in 1993. The response was overwhelming. Scientists, environmentalists, and other citizens as well as state and federal agency personnel joined the two ranching families to create the Northern Arizona Collaborative Grassroots Management Team. Together they pursued the trust's mission: "To ensure the long-term economic, social, and ecological sustainability of the Diablo Trust land area by providing a forum for active community participation in a collaborative land stewardship process."

The trust met monthly and formed numerous working groups to achieve its key goals: "Sustaining open space (preventing land fragmentation); sustaining biological diversity; sustaining multiple-generation stewards working on the land; producing high-quality food; protecting watersheds with stable living soils; restoring historic grasslands; enhancing wildlife corridors; achieving community of place." Because of these efforts, the trust has won numerous state and national awards and was designated a National Partnership for Reinventing Government Laboratory in 1998. More important, Diablo Trust lands remain undeveloped despite real-estate prices that approach California levels. With its land and watershed improvement projects, its community outreach including annual Artists' Days on the Land, it is a living laboratory to promote its motto: "Learning from the land and sharing our knowledge, so there will always be a West."

Similar CBCCs have sprung up in other development hotspots throughout the West. It is difficult to select a textbook example of sprawl in the region because the textbook is being rewritten every day. *Mountain Megs*, a 2008 report from the Brookings Institution, calls the intermountain West the "New American Heartland." In that new heartland, the report identifies "five emerging 'megapolitan' areas—vast, newly recognized 'super regions' that often combine two or more metropolitan areas into a single economic, social, and urban system."⁴⁰ The two largest are Phoenix-Tucson and Denver, the core city of Colorado's Front Range. "At the peak of land conversion, Colorado was losing the size of Rocky Mountain National Park in farm and ranch land each year," conservation biologist Rick Knight points out. "Interstate 25 was called 'Main Street,' and towns from Colorado Springs to Fort Collins were referred to as neighborhoods. Colorado was well on its way to copying the trajectory of Atlanta, Georgia and Southern California."⁴¹

To prevent that megalopolis from swallowing northern Colorado, the Colorado chapter of the Nature Conservancy partnered with the "last ranching community located on Colorado's North Front Range" to create the Laramie Foothills Mountains to Plains Conservation Project in 1987. According to one of the founders, the project "lies across an ecotone, hence we work in rangelands, foothills shrublands, forests, wetlands, and riparian corridors."⁴² Such ecotones are among the most threatened of the West's wide open spaces because they consist of mosaics of public and private lands. To stitch the Laramie Foothills back together, the Colorado chapter of the Nature Conservancy and its partners forged a "remarkable consortium of rural and urban constituencies" to "ensure that land beyond city limits stayed open and productive, rather than developed and running red deficits on county and city ledgers."⁴³

By 2009, the Laramie Foothills Group had protected about 100,000 acres of private lands through conservation easements and purchases and connected them to 110,000 acres controlled by local, state, and federal governments.⁴⁴ In Knight's words, "Due to several large ranches being placed on the market or their owners seeing the wisdom of placing conservation easements on their land; and some risk-prone individuals working for city and county governments, a progressive land trust, and an international conservation organization; forces converged to protect an east-west swath of land nearly 22 miles wide and 20 miles deep."⁴⁵

One of the Laramie Foothills Project's primary sources of funding for conservation easements are city and county open-space sales taxes. To acquire and maintain such support, the group has to straddle the rural-urban divide. One of the ways it does so is to encourage a local food movement and to establish a place-based education program in local schools.⁴⁶ Tellingly, the vision and initiative for the Laramie Foothills Project have all come from the private sector and local government: ranchers, the Colorado chapter of the Nature Conservancy, Larimer County, and the city of Fort Collins—"a new way of doing conservation," according to Knight.⁴⁷ "For, truth be told, the U.S. Forest Service (USFS) was not involved in this immense conservation effort," Knight goes on to say. "Indeed, the only entity from the federal government that did play a vital role was the Natural Resources Conservation Service (NRCS). This agency has always worked with private landowners; its employees have learned that to be successful one must focus on listening and show due respect. There is little room for a top-down approach when working with private landowners who control approximately two-thirds of our country."

