

# Summary Report:

## Ranchland Dynamics in the Greater Yellowstone Ecosystem

*A Report to Yellowstone Heritage*

*With additional support from  
The William and Flora Hewlett Foundation*

Principal Investigator: William R. Travis  
Researchers: Hannah Gosnell and Julia Hobson Haggerty  
GIS: Thomas Dickinson, Geneva Mixon

Center of the  
American West  
University of Colorado at Boulder

To request copies of this publication, please contact:

Yellowstone Heritage  
1209 S. Grand Ave.  
Bozeman, MT 59715  
406-581-5748  
[clark@yellowstoneheritage.org](mailto:clark@yellowstoneheritage.org)

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### **Contacts**

William Travis  
Department of Geography  
303-492-6312  
[wtravis@colorado.edu](mailto:wtravis@colorado.edu)

Julia H. Haggerty  
406-570-3900  
[jhhaggerty@montana.edu](mailto:jhhaggerty@montana.edu)

Hannah Gosnell  
Center of the American West  
303-735-0296  
[gosnell@colorado.edu](mailto:gosnell@colorado.edu)

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## Executive Summary

Conservationists recognize that private lands play a key role in sustaining habitat and species, even in places like the Greater Yellowstone Ecosystem (GYE), where much of the land is in public ownership. Economic and social trends are bringing about a transition in the ranchlands that comprise the bulk of intact private lands in the GYE. Some ranchlands are being subdivided for residential use, while others are kept intact (or even enlarged) when purchased by non-traditional owners often more interested in their amenity values than livestock production. Conservationists see both threats and opportunities in these trends.

This study set out to track rates and patterns of ranch ownership change as the first step in a systematic assessment of ranchland dynamics aimed at improving our understanding of the process and at providing detailed data to land conservationists. We studied socioeconomic trends, land use trends, and changes in ranchland ownership in ten GYE counties. Individual reports are available for each county, and this report summarizes our findings and identifies patterns across the study areas.

The dominant trend in GYE ranchlands is the transition of ranches from traditional owner/operators to a more diverse cohort dominated by amenity owners, but also including investors and to a lesser extent, developers. There are sub-regional differences in how this plays out across the GYE creating a diversity of ranching landscapes in varying stages of transition, with different land ownership patterns and with different prospects for future change and for conservation. For example, Beaverhead, Madison, Park (WY) and Sublette counties feature areas with very large intact ranch operations, but only in Beaverhead are more than half of the twenty largest ranches owned by traditional ranchers--elsewhere amenity owners dominate. Carbon, Stillwater and Lincoln Counties feature more small farms and ranches, but also more traditional owner/operators. Indeed, the more fragmented ownership patterns appear to host more traditional, long-term ranchers and farmers. Overall, though, large spreads dominate: eighty-six percent of the 7.8 million acres of private land we examined in ten counties were in ranches comprising at least 400 deeded acres.

GYE ranches are changing hands a rapid pace. Half of the ten counties we examined saw at least a quarter of their large ranches turn over in just the eleven years we examined (1990-2001). Sublette saw the greatest turnover in terms of numbers of large ranches (forty-five percent) while Fremont saw the largest turn over in terms of the acreage in large ranches that changed hands (thirty-five percent). All together, 582 (twenty-three percent) of the 2,547 large agricultural operations we examined in ten GYE counties sold at least once in the past decade, with some 1.5 million acres changing hands.

Amenity buyers dominated the ranch market, especially in Park (MT), Madison, Sublette, Park (WY) and Sweet Grass Counties. Essentially no traditional ranchers bought significant land in Madison County over the last decade, but many, of course, sold land to amenity buyers, investors and developers. Overall, amenity buyers purchased forty-three percent of the acreage, and thirty-nine percent of all ranches sold in our study areas. Traditional ranchers managed to stay in the market in some areas: they bought most of the land that sold in Beaverhead and Fremont Counties, and were

important components of the market in Lincoln County. Overall, traditional ranchers bought twenty-six percent of the ranches and thirty-five percent of the land that changed hands in the study counties. Beaverhead County stands out because of its many large ranches and the relative balance between traditional and amenity owners. Our study excluded the three GYE counties with the strongest resort economies Teton County, Wyoming, Teton County, Idaho, and Gallatin County, Montana. Development related to the growth of Jackson Hole, Grand Targhee, and Big Sky resorts and in Gallatin County, of the city of Bozeman, may contribute to different ranchland dynamics in these counties than in those we studied; eg. developers may be bigger players in the market for large ranch properties there.

Such differences in ranch ownership and sales patterns have resulted in differences among GYE sub-areas or ranching landscapes. Areas such as the East Crazies, Lower Big Hole, Lower Green and Bear River stand out as relatively less fragmented landscapes still marked by traditional ownership. Other landscapes featuring large, intact ranch properties are almost totally dominated by amenity owners: the Middle Yellowstone, Upper Clarks Fork, and the Red Rock Creek area. Slightly more fragmented landscapes dominated by amenity ownership include the Paradise Valley, South Fork Shoshone, Upper Wind, and Madison Valley and Beartooth Front-Red Lodge areas. Several ranching landscapes appear to be in mid-transition, with a mix of both traditional and amenity owners, including: the Ruby Valley, Shields Valley, Upper Stillwater, Upper Green, Lower Beaverhead and Meeteetsee-Pitchfork area.

We believe that these different ownership regimes call for different mixes of conservation tools, a subject we will flesh out as we take these results to practicing conservationists in the GYE. We also think that several additional questions deserve research: (1) What are the likely land use behaviors of amenity owners? (2) How stable is amenity ownership? (3) What are the patterns and prospects for ranch subdivision (we focus here on intact ranches or those that even agglomerate as they change hands, but clearly subdivision and ownership change are related).

## Introduction

Ranches comprise the largest blocks of private land in the Greater Yellowstone Ecosystem (GYE), and as such provide critical wildlife habitat and open spaces that complement the ecoregion's public lands. Macro-scale, regional economic and social trends are playing out on these ranchlands through changes in ownership and use, creating new land conservation opportunities and threats. But while the issue has been widely discussed, we have little systematic data on rates and patterns of ranchland ownership change. This study was designed to uncover such details, and to provide conservationists and others interested in the future of the GYE with a better handle on regional landscape change, thus facilitating targeted conservation efforts.

This report summarizes results of ranchland studies in ten GYE counties, drawing on detailed county reports. The main ranchland dynamic across the GYE entails transition from traditional owner/operators to a more diverse cohort of owners, including buyers seeking amenity values (some explicitly interested in conservation values), as well as investors and land developers. While this trend has a long history in some of the GYE's most scenic areas, it accelerated during the 1990s, affecting certain ranching landscapes more than others. The result is a mix of ranchland ownership regimes ranging from pockets where traditional ownership and use still dominate to areas where amenity buyers and investors hold most of the land and thus determine private land conservation options.

Conservationists have recognized this complexity, pursuing flexible approaches as conditions and opportunities dictated. Our results imply the need for even greater adaptation to changing landscapes, with conservation strategies engaging the new ownership regime in some areas, building bridges between traditional and new owners in others, and in still other areas focusing on sustaining working ranches and family owners. Overall, though, the surge of ranch sales in the 1990s means that most GYE ranching landscapes are now strongly affected, if not dominated, by amenity and investment ownership, with mixed implications for land conservation. We also believe that neither ownership regime is especially stable, with traditional ranching in decline and the surge in ranch turnover probably presaging more instability in the near future, suggesting that successful private land conservation in the GYE will become even more problematic.

Because they offer greater conservation potential, this study focused on larger ranch properties that remained intact through owner transitions. During the next phase of research we will examine two other dimensions important to land conservation in the GYE: patterns of ranch subdivision and the land management goals of new owners.

## Methods

Our analysis of ranchland dynamics in ten GYE counties depended on several different data sources, which we briefly describe here. For each county analyzed, one or more researchers spent several days in the field getting acquainted with the lay of the land and conducting interviews among the local agricultural community, realtors, appraisers, conservationists, and representatives of local and federal government. We also gathered baseline data on county socioeconomic and agricultural trends. To assess links between public lands grazing and ownership change, we gathered hard data from the USFS and BLM where available, but also relied on the observations of agency professionals.

Land ownership data was gathered from local and state agencies. In Wyoming we obtained general land ownership data (acres in public, private ownership) from each county's GIS specialist, where available. Some counties did not have ownership data, so in those cases we relied on the Equality State Almanac 2000 published in May 2003.<sup>1</sup> The Almanac's county land ownership data came from the University of Wyoming's Department of Geography and Recreation. In Montana, general land ownership data for each county was available from the Montana Natural Resource Information System (NRIS).<sup>2</sup> We collected detailed data on private land ownership from the Departments of Revenue (DOR) in Montana and Wyoming. In Wyoming we had to obtain permission from each county's assessor before the DOR would release current owner data, while Montana did not require permission. In both states we requested ownership data for all parcels designated as "agricultural" for tax purposes in 2002 (the most recent data available). We collected land parcel data from each county with digitized databases, working to reconcile different software and techniques to create GIS parcel layers (maps). We combined the data to create maps indicating lands owned by entities with 400 acres or more. In Wyoming, the DOR keeps track of land sales, so we were able to link sales data with parcel data to map all sales between 1990 and 2001 for Wyoming counties with complete parcel maps (in Park County, our maps reflect the incomplete status of the parcel digitization project there).

We worked with appraisers familiar with each of our ten case study counties to characterize ranch ownership change. We found that rural appraisers generally maintained the most comprehensive sales databases (as opposed to county assessors, realtors, or lending agencies), but varied in their willingness to share their data, which may be considered proprietary. We do not reveal this data by owner name, sale identifier or parcel identifier, though we do describe some sales and related land use changes in general terms. While satisfied with the overall comprehensiveness of the appraiser data, we expect that they inadvertently omit some sales in each county. We did our best to obtain data from more than one ranch real estate professional in each county. In our analysis of real estate trends, we again focused on large ranches (sales of 400 acres or more) and calculated number of sales between 1990 and 2001, acres sold, median sale size, median price per acre, and acres sold to out-of-state buyers.

We sought to "type" both the largest current owners and all the buyers over the last ten to fifteen years by asking individuals familiar with the agricultural communities in

<sup>1</sup> <http://eadiv.state.wy.us/almanac/almanac.asp>

<sup>2</sup> <http://nr.is.state.mt.us/>

each of our case study counties (ranchers, realtors, appraisers, assessors, agricultural extension agents, USFS district grazing specialists, etc.) to classify each owner using a typology we conceived with help from members of the agricultural communities in our pilot study counties in 2000 and 2001 (Table 1). In most counties we solicited help from several different people in our typing exercise. Naturally, our typology reflects the inherent limitations of labeling individuals, but nonetheless proved functional in distinguishing among generic groups of landowners, based on their goals and strategies regarding land management and land tenure.

Table 1. Working Typology for Large Agricultural Landowners

**Traditional rancher:** generally a full time owner-operator raising livestock for profit without the aid of a ranch manager; may engage in some off-ranch work (or on-ranch work unrelated to livestock, e.g., outfitting) but derives the majority (or at least in many years a significant portion) of his or her income from the ranch

**Part-time rancher:** does his/her own ranching but often has a full-time job off the ranch; ranch income is generally less than the off-ranch income; usually smaller operations

**Amenity buyer:** purchases a ranch for ambience, recreation, and other amenities, not primarily for agricultural production; often an absentee owner; may have some interest in ranching but generally hires a ranch manager who makes most day-to-day decisions and does the majority of the work; or, he or she might lease the majority of his/her land and/or cattle to a "real rancher"; majority of AB's personal income is by definition from off-ranch sources; economic viability of the ranch is usually not an issue

**Investor:** buys primarily for investment, often with intent to resell in the short term

**Corporation:** typically purchases ranch to function as one unit in a large network of related operations and holdings elsewhere; ranch is operated by a manager

**Developer:** buys the land with intention to subdivide and sell off to others, with profits from that sale the main objective

**Conservation Organization:** buys ranch with intent to manage for habitat, wildlife, etc.

**Other:** includes state and federal land management agencies, churches, independent loggers, grazing co-ops, dude ranches, etc.

## Regional Trends

### ***Socioeconomic Trends***

General economic trends in the GYE are well studied (see, for example, the recent profile by the Sonoran Institute and the Yellowstone Business Partnership<sup>3</sup>). GYE counties have grown in population much faster than the three states that touch on the ecoregion, and faster than the nation has as a whole. The ecoregion, like many other parts of the Rockies and the West, has also experienced a decline in employment and income derived from traditional industries (mining, timber, energy, and agriculture) and a rapid growth in the professional and services economy (everything from health care to software engineering to sales and custodian jobs). As in other amenity-rich parts of the West, the GYE has also witnessed a significant growth of income associated with investments and other non-labor sources, a sign of a wealthier class not dependent on the local economy for their financial well-being, and of growing retirement. Moreover, many of the people who bring wealth to the region, for example by investing in land and development, are not permanent residents, and thus they do not show up in GYE demographic and economic statistics. Throughout the region, as well as nationally, the agricultural economy that is of concern to any analysis of ranching has been depressed for over two decades, yielding little return on investment and reminding us that farmers and ranchers often stay on the land for reasons other than financial returns.

