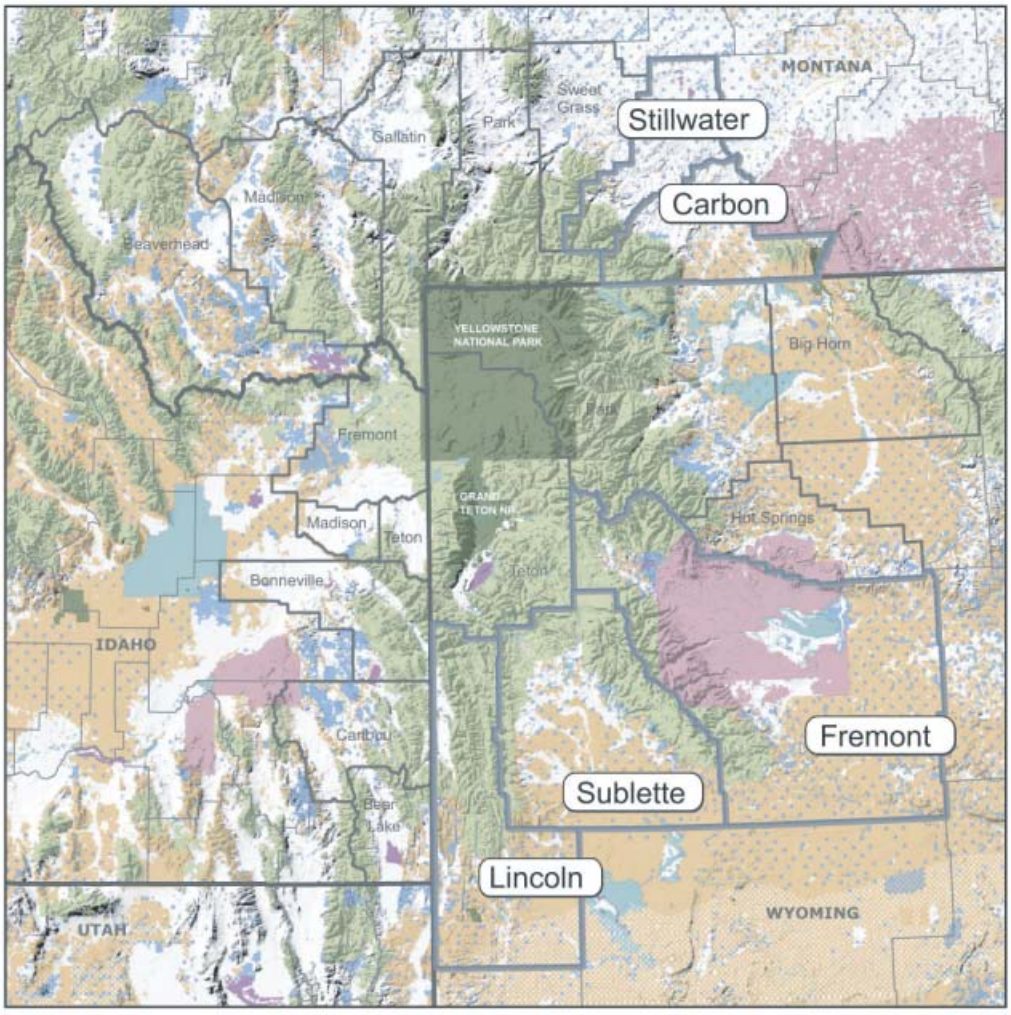
Project Report: Ranchland Dynamics in the Greater Yellowstone Ecosystem

A Report to Yellowstone Heritage, July, 2002
Summary of Findings in 5 GYE Counties



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Ranchland Dynamics in the Greater Yellowstone Ecosystem

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Introduction

Change in ranch ownership and use is a key trend affecting Western landscapes. Anecdote, media coverage, testimony from range professionals, and limited research all suggest that a significant turnover in ranch and ranchland ownership is underway in the American West. The nature of ranch ownership has changed episodically in the past, as when smaller ranches and farms were absorbed into larger units following the depression and drought of the 1930s. But previous episodes of turnover kept ranchland in the hands of what might be called "traditional" ranchers, typically owner-operators or some form of partnership or corporation focused mainly on livestock production. These trends were long-lasting and relatively predictable: ranches and farms tended to get larger over the decades, except for episodes in which they were broken up to help offspring start their own operations, and were traded within families and among other ranchers interested principally in livestock production. Current ranchland dynamics, many observers argue, are marked by a much more diverse market, including buyers less interested in commodity production, including land speculators and developers as well as amenity buyers attracted by the natural landscape and recreational opportunities afforded by western ranches.

Ranches comprise the largest blocks of private land in the Greater Yellowstone Ecosystem (GYE), and as such provide critical wildlife habitat.[1] Changing land ownership offers opportunities and threats to the sustainability of both human and natural communities in the GYE. But while this issue has been widely discussed, we have little actual data on rates of land ownership change and on the landscape patterns of that change. This study was designed to uncover details of this trend, and to provide conservationists and others interested in the future of the GYE with a better handle on landscape change, thus facilitating targeted conservation investments.[2]

The project has several goals: (1) Quantify ranch sales in the GYE, especially their rate and size. Despite claims by various groups, we do not actually know how much land is changing hands, how fast or where; (2) Map ranch ownership patterns and sales to evaluate the geographical patterns of ranchland change, and link those patterns to land conservation strategies based on habitat and biodiversity. An important part of this effort is to obtain and/or create reasonably accurate ownership maps for each county, and to

[1] Though row crop farms dominate some watersheds, like the Teton Basin.
[2] See the front cover of this report for a map of the twenty counties that we include in the GYE.

identify “hot spots” of land ownership and use change; (3) Define the nature of new owners, and begin the process of assessing how their land management goals differ from long-term ranchers; (4) Assess overall agricultural and other socio-economic conditions in each county, thus placing the ranchland dynamics in context. Our ultimate goal here is to provide at least a rough assessment of ranching sustainability and likely future trends, and to provide projections of change for selected landscapes; and (5) Explain ranchland dynamics in detail, assessing historical and contemporary factors that make this an especially transitory period. This is accomplished in case studies of selected GYE landscapes.

Summary of Results

This report offers integrated results from studies of five GYE counties. We believe that this sample begins to reveal the overall nature of ranchland dynamics in the region, though some results presented here need further analysis, as we expand the study to the other GYE counties. Details are found in subsequent sections of this report and in accompanying county reports. An assessment of overall implications appears at the end of this report. Here is a summary of key findings:

→ **GYE ranchland is in an unprecedented state of flux.**
Our sales data, historical studies, and interviews indicate that GYE ranchlands are indeed undergoing a significant ownership and, presumably, management transition. The longstanding pattern of ranch agglomeration, and transfers among mostly agricultural owners, was interrupted sometime in the 1980s. The 1980s were a punishing decade for many ranches that had overextended their finances in the boom days of the late 1970s and early 1980s only to find that they could not withstand the subsequent cost-price squeeze worsened by high interest rates. Recreational interest has been part of some ranch markets since the 1950s, though it became a genuinely widespread trend in the early 1990s. Over the last decade (a period for which electronic data are generally available and the ranch market became quite active), we find that from a tenth to more than a third of the agricultural acreage in our study counties changed hands at least once. Given that this trend started in the 1980s, and appears to be continuing, we can estimate that some counties are already more than halfway through this transition. Claims by conservation organizations that more than half of the West’s ranches have recently changed or will soon change hands in the near future (presumably to less agriculturally-oriented interests) may not be off the mark for amenity-rich regions like the GYE.

→ **Large sections of GYE ranchlands are already, or soon will be, in the hands of relatively new owners and many of these newer owners place a higher value on amenities and investment than on livestock production.**
As one realtor put it to us, new buyers are experienced at asset management, and bring these skills to bear on their ranch properties. Scenery, wildlife, and recreation often constitute more important assets in today’s ranch market than livestock production capacity. We developed a typology to classify new recent ranch buyers, ranging from ranchers with production interests, to investors and developers. While

there have always been amenity and investment components to ranch ownership (including, of course, dude ranches in the region dating to early settlement), the current non-agricultural market for ranches is unprecedented: Some 40% of all buyers in the last decade can be classified as buying for amenities, investment or conservation. In some places, like the Star Valley in northern Lincoln County, new owners have removed cattle entirely, dedicating 400-plus acre blocks of land to home sites. Nevertheless, we were impressed that traditional ranchers are still active in the ranch real estate market, though they tend to be relegated to areas where amenity buying has not yet accelerated. As for the operational goals of newer owners and the longevity of their tenure, we can only speculate.

→ **Ranching structures and methods vary within the GYE.**
Thus, the conditions of ranch sustainability--factors that hasten or slow changes in ranchlands--also vary geographically. Our county studies show differences among areas where most ranchland is shifting to new owners attracted by landscape amenities, areas where ownership is relatively stable, and places where sales tend to be between operators and based on livestock production capability. **This geographical variation suggests that conservation approaches, to be most effective, should be tailored to the nature of ranchland dynamics in GYE sub-areas.** For example, in some areas, the link between public lands grazing policies and ranch viability is very explicit; continued access to public pastures is paramount to the longevity and health of the privately-owned ranch landscape. In other places, land use and development patterns on adjacent private lands have an especially strong bearing on the future of existing ranch landscapes. Furthermore, the scale of ranch operations varies significantly across the GYE and within ranch landscapes. These variations may produce different levels of resiliency to economic and social challenges among the GYE's ranching areas. Lastly, ranching community structures differ significantly based on local histories, with a correspondingly diverse set of opportunities for community-based organizing and outreach.