OPPORTUNITIES AND CHALLENGES

To be fair to the Forest Service, it is hardly a monolithic organization. The U.S. Forest Service has been a key partner in the Malpai Borderlands Group's efforts to restore fire to their immense, dry landscape. But top-down, command-and-control models of land management rarely allow for the flexibility and innovation necessary to meet the conservation challenges of the twenty-first century. That is why CBCCs are evolving across the West. "Today, watersheds across the country are increasingly self-organizing; with citizen-based groups coming together and finding ways to make where they live, work, play, and worship healthier, both conserving land and water but also strengthening economies," Knight concludes.⁴⁸

Partnerships based on trust are perhaps the greatest accomplishments of CBCCs. If those partnerships continue to develop and grow, they may provide an enduring new model for land management in the West, as Knight and others hope. But trust takes a long time to mature, especially when it emerges from conflict.⁴⁹ One of the major challenges CBCCs face is how to bring rural producers, environmentalists, scientists, sportsmen, and agency personnel together when legitimate differences, and the paranoia that often erupts from polarization, threaten to drive them apart. Margerum provides a good overview and literature review of the many issues facing ongoing collaborative efforts.⁵⁰ Describing that literature as simultaneously both "vast" and "sparse," Margerum identifies four critical challenges to sustaining collaboratives: collaborative leadership, board governance, organizational change, and external pressures.⁵¹ The first three concern the internal dynamics of collaborative conservation groups. The last—a catch-all that encompasses everything from economics to government policy—is largely outside the control of CBCCs.

One of the perennial internal problems facing collaborative conservation organizations is how to define themselves. Should membership be open or restricted? What are the principles of inclusion and exclusion? Some organizations, like the Madison Valley Ranchlands Group in Montana (see spotlight 11.1), have dues-paying members who participate in various events and projects. Others, like the Altar Valley Conservation Alliance, have made conscious decisions not to open their groups to individuals who are not landowners and rural producers. The Malpai Borderlands Group has no formal membership but restricts the large majority of the seats on its board to local landowners. Both AVCA and Malpai feel that their missions might be diluted or compromised without strong local control.

Another challenge facing foresters and ranchers is a lack of formal say-so in decisions that affect their ability to make a living on federal lands. For example, neither foresters nor ranchers have a legal "seat at the table" when environmental groups sue federal agencies over noncompliance with the Endangered Species Act or the National Environmental Policy Act—unless they themselves file a lawsuit, which most cannot afford to do.

At present, producer-led CBCCs struggle to make their voices heard through informal rather than formal means. Their only trump cards are the private land of their members and the legitimacy given them by their longstanding ties to local landscapes. If rural producers can no longer stay in business, the only value their private lands hold is as real estate. The real-estate subdivision of ranch and forestlands, however, fragments ecosystems and re-

moves fire from the tool kits of land managers. Large-scale ecosystem management becomes difficult, if not impossible. John Wesley Powell's nineteenth-century concerns are today as real as drought, and just as far-reaching in their potential effects. For effective ecosystem management to take place, agency personnel and conservationists should recognize that it is much easier to deal with a few ranchers or foresters than with hundreds of subdivision residents. This has enabled groups like the Malpai and AVCA to take leadership roles in the reintroduction of fire on desert grasslands. But those partnerships are informal, rather than statutory or contractual. Moreover, they depend on agency personnel acting as problem solvers rather than gatekeepers. Unfortunately, such partnerships could easily dissolve if the political climate changes.

The power of CBCCs lies in their ability to present a unified voice in natural resource management and decision making. A potentially fatal weakness is dissension within the group. Just as collaborative conservation demands compromise and a rigorous search for common ground, which often means allowing parties to agree to disagree about peripheral issues, CBCCs need to respect differences among their members. One strategy is to eschew taking positions on controversial issues and focus on conservation on the ground. The Altar Valley Conservation Alliance concentrates primarily on watershed restoration and the reintroduction of fire. As mentioned earlier, it spearheaded the development of a fire management plan for the entire 600,000-acre watershed and has also sponsored workshops by Bill Zeedyk to teach people how to restore gullies and design rural roads that reduce, rather than induce, erosion. The alliance treads lightly, in contrast, around endangered species issues or state trust land reform.

