



Too Many Homes on the Range

The impact of rural sprawl on ranching and habitat





Bringing in the cattle from Shale Rock, Lake County

About the Project

Funded by the William and Flora Hewlett Foundation, 1000 Friends of Oregon worked with ranchers, environmentalists, land use planners and others over the course of the past year to explore the impact of exurban and ranchette development on both ranches and plant and animal habitat in Eastern Oregon.

1000 Friends staff conducted dozens of interviews, traveling to ranches in Wheeler, Grant, Malheur, Harney, Lake, Klamath, and Crook counties, and held meetings with environmental organizations and land trusts to better understand the impacts, trends, and tools that could be used to protect these ranchlands from rural sprawl.

A primary goal of the project was to begin a dialogue between ranchers and environmentalists about the impact of rural sprawl. And so in April 2004, 1000 Friends convened a roundtable discussion of ranchers, leaders of environmental organizations, and policymakers in Prineville, home to Central Oregon's largest ranching community. In response to a suggestion to bring these rural issues to urban Oregon, we sponsored a public forum in Portland in May 2004, co-hosted by the Oregon Department of Agriculture and Defenders of Wildlife.

This report reflects what we learned along the way. 1000 Friends is extremely grateful to the ranching families who opened up their ranches and homes to us and to the environmental organizations and individuals that shared their expertise. This project also benefited greatly from the participation and knowledge of several state and federal agencies and land trusts. Finally, we thank Dr. Richard Knight, Colorado State University for his contributions to this project.

When 1000 Friends started this project we wondered if there was an interest in beginning a new conversation in Oregon, one that could seek to enhance and protect the viability of Oregon's family ranches, and to improve and protect ecological biodiversity and habitat. As a land use planning organization, we wondered if there was an improved role our state's pioneering land use system could play. By the project's end, we were convinced there is such an interest, and will continue to work collaboratively to create opportunities for dialogue and to find practical solutions to what we view as a common threat to the viability of both ranching and habitat — rural sprawl.

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Introduction

The American West is known as a land of wide-open spaces and inspiring landscapes with mountains, deserts, and clean air. For more than a century, these landscapes have called people west.

Today rural areas across the West are undergoing a transition in demography, economics, and ecosystems as more residential development is built outside of cities, suburbs, and towns. In western states, the footprint of “exurban”¹ development is now 5–10 times larger than the urban footprint. Low-density exurban and “ranchette”² development is often interspersed with working farms and ranches or near formerly remote locations along public-private ownership boundaries. As exurban and ranchette development replaces working ranches, ranchers and wildlife are driven out and displaced.

Public discourse on the extent and cause of the problem of declining habitat tends to emphasize spectacular cases of environmental damage and demonize ranchers and others who make a living on the land. The result is growing mistrust between various groups of stakeholders.

But perhaps the prevailing assumption that ranchers and environmentalists are necessarily at odds is flawed. In many respects wildlife and ranchers need the same kind of landscape. Under current conditions, both are at risk.

A growing body of research suggests that ranches can and do provide ecological benefits. Studies conducted in Colorado, Texas, and Wyoming show that ranches provide large, unfragmented landscapes that many plants and

Coupled with other pressures on ranching, the growth of residential development in ranching areas presents a significant threat to the future of ranching families, and to many of the plants and wildlife that depend on large unfragmented landscapes.

animals need to thrive. In contrast, low-density exurban and ranchette development breaks these landscapes apart, putting biodiversity, habitat, and ecological processes at risk. For example, in Texas, the demise of ranches is related to the loss of wildlife like the Northern Bobwhite Quail, whose population declined by 66 percent between 1982–1999.³



Ranchers and environmentalists find common solutions.

Ranching also is an economically fragile operation in the modern world. Ranches in the West require tens of thousands of acres to be economically viable. They need a local agricultural economy and infrastructure that supports ranching. They need protection from conflicts, such as neighbors who object to cattle drives down local roads or residents who leave gates open and damage fences.

Oregon’s statewide land use planning program places a premium on protecting our agricultural lands. This means that ranches are less at risk of ranchette development than in other states. Even in Oregon, however, the perceived “low-quality” of ranchlands has made them more vulnerable to sprawling rural development, as Oregon has prioritized the protection of croplands at the expense of rangelands. Coupled with other pressures on ranching, the growth of residential development in ranching areas presents a significant threat to the future of ranching families, and to many of the plants and wildlife that depend on large unfragmented landscapes. In just nine years, 94,000 acres of farm and ranchland in Eastern Oregon⁴ were affected by nonfarm and ranchette development.⁵

In this report we will describe key research, land use development patterns in Eastern Oregon, and a variety of solutions — some already in place and others that could be adopted — to protect both ranchlands and plant and animal habitat.

Oregon's Landmark Agricultural Land Protection Program

The preservation of a maximum amount of the limited supply of agricultural land is necessary to the conservation of the state's economic resources and the preservation of such land in large blocks is necessary in maintaining the agricultural economy of the state and for the assurance of the adequate, healthful and nutritious food for the people of this state and nation.

— Oregon's Agricultural Land Use Policy, ORS 214.243

Protecting farm and ranch lands from incompatible development is a fundamental component of Oregon's pioneering land use planning system. By protecting the agricultural land base, this policy supports local economies, our cultural heritage, and the broad landscapes necessary for plant and animal habitat.

Table 1

Oregon's Top Five Agricultural Products in 2003	
Greenhouse and nursery products	\$778 million
Cattle and calves	\$430 million
Hay	\$366 million
Grass seed	\$292 million
Milk	\$272 million

Indeed, cattle and calves are the second-largest agricultural product in Oregon, grossing \$430 million annually.⁶ The \$430 million generated by the sale of cattle and calves produces about twice that in gross economic activity, and still forms the economic backbone in many Eastern Oregon counties.⁷ These private ranchlands are also home to a wide variety of plant and animal species, some of which are threatened or endangered. According to the Natural Resources Conservation Service, over 40 percent of the wildlife in Oregon is found on non-federal lands.