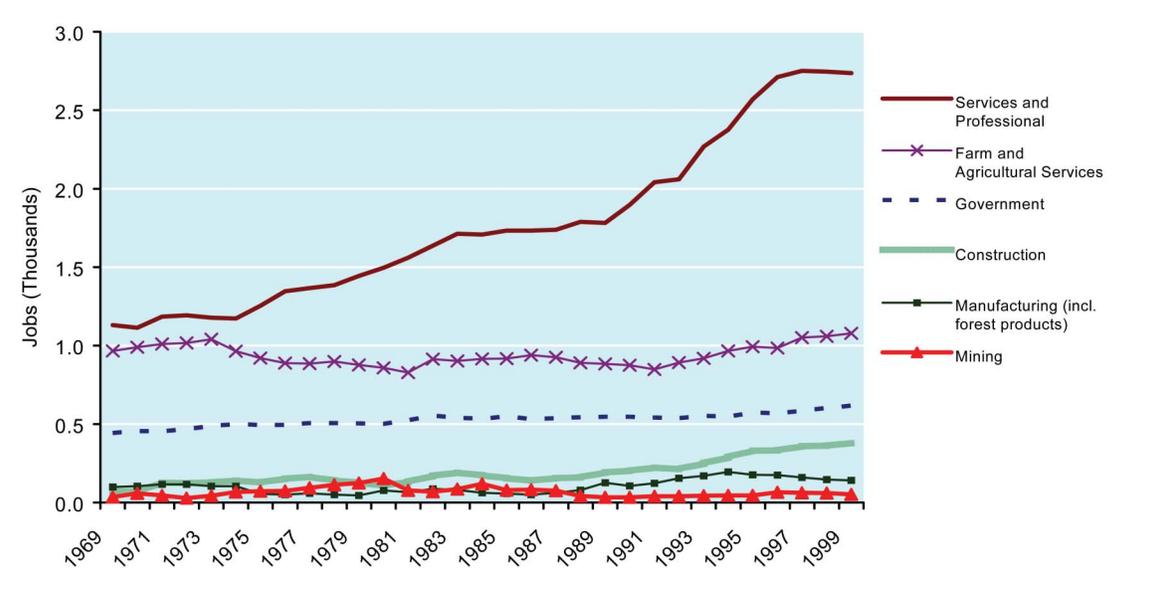
There is some variation on this pattern across the GYE, which we illustrate here with employment and income data for Carbon County, MT and Park County, WY--- places that we think capture the range of trends among our ten study counties. Carbon County, MT (Figure 1a and 2a) has made less of a transition to the so-called “post-cowboy” economy;<sup>4</sup> even though professional and services employment ranks highest in all GYE county employment, here agriculture and agricultural services has managed to hang on in second place (perhaps less related to ranching as to small grains farming north of the Yellowstone River). Unfortunately, these jobs do not necessarily reflect a healthy agricultural economy: agricultural income (Figure 2a) falls well below other sector totals. On the other hand, Park County, WY, which boasts of its ranching heritage, exhibits a profile further along in the transition to a post-extractive economy. Here government and construction jobs join services as the top three providers of employment and income in recent years. As with the GYE overall, non-labor income has come to dominate income in both counties, a reflection of wealthy newcomers, retiring locals, relocating retirees, and investment opportunities within and outside the GYE.

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<sup>3</sup> Sonoran Institute and Yellowstone Business Partnership (2003) *Getting Ahead in Greater Yellowstone: Making the Most of our Economic Advantages*. SocioEconomics Program, Bozeman, MT. 48 pp.

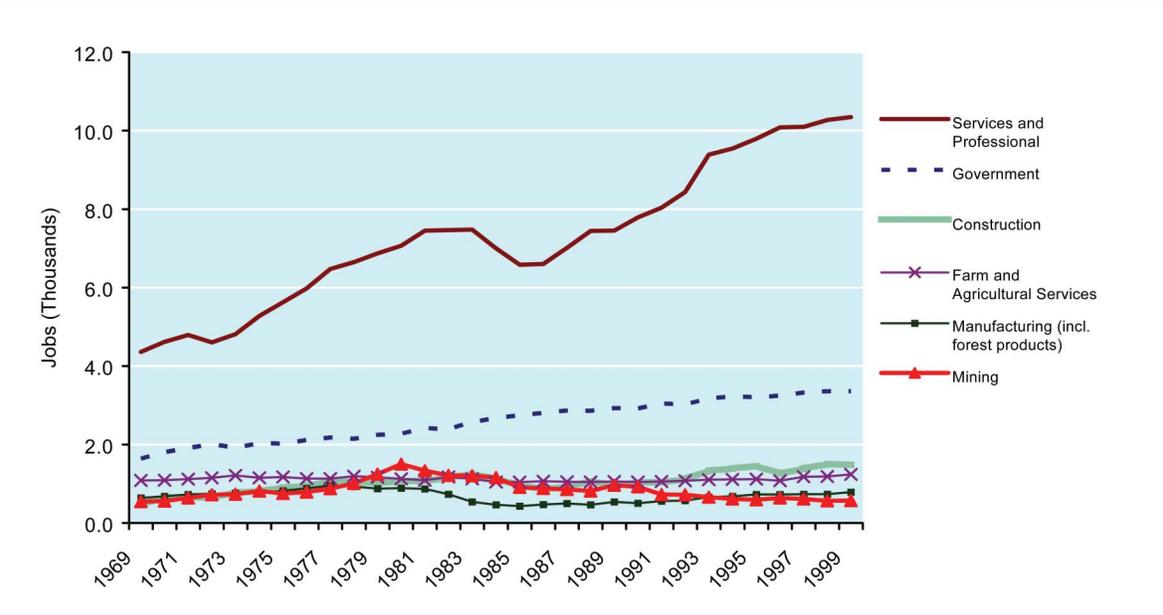
<sup>4</sup> Power, Tom and Richard Barrett (2003) *Post-Cowboy Economics: Pay and Prosperity in the New American West*. Washington, D.C.: Island Press.

Figure 1a. Employment by Industry  
Carbon County, MT, 1970 to 2000



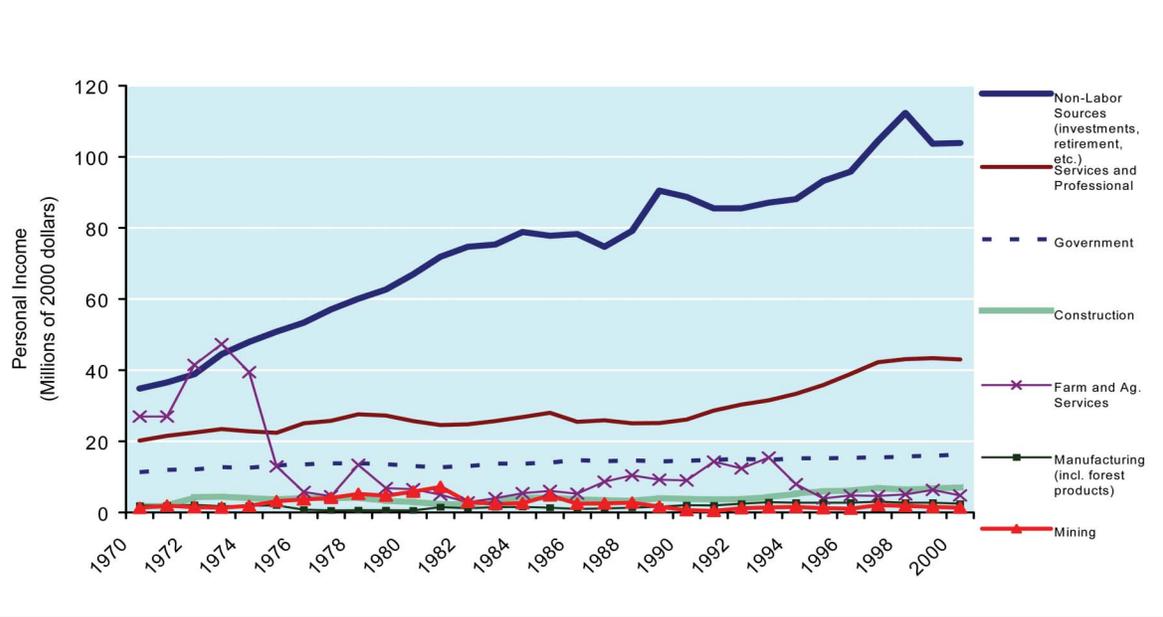
Source: Sonoran Institute's Economic Profile System, based on U.S. Bureau of Economic Analysis data.

Figure 1b. Employment by Industry  
Park County, WY, 1970 to 2000



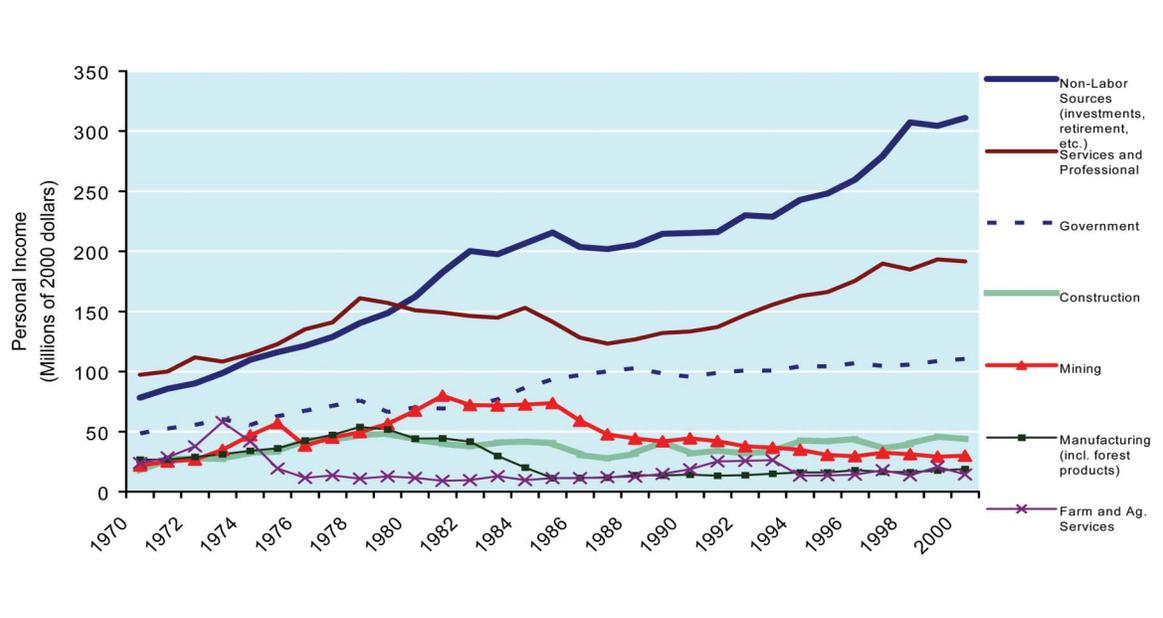
Source: Sonoran Institute's Economic Profile System, based on U.S. Bureau of Economic Analysis data.

Figure 2a. Personal Income  
Carbon County, MT, 1970 to 2000



Source: Sonoran Institute's Economic Profile System, based on U.S. Bureau of Economic Analysis data.

Figure 2b. Personal Income  
Park County, WY, 1970 to 2000



Source: Sonoran Institute's Economic Profile System, based on U.S. Bureau of Economic Analysis data

### ***Trends in Farm Size and Operation***

Since the 1960s, GYE ranchers have been competing for ever-diminishing returns in the cattle market, a situation that forces producers to expand their operations and yields while simultaneously decreasing the costs of production—a tricky balance that few have successfully realized. The expanding demand for rural real estate over the past twenty years has exacerbated the difficulties for traditional ranches, enterprises owned and operated by a family that depends on the ranch for its primary income. Over the past fifty years, though the number of acres of land in farms in our study area increased, the number of total agricultural operations declined by twenty-four percent.

Two different trends dominate farm size statistics (detailed in Table 1), both related to overall attrition in the ranks of full-time farmers and ranchers. On the one hand, fewer farmers and ranchers are working on larger and larger farms, reflecting movements toward agglomeration and intensification common across the nation's agricultural landscapes. Large ranches (operations with 1,000 or more acres) have steadily declined in number over the past fifty years. On the other hand, more people are living on agricultural land in the GYE who pursue agricultural as a part-time pursuit or hobby, often on smaller units. Smaller farms and ranches (operations with fewer than 500 acres) declined in the period 1950 to 1970, but have increased since the early 1970s. Growth in the under 500 acre category reflects two trends: the intensification of irrigated agriculture, which often takes place on smaller parcels, and the development of exurban residential areas, in which owners often pursue hobby-scale agricultural production. Table 1 provides data and local details about these general trends.<sup>5</sup>

According to the most recent federal agricultural census, cattle ranches constitute a solid two-thirds of the total number of agricultural operations in the ten GYE counties we studied, while field crop and cash grain producers are about twenty-five percent and less than one percent of the total, respectively. A handful of small cattle feedlots in irrigated areas are new additions to some counties, but this is not a widespread trend. Currently, cow-calf remains the preferred mode of livestock production in these counties.