→ **Historical land tenure patterns affect future development scenarios.**
The structure of the ranching landscape, including factors like parcel size, how the ranch has been integrated into the terrain, and relationships between upland and bottomland, can shape the appeal of the landscape to different types of buyers and developers. Amenity buyers often put a premium on privacy and protection from intruders and frequently expand their ranches through acquisition of contiguous properties as they become available. In future analysis we will assess the types of land purchased by these different types of buyers.

→ **Amenity ranch sales over the last decade have affected the broader ranchland market.**
Although we have not analyzed sale prices in detail (where we have them), it is quite clear that ranchland almost everywhere in the GYE (with a few exceptions detailed in the county reports) is now marketed at well above its agricultural value. For example, Sublette County's high-quality ranchlands would fetch about $200 per acre in an agricultural market, but they sell today for $1,000 to $10,000 per acre. A few sales, in some areas, occur at close to agricultural value, but the overwhelming

sense of the market, in our view, is that ranch land is worth much more than its production capacity. This trend has gained importance from a growing interest in ranches as investments; investors can be relatively sure that their ranch purchases in the GYE will yield at least 10% annual appreciation, and in some amenity-rich areas, up to 20%. Still, higher land values might actually make conservation easements more attractive to current ranchers.

→ **Amenity ranching may make more capital available for land improvements.**
We heard frequently about amenity owners and investors changing ranch operations and putting capital into conservation and other improvements. Certainly this is the case for some high-profile ranches in the GYE, but we do not know the plans of most amenity buyers, and we will study their management activities in future research.

→ **The "A River Runs Through It" effect is powerful.**
Perennial streams and fisheries are key factors in determining the appeal of ranch properties to amenity and investment buyers in several GYE landscapes, above and beyond aesthetic, cultural, or even infrastructural concerns. This pattern is especially strong in Sublette County (where some streamside ranches have been sub-divided into fishing properties), but we also found it emerging in southern Lincoln County, which has been subject to far fewer amenity sales.

→ **Both internal and external factors are at work in the GYE's ranchland transition.**
Ranchers are affected by poor economic returns and changing public land policies while the demand for their land has grown dramatically. Such "push" and "pull" factors are necessary, but not always sufficient, for ranch turn-over (for example, where little demand for land exists, as in the Great Plains, farms and ranches tend to remain in local, owner-operator tenure even though they provide poor economic returns). But many ranchers told us that the pull is stronger than the push. That is, in the absence of high land values, few ranches would sell. Indeed, the economic literature documents the strong "stickiness" of farming and ranching, even where they bring few economic returns. One growing push factor, though, comes in the form of inheritance complications. Even while droughts may come and go, cattle prices rise and fall, and land appreciation ebb or quicken, the increasing average age of owners means that an important push factor is growing in strength overall. Another push is the changing landscape around ranches: as areas subdivide or get bought up for amenities, traditional ranchers simply find it more difficult to stick it out. In this sense, the transition is something of a geographical diffusion process that might allow some extrapolation into the future.

→ **Ranch managers are increasingly the key stewards of the landscape.**
Where amenity buying has been greatest, non-owner-managers actually run most ranches, with overall goals set by owners. Consequently, experienced ranch managers are in demand: locals, and some absentee owners, report that it is increasingly difficulty to find and keep good ranch managers. This concern was strongest in Sublette County, where the conversion from multi-generational ranches

to absentee ownership is particularly pronounced.

→ **Despite the dynamics reported above, many of the largest ranches, and in some areas the majority of ranchland, are still in the hands of owner-operators who have ranched for decades and whose children they expect to assume ownership of the ranch.**
Also, a few very large ranches have been in relatively stable corporate ownership for decades. Thus, while the region is experiencing a transition to a new ranchland ownership regime, that transition is only partial thus far, and is more apparent in some sub-areas of the GYE than in others. Long-time ranchers typically depend on the ranch resources for much or most of their income, resources that may be exclusively directed toward livestock production or that may involve other enterprises based on the ranch's amenities. Economic diversification may facilitate successful intergenerational transfer of family ranches, although this has not been studied in detail.

→ **As owner-operators cash out of amenity landscapes, sales have a ripple effect in other agricultural land markets.**
Some owner-operators are deciding to relocate from amenity-rich, high dollar landscapes to less charismatic areas on the periphery of the GYE and beyond. There they create larger, deeded operations and sometimes reduce their dependence on public lands. These decisions are often influenced by the 1031c federal tax rule on real estate exchanges.

→ **Both ranch subdivision and agglomeration are underway in the GYE.**
The net landscape effects of these countervailing trends are yet to be assessed (we focused on intact ranches in this study). We do note from the parcel maps that some counties and some landscapes (especially along roads and streams) are more heavily subdivided than others. Still, some ranching landscapes in the GYE, like the Upper Green River, remain dominated by large, intact ranches despite (perhaps because of) an active amenity market for ranches. In others, like Southern Lincoln County, sales are mostly still among agricultural buyers and include large tracts of land. Northern Lincoln County, on the other hand, has been extensively subdivided: it is both an attractive area (close to Jackson Hole) and has a long history of relatively small agricultural units. Still, the relationship between agglomeration and subdivision, both of which appear related to the amenity value of the area, needs to be examined.

The GYE's Changing Ranchlands

In the next few pages we provide more details on these findings, including an assessment of regional trends and maps of land ownership for our study areas. Full details will appear in individual county reports.

Ranching Trends

According to the most recent federal agricultural census, cattle ranches constitute well over half of the total number of agricultural operations in the five GYE counties we studied.[3] Currently, cow-calf remains the preferred mode of livestock production in these counties. We noted an apparent rise in the popularity of steer or yearling operations and in backgrounding (feeding calves over the winter season for spring sale). We also suspect we could document a decline in the number of operations committed to registered herds and breeding stock. Still, in this sense GYE ranching remains quite traditional. Of course, the operational strategies of amenity ranch buyers might vary tremendously—as do their agricultural goals, though we lack data to evaluate this. One possibility is that despite some well-known examples, say of switching to buffalo ranching, amenity buyers might gravitate toward rather traditional management since part of the amenity they purchase is ranching as a way of life. **Common to the majority of amenity buyers, however, and in striking contrast to the majority of resident owner-operators, is their command of sufficient capital to implement new land management strategies.**

The most significant long-term trend affecting ranching in the GYE over the past century is the conversion from sheep to cattle ranches. Overall, the number of domestic grazing animals in the GYE has remained remarkably stable (measured as animal unit equivalents), while species composition has changed significantly with important implications for plant, wildlife, and human communities.

Another important trend is financial. Historically, the key to succeeding as a cattle rancher in the GYE was low production costs, namely cheap forage. The most successful ranchers steadily increased profits by expanding the scale of their operations without disproportionately burdening their operational costs. This model has not been possible for some twenty years, as the inputs to the system have continually expanded both in quantity and cost. While beef prices have stagnated, producers have looked for methods to increase yields—usually through mechanization and investments in agro-technology—choices more likely to decrease financial solvency than to increase yields dramatically.

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 5 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 (see Table 1).

[3] Field crop production and to a lesser extent cash grain farming are also important parts of the agricultural industry in these counties. They have a strong influence on agricultural communities and environmental quality in the GYE, although the dynamics of these industries are not the focus of our research.

Table 1. Changing Age Characteristics of Agricultural Proprietors in 5 GYE Counties

	Average Age	Percent of proprietors in 65 and older age group	Average Age	Percent of proprietors in 65 and older age group
	1969		**1997**	
Carbon County, MT	49.9	12%	53.7	23%
Stillwater County, MT	49.6	13%	55.1	27%
Fremont County, WY	49.8	15%	55.6	29%
Lincoln County, WY	49.7	10%	55.6	29%
Sublette County, WY	49.1	11%	54.4	22%

Source: U.S.D.A. National Agricultural Statistics Service, 1969 and 1997 Agricultural Censuses.

In the near term, commodity prices and interest rates will continue to have the biggest impact on a ranch's bottom line and by extension on the resources on which ranches depend. Furthermore, the past three years of drought threaten to undermine the viability of a number of ranches in the GYE, having the greatest impact on those without access to supplemental pasture and/or those with insufficient water rights to irrigate not just for winter feed but for supplemental summer feed.

Taken together, these trends emphasize the fragility of the twentieth-century ranching landscape, a model dependent on low production costs and low land prices. **Yet, perhaps the most surprising aspect of GYE ranching is its persistence in the face of great challenges.[4] In the twenty-first century, this persistence will require even greater subsidy by non-agricultural sources of income.** For most of those born on GYE ranches, that means diversifying the ranch-based economy—a challenge that may be easier in some parts of the GYE than in others. Ironically, the current land boom may actually sustain some multi-generational ranches, either in allowing family owners to raise money by strategic land sales, restructuring ownership arrangements to free families from debt service or other financial crunches, or diversifying family operations to take advantage of the recreational and tourist economies.[5]

Thus, the signals are mixed: statistics tell us that proprietors are aging and that GYE ranches—along with ranches throughout the West—continue to lose competitive ground in agricultural markets. On the other hand, we have many indications that speak to the characteristic determination—some might say bull-headedness—that keeps ranches in the business of livestock production long after it stopped "penciling out." Still, if we were pressed at this stage in our research to make predictions about the future of GYE ranching, we would say that in areas where large ranch landscapes remain relatively intact, we anticipate ranching to persist in something close to its current form in terms of land use. We do believe that ownership change will continue to affect the social fabric of

[4] Other researchers have attributed this to social and cultural forces that keep owner-operators on the land even when economics dictate otherwise. Like amenity ranchers, they derive many non-financial benefits from ranching.