"Exclusive Farm Use" Zoning

The state's agricultural land use policy is implemented through Exclusive Farm Use (EFU) zones that protect agricultural lands by limiting the allowed uses and development to agriculture and related activities.⁸ Strip-malls and subdivisions are prohibited, while dairies, ranches, farmhouses and farm stands are allowed.⁹

There are many reasons to limit the types of activities and facilities allowed in EFU zones. Not unlike a factory, farming is an industrial enterprise that frequently conflicts with rural residences. While houses and hobby farms may blend into the countryside, they take land out of agricultural production and contribute little or nothing to the state's agricultural economy.¹⁰ New development can also cause operational conflicts for ranchers. Neighbors' complaints about noise and odor, pets harassing livestock, and vandalism and trespass all interfere with ranching.

Oregon's agricultural land use policy also emphasizes the protection of farm and ranch lands in large blocks. To implement that policy, the Legislature adopted a statewide minimum lot size of 80 acres for farmland and 160 acres for ranchlands. Based on local or regional agricultural attributes, several counties have established larger minimum lot sizes to better protect the agricultural land base. Other counties have had smaller minimum lot sizes approved by the Land Conservation and Development Commission where they have demonstrated that the smaller size promotes commercial scale agricultural operations.

Special Farm Tax Assessment

Land in agricultural use, within EFU zones, is assessed for its value for farming and ranching, rather than for residential or commercial development. Taxing land at current agricultural use valuation limits speculative impacts on land values so that agricultural land remains affordable for farmers and ranchers. If the land is taken out of agricultural production, has a non-farm dwelling approved on it, or is rezoned, the owners must pay the county up to 10 years' worth of the difference between the farm use value and the market value for each year under special assessment. While studies and Oregon's past experience demonstrate that such preferential tax incentives do not alone protect agricultural lands, taken together with comprehensive planning and zoning, they are an important factor in the economic viability of farming and ranching.¹¹

Urban Growth Boundaries

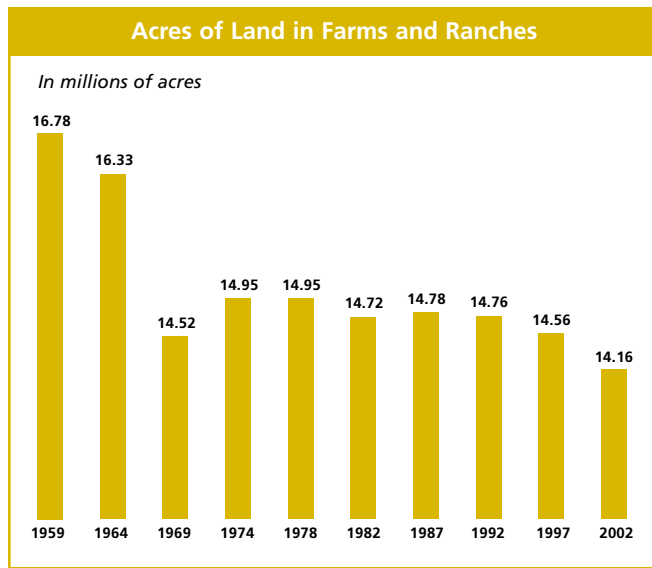
EFU zoning is reinforced by urban growth boundaries (UGBs), planned and identified boundaries inside which urbanization is allowed. Under Oregon's land use planning program, every incorporated city is required to have a UGB. Because they rein in urban development – such as shopping malls, convention centers, manufacturing plants, and residential subdivisions – UGBs help prevent unplanned urban sprawl from consuming agricultural lands.

Oregon's Agricultural Land Base

Today, nearly 15.5 million acres are zoned for Exclusive Farm Use, of which more than 13 million acres are east of the Cascades. The 2002 Census of Agriculture reports 14.2 million acres of land in some level of agricultural use in Eastern Oregon, 400,000 less than in 1997¹² (See Figure 1).

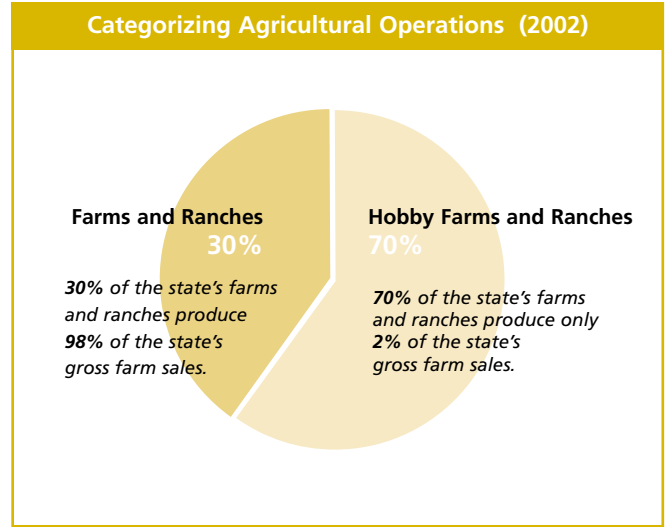
While the number of acres in production is decreasing, the number of "farms" and "ranches" has grown. Between 1982 and 2002, the number of farms increased by 20 percent, from 9,870 to a little more than 11,900.¹³

Figure 1



Includes all census farms

Figure 2



However, many of the "farms" and "ranches" reported by the Census of Agriculture are hobby operations. This is because Census of Agriculture defines a "farm" as any place capable of producing \$1,000 or more in gross sales. As a result, this definition includes hobby farmers – people that choose farming for lifestyle rather than commercial purposes.¹⁴ In contrast, the Oregon Department of Agriculture (ODA) classifies operations generating less than \$10,000 as "hobby farms" and includes only those farms generating more than \$50,000 in gross annual income as "commercial farms."¹⁵ Figure 2 illustrates the relationship between hobby farms, and working farms and ranches in Eastern Oregon. For purposes of this report, we use the ODA classifications, and unless otherwise noted do not include hobby operations within the meaning of a farm or ranch.