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<sup>5</sup> While most of the GYE's private agricultural lands are devoted to livestock production, the region's largest federal irrigation projects support several areas of intensive crop production. These include Diversion Dam on the Wind River and the Riverton and Pavillion areas of Fremont County, Wyoming; Clark Canyon Dam and the East Benches of the Beaverhead River in Madison and Beaverhead Counties; and Buffalo Bill Reservoir and the Ralston and Powell areas in Park County, Wyoming. Alfalfa hay production is the dominant crop produced in these areas, some of it consumed on local ranches and much of it exported elsewhere in Wyoming and the West. Carbon and Stillwater Counties, Montana, also support intensive cultivation, primarily of small grains and sugar beets. The presence of inexpensive and plentiful irrigation water in these areas distinguishes them from other parts of the GYE, typically increasing vastly the value of agricultural land and also reducing the competition from recreational or non-agricultural interests.

Table 2. Farm Number and Size Trends  
GYE Ranchlands Study Counties, 1950 to 1997

Montana		1950	1974	1997
<b>Beaverhead</b>	No. Farms <500 ac.	108	84	154
	No. Farms >1000 ac.	210	181	168
	Total No. Farms	370	293	360
<b>Carbon</b>	No. Farms <500 ac.	718	408	579
	No. Farms >1000 ac.	145	143	133
	Total No. Farms	998	662	623
<b>Madison</b>	No. Farms <500 ac.	321	155	244
	No. Farms >1000 ac.	212	181	164
	Total No. Farms	630	384	460
<b>Park</b>	No. Farms <500 ac.	243	126	210
	No. Farms >1000 ac.	210	176	152
	Total No. Farms	564	354	420
<b>Stillwater</b>	No. Farms <500 ac.	269	157	222
	No. Farms >1000 ac.	241	209	181
	Total No. Farms	647	416	473
<b>Sweet Grass</b>	No. Farms <500 ac.	99	69	129
	No. Farms >1000 ac.	210	153	140
	Total No. Farms	384	258	301
Wyoming		1949	1969	1997
<b>Fremont</b>	No. Farms <500 ac.	187	500	697
	No. Farms >1000 ac.	153	154	170
	Total No. Farms	1271	770	983
<b>Lincoln</b>	No. Farms <500 ac.	556	342	376
	No. Farms >1000 ac.	90	83	71
	Total No. Farms	631	487	504
<b>Park</b>	No. Farms <500 ac.	342	470	416
	No. Farms >1000 ac.	78	100	99
	Total No. Farms	891	642	588
<b>Sublette</b>	No. Farms <500 ac.	71	76	126
	No. Farms >1000 ac.	115	103	122
	Total No. Farms	204	211	275
<b>10-County Total</b>		<b>1949/50</b>	<b>1969/74</b>	<b>1997</b>
	Total No. Farms	6,590	4,477	4,987
	No. Farms <500 ac.	2,914	2,387	3,153
	No. Farms >1000 ac.	1,664	1,483	1,400
	Land in Farms			10,843,062

Source: U.S.D.A. N.A.S.S. Census of Agriculture, 1949-1997, County statistics.

In our ten-county study area, Beaverhead County, Montana stands out as having the greatest number of cattle and the most large ranches, while Madison County, Montana and Park and Sublette counties in Wyoming also feature areas with very large ranch operations (Table 2). Lincoln County, Wyoming and Carbon County, Montana occupy the other end of the farm size spectrum, having some of the smallest average herd and farm sizes. Universally, agricultural extension agents in each county reported major attrition among agricultural operators. Those ranch owners who inherited ranches burdened with debt or who borrowed money to buy and operate ranch properties during the period between 1975 and 2000 have had the greatest difficulty making a go of it. In the past fifteen years, as land values have increased in response to the demand for rural recreational and residential properties, full-time ranchers have been priced out of the land market. With the exception of a few rare individuals whose previous land investments have deepened their pockets, in today's GYE, traditional ranchers face the dilemma of being unable to expand their ranch operations in order to meet changing market conditions or to enable their children to join in the ranch enterprise.

**Table 3. Average Farm and Herd Size  
GYE Ranchlands Study Counties, 1997**

<b>Average Herd Size (beef cows)</b>		<b>Average Farm Size (acres)</b>	
Carbon, MT	80	Lincoln, WY	810
Stillwater, MT	107	Carbon, MT	1,181
Lincoln, WY	116	Park, WY	1,720
Fremont, WY	125	Park, MT	1,784
Park, MT	130	Stillwater, MT	1,896
Park, WY	136	Sublette, WY	2,152
Sweet Grass, MT	158	Madison, MT	2,347
Madison, MT	160	Fremont, WY	2,664
Sublette, WY	222	Sweet Grass, MT	2,789
Beaverhead, MT	343	Beaverhead, MT	3,200

Source: U.S.D.A. N.A.S.S. Census of Agriculture, 1997, Table 1, County Summary.

As in other agricultural economies of the United States, recruitment of “new” farmers and ranchers in the GYE poses a problem for the continuity of agriculture. For the ten counties studied, agricultural census data show a marked increase in the percentage of proprietors in the over-65 age cohort over the past three decades (Table 4).

**Table 4. Aging of Agricultural Proprietors  
GYE Ranchlands Study Counties, 1997**

	<b>1969</b>	<b>1978</b>	<b>1987</b>	<b>1997</b>
<b>% of proprietors &gt;65 years of age:</b>	12%	15%	21%	26%
<b>Average Age</b>	47	50	52	54

Source: U.S.D.A. N.A.S.S. Census of Agriculture.

Efforts to stay competitive in a global market have affected land use practices on ranches in the GYE. With winter feed sources a non-negotiable limiting factor on herd size in the GYE, irrigated hay land is an increasingly valuable asset to large ranch operations. Ranches in the Big Hole Valley and the Upper Green River Valley that once supported year-round operations now provide just summer pasture, with operators maintaining a hay and winter pasture base elsewhere, typically in valleys watered by large federal irrigation projects. In addition, investments in irrigation infrastructure and into inputs designed to increase hay yields constitute a key portion of the operational costs of ranching.

Despite the efforts of mountain area ranchers to remain competitive, the national livestock industry continues to experience vertical integration—a trend that adds up to diminishing returns for remote, marginal, and independent operations like those in the GYE. This reality, coupled with the demand for recreational properties, is the single most important factor driving the ranchland ownership change that is the focus of this report.

### **Public Land Trends**

Public land managers we spoke with confirmed that there has been a significant turnover in ranch ownership in the counties adjoining National Forest and BLM lands, with both positive and negative implications for public land management. Our study area included districts within the Bridger-Teton, Shoshone, Custer, Gallatin, and Beaverhead-Deerlodge National Forests, as well as BLM lands managed by the Kemmerer, WY, Lander, WY, Billings, MT, and Dillon, MT field offices.

A look at long-term trends provides a reminder that the most important changes in grazing uses of National Forests have to do with the type and intensity of livestock grazing. Figures documenting historic stocking rates on the Shoshone National Forest, which encompasses much of the Beartooth and Absaroka ranges in southern Montana and northwestern Wyoming, illustrate a common scenario for GYE forests. In the first half of the twentieth century, sheep numbered in the millions in the GYE; there was hardly a corner of high country in the GYE that escaped their presence. Sheep numbers have been in terminal decline since the 1950s, and in most areas, cattle numbers have also declined during the same period, though by much smaller increments. The intensity of early grazing practices on public land puts a heavy restoration burden on managers today.

**Table 5. Historic Stocking Rates - Average AUMs By Decade  
Shoshone National Forest, 1930 – 2000**

	<b>1930s</b>	<b>1940s</b>	<b>1950s</b>	<b>1960s</b>	<b>1970s</b>	<b>1980s</b>	<b>1990s</b>
<b>Cattle</b>	18,943	9,761	19,490	21,567	19,708	16,543	14,248
<b>Sheep</b>	122,054	73,795	52,512	40,152	19,809	7,793	4,897

Source: U.S. Forest Service, Shoshone National Forest, Lander District.

Indeed, both the BLM and USFS continue to struggle with the chore of managing grazing regimes to conform with federal mandates to improve the ecological health of public lands. Cutbacks in the duration of grazing permits or in stocking rates—a steady trend for both the BLM and the Forest Service over the past twenty-five years—continue to be necessary for both agencies to meet standards established in their planning documents. Since one of the windows of opportunity for the BLM and the USFS to modify the conditions of a grazing permit occurs at the time of ownership change, the active ranch real estate market of the 1990s kept range specialists in these districts busy. One employee of the BLM in Fremont County estimated that some fifty percent of the grazing permits in his jurisdiction had changed hands due to ranch sales in a ten-year period.

Agency personnel noted that ownership change of large ranches affected the nature of their dealings with permittees, for better and worse. On the one hand, all of the federal land managers we interviewed noted that new owners are more likely as a group to accept the agency's management decisions regarding grazing allotments than traditional ranchers are. In addition, the former group typically is more willing and able to invest resources necessary to maintain their allotments. On Forest allotments, for example, many traditional operators have given up the practice of hiring riders to keep livestock moving to minimize the negative effects of grazing and also to protect against predators for financial and other reasons. Amenity owners, in contrast, are reportedly often willing to do whatever the range specialist requests, such as hiring riders. In addition to these aspects of range management, agency personnel also report that they are now much less likely to deal directly with landowners than in the past. Lawyers and ranch managers often represent new permittees—typically absentee landowners—in dealings with the Forest Service and BLM.

In addition to the opportunity to implement grazing reductions with minimal public outcry and controversy, public lands managers noticed other outcomes of ownership change of GYE ranches. Access issues ranked high among the list of observable effects of ranch ownership change—BLM and Forest Service employees alike noted an overall decrease in the level of access to public land via private property, a trend which affects everyone from recreationists (a growing cohort in the region) to traditional ranchers dependent on access to public grazing allotments to outfitters operating hunting camps on public land. Hunters are particularly sensitive to changes in access to private ranches, both in terms of wanting to hunt on private land and wanting access via private land to prime hunting areas on public land. Furthermore, hunters complain bitterly about new owners of large ranches with significant elk habitat who do not allow hunting at all and thus “harbor” elk during the hunting season. Traditional ranchers who neighbor these properties also resent the fact that elk spread out from these safe havens into their haystacks and pastures.

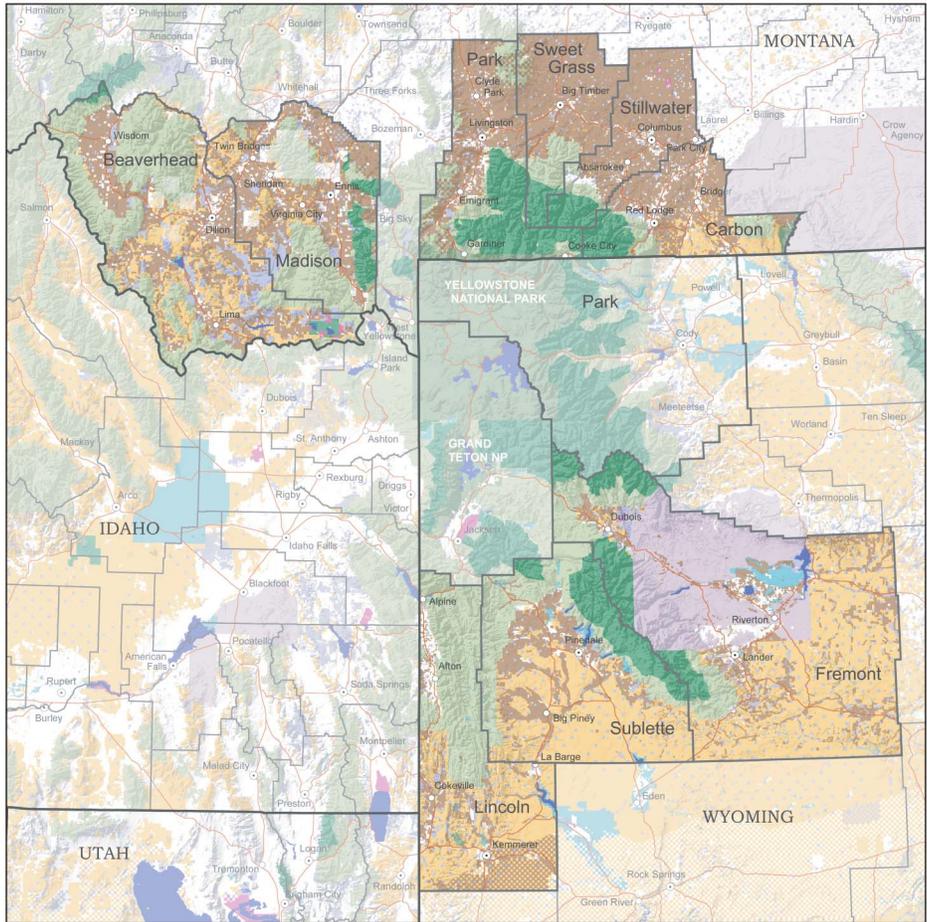
In a few areas, ownership change and the associated decrease in access has prompted dramatic land use change on public lands. In the Paradise Valley, for example, amenity buyers who own ranches close to the Park boundary demonstrate (not surprisingly) a particularly strong interest in wildlife. In the Gardiner District, several new owners have removed cattle from their base property; but there are some technical problems here: according to the law, ranch operators can only exercise “non-use” of their Forest lease for three years before the agency must offer the lease to other users. Some owners have gone as far as buying cattle to put on the allotment for one day in order to kick over another three-year cycle, but in general, the District prefers to look the

other way rather than “play games.” In districts more committed to enforcing the three year rule, wildlife-oriented ranch owners can effectively dictate the absence of cattle on those National Forest allotments historically associated with their base properties by disallowing access across their land, making it impossible for any other potential permittee to use them. The access problem—coupled with an overall lack of interest in these leases—makes it virtually impossible for the agency to re-issue the allotment permits. Realistically, such allotments are likely to close permanently in the future.