[5] Current tax laws facilitate relocation of ranches as well and we believe that operators will continue to pursue this avenue within the overall ranch sales dynamic.

ranching communities. **In this vein, we predict continued increase in absentee ownership and consequently, in the role of non-owner managers as daily decision-makers on the private landscape.**

Public Lands Trends

Ranchers have long asserted that public lands management decisions affect the private ranch landscape as well as federally- and state-owned lands. Our research to date suggests that this assertion is true in parts of the GYE, although the relationships may be more complicated than most political rhetoric allows. Namely, public lands management decisions can both create and limit opportunities for ranchers.

There are important variations on this theme. "Losing the opportunity" to use public lands is rarely an agency-initiated mandate; legal retirement of grazing leases is highly unusual. In the Upper Green River valley, an opportunity may be interpreted as lost when ranchers decide to throw in the towel rather than continuing to negotiate "interferences," including a steady increase of recreation activity on their grazing allotments or livestock mortality caused by grizzly bears.[6] When such a rancher decides to sell, the ranch ostensibly changes hands due to public lands hassles, although clearly the opportunity to sell at top dollar also affects the sales decision. In another somewhat ambiguous scenario, BLM representatives stated that they have seen and expect to continue to see reduction in herd size and the sale of ranches, in southern Lincoln County and southeastern Fremont County, that stem directly from the lack of forage due to drought. In such times of crisis, public lands managers and their decisions make easy scapegoats, when in reality, the drought itself makes no distinction between private and public lands. Low rainfall demands that ranchers make adjustments in both places. Still, whatever the environmental outcome, it is certainly fair to say that ranchers have less flexibility in negotiating drought circumstances under current NEPA-directed management regimes.

But perhaps the clearest example of connections between public lands management and private ranchlands has to do with *keeping* the ranch. In the Stillwater Valley, our initial research suggests that family ranches prosper because of the adjacent national forest land and the non-cattle, but on-ranch economic opportunities that it provides 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.[7] Clearly, opportunities exist for public agencies to consider strategies that encourage economic diversification strategies as a way of protecting the private lands adjoining their districts.

[6] This is not to belittle the claims that disturbance from hikers, ATVs, and other recreationalists—and grizzly bears particularly—has a very real impact on a ranch operation's financial bottom line, whether the issue is poor weight gain on calves or calf mortality.

[7] Fisheries are another link between ranch viability and public natural resource management. In places with a demand for access to private trout water, like the Paradise Valley of Montana, state and federal dollars spent on fishery development translate directly into an added income stream for those able to offer limited access to private trout water.

Ranchland Ownership

Land ownership patterns vary considerably among the GYE counties. All three of the Wyoming counties we studied were more than three-quarters public lands, while both of the Montana counties described in this report were over half private. This pattern has its roots in early settlement patterns. Early homesteaders and miners in Montana found the land so attractive that in many areas little remained in the public domain, and extensive, common grazing lands did not exist when the public domain closed in 1934 with the Taylor Grazing Act. As a result, the Bureau of Land Management (BLM) has a minimal presence in most Montana GYE counties today. In contrast, the BLM controls upwards of one-third of the land in each of the three Wyoming counties we studied, where homesteaders claimed only the most productive (often streamside) lands and left the uplands in public ownership.

In terms of private agricultural land, Stillwater dominated the five study areas, with 872,985 acres, followed by Fremont, Carbon, Sublette and Lincoln (Figure 1). The large majority (82%-91%) of agricultural operations in each county were classed as "large operations," with more than 400 acres in private deeded land. The Montana counties we studied had the highest numbers of "large" operations (over 300), while Sublette and Lincoln had about 150 each. Overall, of 3,602,957 acres in private land in the 5 GYE counties we studied, 3,349,269 acres, or 93% had agricultural status, and 2,736,836 acres, or 82% of agricultural land, were in large operations.[8] (Maps and data on ownership and land use can be found at the end of this report.)

The number of acres of "land in agriculture" as we define it (land with agricultural status for property tax purposes) is dependent upon the laws defining agricultural land in each state, and the implementation of those laws by assessors in each county. In Wyoming, until this year, the statute only required the "expectation of monetary profit" from agricultural products for landowners to get agricultural status. Some assessors interpreted this broadly. In Lincoln County, for example, anyone with 40 acres automatically got agricultural status, even if the land was just a home site; while in Sublette, the assessor has been more discriminating about granting agricultural status. Starting in 2003, Wyoming property owners will have to demonstrate $500 in agriculture-related gross receipts to get agricultural status, or, if they lease their land, $1000. There will be no minimum acreage required, so that someone with 2 acres could theoretically get agricultural status provided they could show $500 in receipts from agriculture. With the new law, there may be more land qualifying as agricultural (properties excluded by assessors' discretion in the past) or possibly less land, if people who had agricultural status before cannot prove $500 in sales (e.g., large home site owners). In Montana, anything over 160 acres automatically gets agricultural status, and owners with fewer than 160 acres can qualify for agricultural status by proving $1500 in receipts from agricultural related commerce.

Ranches are typically comprised of several different parcels of land, either contiguous or dispersed. In many cases even adjacent land owned by the same rancher is recorded as separate parcels. But we also found cases where county parcel maps merged parcels

[8] Land in large agricultural operations is probably an underestimation due to suspected underreporting of agricultural land by Sublette County. See discussion in note 9.

that are legally distinct, and further analysis of this is needed to understand the complex nature of ranch properties. There is some logic, depending on subdivision laws, in ranchers maintaining separate parcel deeds even for contiguous land units. Even though adjacent parcels are generally managed as if the parcel boundaries do not exist, legally-defined land units, recognized by the county and state, can be treated individually in terms of sales, taxes, etc. We see some inconsistencies in the way that parcels are recorded, which may partially explain why our current parcel maps suggest regional differences. In the Wyoming counties we studied, the largest ranches were comprised of, say, between 15 and 30 large parcels; in Montana, the largest ranches tended to have upwards of 40 parcels, and in Carbon County, several of the largest operations were comprised of nearly 100 parcels.

Geographic patterns associated with parcel size and configuration may have some bearing on vulnerability to fragmentation of the private landscape, and thus deserve further examination once we have further assessed the accuracy of current county parcel maps.

In all of our case study counties, fully one-quarter to one-half of the private acreage was owned by the 20 largest landowners. The very largest owners in each county tended to be corporations (large scale cattle ranching, mining, railroad, energy), followed by long-term ranchers. An informal poll of knowledgeable locals revealed that the vast majority of these owners could be thought of as "traditional ranchers," mostly owner-operators. A few amenity owners and investors started to show up near the bottom of the twenty largest private owners in each county.

Most large operators in the GYE counties we studied were locals, though 10 to 20% in each county had out-of-state addresses. The number of non-local owners is probably higher, however, since many out-of-state owners retain local mailing addresses.

Ranch Sales, 1990-2001

We collected sales data from private appraisers and public sources in each county. In some counties, our databases were compiled using sales from more than three sources. Data reliability varied depending on our sources, and we had to interpret the data to arrive at numbers of sales of ranches (each ranch sale is actually the sale of multiple land parcels); but we feel we have captured the majority of large ranch sales (sales totaling greater than 400 acres in the aggregate) between 1990 and 2001.

The greatest number of sales – 88 – occurred in Fremont County. This represents about 29% of the current large operations and about 36% of current agricultural land in large operations, but almost half of these sales involved irrigated farmland in the Riverton Irrigation District. By far, the most *ranch* sales activity (81 sales, representing approximately half of the current large operations, and accounting for about one-third of the land currently in large operations) occurred in Sublette County.[9] Lincoln, Carbon,

[9] This calculation depends on an accurate accounting of land currently in large agricultural operations. We calculated this number using data sent to us by the Wyoming Department of Revenue, but have since raised several questions with the department re: accuracy in reporting. We are in the process of resolving our questions about the accuracy of Sublette current agricultural ownership data, thus we are reluctant to cite exact numbers at this point.

and Stillwater Counties each had 40 to 50 sales, representing 33%, 14%, and 14% of current large operations, respectively. Carbon had the fewest sales – 43 – while Lincoln saw the least amount of acreage – 68,728 acres or 16% of the acreage in current large operations—change hands. Average sale size ranged from 1,200 to 2,500 acres, while the median ranged from approximately 700 to 1,600 acres. The lower median value is a function of a few very large sales that drove up the average (e.g., a sale of 26,399 acres to Sinclair in Carbon County, and a sale of 28,865 acres to Wyoming Game and Fish in Fremont County).