Losses Still Occur

Despite Oregon's agricultural protection program, the state continues to lose farm and ranch land at an alarming rate. These losses are particularly acute in Eastern Oregon, where the majority of the state's ranching operations are located. As discussed later in this report, the consequences are great, both to the family ranches and plant and animal habitat.

PROTECTING THE FAMILY RANCH

Aspen Valley Ranch, Crook County

Signed into law by President Lincoln, the 1862 Homestead Act forever changed the West. Under this act, over 270 million acres of public land (about 10% of the entire United States) were turned over to private citizens. After five years of homesteading, the settlers could lay claim to a 160-acre parcel. But in the arid West — even then — 160 acres was far too few acres to sustain a ranch, economically or environmentally.

Aspen Valley Ranch, in Crook County, is part of this homesteading history. Stretching from the banks of the Crooked River up the slopes of the Maury Mountains, the 18,000-acre ranch was pieced together over the years from many different homesteads. Some of the old homestead cabins can still be found on Aspen Valley Ranch, others are now “in-holdings” within the ranch.

Today, when Jim Wood looks across the ridge toward the Riverside Ranch Subdivision, he knows how much more he and his family could lose.

In 1996, looking to get out of the timber business and into real estate development, a timber company on the eastern boundary of Aspen Valley Ranch proposed to subdivide their 2,000 acres of land and build vacation homes. Fortunately, Oregon's land use planning laws prohibited subdivisions of ranch and forest lands, and the Wood family was able to protect their ranch and stay in business.

“Without Oregon's land use planning program, Aspen Valley Ranch probably wouldn't be here,” says Jim Wood. “First of all, it would have been much harder to put together, and secondly, we would have been driven out by vacation homes and hunting lodges.”

“Without Oregon's land use planning program, Aspen Valley Ranch probably wouldn't be here...we would have been driven out by vacation homes and hunting lodges.”

—Jim Wood



Losing Farm and Ranch Lands to Development, Piece by Piece

Most people assume that agricultural lands are lost primarily due to the expansion of urban areas. It certainly is true that Oregon loses agricultural land to urban expansion — at a rate of about 870 acres per year.¹⁶ Less known are the additional 700 acres of agricultural land lost each year as farm and ranch lands are rezoned for rural development (rural residential, rural commercial, rural industrial) outside of urban growth boundaries.¹⁷

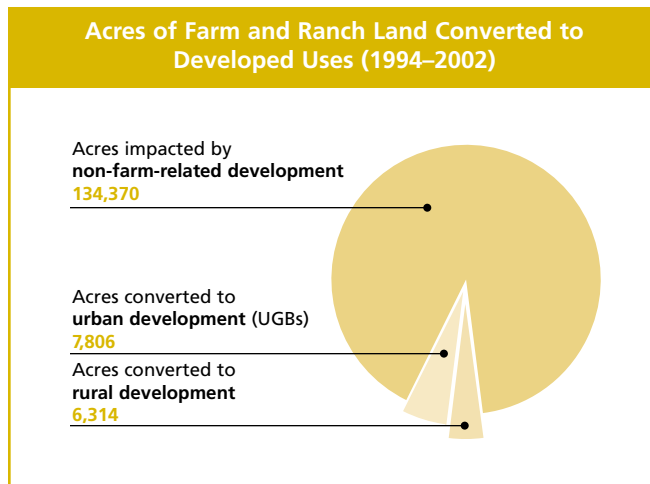
However, both of these effects are overshadowed by ranchettes, rural homesites, and vacation homes built on farm and ranch lands. Every year, approximately 15,000 acres of farm and ranch lands are impacted by new resi-

“Uncontrolled development fragments ranchlands, creating social and ecological edges that eventually diminish the rangeland ecosystem.” — Journal of Range Management (March 1996)

dential development unrelated to agricultural uses in Oregon.¹⁸ This is 10 times the number of acres rezoned for urban or rural development, combined. (See Figure 3)

While these lands remain zoned for agricultural use (EFU), such development frequently takes land out of production, and fragments the agricultural land base. In cases where land is not immediately taken out of production, it is at risk of conversion as the land is resold (which happens with greater frequency by non-farmers and non-ranchers). In addition to the impact on ranching, rural sprawl “fragments ranchlands, creating social and ecological edges that eventually diminish the rangeland ecosystem.”¹⁹