Some of the key connections between public lands management and private ranchlands go beyond grazing per se. In some areas, we found examples of family ranches that owe their longevity to adjacent National Forest lands and the non-cattle, but on-ranch economic opportunities that they provide in the form of paying dudes and hunters. We see hints of opportunities for similar kinds of economic integration between ranches and public lands on desert landscapes in the GYE, whether the draw is antelope herds, recreating on “real” working ranches, or historic tourism based around the Oregon-Mormon Trail.

Greater Yellowstone Ecosystem

Large Agricultural Land Ownership (owners' total holdings exceed 400 acres)



Counties studied are outlined in dark gray and labeled.  
Data sources are listed in the individual county reports.  
No parcel data is shown in shaded areas.

- large agricultural parcel
- other private land
- Tribal and BIA lands
- Bureau of Land Management
- National Park Service
- U.S. Forest Service
- Wilderness Area
- U.S. Fish and Wildlife Service
- Other federal lands (BoR, DoD)
- State lands

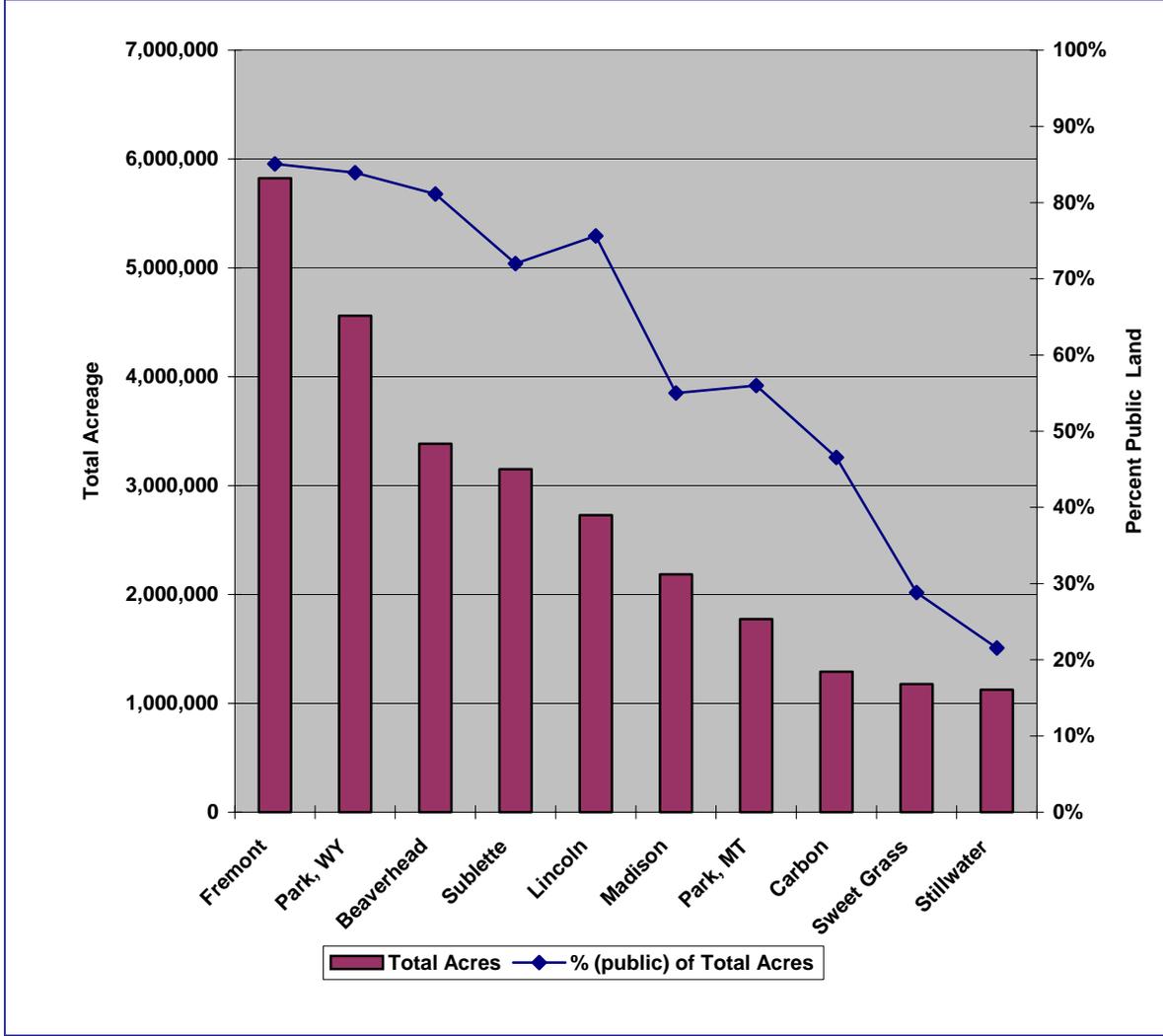
Map by Thomas Dickinson, Geneva Williamson Mixon, Sean Blackburn  
Institute of Behavioral Science and Center of the American West,  
University of Colorado - Boulder  
Correspondence: thomas.dickinson@colorado.edu  
July 11, 2003

## Findings: Ranchland Ownership Change

### Current Ranchland Ownership

The ten counties we studied ranged in size from 1,124,206 acres (Stillwater) to 5,824,865 acres (Fremont) (Figure 3). They also range in amount of public and private land, with the largest, Fremont, fully eighty-five percent public (this number counts the Wind River Indian Reservation as public land, an arguable designation; excluding the reservation, Fremont is fifty-eight percent public land). The Montana counties on Yellowstone National Park's northeastern border, from Carbon to Sweet Grass, have the lowest proportion of public land among our study counties.

Figure 3. Total Area and Percent in Public Land of 10 GYE Counties, 2002



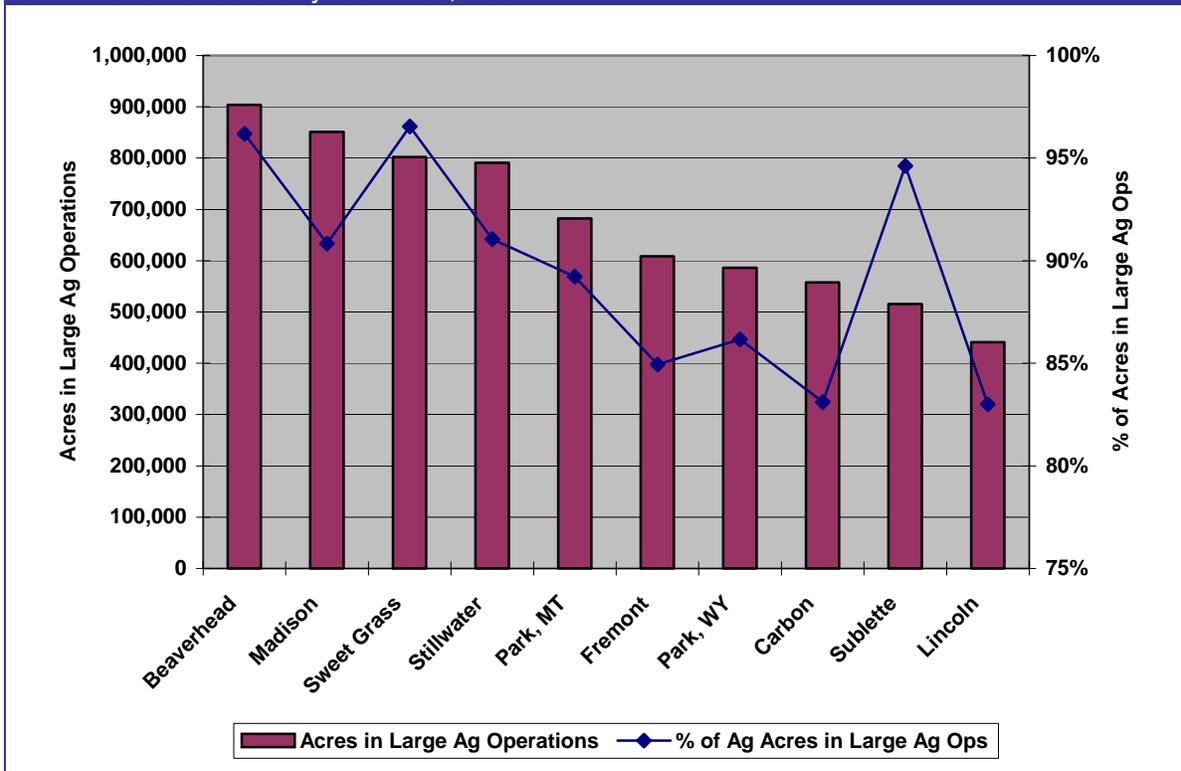
Source: MT Natural Resource Information System; WY County Assessors' Offices; Equality State Almanac 2000

The Montana counties generally encompass less public land than their Wyoming counterparts because they were more inviting to homesteaders and include large railroad land grants. Montana also lacked the extensive, common grazing lands found in Wyoming when the public domain closed in 1934 with the Taylor Grazing Act. As a result, the BLM has a minimal presence in most Montana GYE counties today, but controls upwards of one-third of the land in each of the Wyoming counties we studied (with the exception of Park, which is dominated by USFS and NPS land).

The private landscape, obviously, is just the reverse: Montana counties dominate in this respect, with Madison and Beaverhead leading the way with nearly a million private acres each. In all of the GYE counties we looked at, the vast majority (in most cases more than ninety-five percent) of private land is designated as agricultural, at least for tax purposes.

Most of this agricultural land is in what we call "large operations"—that is, it is owned by entities that own a total of 400 acres or more (Figure 4). Beaverhead, Madison, and Sweet Grass led the way with the most acres in large holdings, with over ninety percent of ag land in each county designated as such, indicating a relatively intact landscape comprised mainly of large ranches. Lincoln, Sublette, Carbon, Park (WY) and Fremont Counties had the least amount of acres in large ag operations suggesting a more fragmented agricultural landscape. Several of these counties encompass significant farming (cropping) landscapes (e.g., the Lower Clarks Fork in Carbon, the Lower Shoshone in Park, and the Lower Wind River in Fremont) and farms tend to be smaller than ranches.

Figure 4. Acres and Percentage of Ag Acres in Large Agricultural Operations ( $\geq 400$  acres)  
GYE Ranchlands Study Counties, 2002



Source: Montana Department of Revenue, 2003

We aggregated all the agricultural parcels in each county by owner to determine how many large operations there were in each county. Since our cutoff for "large" was only 400 acres, which would make for a very small ranch by GYE standards, the counties with more fragmented landscapes (more distinct properties owned by different people) dominated in this category. Stillwater had the highest number of "large" operations, with 377, while Carbon and Fremont, with significant acreage in small farms and irrigated hayfields (especially the Lower Clark's Fork in Carbon), were close behind with 316 and 306 large agricultural operations, respectively. Lincoln, Sublette, and Park (WY) had the fewest large operations, for different reasons, we think. While Lincoln County's status likely derives from a combination of its history of dairy farming in the Star Valley (dominated by operations even smaller than our 400 acre cutoff) and limited private land inventory, Sublette and Park (WY) probably show up on the low end of the spectrum simply because of the dominance of very large operations—that is, relatively few owners control most of the limited inventory of private land in each of these counties.

To get a feel for ownership patterns, we tallied acres owned by the top twenty operations in each of the ten counties (Table 6). The twenty largest owners controlled the most land in Beaverhead, Park (WY), and Madison counties (350,000-450,000 acres in each county). In Park (WY), the top twenty owned fully fifty-seven percent of the private land in the county. Lincoln and Beaverhead were not far behind with fifty-one and forty-eight percent, respectively, controlled by the twenty largest landowners. In the case of Lincoln, which is characterized by small operators, the large proportion of land held by the top twenty owners reflects the presence of a couple of very large holdings by mining corporations in the southern part of the county. Beaverhead County and certain landscapes in Park County (WY), such as the Meeteetsee-Pitchfork area, stand out as areas of especially large ranches, where a few large operations include as many as 10,000-20,000 acres of deeded land each.