We asked people familiar with the sales data, and others familiar with the agricultural community in each county, to examine each sale and "type" each grantee to the best of their knowledge (Table 2). Our goal in evaluating the type of buyers was to cast light on the widespread perception that western ranches are selling to non-traditional owners. We started with a typology based on one developed by other researchers who conducted extensive mail surveys of western ranches. The "typing" exercise evoked many informative comments from people we interviewed about the nature of ranch owners and about our typology, and we thus experimented with different categories in our interviews. Because of the evolving typology, and because the exercise was almost entirely based on the subjective views, and sometimes speculation, of our informants, the findings are anything but scientific. Still, this is a useful first step toward a better understanding of who is buying large ranches in the GYE, and, ultimately, what their goals for the land might be. We emphasize that our typology is a work in progress, and we are open to suggestions on how to improve it.

Table 2: A Working Typology of Ranch Owners and Buyers

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 but derives the majority (or at least in many years a significant portion) of his or her income from ranching

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

Corporate: 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

…(*cont'd on next page*).

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

Other: includes state and federal land management agencies, independent loggers, etc.

Sublette County was the first GYE county in which we conducted research, and there we found the large majority of ranch sales (62%) in the 1990s going to amenity buyers (Figure 2). These results correlated with our findings in Routt County, Colorado, where amenity buyers also dominated sales dynamics. We were therefore surprised to find that in the other GYE counties we studied, more traditional ranchers comprised the bulk of the grantees. Amenity buyers were second to traditional ranchers in Lincoln County with 25% of the sales, and represented 21% of the sales in Carbon County, but in Stillwater County, for example, only 7 of 52 buyers, or 13%, were classed as such. We attribute these discrepancies to "hotspots" amongst amenity buyers, typically occurring near resort towns and bordering National Forest land with plentiful amenities.

We found few large ranch sales to developers who planned to subdivide – only 1 or 2 in each county—with the substantial exception of Sublette, where there were 10 such sales. Most of these sales were to developers from the Jackson Hole area who planned to create "fishing ranches," where cattle are removed, the land is subdivided into large (e.g., 100 acre) tracts, and owners share a common fishing area. This does not mean that land subdivision is not widespread. Our sources told us that most subdivision occurs on tracts less than 400 acres because of the high cost of developing and holding subdivided land. (With the new statute in Wyoming, land that is legally subdivided, even if it still functions as an intact ranch, will no longer be eligible for agricultural status, and will be taxed at fair market value.) Since we only tracked sales greater than 400 acres, our database does not capture ranchers selling off small chunks of land to be subdivided, thus, there may be significant subdivision of *portions* of large ranches that we missed.

Anecdote suggests that most large ranch buyers these days are from out of state. Our data supports that notion, to a degree. In Sublette County, 39 of 81 buyers, or 45%, had out of state mailing addresses. The largest number of buyers in Carbon County –18 of 43, or 42%—were also from out of state. Again, because many out-of-state buyers secure local mailing addresses, these numbers are probably underestimates.

All in all, more than half a million acres changed hands in 316 large ranch sales in these 5 GYE counties between 1990 and 2001, with the vast majority of the sales going to two classes of buyers: traditional ranchers (113 sales) and amenity buyers (88 sales) (Figure 3). Traditional ranchers dominated sales activity, purchasing 34% of the acreage, but not far behind were amenity buyers, who gained control of 27% of the land sold (Figure 4). We speculate on the implications of this for land conservation at the end of this report.

Figure 1. Agricultural Land Ownership in 5 GYE Counties, 2002

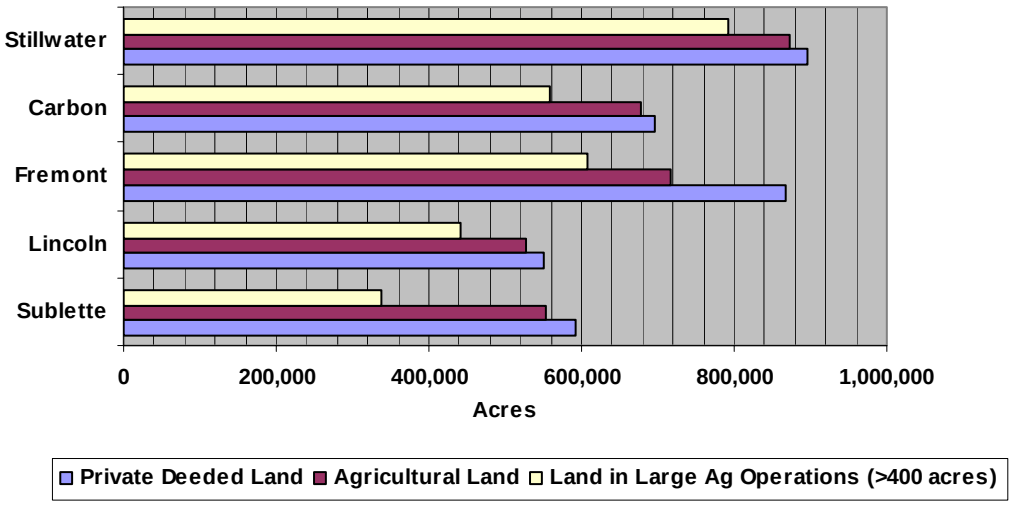
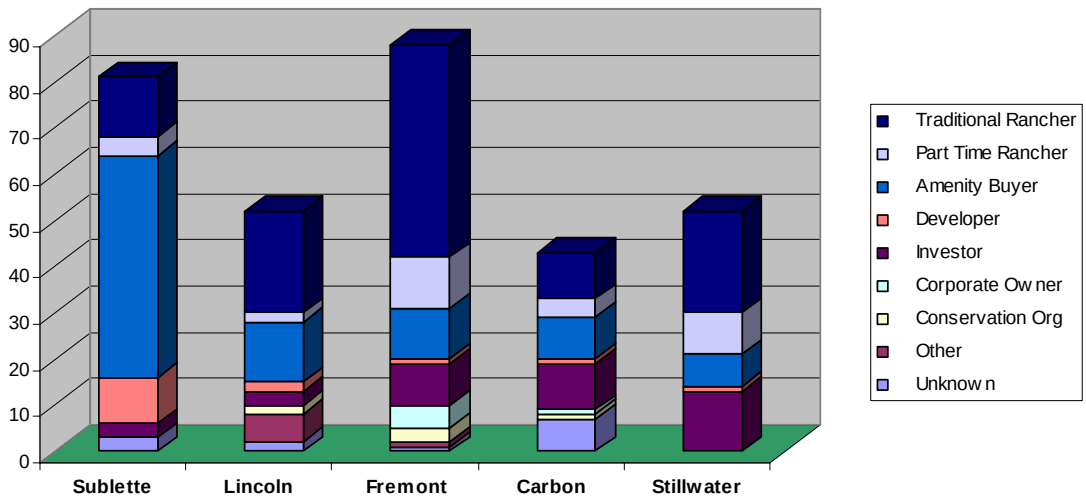


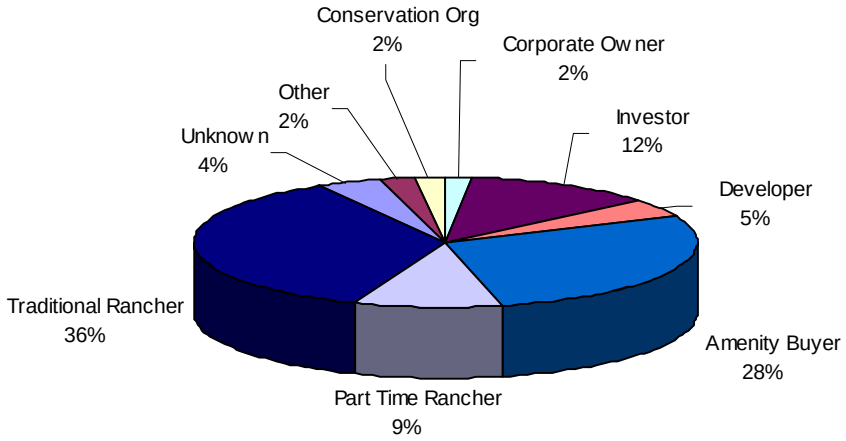
Figure 2: Grantee Types in Large Ranch Sales in 5 GYE Counties, 1990-2001



Note: Our sales databases for each county were created by combining sales data from various sources (mostly appraisers). The typing of the grantee in each sale was done with the assistance of local appraisers, realtors, and others familiar with the agricultural community in each county.

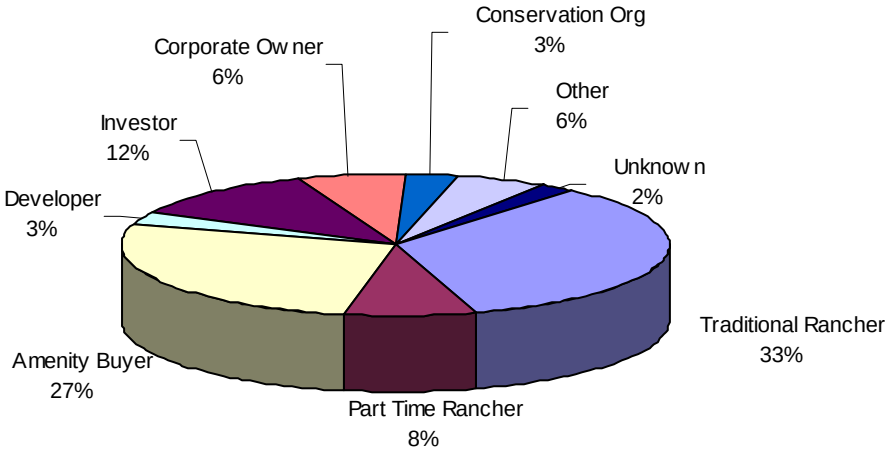
Complete data on land ownership in all 5 counties can be found at the end of the report, along with information about sources and methodology.