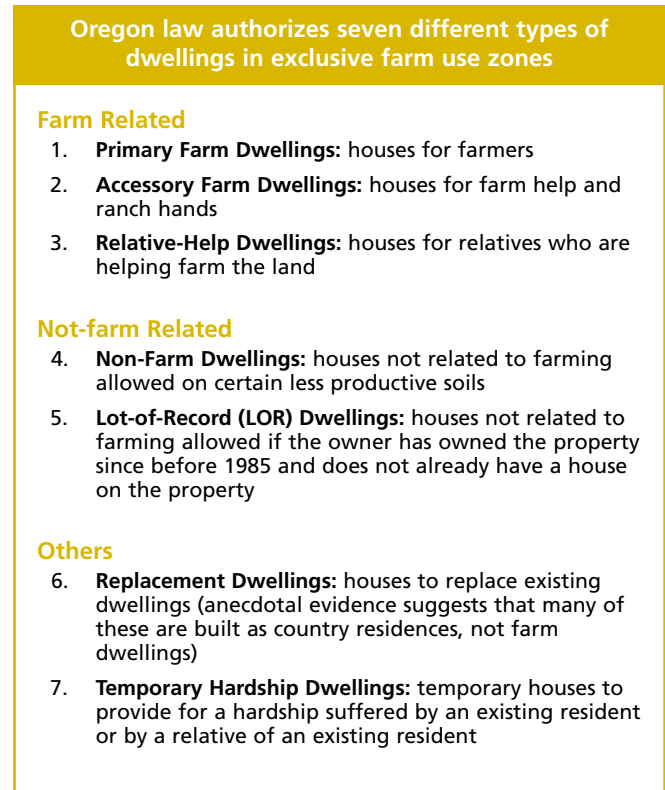
Figure 3



How is this happening in Oregon?

Although Oregon’s land use program is aimed at protecting all agricultural lands — not just “prime” farmland — ranchlands receive less protection than land for row crops, orchards, and dairies. This is because many state policies distinguish between “high-value” farmland (soils of higher soil classes and productivity) and other agricultural lands, with more opportunities for nonfarm dwellings and certain nonfarm uses on lands with lower soil class ratings.²⁰ Oregon law currently authorizes seven different types of dwellings in EFU zones, only three of which are related to farming and ranching. (See Figure 4).

Figure 4

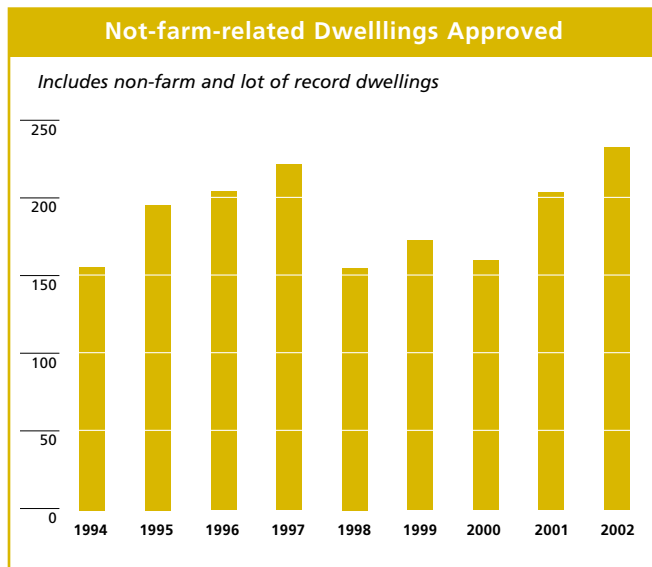


The Oregon Legislature recognized the risks of dwellings in farming and ranching areas:

“The Legislative Assembly declares that the creation of small parcels for nonfarm dwellings in exclusive farm use zones introduces potential conflicts into commercial agricultural areas and allows a limited number of nonfarm dwellings in exclusive farm use zones.”²¹

But the “limited number” of nonfarm dwellings promised by the Legislative Assembly is growing with no end in sight, in part due to a 2001 law that allows an owner to create new nonfarm parcels and build nonfarm dwellings.²² (See Figure 5). Moreover, these new nonfarm parcels are not required to meet the minimum lot size standards established by each county, breaking apart the large contiguous landscapes necessary to support family ranches, and plant and animal habitat.

Figure 5



(1994–2002)

Farm and ranch lands are also converted to non-residential uses. Over the years, the number of uses authorized in EFU zones has expanded to more than 50, including motocross racetracks, golf courses, destination resorts, solid waste disposal sites, and RV campgrounds.²³ As with residential development, these uses not only take land out of agricultural production, but also conflict with farming and ranching, and the protection of plant and animal habitat.

Over time, the cumulative impact of residential, recreational, and other development puts the stability of the agricultural land base at risk. “From the standpoint of land use planning, the Sprague River Valley has been surrounded. Development is eating us up, all around this valley people are moving in every week. They are moving in to what used to be deer winter range, it’s happening all the time,” explains Becky Hyde, a second-generation rancher in Klamath County.²⁴

Eastern Oregon ranch lands impacted by rural residential development

Eastern Oregon is home to only 13 percent of Oregonians, but 75% of the approvals for nonfarm dwellings in 2002 were in this area.²⁵ In fact, the two Oregon counties that approved the highest number of nonfarm dwellings in 2002 – Crook and Deschutes – are in Eastern Oregon.²⁶

To better understand the development patterns and impact of exurban and ranchette development in Eastern Oregon ranching areas, 1000 Friends of Oregon analyzed and mapped data collected by the Oregon Department of Land Conservation and Development. Notably, new residential development on farm and ranch lands is not limited to areas near urban centers, such as Bend. Rather, scattered throughout rural Oregon are an increasing number of ranchettes, vacation homes, and nonfarm dwellings, on ranchlands and in areas of ecological importance. (See Maps 1 and 2: Residential Development on Eastern Oregon Agricultural Lands).²⁷

The results of the mapping and data analysis illustrate both the quantity of development in farm and ranch zones and where that development is occurring. Between 1994–2002, nearly 3,700 dwellings were approved on farm and ranch lands in Eastern Oregon. Of these, about half were nonfarm and lot-of-record dwellings (including ranchettes) approved on 94,000 acres.²⁸ While the number

Table 2

Not-farm-related Dwellings Approved	
Top five counties	Dwellings not related to agriculture
Deschutes	482
Crook	261
Lake	192
Klamath	126
Harney	103

(1994–2002)

Table 3

Acres at Risk Due to Not-farm-related Residential Development	
Top five counties	Acres at Risk
Harney	17,436
Deschutes	15,395
Morrow	10,790
Baker	7,515
Crook	6,837

(1994–2002)

of new dwellings may seem relatively small, it is important to note that this development reports only new dwellings, and does not account for the number of houses built before 1994. Nor does it account for the loss of ranchland due to the development of destination resorts, RV campgrounds or other non-agricultural uses allowed in EFU zones. Indeed, while the loss of farm and ranch lands has demonstrably declined since the implementation of Oregon’s land use program, as shown in Figure 1, dwelling density continues to increase within agricultural zones.