**Table 6. Land Controlled by 20 Largest Landowners  
GYE Ranchlands Study Counties, 2002**

<b>Acres Owned</b> Total Acres Owned by 20 Largest Landowners		<b>Percent of all Private</b> Amount of Private Land in County owned by 20 Largest Landowners	
Beaverhead, MT	454,068	Park, WY	57%
Park, WY	394,481	Lincoln, WY	51%
Madison, MT	361,559	Beaverhead, MT	48%
Sweet Grass, MT	333,643	Sublette, WY	42%
Lincoln, WY	290,979	Sweet Grass, MT	40%
Park, MT	262,133	Madison, MT	37%
Sublette, WY	248,610	Park, MT	33%
Stillwater, MT	208,389	Carbon, MT	27%
Fremont, WY	198,507	Stillwater, MT	24%
Carbon, MT	181,654	Fremont, WY	23%

<b>Traditional Ranchers</b> Number of Traditional Ranchers in Top 20 Landowners		<b>Amenity Owners</b> Number of Amenity Owners in Top 20 Landowners	
Carbon, MT	17	Madison, MT	9
Stillwater, MT	16	Park, MT	7
Beaverhead, MT	13	Sweet Grass, MT	7
Sweet Grass, MT	12	Beaverhead, MT	7
Lincoln, WY	12	Park, WY	5
Fremont, WY	11	Sublette, WY	4
Park, WY	10	Fremont, WY	3
Sublette, WY	9	Lincoln, WY	2
Park, MT	9	Carbon, MT	0
Madison, MT	7	Stillwater, MT	0

We also typed the top twenty owners in each county (in the same way that we typed sales, as described below). We found that traditional ranchers controlled the most land in Beaverhead, Sweet Grass, and Stillwater Counties, and the highest percentages of private land in Beaverhead, Sweet Grass, Sublette, and Carbon. Amenity owners in the top twenty accounted for the most land in Madison, Park (WY), Park (MT), and Beaverhead (over 100,000 acres in each county), and the highest percentages of private

land in (again) Madison, Park (WY), and Park (MT). These three counties appear to have made the shift from primarily traditional to primarily non-traditional, amenity-driven ownership. (This is not to say that traditional ranching is totally absent in these counties, but that few remaining traditional ranchers looking to expand their operations or even pass them down to the next generation may be experiencing difficulties, and appear to be more likely to sell out to an amenity buyer, who can afford the elevated prices in these places.) In contrast, there were no amenity owners in the top twenty in Carbon or Stillwater Counties, and very few in Fremont and Lincoln, where traditional ranching and farming still dominate. Corporations controlled the most land in Lincoln (mining corps in the southern part of the county). Owners that we labeled investors/speculators had the greatest presence among the top twenty owners in Sublette, Stillwater, and Park (WY); while developers appeared in the top twenty only in Madison and Fremont.

In sum, we looked at 7,822,300 acres of private land in ten counties. Some 6,739,800 of these acres (eighty-six percent) were in large agricultural holdings. This is generally good news for regional land conservation because larger holdings can make conservation efforts more efficient and effective. These ranchlands are expressed in a diverse array of land ownership configurations, ranging from counties like Fremont, where one has to squint to see any private land on the map, to counties like Stillwater and Sweet Grass, which are dominated by large intact swaths of private land (see Map, page 15).

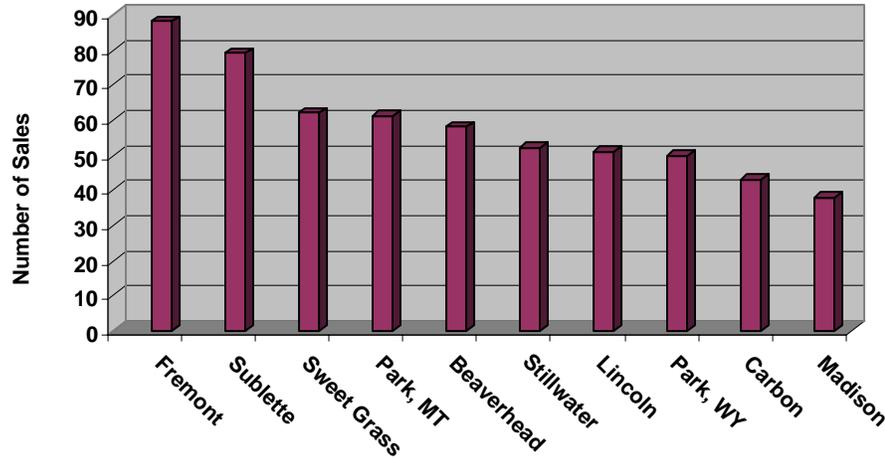
Looking at just the top twenty owners in each of the ten counties (200 operators), we found that they collectively controlled nearly three million acres. Traditional ranchers accounted for just over half of those acres, while amenity buyers controlled a quarter of the acres. Corporations controlled fourteen percent; investors, five percent; and developers, conservation orgs, and part-time ranchers, one percent each. We estimate from property tax records that approximately a third of all of the large owners in our study counties are absentee (the number could be higher since many non-locals maintain local mailing addresses, or it could be lower, since some “local” owners live in neighboring counties).

### ***Ranch Sales Trends***

We examined ranch sales of 400 acres or more between 1990 and 2001 in the ten GYE study counties—a total of 582 sales involving 1,479,046 acres. Here we summarize our findings, focusing on similarities and differences among our various case study counties.

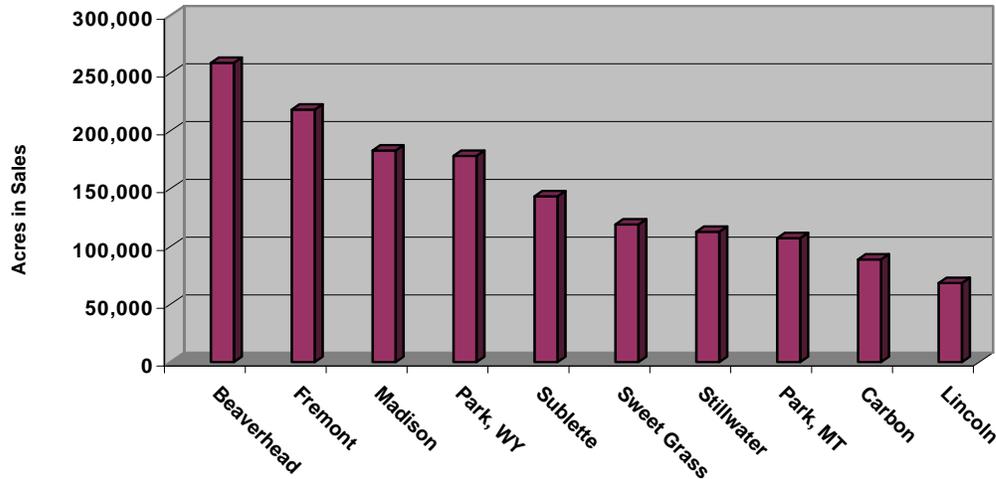
The number of sales ranged from a low of thirty-eight in Madison County to a high of eighty-eight in Fremont County (Figure 5). The nature of the sales in Fremont County was somewhat unique in that most of the buyers and sellers were traditional rancher/farmers, and much of the land being bought and sold consisted of irrigated hay farms in the Riverton Irrigation District. In contrast, neighboring Sublette County, which also saw a large number of sales in the 1990s (seventy-nine), attracted mostly amenity buyers looking for larger ranch spreads. Most of the other counties we studied were more like Sublette than Fremont in that regard. In counties like Madison, Carbon, and Park (WY), we attribute the relatively low number of sales to a lack of inventory, rather than lesser interest in those areas.

Figure 5. Ranch Sales  $\geq$  400 Acres  
GYE Ranchlands Study Counties, 1990-2001



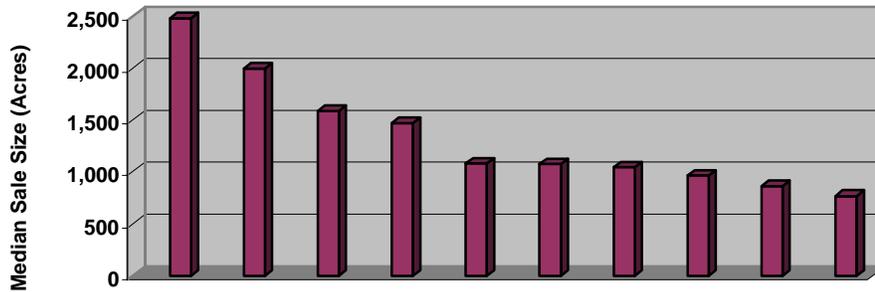
Beaverhead stands out with 258,857 acres in large ranch sales (Figure 6), reflecting the large size of many Beaverhead ranches compared to other parts of the GYE. Similarly, Madison County, with the least number of sales (thirty-eight), ranked among the highest in terms of acres sold, due to several sales of very large ranches. Park (WY) also impressed us with its multitude of extremely large ranches, many of which changed hands in the 1990s. At the other end of the spectrum, both Carbon and Lincoln Counties saw relatively few sales, and the ranches that sold were relatively small. In Lincoln we think this has to do with the extremely fragmented nature of the Star Valley, one of the more attractive areas in the entire GYE to amenity buyers interested in smaller properties. Similarly, ranch operations in Carbon County tend to be on the small side, but are also in high demand among a certain group of amenity buyers.

Figure 6. Acres in Ranch Sales  $\geq$  400 Acres  
GYE Ranchlands Study Counties, 1990-2001



A comparison of median sale size reiterates these points (Figure 7). In Beaverhead, the median was 2,484 acres, while in Carbon, Lincoln, and Fremont Counties, median sale sizes were all under 1,000 acres.

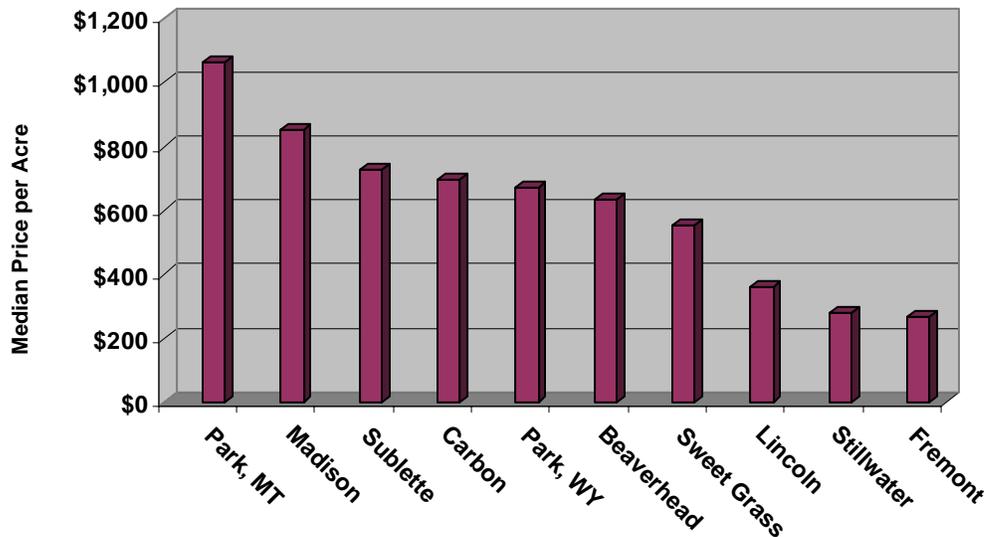
Figure 7. Median Sale Size in Ranch Sales  $\geq$  400 Acres  
GYE Ranchlands Study Counties, 1990-2001



The most expensive places to buy ranch properties during the 1990s and early 2000s were Park (MT) (especially the Paradise Valley); Madison County (especially the Centennial Valley); and Sublette County, along the Upper Green River (Figure 8). At the same time, there were also a significant number of properties in various pockets of the

GYE that sold at near agricultural value (\$200-\$400 per acre), illustrating the divided nature of the recent ranch real estate market: while amenity buyers with deep pockets are buying up GYE ranches at a fast clip, traditional ranchers are still managing to stay in the mix, but only in select, less amenity-rich landscapes (e.g., the Riverton area in Fremont County; Stillwater and Sweet Grass Counties, north of the Yellowstone; and southern Lincoln and Sublette Counties, where sagebrush and BLM lands dominate).