Figure 3. Sales to Different Grantee Types in 5 GYE Counties, 1990-2001



Total number of large ranch sales = 316

Figure 4. Acres Sold to Different Grantee Types in 5 GYE Counties, 1990-2001



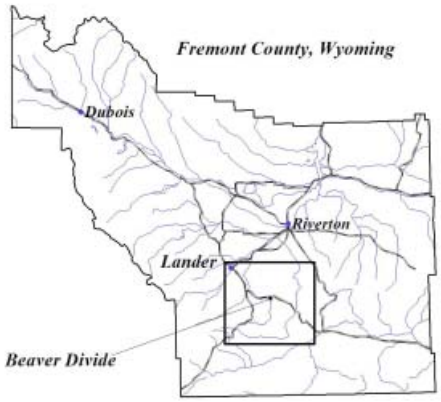
Total acres involved in large ranch sales = 634,388

Detailed county-level data on sales trends in all 5 counties can be found at the end of the report, along with information about data sources and methodology.

A Closer Look at a Ranching Landscape

In each county, we profile a ranch landscape in detail, hoping to bolster our understanding of sales trends and their implications. By conducting in-depth interviews with members of a local ranching community, including old timers and newcomers, and through other historical sources, we attempt to trace historical patterns in ranch operations with an eye on providing context for contemporary developments. In some cases, we have found that contemporary developments are not altogether unique. For example, property agglomeration in the Upper Green River drainage actually fits in a somewhat cyclical pattern of ranch consolidation and fragmentation: our job is to speculate on how current buyers affect social and ecological communities differently than their predecessors, who were typically multi-generational owner operators. In addition to helping us identify significant historic land tenure patterns, our ranch landscape profiles help us understand local challenges to ranch viability and continuity. The following example is a case study of an area in Fremont County, Wyoming that illustrates our approach to this sub-landscape analysis.

Ranch Landscape Profile: Beaver Divide



The Beaver Divide is high, spare ground that divides two of the main river drainages of the Wind River Mountains. To the south and east lies the Sweetwater River, the GYE's sole contribution to the North Platte system. Its headwaters curve around from the western shoulder of the southernmost tip of the Wind River Mountains to chart a course due east toward the Platte. To the north and west of the Divide, Beaver Creek and Twin Creek drain into the Yellowstone via the Wind and Big Horn Rivers. Whatever their final destination, the creeks cover similar country as they roll away from the Beaver Divide. They pass through the archetypal exposed sagebrush country of southwestern Wyoming and through the dramatic red rock bluffs that bespeak the Chugwater formation's dominance on the Front Range of the Rockies. The ranches nestled in the folds and pockets of the Beaver Rim system represent the complexity of ranchland dynamics on the fringe of the southern GYE in Wyoming: here a number of factors coalesce to make ranching seem at once an

essential part of the landscape and dramatically tenuous.

The Beaver Rim bridges the foothills of the Wind River Mountains and the Great Divide Basin, a vast section of country sprawling over the hundred or so miles between Rock Springs and Rawlins. The Basin is a fork in the road for the continental divide—it literally splits into two ridges as it encircles the Great Divide Basin. Water that lands or surfaces in the Basin stays there, seemingly swallowed up by a hungry earth—there is no drainage to the sea. Another physiographic province, the Red Desert, overlaps the Great Divide Basin. The Red Desert ranges across most of southwestern Wyoming, a sort of moonscape of red badlands, hot summers, cold winters, and year-round winds. The Great Divide Basin provides vital winter habitat for ungulates who summer in the high grounds of the Wind and Green River Valleys, including antelope, mule deer, and elk. In modern years, the Red Desert was critical habitat for Wyoming's massive domestic sheep industry (in 1942, at the height of WWII production, there were 3,544,000 sheep in the state; today there are 530,000 by comparison). Cattle have been present throughout the Red Desert since the time of the Civil War, though their presence expanded significantly with the decline of the sheep industry in the second half of the twentieth century.

For about 75 years, sheep and cattle in southwestern Wyoming grazed in patterns that mimicked native ungulate movements. They moved across vast distances—sheep closely herded and cattle on the "drift," ranging from winter grounds on the Red Desert to summer pasture high in the mountains. The high foothills country on and around the Beaver Divide typically served as transitional forage in spring and fall. Many long-time Fremont County residents remember when a cow could range from the Union Pacific railroad to Lander without ever negotiating a fence (over 75 miles as the crow flies). Fences began to appear in the 1950s.

The introduction of fences is just one milestone in the transition of the human landscape of the Beaver Divide area that has been underway since the 1930s. This is an unforgiving landscape and ranching operates on a thin margin. Like antelope whose habitat they share, ranchers have to scan the horizon vigilantly for looming threats. Failing to anticipate a drought, an early frost, or a spike in interest rates can mean failing altogether. In this rugged environment, it has proved difficult to forge a stable model for ranch ownership and operation in the Upper Sweetwater and Twin and Beaver Creek drainages.

Several important developments coalesced in the mid-twentieth century to establish the fundamental structures of land use in the area. According to one explanation, landowners began to fence out their sections of range in the 1950s to mitigate the impact of large concentrations of cattle and sheep lingering at the end of the drift close to Lander. One fence led to another as nobody wished to depend on

the pasture that also served as the final collection point at the end of the drift. And other changes were already underway.

The New Deal, including the Taylor Grazing Act and its generous support of the development of western infrastructure probably affected the landscape more than any other single event. The Taylor Grazing Act moved range use toward a system of grazing districts and discrete allotments on public rangelands. Typically, the Federal Grazing Service gave priority to ranchers whose base ranches were nearest to the grazing districts when awarding leases and also demanded that the base ranch have the capability of contributing adequate winter forage for the herd.

In addition, the 1930s witnessed the establishment of extensive irrigation projects on the Upper Wind River, notably Diversion Dam and the Midvale irrigation district. Together all of these developments hastened the transition to a more localized ranching system in which the base ranch played a much more important role than it had historically. To stabilize abundant summer range with predictable winter feed, base properties shifted to the Riverton irrigation project area, away from the seasonally-watered foothill meadows and old homesteads. Though far from most public grazing lands, base property within the Riverton and Midvale irrigation systems attracted many ranch owners with its virtual guarantee of cheap, plentiful water to grow bumper hay crops.

By the mid-1960s, the post-World War II model for ranching the high desert of the Beaver Divide area seemed clear: ranch operators aspired to own large tracts of base property along the river itself or its tributaries, irrigated hay ground on the Wind River system, and several sections of private ground up on the high rangelands connected to a sizable lease for adjacent public range. During the years following World War II and well into the 1980s, several ranches on Beaver Creek and the Sweetwater River moved toward this structure, acquiring small parcels at or below agricultural prices and simultaneously adding to the volume of their public leases. Because of the continual decline of wool and lamb prices, sheep gradually gave way to cattle as livestock of choice. The significance of the shift in use from sheep to cattle has not been documented and opinion varies among locals about what impact this might have had on the resource base. Clearly, the type of use is very different: first, from an ecological perspective, the two species have different grazing preferences and may have different tolerance levels for predators. Second, no matter what the era, sheep have always been closely supervised by a herder who would in theory direct their movements over the landscape. Cattle operators utilizing public and private lands on the Beaver Divide, in contrast, have moved away from the cow camp system when a cowboy and his horses would spend weeks at a time with the herd. 4-wheel drive vehicles have made it possible to drive to an allotment, move cows, and

be home in time for supper, meaning that overall, cows spend more unsupervised time out on the range. (In turn, ranch operators can direct more time toward irrigating and other on-ranch endeavors that they hope will increase their productivity).

Ranch properties began to turn over with some regularity in the 1970s in the Beaver Divide area. The common cycle of the departure of aging ranchers without family replacements prompted sales, while buyers consisted of optimistic types from the local and the greater Wyoming ranching community. Enthusiastic about generous bank lending practices and high cattle prices, "new" ranchers moved into the area and area ranches expanded their operations. One long-time rancher in the area reported a total of seven turnovers in ownership on two properties adjacent to his since the 1950s. When optimism gave way to dissolution in the financial crunch of the 1980s, local ranch realtor/investor types picked up a number of ranches in the area. Their hunches proved prescient: by the mid-1990s, the market for ranches had picked up again, with amenity buyers especially interested in the higher drainages with perennial water, views, and access to the popular South Pass area.

Here—in the emergent buying and selling trends of the late 1990s through the present—the contemporary landscape seems to part ways with post-World War II patterns of land tenure and acquisition, which could be called a period of agglomeration. Today, we see two trends. The first may be a somewhat anomalous continuation of the agglomeration pattern. Specifically, one individual—a Riverton native who earned a fortune with a multi-national engineering firm—is building a small ranching empire in his very active retirement. That individual has acquired nearly one dozen properties in the immediate area in the past decade, as well as farmland in the Riverton area. Beyond him, the dominant pattern is fragmentation of ranch properties: not for subdivision per se, but because different groups have unique interests in the discrete parcels that make up these older ranches.