One final internal problem is time. Collaborative conservation demands endless meetings where producers, environmentalists, scientists, sportsmen, and agency land managers sit down together, identify problems, and work toward solutions. Agency personnel and paid staff of environmental nongovernment organizations do this as part of their jobs. Rural producers have to spend their own time and money to go to these meetings, diverting themselves from necessary agricultural tasks. Typically, a handful of volunteers do most of the work in CBCCs. When those volunteers have families to raise and family businesses to run, they often cannot respond in a timely fashion to grant deadlines, meeting schedules, or political crises. They get frustrated and burn out; unless other volunteers step up to take their place, their CBCCs may wither and die.

Being able to hire people to do some of the work is perhaps the most critical transition that CBCCs, like all grassroots organizations, have to make. Of the eight groups surveyed at the Quivira Coalition's annual meeting in 2009,

only three have paid staff, including the Madison Valley Ranchlands Group and the Malpai Borderlands Group. The Altar Valley Conservation Alliance is just beginning to make that transition, with a half-time program director supported through grants from sources ranging from the National Fish and Wildlife Foundation to the giant mining company Freeport-McMoRan Copper and Gold and a half-time program coordinator who is paid from grant and AVCA funds. It is very difficult to find money to hire permanent staff, however. Foundations and the federal government provide funds for specific projects that may include salaries, but once those projects are over, the salaries evaporate as well. One of the greatest needs of CBCCs, then, is to secure funds for capacity building, including a bare-bones permanent staff that can administer existing projects and carry on the never-ending search for new grants.

CONCLUSIONS

The term "working landscape" implies an embodied sense of place, one that often reflects knowledge of local ecological processes that can only be accumulated through generations of daily experience with climate, water, plants, animals, and soil. There are significant differences between those who remain in place—whose workday is defined by seasonal rhythms—and those who return to homes in metropolitan areas at the end of a workday defined by clocks and the need to return vehicles to motor pools. Agency personnel, although they are frequently members of the same rural communities of which ranchers and foresters are a part, often turn over rapidly; those who have gained knowledge of the local social and natural environments may be transferred; or they may not stay in one place long enough to acquire such knowledge. Those individuals are certainly positioned to accomplish a great deal, both from the field and from the office, and many of them share a strong passion for successful natural resource management. But a critical difference emerges between those individual agency personnel and the ranchers who venture out after a rain to determine exactly where and how it fell and who know what it meant to multiple species, including their livestock. It shows up in the fact that weekends, for rural producers, are workdays. People who engage with places in such ways extend their practices, their days, and their bodies beyond the usual confines and comforts afforded by paid wage labor.

It is necessary, at the same time, to avoid romanticizing rural producers. They can overexploit, and have overexploited, the land for profit. Left to their own devices, they may also perpetuate old ways of producing beef or timber

that reduce, rather than maintain, biodiversity and ecosystem services. The pendulum swings both ways. What is needed is a perpetual dialectic between conservation and production, between new knowledge and experience, between regulation and experimentation. Adaptive management has to be flexible and inclusive. Above all, it has to be attentive to local variations in the social and natural environments that can never really be separated on particular landscapes.

The promise of collaborative conservation is the possibility of realizing some of the most powerful potentials of a democratic system of governance for people and places. This possibility hinges on developing frameworks that institutionalize accountability, transparency, equity, and flexibility. If natural resource practitioners can define forests and rangelands as dynamic, open systems, they can also conceive of collaboratively managed landscapes as comprising meeting rooms, pastures, offices, the cabs of trucks—all of the places where social and ecological networks are lived and produced in a constantly evolving series of relationships.

In complex social and natural environments, it is logical for management to be considered and conducted as a process, not a final product, requiring a wide repertoire of skills to succeed. These skills range from negotiation and mediation abilities to technical knowledge that includes ecology, law, and finance. Some of these skills exist locally within CBCCs, but others require the coordination of agencies, universities, nongovernmental organizations, and other research groups in creative ways that can respond to changing needs. Communication is vital. It is the medium of social exchange that forges bonds between individuals, facilitates the sharing of knowledge and experience, and enables different interests to negotiate and find common ground. CBCCs encourage everyone to attend to the lived part of working landscapes as a tried and true way to move land management beyond the stakeholder, zero-sum game paradigm.

NOTES

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