Figure 8. Median Price per Acre in Ranch Sales  $\geq$  400 Acres  
GYE Ranchlands Study Counties, 1990-2001

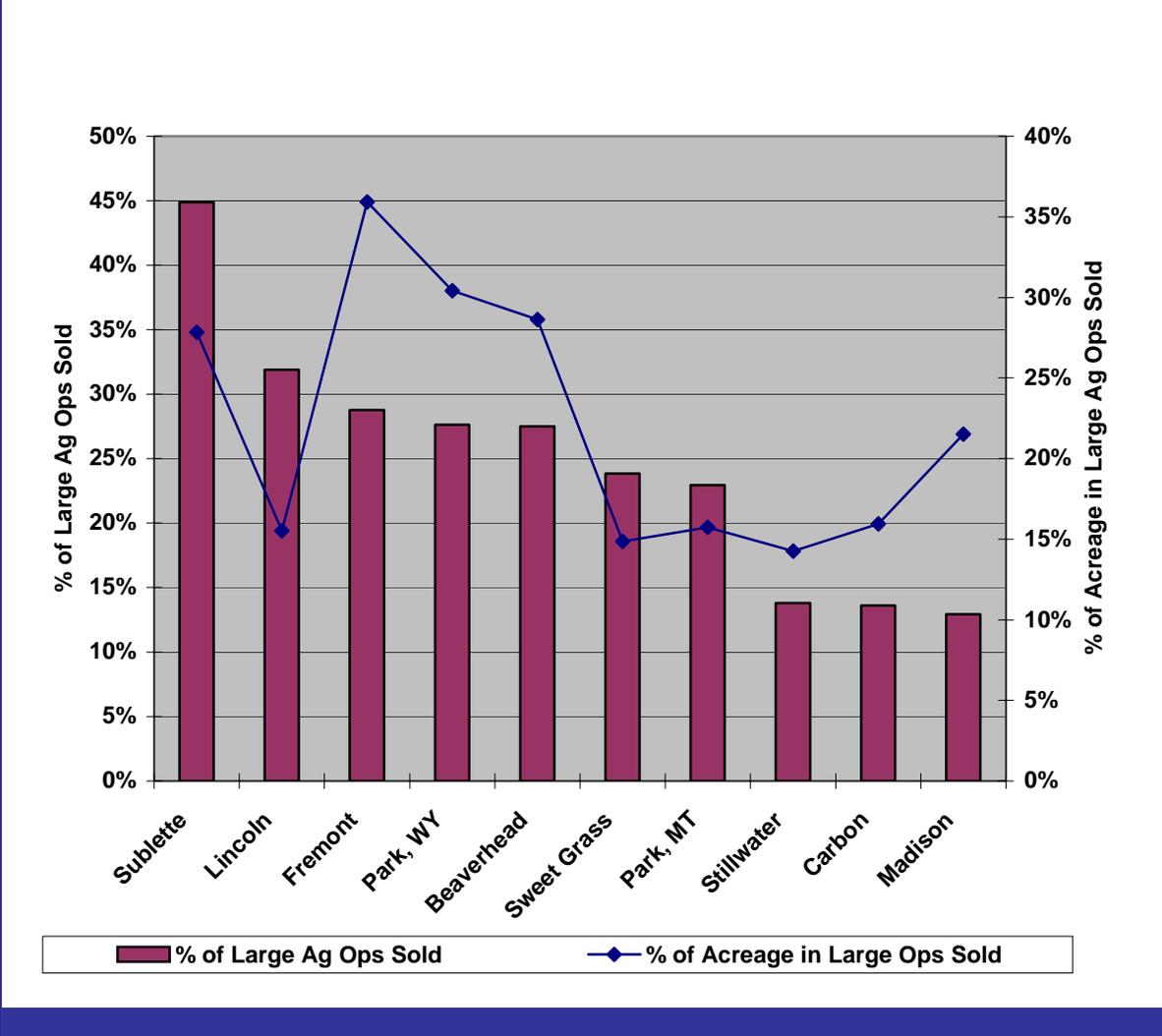


To get a feel for the rate of ownership change in each county, we compared the current number of large agricultural operations with the total number of large sales in each county (since some of the sales were repeat sales of the same property, this may slightly overestimate rates of change) (Figure 9). We found the highest rates of ownership change in the four Wyoming counties: Sublette, Lincoln, Fremont, and Park. Almost half of the large agricultural operations in Sublette changed hands during the 1990s, and almost a third in Lincoln and Fremont. In terms of acreage, Fremont led the way with more than a third of its acreage in large agricultural operations changing hands. Park (WY), Beaverhead, and Sublette also saw high percentages (nearly a third) change hands.<sup>6</sup>

<sup>6</sup> Data on the number of and acres in large agricultural operations in 1990 was not available, so we used current numbers of and acreage in large agricultural operations as an approximation. It is important to note, however, that there were likely more acres in large agricultural operations in 1990 than there are today as a result of subdivision during the 1990s; thus, the rate of ownership change, were it derived using 1990 baseline data, would likely be slightly lower. At the same time, it is possible that the number of acres in large agricultural operations has remained the same or even increased due to more ranch agglomeration than subdivision, but this is a calculation we did not undertake.

Counties where a higher percentage of operations than acreage changed hands presumably saw more small properties change hands, while places where a higher percentage of acreage than operations changed hands saw sales of fewer, very large ranches.

Figure 9. Approximate Percentage of Large Agricultural Operations and Acreage in Large Agricultural Operations Sold GYE Ranchlands Study Counties, 1990-2001



All together, 582 (twenty-three percent) of 2,547 large agricultural operations in the ten GYE counties we looked at changed hands in the past decade. In terms of acreage, we tentatively conclude that some 1,479,000 acres – about twenty-two percent – of the land in large agricultural holdings has changed hands since 1990.

Table 7. Number of Sales and Acres in Sales  $\geq$  400 Acres by Owner Type  
GYE Ranchlands Study Counties, 1990-2001

		Amenity Buyer	Investor	Developer	Traditional Rancher	Part-time Rancher	Corporate	Conservation Organization	Other	Unknown
Sublette	Sales	42 (59%)	3 (4%)	10 (13%)	13 (16%)	4 (5%)	0	0	4 (5%)	3 (4%)
	Acres	85,835 (60%)	7,712 (5%)	15,079 (11%)	25,410 (18%)	4,072 (3%)	0	0	2,497 (2%)	2,941 (2%)
Park, MT	Sales	40 (66%)	8 (13%)	7 (11%)	3 (5%)	0	1 (2%)	0	1 (2%)	1 (2%)
	Acres	79,897 (74%)	14,221 (13%)	5,171 (5%)	4,902 (5%)	0	729 (1%)	0	640 (1%)	1,760 (2%)
Sweet Grass	Sales	33 (53%)	13 (21%)	4 (6%)	8 (13%)	1 (2%)	1 (2%)	0	1 (2%)	1 (2%)
	Acres	65,145 (55%)	21,485 (18%)	8,703 (7%)	13,168 (11%)	1,900 (2%)	2,040 (2%)	0	2,857 (2%)	3,900 (3%)
Beaverhead	Sales	26 (45%)	4 (7%)	1 (2%)	22 (38%)	2 (3%)	0	1 (2%)	1 (2%)	1 (2%)
	Acres	124,180 (49%)	17,311 (7%)	2,361 (1%)	106,675 (41%)	2,640 (1%)	0	3,770 (1%)	960 (0%)	960 (0%)
Madison	Sales	25 (66%)	5 (13%)	4 (11%)	1 (3%)	0	0	0 (%)	0 (%)	3 (8%)
	Acres	115,399 (64%)	25,302 (14%)	39,729 (21%)	433 (.24%)	0	0	0 (%)	0 (%)	2,747 (%)
Park, WY	Sales	17 (34%)	10 (20%)	3 (6%)	10 (20%)	4 (8%)	0 (%)	3 (6%)	0	3 (6%)
	Acres	101,684 (57%)	17,482 (10%)	5,257 (3%)	24,558 (14%)	16,352 (9%)	0 (%)	10,481 (6%)	0	2,593 (1%)
Lincoln	Sales	12 (24%)	5 (10%)	2 (4%)	20 (39%)	2 (4%)	0	2 (4%)	6 (12%)	2 (4%)
	Acres	19,969 (29%)	4,708 (7%)	1,390 (2%)	26,701 (39%)	932 (1%)	0	2,390 (3%)	9,890 (4%)	2,510 (4%)
Fremont	Sales	11 (13%)	9 (10%)	1 (1%)	46 (52%)	11 (13%)	5 (6%)	3 (3%)	1 (1%)	1 (1%)
	Acres	30,059 (14%)	12,387 (6%)	440 (<1%)	101,507 (46%)	17,175 (8%)	14,003 (6%)	12,471 (6%)	28,865 (13%)	1,644 (1%)
Carbon	Sales	10 (23%)	11 (26%)	1 (2%)	9 (21%)	4 (9%)	1 (2%)	1 (2%)	0 (%)	6 (14%)
	Acres	12,895 (15%)	20,164 (23%)	767 (1%)	17,866 (20%)	2,717 (3%)	26,399 (30%)	4,212 (5%)	0 (%)	4,348 (5%)
Stillwater	Sales	7 (13%)	13 (25%)	1 (2%)	22 (42%)	9 (17%)	0 (%)	0 (%)	0 (%)	0 (%)
	Acres	12,862 (11%)	30,033 (27%)	758 (1%)	43,193 (38%)	25,880 (23%)	0 (%)	0 (%)	0 (%)	0 (%)
10 County Total	Sales	223 (38%)	81 (14%)	34 (6%)	154 (26%)	37 (6%)	8 (1%)	10 (2%)	14 (%)	2 (%)
	Acres	647,925 (44%)	170,810 (27%)	79,205 (5%)	363,913 (25%)	71,668 (5%)	43,171 (3%)	33,324 (2%)	45,628 (3%)	23,403 (2%)

## **Types of Buyers**

We attempted to characterize ranch buyers in the GYE because, though it is widely believed that many if not most ranch sales are to “amenity” buyers, very little data on this important trend have been available. Table 7 on the opposite page provides a complete roster of buyer types in the ten study counties, while Table 8 ranks the counties in terms of activity by traditional ranchers, amenity buyers, and investors. Figures 10 and 11 illustrate numbers of sales and acres in sales to different types of buyers.

The most common buyers of ranchlands in these ten GYE Counties over the last ten to fifteen years were amenity buyers, traditional ranchers, and investors. There were more amenity buyers in Sublette, Park (MT), and Sweet Grass Counties than anywhere else (Beaverhead and Madison were not far behind); while the highest percentages of sales to amenity buyers occurred in Park (MT), Madison, Sublette, and Sweet Grass. Traditional ranchers were most active in Fremont, Beaverhead, and Stillwater Counties and the highest percentage of sales to traditional rancher/farmers occurred in Fremont (fifty-two percent), Stillwater (forty-two percent), and Lincoln (thirty-nine percent). Investors appeared to be most active in Stillwater (thirteen buyers), Sweet Grass (thirteen), and Carbon Counties (eleven), while developers gravitated towards Sublette (ten), Park (MT) (seven), and Madison (four). (Because our analysis included only sales 400 acres or greater in size, it probably understates sales to developers who tend to look for smaller properties. It is worth noting, nonetheless, where developers bought large pieces of land, perhaps envisioning a different type of subdivision featuring larger lots with more privacy, an amenity we found to be in high demand during the 1990s.)

In terms of acreage, Beaverhead, Madison, and Park (WY) all saw the largest amount of land—over 100,000 acres in each county—go to amenity buyers, while the highest percentages of ranchland sold to amenity buyers occurred in Park (MT), Madison, and Sublette. Traditional ranchers took control of the most land in Beaverhead

Figure 10. Number of Ranch Sales  $\geq$  400 Acres to Different Types  
GYE Ranchlands Study Counties, 1990-2001