Crook County

In Crook County, 472 new dwellings on EFU lands were approved between 1994–2002, the majority of which were unrelated to farming or ranching.²⁹ Another 19 percent were approved as replacement dwellings. While these replacement dwellings are intended to replace existing dwellings, ranchers report that these new dwellings frequently replace smaller farmhouses or homestead cabins with much larger trophy homes and vacation retreats unrelated to agricultural use. For example, a review of replacement dwellings approved east of the Cascades showed that the median parcel size was 39 acres – far too small to support commercial farming or ranching.³⁰

The Census of Agriculture bears out this data on the ground. Between 1997–2002, the number of hobby farms and ranchettes in Crook County increased by nearly 20 percent, but accounted for only three percent of the value of gross agricultural sales.³¹ While there are more hobby farms and ranchettes, they contribute little to overall agricultural production, and fragment the remaining farm and ranch land base.

Lake County

In south central Oregon, Lake County also faces an increase in the number of nonfarm dwellings. Between 1994–2002, the county approved 268 new dwellings. Of these, 77 percent were nonfarm dwellings.³²

Such development concerns Bev and Jack Sparrowk, Lake County ranchers. “Even though we seem to be in the Oregon outback, you can see development is encroaching, and we were pretty concerned about it,” explains Bev Sparrowk.³³ Today, the Sparrowk’s ranch is permanently protected with an agricultural conservation easement, and they can continue ranching without worry that the land will lose its agricultural roots. (*See related story, “Ranchers Helping Ranchers”*).



Recreationists, vacationers, and urban escapees are drawn to the scenic beauty and wide-open spaces of Eastern Oregon.

RANCHERS HELPING RANCHERS

Drew's Valley Ranch, Lake County

Although historically rich in agriculture, Oregon farms and ranchlands have been slipping away at significant rates. According to the American Farmland Trust, Oregon lost more than 350,000 acres of agricultural land between 1987 and 1997.

Prompted by challenges associated with economics, range management, estate planning, and the loss of ranchlands, the Oregon Rangeland Trust was formed as an independent organization by members of the Oregon Cattlemen's Association. Modeled after a similar trust in California, the Oregon Rangeland Trust is governed by ranchers who have firsthand knowledge of ranching practices, challenges, and resource needs.

"One of the things that is different in Oregon, as compared to Colorado, is that development is less of a concern because of the land use laws that we do have," said ORT Board member John Lillcrop. "That, coupled with the fact that the sources available to fund [agricultural] easements in Oregon don't focus as much on the development side as they do the conservation side, means that we have a different thrust here than you see in other states."

Drew's Valley Ranch is a good example of matching conservation values with protecting the land base for ranching. Despite their ranch's current success, Bev and Jack Sparrowk are working to ensure their land's permanent protection — something they realize can no longer be taken for granted. "It is our responsibility and privilege to help make sure this beautiful landscape and its agricultural heritage are not destroyed," explains Jack Sparrowk.

Working with the Trust for Public Lands, the Sparrowks developed and sold an agricultural conservation easement on their ranch. The easement will keep the property in the Sparrowk's hands and allow the cattle operation to remain in full production, while helping to restore and protect the 8—10 mile riparian corridor and wetland habitat, lake, and eight creeks located on the ranch. The easement will also incorporate long-term management plans to ensure habitat protection and sustain the property as a working ranch. Funding for the easement was provided by the USDA Natural Resources Conservation Service

"It is our responsibility and privilege to help make sure this beautiful landscape and its agricultural heritage are not destroyed."

—Jack Sparrowk

(NRCS) and the Oregon Watershed Enhancement Board, together with a donation from the Sparrowks.

In July 2004, the conservation easement was transferred to the Oregon Rangeland Trust for long-term management. "Protecting Drew's Valley helps sustain our economic and agriculture base while protecting the natural beauty of the place we call home," said ORT Board President Larry Rew, noting that this project is the first of what they hope will be a series of such efforts in Oregon.



Consequences: The Impact of Development on Family Ranches

Every minute, the United States loses two acres of farm and ranch lands to residential and other developed uses.³⁴ Over the next generation, estimates are that between 50–75 percent of ranches in the West will change ownership, many to nontraditional ranch uses.³⁵ Low-density rural sprawl threatens 11 percent of the region’s prime ranchland in the Rocky Mountain West.³⁶ In Colorado alone, agricultural lands are converted to commercial and residential development at a rate of 271,000 acres per year.³⁷ While Oregon loses less land comparatively – 36,000 acres per year³⁸ – many ranchers already feel the impacts of rural sprawl.

“Every time someone moves into our area and puts up another house, it is a kind of warning sign. Our isolation gives us a great amount of value for ranching. But, our ability to sustain that ranch is eroded every time there is a new house.”

— Richard Bradbury, Jr., 78-Bar Ranch, Lake County.

For ranchers struggling to make ends meet, exurban and ranchette development means the fragmentation of the ranchland base, conflicts between residential uses and ranching, increases in the costs of land, and competition for scarce resources such as water.