Take one large ranch astride Highway 287 on the Beaver Creek drainage, which first changed hands in 1990 when the owners of a multi-generation sheep operation opted to sell when they reached retirement age. (Theirs was one of two major sheep companies that closed shop in the 1990s: together the two events put about 20,000 acres on the market in southern and eastern Fremont County.) The out-of-town buyer of the sheep ranch in question reportedly acquired the property (which had been run as a single unit since the 1940s) for a price close to agricultural values; his targets included both its base ranch and hay meadows and also the extensive high summer pasture which doubles as excellent elk hunting grounds.

When the buyer who purchased in 1990 sold ten years later, the property splintered into several discrete parcels. The next buyer held on to some winter

pasture and irrigated land near Riverton. In 2000, the buyer was primarily interested in the high riparian area on Upper Beaver Creek: his purchase was contingent on unloading the remaining winter pasture/base unit on lower Beaver Creek. At this point, a rather unique event occurred. The Mormon church became involved as an intermediate buyer of the winter range, because they were interested in acquiring part of a local ranch associated with the Mormon trail. The church swapped their newly acquired winter range for the historically significant property. The net result of this sale for the adjoining ranch landscape was that several pieces of the ranch stayed the first buyer's hands, and one prime ranch piece—the winter range—ultimately went into the hands of a local owner-operator, thanks to the help of the LDS church's deep pockets. The third parcel—that piece coveted by the main buyer in 2000—went into the pasture lease portfolio of a local rancher. The buyer, who did not plan to live or build a home on the property, chose to manage his property by leasing the land to a local operator, known for his holistic land management practices, whom he trusted to protect and improve elk habitat.

The fragmentation of this large property (over 12,000 acres when it first sold) speaks to the complex and somewhat unstable nature of private property dynamics in the Beaver Divide area. Non-ranching interest in *particular* lands within the Beaver Divide landscape has altered the ranch land ownership and sales dynamic—at times with surprisingly beneficial results for area ranchers.

The future of the Beaver Divide area remains to be seen. For now the family-owned and operated landscape appears relatively intact: ranchers are able to identify a majority of their neighbors as long-time resident owner-operators whose children they expect to assume ownership of the ranch. On the other hand, rumors suggest that soon the most recent "new" buyer who coveted the elk grounds on Upper Beaver Creek may sell to yet another new buyer, who is unlikely to be a local owner-operator. In addition, there are some stakeholders in existing operations who are eager to see what their property might bring on the high-dollar ranch market of today—though it is no Jackson Hole, the area has a unique and striking aesthetic, extensive wildlife, and abundant privacy. What we might speculate is that if current patterns continue, it is likely that higher elevation properties will sell to absentee owners who may or may not identify with the particular circumstances of highly-leveraged owner-operators, who may be relegated to lower elevations. In any case, this is an area to watch: a place where ownership change is both an historic and a contemporary trend and nevertheless a vital place for the human and wildlife communities who wish to continue to call the Beaver Divide area home.

Implications and Speculations

At this stage in the research we have not attempted to project ranchland turnover into the future, nor have we settled on measures of ranch sustainability. We discuss our plans for future work on these topics at the end of this report. But to date we see several implications for GYE land conservation efforts in the work and can speculate on future trends.

Some Implications for Land Conservation in the GYE

The ranchland dynamics we have uncovered offer a set of conservation opportunities and challenges. Among the opportunities we see are landscapes where large ranches remain intact or even grow through sales; these may not always include habitat of particular concern, and they may not be managed to optimize wildlife benefits, but by their size and nature they represent important private blocks of habitat less likely to be affected by development, roads, or recreational impacts. Assuming that conservation benefits can best be achieved in landscapes where ownership is not heavily fragmented, then the tendency of wealthy new owners to accumulate contiguous land can actually increase conservation opportunities. Additionally, many conservation tools, such as easements, are most readily applied at the time of a ranch sale, so the uncertainty implied in ownership turnover may be balanced by expanded opportunities for conservation.

Ranch managers, who can be expected increasingly to dominate on-the-ground ranch operations, represent an obvious audience for conservation outreach, as do new owners who operate ranches themselves.

Ranches are businesses as well as settings for a way of life. Successful ranch operators are savvy business people. This implies a conservation opportunity. The current ranch market puts a premium on amenities and ranch operators of all stripes increasingly recognize the importance and indeed the profitability of nurturing those values.

While certainly some conservation benefits accrue as new owners create large ranch reserves, and seek explicit conservation goals (like protecting and improving 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. 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. We see, but have

not formally documented, a strong correlation between intergenerational inheritance and vulnerability 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 investments 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 for investment buyers, who remain mostly divorced from the ranch, its management, or 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.

Some Speculations

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.

Active amenity ranch markets affect existing ranch communities significantly. 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. Few societies cope with change well. Some of the GYE's ranching communities experienced few changes for three or four generations and may simply be unprepared to accept 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 trade 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 yet studied) but subtle variations exists elsewhere, placing some landscapes more at risk than others. Other areas might appear similar outwardly, but exhibit strong social and community forces that mitigate against ranch sales.

Landscape patterns themselves might affect ranch transitions, and even attract certain types of buyers. Certainly amenity buyers prefer perennial streams

through their property, as well as land on mountain slopes adjacent to federal lands. In a sense, the preferences of amenity buyers translate into heightened sales activities in certain habitat types.

Next Steps

Our immediate next steps are to gather feedback on this report, evaluate the approach, and extend this work to other GYE counties. While expanding the analysis, we will make the results available to interested parties. We also see several needs for additional research, including efforts to: (1) Develop a typology of ranch landscapes within the GYE and evaluate their current and future viability given changing social and ecological conditions; (2) Add the analysis of ranch subdivision to our ongoing study of ranchland ownership change; (3) Integrate ranchlands data with results from studies of biodiversity hot spots and conservation priorities; (4) Gather information on the land management activities of different types of ranchland owners.

Acknowledgements

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Land Ownership Data, 5 GYE Counties

The tables on this and the following page summarize data on current land ownership in our 5 study counties. Data on public/private acreages for Montana Counties were obtained from the Montana NRIS. Data for Sublette and Fremont Counties were obtained from each county's GIS technician. Data for Lincoln County were obtained from the 1997 WY Equality State Almanac, since no data were available from the county. Data on land in agricultural use were obtained from the WY and MT Departments of Revenue. Numbers for land in large agricultural operations were derived by aggregating all parcels owned by the same entity and subtotaling acreages. This exercise involved some assumptions, and exact accuracy cannot be guaranteed. The typing of the 20 largest owners in each county was done with the assistance of local appraisers, realtors, and others familiar with the agricultural community.

	Sublette Co., WY		Lincoln Co., WY		Fremont Co., WY		Carbon Co., MT		Stillwater Co., MT	
	Acres	% of total	Acres	% of total	Acres	% of total	Acres	% of total	Acres	% of total
Total Acres	3,151,716		2,612,130		5,824,865		1,315,718		1,150,017	
Public Land	2,556,849	81%	2,060,807	79%	4,956,138	85%	612,557	47%	248,747	22%
NPS	0	0%	8,190	0%	0	0%	0	0%	0	0%
Forest Service	1,162,789	37%	901,057	34%	987,109	17%	323,931	25%	191,920	17%
BLM	1,270,564	40%	1,013,550	39%	2,097,697	36%	217,303	17%	5,376	0%
USFWS	0	0%	?	?	12,597	0%	284	0%	4,059	0%
State Land	123,497	4%	107,136	4%	291,176	5%	0	0%	0	0%
Military	0	0%	0	0%	1,340	0%	0	0%	0	0%
BIA	0	0%	0	0%	1,566,220	27%	0	0%	0	0%
Private Deeded Land	592,020	19%	551,323	21%	868,716	15%	695,383	53%	895,515	78%
Total Acres in Ag	544,984	17%	528,093	20%	716,224	12%	677,445	51%	872,985	76%
Percent of Deeded Acreage Taxed as Ag	92%		96%		82%		97%		97%	
Total Acres in Ag Operations > 400 ac*	515,679		440,912	17%	608,386	10%	558,157	42%	792,088	69%
Percent of Ag Acreage in Large Operations*	95%		83%		85%		82%		91%	
Total Number of Ag Operations > 400 ac*	176		160		306		316		377	
Total Number of Parcels in Ag*	951		2,532		2,870		5,465		4,754	
Total Number of Parcels in Large Operations*	638		675		1,676		3,375		3,083	
Median Parcel Size (acres)*	205		262		160		120		160	

Ownership Data, Large Agricultural Operations, 5 GYE Counties

Mailing Address Location, Large Ag Owners

	Sublette Co. , WY		Lincoln Co., WY		Fremont Co., WY		Carbon Co., MT		Stillwater Co., MT	
	Number	% of total	Number	% of total	Number	% of total	Number	% of total	Number	% of total
Local	108	61%	No data	No data	240	78%	194	61%	226	60%
In-State (different county)	27	15%	No data	No data	25	8%	72	23%	111	29%
Out of State	41	23%	No data	No data	42	14%	50	16%	40	11%