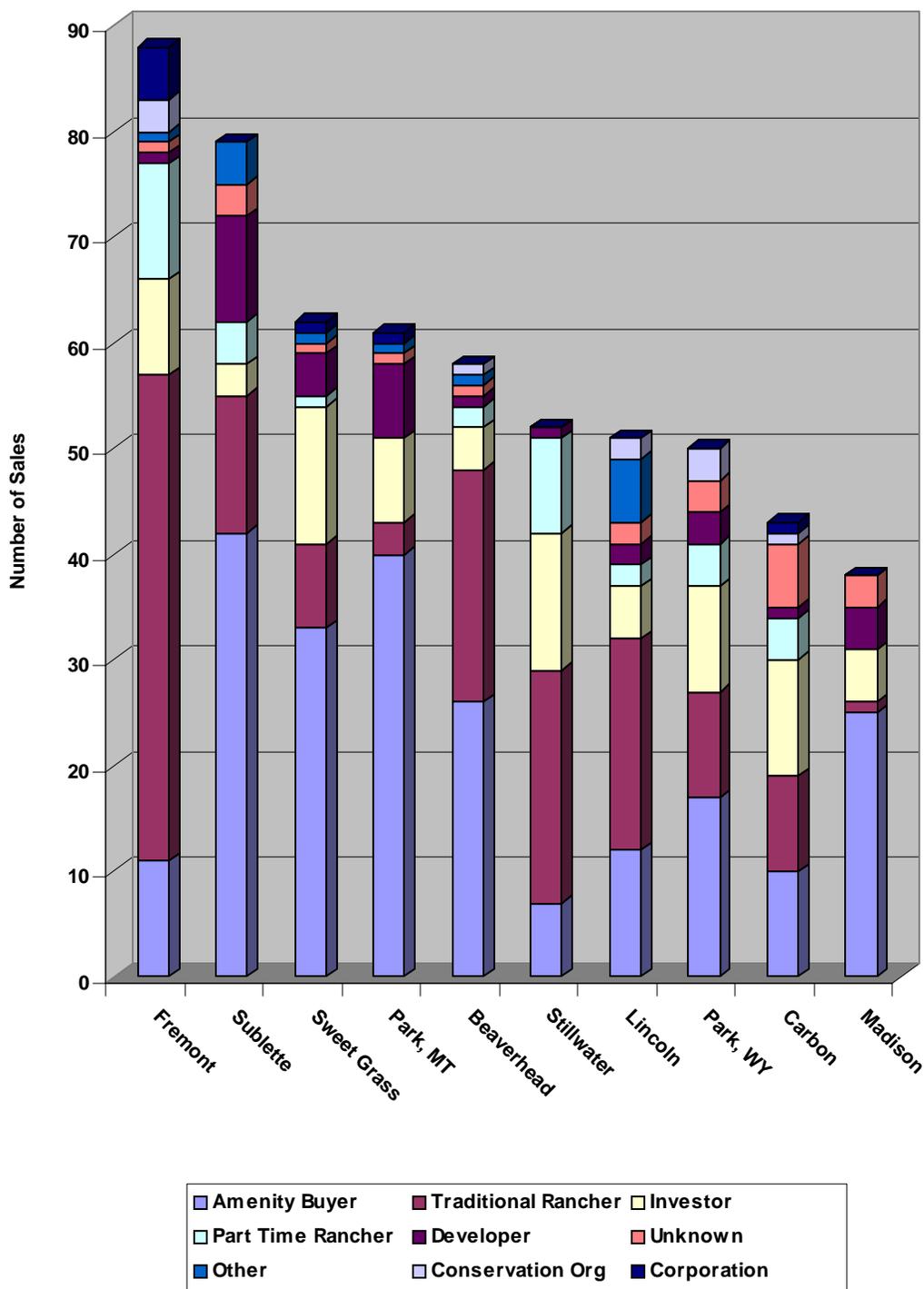
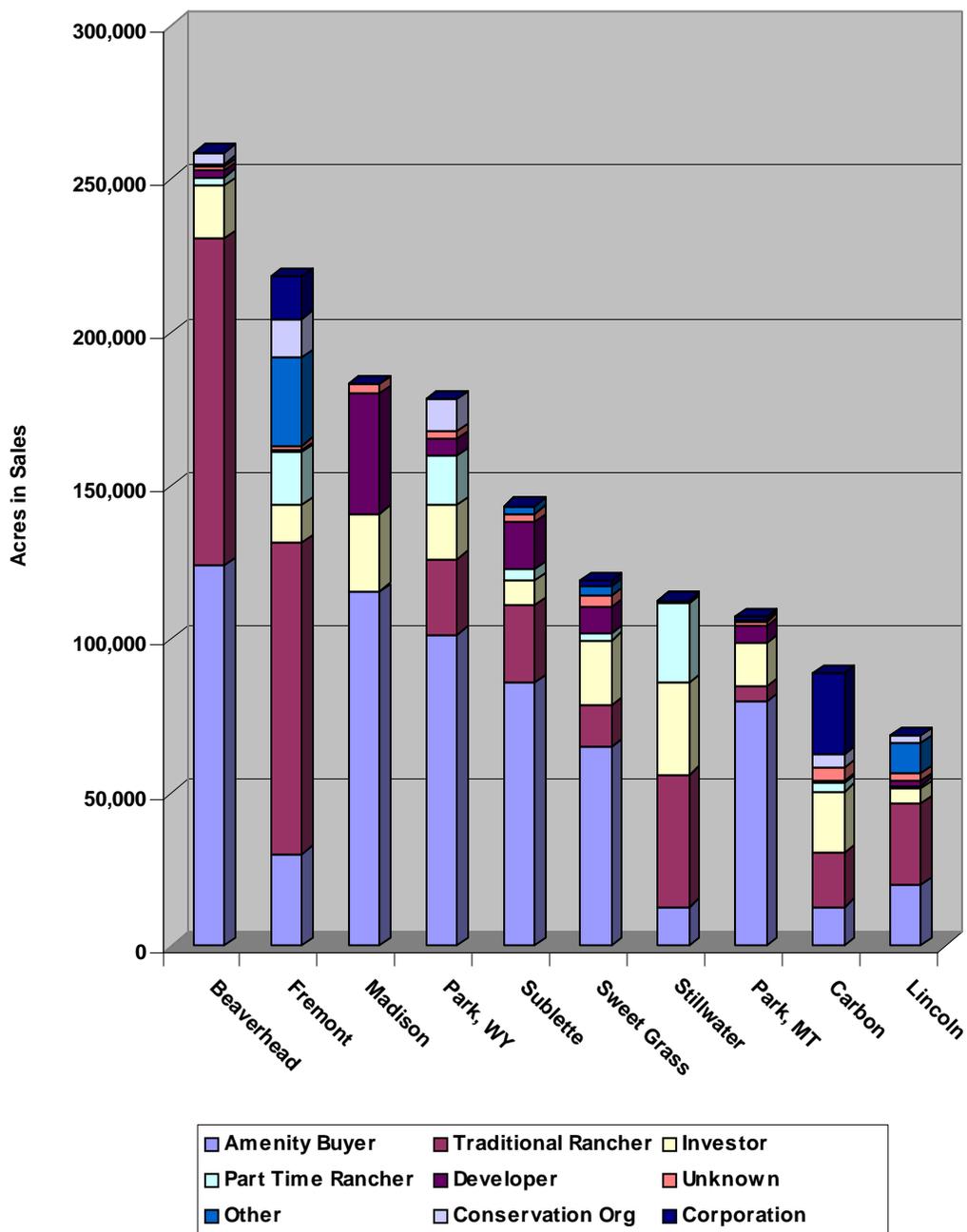


Figure 11. Acres in Ranch Sales  $\geq$  400 Acres to Different Types  
GYE Ranchlands Study Counties, 1990-2001



and Fremont Counties (over 100,000 acres in each). Trailing in a distant third was Stillwater with about 43,000 acres going to this group. In terms of percentage of land going to traditional ranchers, Fremont, Beaverhead, and Lincoln led the way. Despite its many similarities to neighboring Beaverhead (large ranches, lots of amenity buyers), Madison County saw the smallest percentage by far—less than one-quarter of one percent of the land sold (one small sale of 433 acres)—go to traditional ranchers. In contrast, traditional ranchers were quite active in Beaverhead, purchasing twenty-two ranches involving nearly 107,000 acres. Stillwater (30,033 acres), Madison (25,302 acres), and Sweet Grass (21,485 acres) topped the list of investor purchases, while developers bought 39,279 acres in Madison, 15,079 acres in Sublette and 8,703 acres in Sweet Grass. Relatively little ranchland was bought by conservation organizations: 12,471 acres in Fremont, 10,481 acres in Park (WY), and 4,212 acres in Carbon, were the top three acreages by county. This, of course, belies the fact that many individuals—including traditional ranchers—who purchased ranches in our study area would consider themselves “conservation buyers” in some way, shape, or form, so these numbers are by no means an indication of how much ranchland is being “conserved.” They are an indication, however, of the relatively small amount of actual acreage that is likely to be owned by conservation organizations, and the relative importance of individual amenity buyers in the region’s conservation future.

Amenity buyers clearly dominated the ranch real estate market, purchasing thirty-nine percent of the ranches, and forty-three percent of the acreage sold in the study counties. Traditional ranchers stayed in the mix, buying twenty-six percent of the ranches and twenty-five percent of the acreage. Investors were the next most active group of buyers, involved in fourteen percent of the purchases, and twelve percent of the acreage sold. Developers played a minimal role in the ranch market at the size class we examined (400-plus acres), purchasing only six percent of the ranches sold. Conservation organizations played a very small role in the ranch real estate market, purchasing only two percent of the ranches and two percent of the acres sold. However, these organizations do play an important role in conserving the agricultural landscape, by acquiring conservation easements and by working with and advising conservation buyers.

A look at real estate trends in terms of sub-regions of the GYE reveals important local variations on sales dynamics. Madison County, for example, is especially notable for the virtual absence of traditional ranchers active in the ranch real estate market, except as sellers. Similarly, Park (MT) is nearly devoid of “local” buyers. One rancher told us that there were only eight “traditional” operations left in the Upper Paradise Valley, and of those eight, he believed that most would be up for sale in the near future. Park (MT) and Madison were also the two counties with the highest median price per acre during the 1990s and early 2000s. These trends are a vivid illustration of the cumulative effects of high levels of amenity buying: traditional ranch operations become isolated in a rapidly changing socioeconomic landscape and face significant financial barriers to traditional means of expansion and leasing due to escalating land values.

At the other end of the spectrum, places like Fremont, Stillwater, and Lincoln Counties featured a healthy number of local, traditional ranchers buying up ranchland, at prices that (almost) make sense to someone more interested in animal units than mountain views. Yet some of these locations feature active “second tier” amenity ranch markets, where ample wildlife can make up for the absence of stunning mountain views, and ranch realtors seem eager to introduce these landscapes to amenity buyers seeking

a bargain. These trends suggest that as amenity buyers increasingly lock up prime properties along trout streams and in high mountain valleys that other parts of the GYE will experience a spillover effect, with amenity buyers competing for outlying agricultural land.

While either amenity buyers or traditional ranchers tended to dominate the real estate scene in various counties (with amenity buyers dominating overall), we found Beaverhead to be particularly interesting because of its balance between the two groups of buyers. It also bears watching because of the large number of acres changing hands there (a quarter of a million acres in the past decade). Beaverhead is a place where a cohort of traditional ranchers has a solid foothold, buying and selling large ranch properties often at prices close to agricultural value; but it is increasingly attractive to out-of-state amenity buyers. Perhaps this balance will be maintained, or perhaps we are simply witnessing the mid-point of a transition away from traditional ranching towards something else—a transition that has already taken place in much of the GYE.

## Discussion

A significant turnover of GYE ranchland occurred in the 1990s, and is presumably still underway, though the recent economic downturn may have muted the trend, at least temporarily. Most new ranch owners can be considered “amenity ranchers,” less interested in productive capacity than in scenic, natural and social amenities. This ownership regime brings altered land uses, increased real estate values, and may or may not signal further ranchland instability in the future. A few ranch landscapes in the GYE witnessed a major land turnover before the 1990s, while others have avoided the run on ranch real estate, and still sustain more traditional ranchers. These different ownership regimes range across both heavily fragmented and relatively intact ranching landscapes.

The discussion that follows considers the differences among landscapes based on their ownership regimes and levels of fragmentation and explores the types of conservation opportunities suggested by their differences. We also offer a preliminary profile of land management strategies of amenity buyers in the interest of assessing some of the stewardship-related impacts of changing ranch ownership. We conclude by discussing the general effects of ranch ownership change on conservation potential and briefly speculating about the future.

### ***Types of Ranchland Landscapes and their Conservation Opportunities***

We attempt to capture critical dimensions of ranchland ownership in Figure 12, illustrating how forty-two ranch landscapes which we have identified within our GYE study counties rate in terms of land fragmentation and the degree to which ranching has shifted from traditional to amenity ownership. This framework is somewhat akin to the “megasites” analysis in the Greater Yellowstone Coalition’s “Biological Conservation Assessment” (the so-called “Hot Spots” report<sup>7</sup>). Our two dimensions represent the current ranching landscape as dominated by traditional vs. amenity operations (x-axis) and as relatively intact (large ranches) vs. fragmented (smaller properties and ranchettes) on the y-axis.

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<sup>7</sup> Noss, Reed, G. Wuerthner, K. Vance-Borland and C. Carroll (2001) “A Biological Conservation Assessment for the Greater Yellowstone Ecosystem.” Greater Yellowstone Coalition (Bozeman, MT) and Conservation Science, Inc. (Corvallis, OR).

Figure 12. Fragmentation and Ownership Change Matrix  
GYE Ranchlands Study Counties, 2003





It is a reasonable hypothesis that certain types of ranching landscapes are most effectively conserved by different mixes of conservation tools. (We tentatively suggest how some conservation tactics seem more suited to certain ranching landscapes, but at this stage of the analysis our goal is to use this report more to elicit ideas from the conservation community rather than to prescribe conservation strategies.) The matrix can be viewed as offering three “poles” or vertical stacks of ranching landscapes, each entailing a different mix of conservation approaches:

**Pole 1: Primarily Traditional:** Many of these areas feature a mix of ranching and production agriculture, so conservation opportunities here hinge on the ecological and socioeconomic sustainability of commodity agriculture, both in landscapes marked by large parcels and in those dominated by smaller ownership units. Some of the more fragmented areas exist because of federal irrigation projects and are especially vulnerable to climate variability or changes in water allocation. Smaller farm areas along with some of the region’s most marginal landscapes, like the Beaver Divide, often experience a high level of transience, with frequent turnover of properties within the traditional agriculture sector, presenting major challenges for conservation planning. Still, these are areas in need of creative approaches to ranch viability, be it grass banking or development of on-ranch economic diversification. Others, like the eastern front of the Crazy Mountains, feature communities with cultural institutions that are key ingredients to long-term viability. Poor planning for intergenerational inheritance continues to plague ranch continuity in some of these communities and is an obvious area for targeted outreach.