Land fragmentation

One of the first and most obvious impacts of exurban and ranchette development is the fragmentation of the land base, and the direct loss of agricultural land available for ranching. Smaller parcels break up the large contiguous blocks of land necessary for ranchers to achieve the economies of scale required to hold down production costs and compete in the marketplace. New rural ranchette development often increases the costs of production as ranchers are forced to address the conflicts that arise between ranching and non-ranching residents. According to a 2002 California study, ranching is particularly fragile.³⁹

As Crook County rancher Jim Wood reminds us, “Rural residential [ranchette] development is not always in 5 to 10-acre parcels. It can be much larger, even in 1,500-acre parcels, and still have an impact on your ranch.”⁴⁰

Critical mass

A viable agricultural economy requires access to a variety of services and suppliers, including feed stores, equipment dealers, supply companies, transportation providers, and veterinarians, as well as marketers and processors. In turn, these businesses require a critical mass of agricultural producers to remain economically viable. However, as the amount of ranchland in an area declines and becomes fragmented by conversion to other uses, too few ranches are left to support these businesses. Where agricultural businesses do remain, many begin to carry higher-priced items for horses and other activities favored by rural residents. In the end, the required services, suppliers, and processors generally move out of the area.⁴¹

Agricultural operations are also interdependent, relying on a shared labor pool and often sharing equipment. To date, research specific to ranching has not been conducted, but a recent study in Polk County explored the relationship between neighboring farmers and non-farmers, and developed a model to quantify such “neighbor interactions.” That model estimated that for every acre lost to development, the total expenses of the remaining agricultural operations in the area would increase by



Cattle and construction collide in Klamath County.

\$15. Put differently, when farmland is converted to other uses, it costs the remaining farmers \$15/acre in increased operating expenses.⁴²

Providing a critical mass of agricultural land is essential to maintaining the viability of the agricultural economy. “As production levels decline below a given threshold, costs will rise, and support businesses will close or relocate. If [these businesses] exit the region, the closest input supplier may not only be farther away for a farmer but may also charge higher prices for inputs, veterinarian services, and equipment repairs. Similarly, if the nearest processor goes out of business because it cannot cover its fixed costs due to an inefficient supply of a commodity to process as acreage decreases, the nearest outlet for the product could involve additional transportation costs and/or a lower purchase price, either raising farmers’ production costs or decreasing their revenue.⁴³ Different agricultural sectors will require different numbers of acres, production, or sales to remain viable, but the principle remains the same: if an area loses the needed size, farmers and ranchers are forced to shift to other crops or livestock options to remain viable.

Maintaining a critical mass of ranchland is particularly significant for family ranches in Eastern Oregon. Ranchers there operate in the high desert and require tens of thousands of acres to survive economically. Due to the soil and climate conditions for Oregon ranchers, diversifying out of cattle and into another agricultural product is not a realistic option. As a result, ranchers are doubly vulnerable when residential development reaches their ranch.

Furthermore, “as expenses, population density, total housing units, and percent unemployment increase, the rate of farm loss accelerates.”⁴⁴ Decreases in other natural resource-based employment also lead to a loss of agriculture, as does proximity to a metropolitan or fast growing area.⁴⁵ For example, forest and agricultural areas less than one-quarter mile from low-density residential areas were almost fifty times more likely to be developed than areas further than one mile from low-density residential areas.⁴⁶ This is a significant issue for Eastern Oregon where 1.3 million acres of privately owned resource lands are within one mile of low-density residential or urban areas.⁴⁷

Conflicts

The intersection between sprawling development and ranching can cause multiple conflicts, from dogs harassing livestock, to neighbors complaining about noises or



Ranching and development often compete for the same infrastructure.

smells from common agricultural practices, to road congestion caused by slow-moving livestock or agricultural equipment. Many times ranchers are forced to spend more money to add fencing, change the time of day they

Oregon’s farms and ranches are largely family-run businesses, often stretching back several generations. Nearly 99% of all the farms and ranches reporting to the Census of Agriculture are owned by families or individuals, or are held in partnerships and family corporations, as are 93% of the agricultural lands.

Source: 2002 Oregon Census of Agriculture-State Data, Table 55.

operate, alter cattle drive routes, or abandon certain activities altogether to avoid conflicts with non-ranchers. Sometimes ranching cannot withstand the landscape shift.

From a rancher's perspective, these new residents — often unfamiliar with ranching — pose a risk to their ranching operation. Gates left open may seem like a small mistake to a homeowner, but can spell disaster for a rancher. The family dog may take a dislike to calves and harass or injure them. New residents may resort to calling the county sheriff or other enforcement personnel because they are unaware that the stray cow is not an offense but a side effect of ranching. Even livestock death from recreational shooting or poaching is a real problem.

“What may seem like minor interactions are very costly to my ranch, in terms of time, employees, and money,” explains Jim Wood, Aspen Valley Ranch. “They are also very expensive to taxpayers. The Department of State Lands, the water master, the brand inspector, these are all state employees who are forced to come out and inspect because of open gates and neighbor complaints.”⁴⁸

Residents unfamiliar with ranching are also often unaware of the serious and growing problem of invasive weeds. For example, spotted knapweed is a persistent and serious threat to grazing lands, but new residents in Eastern Oregon have been known to plant it on purpose because the blooms are like blue bachelor buttons, a

Coupled with other pressures on ranching, the growth of residential development in ranching areas presents a significant threat to the future of ranching families, and to many of the plants and wildlife that depend on large unfragmented landscapes.

different species. “In my experience, a lot of non-native species are introduced by non-farm uses, particularly rural residential uses,” notes Jim Johnson, Oregon Department of Agriculture. “The ranchers have to deal with weeds as they spread onto their ranches; that’s another increased cost.”⁴⁹

Like many states, Oregon has a right-to-farm law, which protects commercial agricultural producers from nuisance suits.⁵⁰ However, right-to-farm laws do not protect ranchers from all conflicts — or the costs associated with those conflicts — from ranchette development.