20 Largest Ag Owners by Type and Size of Operation

	Sublette Co., WY	Lincoln Co., WY			Fremont Co., WY			Carbon Co., MT			Stillwater Co., MT		
		Number	**Acres**	**% of Total Private**	**Number**	**Acres**	**% of Total Private**	**Number**	**Acres**	**% of Total Private**	**Number**	**Acres**	**% of Total Private**
Acres Owned by 20 Largest Ag Owners			290,979	53%		198,507	23%		181,654	26%		208,389	23%
Traditional Rancher	No data available at this time.	13	128,922	23%	11	122,180	14%	17	132,969	19%	16	155,669	17%
Part Time Rancher		0	0	0%	0	0	0%	0	0	0%	0	0	0%
Amenity Buyer		2	17,131	3%	3	19,789	2%	0	0	0%	0	0	0%
Developer		0	0	0%	1	7,561	1%	0	0	0%	0	0	0%
Investor		0	0	0%	2	21,001	2%	0	0	0%	2	25,586	3%
Corporate Owner		3	134,084	24%	1	7,740	1%	1	27,898	4%	1	17,013	2%
Conservation Org		0	0	0%	1	13,009	1%	0	0	0%	0	0	0%
Other		0	0	0%	0	0	0%	0	0	0%	0	0	0%
Unknown		2	10,842	2%	1	7,227	1%	3	20,787	3%	1	10,121	1%

Large Ranch Sales Data, 5 GYE Counties, 1990-2001

We created our sales databases for each county combining sales data from various sources (mostly appraisers). The typing of the grantee in each sale was done with the assistance of local appraisers, realtors, and others familiar with the agricultural community in each county.

Sales	Sublette Co., WY	Lincoln Co., WY	Fremont Co., WY	Carbon Co., MT	Stillwater Co., MT
Number of Sales > 400 acres, 1990-2001	81	52	88	43	52
Acreage in Sales > 400 acres	145,509	68,728	218,551	88,874	112,726
Average Sale Size	1,796	1,322	2,484	2,066	2,168
Median Sale Size	1,077	845	961	767	1,585

Sales/% to Different Grantee Types	Sublette Co., WY		Lincoln Co., WY		Fremont Co., WY		Carbon Co., MT		Stillwater Co., MT	
Traditional Rancher	13	16%	22	42%	46	52%*	10	23%*	22	42%
Part Time Rancher	4	5%	2	4%	11	13%	4	9%	9	17%
Amenity Buyer	48	59%	13	25%	11	13%	9	21%	7	13%
Developer	10	12%	2	4%	1	1%	1	2%	1	2%
Investor	3	4%	3	6%	9	10%	10	23%	13	25%
Corporate Owner	0	0%	0	0%	5	6%	1	2%	0	0%
Conservation Org	0	0%	2	4%	3	3%	1	2%	0	0%
Other	0	0%	6	12%	1	1%	0	0%	0	0%
Unknown	3	4%	2	4%	1	1%	7	16%	0	0%

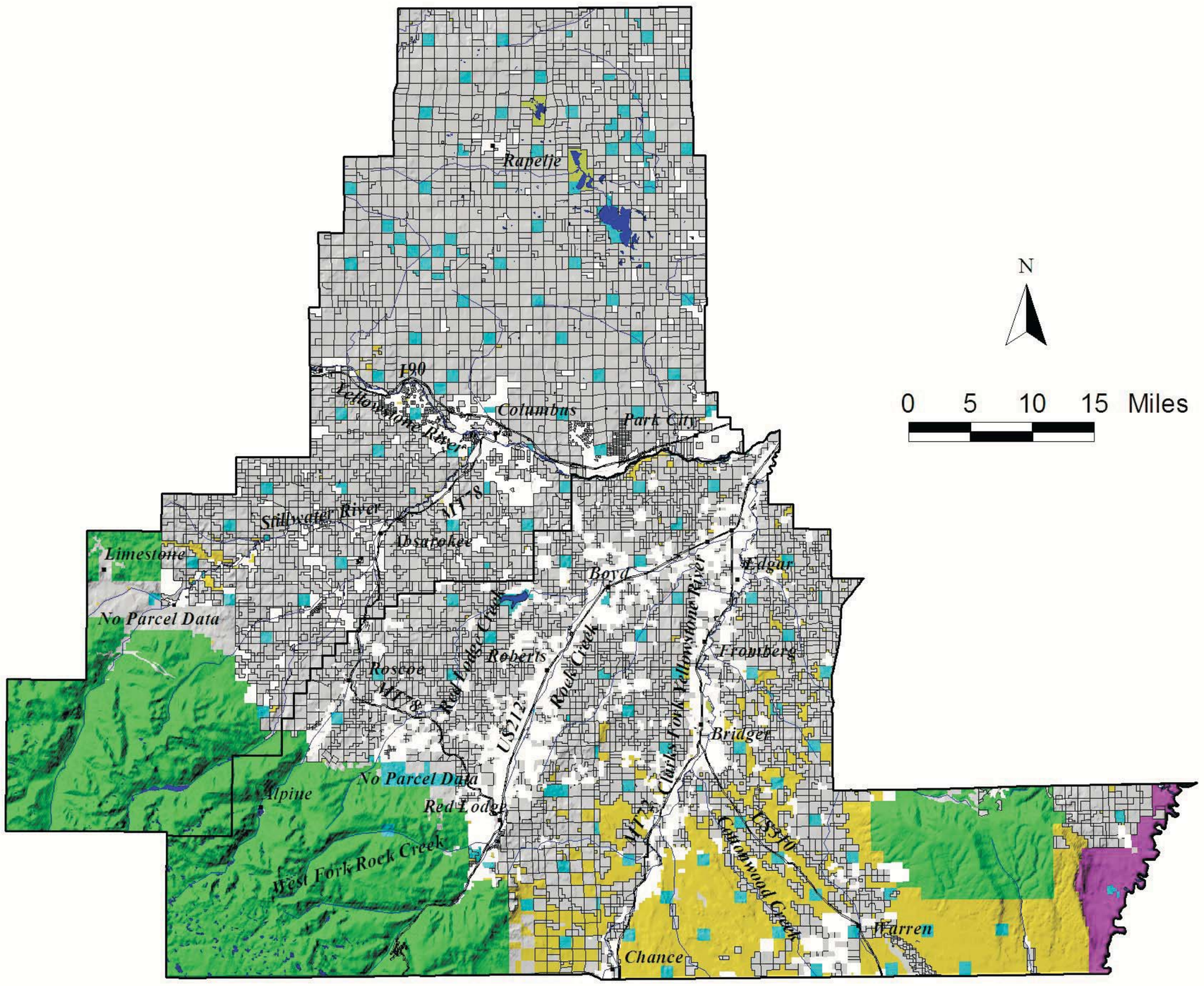
Acreage/% to Different Grantee Types	Sublette Co., WY		Lincoln Co., WY		Fremont Co., WY		Carbon Co., MT		Stillwater Co., MT	
Traditional Rancher	25,410	17%	27,971	41%	101,507	46%	17,866	20%	43,193	38%
Part Time Rancher	4,072	3%	932	1%	17,175	8%	2,717	3%	25,880	23%
Amenity Buyer	90,295	62%	23,036	34%	30,059	14%	12,230	14%	12,862	11%
Developer	15,079	10%	1,390	2%	440	0%	767	1%	758	1%
Investor	7,712	5%	3,356	5%	12,387	6%	19,669	22%	30,033	27%
Corporate Owner	0	0%	0	0%	14,003	6%	26,399	30%	0	0%
Conservation Org	0	0%	2,390	3%	12,471	6%	4,212	5%	0	0%
Other	0	0%	7,143	10%	28,865	13%	0	0%	0	0%
Unknown	2,941	2%	2,510	4%	1,644	1%	5,013	6%	0	0%

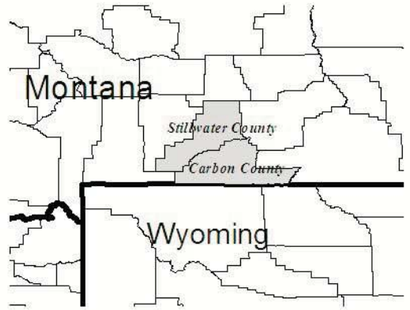
Large Ranch Sales Data, 5 GYE Counties, 1990-2001, continued

Grantees' Mailing Addresses	Sublette Co., WY		Lincoln Co., WY		Fremont Co., WY		Carbon Co., MT		Stillwater Co., MT	
Local	24	28%	18	35%	41	49%	12	28%	21	40%
In-State (different County)	15	17%	1	2%	9	11%	7	16%	15	29%
Out of State	39	45%	32	62%	32	38%	18	42%	14	27%
Unknown	3	3%	1	2%	2	2%	6	14%	2	4%

Large Agricultural Land Ownership (Total > 400 Acres)