**Pole 2: Transitional:** Many of the landscapes in this group feature a remarkable combination of amenities—scenery, strong traditional communities, isolation, wetter climate, and higher terrain—that simultaneously attract new landowners and sustain long-time traditional producers. In most cases, these areas were not “discovered” by outsiders until the 1990s and thus have experienced especially rapid and wrenching change in recent years. Of critical concern in these areas is the loss of local, seasoned knowledge about the landscape. Targeted efforts to invest some of the significant resources of new landowners within the community could encourage the viability of local ranch operators and in turn stem the loss of experienced land stewards. These areas also demand conservation work that can speed up the healing process necessary to help long-time residents reconcile change, by building bridges between new landowners and ranch managers and the local community—TNC’s weed-eradication efforts in the Centennial Valley are an excellent example. We especially noted the ample, but rarely cultivated, opportunities for motivated, committed, and knowledgeable ranch managers to help lead the growth of a local leadership cohort that can articulate a vision of healthy social and ecological landscapes.

*Transitional Intact:* Where transitional ownership patterns occur on landscapes featuring intact, large parcels, tensions between old-timers and newcomers are often the greatest, yet these are the landscapes with tremendous conservation potential, as they offer the open space necessary to sustain ecological processes and the historical, cultural, and social infrastructure necessary to sustain a functional agricultural community. Possible conservation activities include efforts that encourage new owners and old-timers to identify shared stewardship challenges as well as leveraging the resources of new landowners to sustain struggling local operators, such as through private land grass banking.

*Transitional Fragmented:* Those transitional landscapes featuring heavily fragmented ownership patterns suggest the highest development risk, as the remaining traditional owners have often given up on continuing to practice agriculture in the area and see subdivision as the only acceptable exit strategy. Successful conservation practice will anticipate ownership change and look for ways to encourage alternatives to the subdivision exit strategy.

**Pole 3: Primarily Amenity:** These ranching landscapes have largely made the transition to alternative ownership and feature a wide variety of land use practices ranging from large-scale “conservation ranching” to “fishing ranches” to twenty-acre “ranchettes” and second homes. Absentee owners dominate some of these landscapes, contributing to strong disaffectedness among full-time residents.

*Amenity Intact:* Those areas with little fragmentation that are dominated by amenity owners are often the bulwark of regional private land protection efforts, providing a secure base of protected lands as well as financial and social resources that spill over into other areas. In some areas, circumstances may isolate landowners from one another, limiting opportunities to work beyond conservation easements, for example on neighborhood-scale stewardship projects. While these are relatively secure areas, conservationists should seek to maximize the positive overflow effects of progressive examples of land management and protection and will be wise to anticipate potential outcomes of land turnover through sale or intergenerational transfer. Regulatory approaches to effecting positive land use trends may have potential in these areas.

*Amenity Intermediate Fragmented:* Amenity-dominated landscapes with intermediate fragmentation suggest a great risk for future fragmentation, but also prime opportunities to achieve conservation outcomes by encouraging progressive development and investment strategies, for example, putting carved up ranches back together again, or purchasing neighboring properties as they come up for sale to maximize both privacy and habitat continuity. Investors and developers tend to be wild cards in these landscapes, with tremendous influence over the future of the landscape.

*Amenity Heavily Fragmented:* Amenity landscapes that are heavily fragmented typically accompany resort development or some other major population draw, like the entrances to Yellowstone National Park. Here, efforts must focus on encouraging landowners to mitigate the effects of poorly-planned development (e.g., work by the Corporation for the Northern Rockies) or to choose alternative land use strategies that can contribute to larger ecological health. Conservationists should also consider how the absence of traditional ranchers in these communities affects non-agriculturally oriented owners' land use decisions. Without assistance with and advice on irrigation and haying, for example, some amenity buyers, discouraged by the level of work required to maintain an agricultural property, have been tempted to sell and/or subdivide, especially in Wyoming counties, where there are minimum requirements for maintaining agricultural status for tax purposes.

## ***The Ranching Practices of Amenity Buyers***

In terms of the ecological integrity of the GYE, ranchland ownership change only matters to the extent that new owners' land use decisions affect the function of large agricultural landscapes. In the next two years we will survey owner goals systematically, but our current work already reveals trends in the land use practices of amenity owners that we think are important to the conservation strategies outlined above.

First, the goals and activities of amenity owners range across a wide spectrum. The most obvious, and thus far of greatest interest to conservationists of course, has been "conservation ownership." Conservation owners operate first and foremost from a broad-ranging conservation vision, and they employ sophisticated ranch management in order to facilitate wildlife and ecological processes. Recognizing that the success of their efforts depends on what happens on neighboring properties, they may seek to act as examples for other ranches in the vicinity, or they may seek to acquire adjoining properties as they come up for sale, even propositioning their neighbors with offers that are difficult to refuse. Sometimes their strategy includes a formal conservation easement, but much more land has come under overt conservation management than is captured in easements. This owner type may be distinct from those described in the land trust and real estate worlds as "conservation buyers." Whereas a "conservation buyer" can achieve that status just by encumbering some or all of his or her property with a conservation easement, conservation owners—like Ted Turner or Roger Lang—intentionally occupy the cutting edge of conservation practice, for example, by using their ranch properties to conduct restoration programs for endangered species.

But conservation owners are a small subset of the emerging GYE ranch ownership regime. Few amenity owners have the vision and resources necessary to turn their ranches into functional nature preserves. The more typical amenity operation profile involves individuals who purchase ranches as refuges where they can enjoy recreation, scenery, and privacy. While they rarely have any incentive to abuse their properties, their restoration activities often focus on enhancing particular amenities, like elk habitat or trout streams, rather than ecosystem processes at large.

The common land management scenario for amenity buyers starts with the hire of a ranch manager, often based on the recommendation of the ranch realtor who sold them their ranch. It is not uncommon for the buyer to secure the service of the former owner/operator or manager of the ranch they bought or of another local rancher. They may also obtain the services of consultants and environmental services, especially in places where there is an absence of traditional ranchers.

The manager and the realtor are often the main sources of information for new ranch owners. Amenity buyers then often pursue a series of ranch restoration activities, starting by decreasing the number of animals on the ranch, often significantly. BLM and Forest Service representatives told us that they rely on changes in ranch ownership to enact permanent decreases in grazing lease allotment numbers. They said that amenity-oriented newcomers rarely take issue with, and mostly support, the reductions. New owners typically mean new buildings, especially large homes as well as equine facilities, and the demolition or restoration of neglected ranch structures. Other ranch restoration practices can include redrawing pasture boundaries and replacing fences in an effort to be more wildlife-friendly, restoring riparian habitat, often by fencing cattle out, and resting pastures.

Amenity buyers have mixed approaches to irrigation. Many have taken the advice of managers and invested in updating irrigation infrastructure and thus now maximize the efficiency of water consumption. This strategy appears to be far more common than the alternative of abandoning irrigation practices altogether. Owners focused exclusively on fly fishing, especially in the Ruby and Paradise Valleys, proved the most likely to opt to leave water in the stream, though these areas have also experienced a rush of trout pond construction, an activity that concerns some hydrologists and fishery biologists.

A variant of this pattern: Several informants observed that this initial period of two or three years of high activity and large investment is sometimes followed by a change in strategy prompted by the owner's realization of the cumulative cost of these activities. The owner's reaction is often to push the ranch manager to trim the fat and focus back on ranching for a profit, producing an impossible situation for the manager and one that can contribute to turnover in the ranch manager position.

Many amenity buyers are on a steep learning curve at the outset of their tenure as ranch owners, and may unwittingly complicate ecosystem management efforts by neighboring public land managers. The nature of absentee ownership and the fact that many owners are brand new both to the local landscape and to ranch ownership gives their initial sources of information—realtors and ranch managers—tremendous influence in ranchland stewardship decisions. These circumstances suggest that outreach efforts focused on increasing and improving the quantity and quality of information available to new landowners and on increasing points of contact between new landowners and knowledgeable experts in land management may prove especially helpful in the near term.

### ***Overall Implications of Ranchland Change in the GYE***

GYE ranchland dynamics described in this report obviously affect private land conservation potentials, in terms of community and geography. Turnover can be hard on communities, and new owners will have different impacts depending on their personality and goals, the rate of change, and their tenure and longevity. Communities with adaptable social infrastructures and particularly those with community groups focused on negotiating a changing landscape (e.g., the Madison Valley Ranching Group) may be best suited to mitigate conflicts and take advantage of opportunities associated with ranch turnover in the GYE.

Landscapes already heavily dominated by amenity ranches might best yield conservation results to other approaches. The investment of amenity buyers in large properties has made large scale development less likely in all but a few of the most "resort-ified" areas. It remains to be seen, though, whether amenity buying also means more easements. Investment-oriented buyers will resist easements as long as appraisals reflect a lower resale value of properties encumbered with easements, and easements appear to have played only a minor role in stemming the tide of family operations selling out. Important exceptions to this occur where funding for easements has been greater, as in Beaverhead County, Montana.

Amenity ranchers are in a financial position to relax ranching intensity, but may not take a comprehensive ecological approach to restoration. There is an obvious need here for effective outreach and information, but also a challenge in developing

communications with new buyers. Ranch managers, who can be expected increasingly to dominate on-the-ground ranch operations in such areas, also represent an obvious audience for conservation outreach. Loss of local knowledge should be a concern regarding both public lands and common problems like water and weeds, suggesting the need for efforts to build bridges among new and established landowners.

While certainly some conservation benefits accrue as new owners create large ranch reserves and seek explicit conservation goals (like protecting and improving wildlife habitat), the great question remains as to their long-term plans, and likely persistence in the GYE. Just how stable a tenure will the amenity buyers create? We found cases of new ranch empires built quickly (often disrupting local land and labor supply) and just as quickly liquidated. And we found cases of new ranchers with outside sources of wealth becoming committed to and well-integrated into local communities, suggesting that they are there for the long-haul, but it is hard to predict whether future generations will keep or dispose of these properties. It may be too early in this major transition of ranchland ownership to assess likely future stability. Still, unless ranchlands are placed under some form of conservation easement (with resources provided for long-term conservation management), the current transition probably implies a long period of instability in ranchland status and uncertainty over in the role ranches will play in preserving habitat in the future.

Ownership turnover creates threats alongside opportunities: it is a window of vulnerability for several reasons that involve both buyers and sellers. Intergenerational inheritance makes ranches vulnerable to sale. Family circumstances can prevent the sale of an intact ranch property, particularly when siblings, who often have diverse interests, inherit discrete parcels of a single ranch operation. Furthermore, even sellers with the best conservation intentions may find selling an intact ranch burdensome: the pool of conservation buyers is limited and the transactions complex, and the logic of investment sometimes demands liquidation or fragmentation. The lack of significant regulatory restraints on subdivision and development and the continued demand for rural western real estate suggests that many ranch owners within the GYE will not have trouble finding a development buyer should they opt to sell just part of their ranch.

Such threats are compounded where investment buyers are involved, since they remain mostly divorced from the ranch, its management, and even its amenities. They might maintain land quality (for livestock or wildlife or other outcomes) as a good investment strategy, but, by definition, can be expected to turn the property over in the short- to mid-term (when their portfolio demands), for the highest value use. Given these priorities, they may resist actively burdening the property with conservation easements or other restrictions.

### ***The Future***

Future ranchland dynamics depend on factors both internal and external to the GYE, and on those that push owners to sell and others to buy. But the net effect of any single push or pull factor may be misconstrued. For example, stock market depreciation might reduce the number of wealthy buyers (reducing the pull factor), yet if land is seen as a safer investment, it could also increase the number of buyers.

Amenity ranch markets can spring up quickly. Just one or two amenity ranch sales may amplify into a local trend in a matter of months or years, as they did in Sublette County. (Realtors tell us of the importance of name recognition among amenity

buyers—if the right celebrity buys property in a valley, it can become a “place” in short order.) The local sentiments that accompany ownership change are understandably powerful. Some of the GYE’s ranching communities experienced something like insular stability for three or four generations and are put off balance by new owners and neighbors. The departure of one or two keystone families coupled with the appearance of new, gilded gates with no trespassing signs on neighboring ranches can contribute to a sense of loss and disaffectedness that actually makes it easier for local ranch owners to contemplate selling the ranch. In our experience, these emotional factors may be more powerful in future ranch sales than the more measurable pragmatic challenges such as shared fence and ditch maintenance and so on.

Geographical variation in ranch sales and structure mean that any given factor might play out differently in sub-areas of the GYE. In some areas both push and pull factors are strong, and ranches will continue to change hands at high rates. There is no doubt that this applies to the GYE’s most developed and subdivided areas (like Gallatin County, which we have not studied) but subtle variations exist elsewhere, placing some landscapes more at risk than others, as we try to capture in Figure 12. Certainly there is reason to expect different GYE ranching landscapes to evolve in different ways in future decades, implying the need for geographically-specific conservation strategies.