“While right-to-farm protects a [farmer or rancher] from nuisance suits, it does not address land use conflicts with non-farm uses and their impacts on farmers,” explains ODA economist Brent Searle. “Right-to-farm’s limitation is that it cannot protect farms and ranches



Even in remote areas, parcels are broken off for sale to hobby ranchers and urban escapees.

from the conflicts that are generated by non-farm uses — which demonstrates the importance of zoning and how the two laws work together.”⁵¹

Land speculation

Fragmentation also drives up land values. Several studies have demonstrated that higher prices for hobby farms and ranchettes can have a strong upward influence on the price of nearby land,⁵² even where the land is zoned for agriculture.⁵³ It may not take much change to affect land prices. According to one study, “The sale of land at prices above those that had prevailed in an area will tend to increase the value of all land since prices convey information and owners will therefore raise their expectations. Thus, even if only relatively small amounts of land are sold for nonagricultural uses or to nonagricultural purchasers, land values in the affected are will tend to rise.”⁵⁴

In many cases, farmers and ranchers are competing with the urbanites interested in acquiring land for homesites, vacation cabins, or ranchettes. This puts agriculture at a competitive disadvantage since residential and vacation buyers are typically more willing and able to pay a higher price per acre, which in turn drives up land costs for agricultural uses. A recent study of Texas agricultural land found that 80 percent of buyers said that non-agricultural uses, like hunting, fishing and other recreational uses were “very important” reasons for their land

purchase. As a result, prices are driven higher by the property’s non-ranching scenic and recreational values.⁵⁵

Land values are increasing in Eastern Oregon. In Baker County, the average per acre estimated market value of land and buildings increased 92 percent between 1987–2002. Significant increases occurred in Crook (111%), Wheeler (119%), and Deschutes (326%) counties during this period.⁵⁶

Even where land prices are not escalating dramatically, there is a more subtle form of speculation known as “the impermanence syndrome.”

“In this case, speculation may occur in the sense that farm owners actively seek investors in or developers for their land, curtail investments in their farms, or even cease farming operations while in search of a suitable buyer.⁵⁷ In other cases, the speculation may also be “passive” in that the farmer keeps in the back of his or her mind the appreciating value of the land so that at retirement he or she can count on ‘cashing in’ on the farm.”⁵⁸

Taken together, higher per acre land prices and the fragmentation of land holdings limits the ability of commercial ranchers to expand their operations and reduces the likelihood that these parcels can be consolidated into commercial agricultural units. As land values increase, some ranchers will also lose their leases.



Ranching remains an economic force in Eastern Oregon, and is the base for many rural economies.

The costs of community services

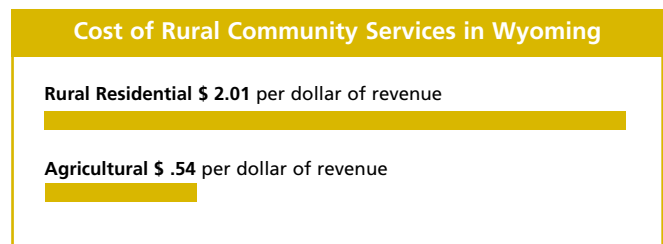
In a time of declining tax revenues, county leaders may actually encourage development in the country, outside towns and communities, believing that property taxes will improve the county budget. However, studies analyzing such development trends show that this is not the case. Even if receipts from property taxes do increase (which is

Taken together, higher per acre land prices and the fragmentation of land holdings limits the ability of commercial ranchers to expand their operations and reduces the likelihood that these parcels can be consolidated into commercial agricultural units.

not a given, since ex-urban development may represent a “shift” of development that would have otherwise occurred inside towns), so do the costs of serving those properties.

As of 2002, the American Farmland Trust had conducted nearly 100 such studies around the United States, and every one has concluded that residential development costs local governments and taxpayers more than the revenue it generates.⁵⁹ In contrast to development in towns and communities, exurban and ranchette development is scattered across the landscape, making the cost per dwelling quite high for essential services such as roads, electricity, schools, fire, and police protection.

Figure 6



For example, in Hays County, Texas, the American Farmland Trust found that for every dollar generated by open and agricultural lands, only 33 cents in services was required, leaving 67 cents on the dollar as net gain to the county. In contrast, for every dollar in tax revenues generated by residential land uses, \$1.26 in services was required – or a loss of 26 cents for every dollar taken in from residential development.⁶⁰ Similarly, in Bandera County, Texas, the American Farmland Trust found that agricultural lands demanded only \$0.26 in services for every tax dollar paid and residential uses demanded \$1.10



Comprehensive land use planning is designed to protect ranchlands for future generations.

in services for each tax dollar.⁶¹ The cost of community services would have been much higher if not for the contribution of \$12 million in state money which offset the county's education expenses in this particular case.

Research in Wyoming found even more striking differences: the cost per dollar of tax revenue for lands in

"I did a calculation — we were getting \$800 a year in property taxes from the properties abutting the road, and spending \$7,000 to maintain the road once a year,"

—John Clarke, former commissioner, Larimer County, Colorado⁶⁴

agricultural production averaged \$0.54 statewide. The cost per dollar of revenue for rural residential lands was \$2.01, even higher than the results in American Farmland Trust studies.⁶² (See Figure 6) This is because the Wyoming study differentiated between development inside and outside town limits, reflecting only the costs of exurban and ranchette development. Projecting future costs, a related Wyoming study estimated that converting⁶² acres of agricultural land to ex-urban and ranchette development costs \$1.13 in county government and school expenses for every dollar of revenue.⁶³

The costs are high

Whether they want to or not, ranchers end up subsidizing ranchettes, sometimes at the risk of harming their own ranch. These costs can be easily quantified, like a higher property tax bill, or they can be hidden, like the costs of additional fencing and lost livestock. Conversion of agricultural lands reverberates beyond its boundaries, negatively impacting remaining farms and ranches. Moreover, continued fragmentation, conflicts over agricultural operations, and loss of the necessary infrastructure and support services may actually accelerate the decisions of remaining ranchers to abandon ranching or leave the area.