Carbon and Stillwater Counties
Montana



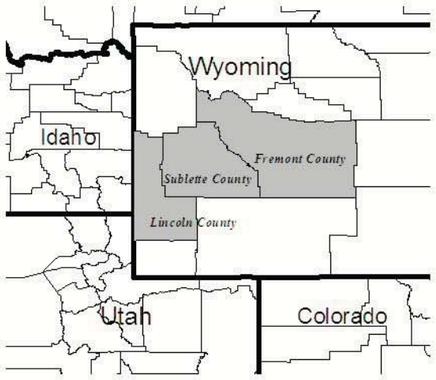


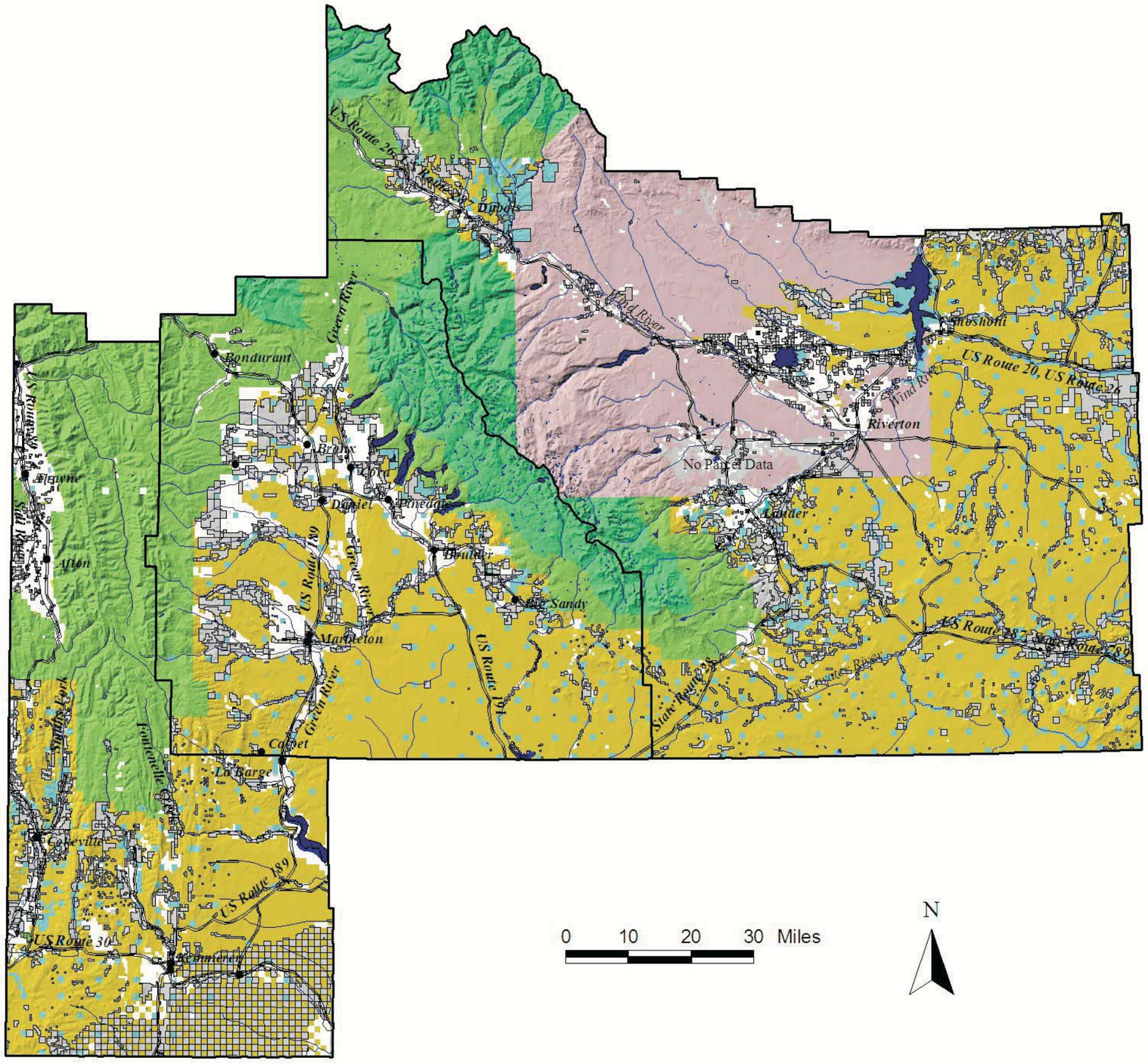
Private Land
- Large Agricultural Ownership
- Other Private

Public Land
- Bureau of Land Management
- U.S. Forest Service
- U.S.F.S. Wilderness
- State Land
- National Park Service
- Other Federal Land
- Native American Land

Large Agricultural Land Ownership (Total > 400 Acres)

Lincoln, Sublette and Fremont Counties, Wyoming





Private Land

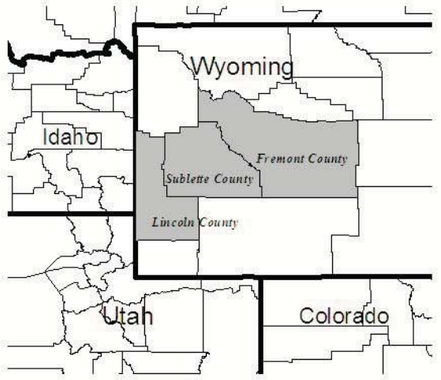
- Large Agricultural Ownership
- Other Private

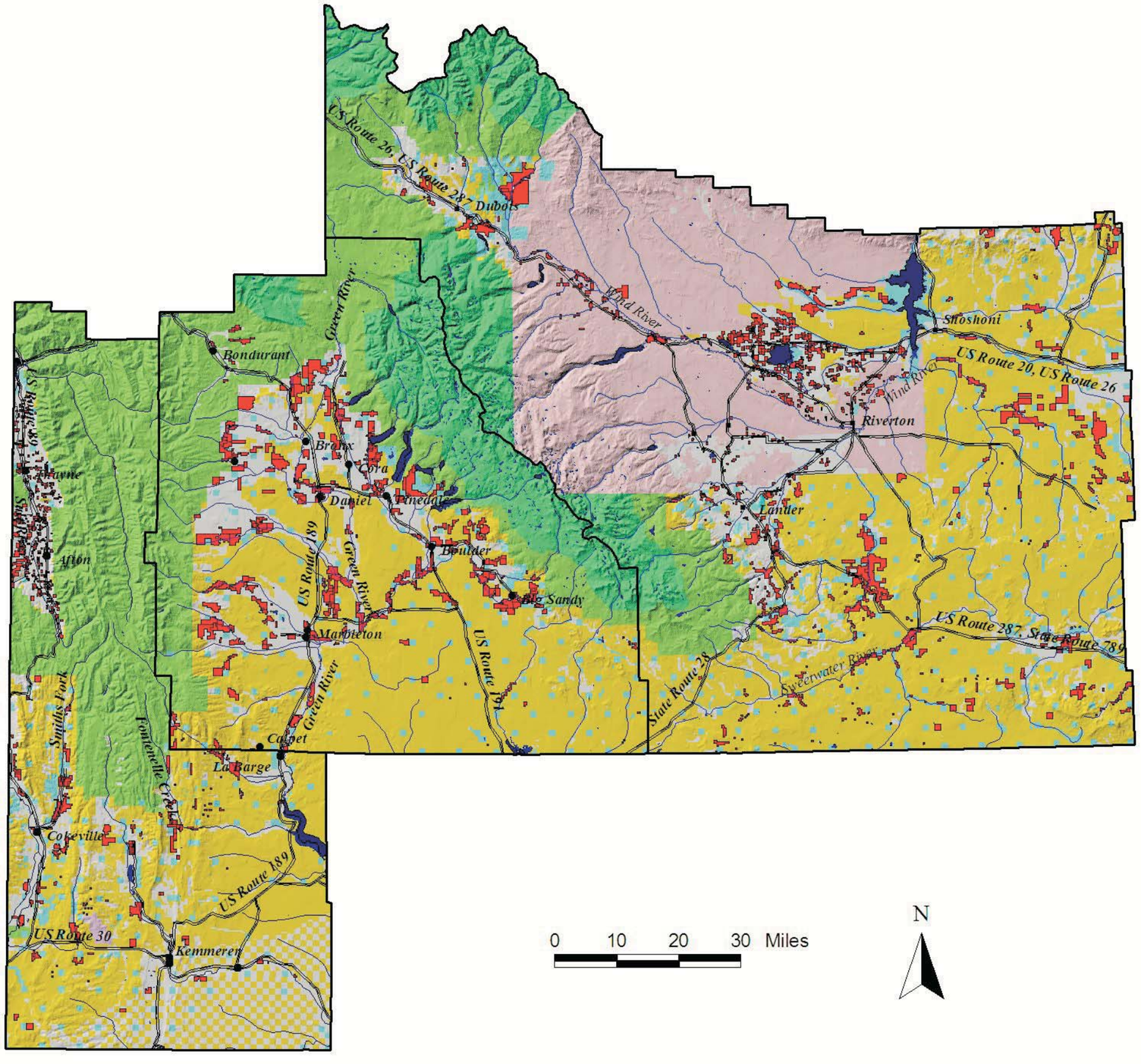
Public Land

- Bureau of Land Management
- U.S. Forest Service
- U.S.F.S. Wilderness
- State Land
- National Park Service
- Other Federal Land
- Native American Land

Agricultural Land Sales 1990 - 2001

Lincoln, Sublette and Fremont Counties, Wyoming





Land Sales

(1990 - 2001)

Land Status

- Private Land
- Bureau of Land Management
- U.S. Forest Service
- U.S.F.S. Wilderness
- State Land
- National Park Service
- Other Federal Land
- Native American Land
- Water