Increasing development threatens family ranches and habitat.

LUCKY CREEK RANCH

Beverly and Tom Wolverton

In 1913, Beverly Wolverton's grandfather came to Crook County to homestead. He built a home for his wife and children and started a legacy of his own. In 1935, he was shot and killed in a dispute over his neighbor's poor fencing practices.

Beverly and Tom Wolverton are ranching the same homestead today, but they are facing a different threat: hobby ranchers and urban escapees. Their ranch, Lucky Creek Ranch, has been cut in two by a road leading to a rural subdivision called Riverside Ranch, one of the "sagebrush subdivisions" Governor McCall referred to when he called for statewide land use planning in 1973.

First homesteaded by Thomas Curl in 1902, the subdivision of Riverside Ranch began in the late 1960's, before the passage of SB 100. Originally planned for 270 homesites, the 1,700-acre subdivision is surrounded by Lucky Creek Ranch and public land managed by the Bureau of Land Management. The impacts are already felt, even though only a fraction of the lots have been developed.

The Wolvertons's land base has shrunk, the cattle herd has decreased from 250 to 140 head of cattle — all from conflicts with nonranching neighbors. Three bulls have been killed or injured by cars driving through their ranch. One bull's jaw was broken so that it could not eat or drink water. No one knows who did it, and no one has offered to pay. Calves disappear. One year the head of one of the Wolverton's cows was wrapped in plastic and left on their ranch.

The list of conflicts continues, including a stolen generator and barrel pump. Calves weaning in their corrals are harassed by dogs, lights of cars and houses, and people shooting porcupines. The calves are nervous and do not gain weight. "It is impossible to count all the costs over the years," says Beverly. "We just know they are high."

Oregon's land use laws are designed to prevent such conflicts, but the Riverside Ranch Subdivision was divided before those laws came into existence. Tom Wolverton knows what would have helped. "The one thing I would change, if I could, would be to put zoning laws into effect a few years earlier."

Beverly and Tom do not blame the residents at Riverside Ranch Subdivision for wanting to live there. They just wish their neighbors could understand the price to Lucky Creek Ranch. They see the future and worry. "Once this land is no longer farm or ranch country, it is gone forever," Tom notes. "There is no going back. This belongs to the people. No one wants to go from Prineville to Paulina and see nothing but houses. But that is what will happen unless we change what we are doing here."

The Wolvertons haven't sat by silently as this happened. They have spent thousands of dollars on attorneys' fees and come up empty-handed. Money that went to lawyers didn't go for repairs or animals. The recent drought, beef prices, and high cost of land all have taken their toll.

The result? Lucky Creek Ranch is for sale. Whoever buys it will probably divide the land and sell it off. "It's hard to think of leaving this land after 90 years," Beverly says quietly, "but I don't see that we have any choice."



"Once this land is no longer farm or ranch country, it is gone forever. There is no going back."

—Tom Wolverton

Consequences: The Impact of Development on Habitat

When President George W. Bush was Governor of Texas, his Task Force on Conservation concluded that the fragmentation of family-owned farms and ranches posed the greatest single threat to wildlife habitat and the long-term viability of agriculture in Texas.⁶⁵ While public debate has often addressed the ecological impacts

“Even though high-elevation habitat may be in nature reserves, it is often not as productive habitat, and bird species that depend on low-elevation population sources suffer detrimental impacts due to rural residential development near hotspots.”

—*Conservation Biology* (August 2002)



Migration corridors and winter range for big game are critically important and often the easiest to displace.

of grazing practices in the West, the impact of habitat fragmentation has only recently become better understood. Fed by a growing body of research, there is increasing recognition that land fragmentation resulting from rural sprawl and ranchette development threatens wildlife and ecosystems by replacing critical habitat, disrupting wildlife corridors and ecosystems, and increasing the number and amount of invasive and non-native species.

Land fragmentation and habitat degradation

Land fragmentation caused by development — be it urban, suburban, exurban, or ranchette development — is closely linked to habitat degradation. While the public’s imagination has been captured by images of hunting whales to extinction, or damaging bald eagles with DDT, various studies have shown that the less photogenic problem of habitat degradation is a major threat to biodiversity, especially in the West. Various studies and reports have found that:

- Habitat degradation is a contributor in 85% of the 1,880 imperiled plant and animal species in the United States. Furthermore, conversion of private lands to

commercial and residential development is responsible for the decline of 35% of these species, and road construction and maintenance (often associated with such development) is almost as culpable.⁶⁶

- The top threat to endangered species is development, which affects 20% of endangered species, twice that of grazing.⁶⁷

- Uncontrolled growth, plagues the country, permanently fragmenting contiguous habitat into marginal pieces of land. Over two million acres are converted to development each year. Roads have an ecological impact on 20% of the U.S. landscape.⁶⁸

Upon reflection, this is not surprising. Historically, it has been easiest to protect lands that are less attractive for development, such as high-elevation public lands, yet valley bottoms, river areas, prairies and forestlands are often both attractive for development and the richest ecologically. In fact, private lands contain disproportionately high levels of biodiversity and habitat for rare species. As a result, working with these lands is key to protecting biodiversity. According to Steve Buttrick, Director of Stewardship at the Oregon office of The Nature Conservancy, “Across the U.S., the number one threat to biodiversity on areas The Nature Conservancy considered of significance was residential development.”⁶⁹

Exurban and ranchette development in ranching areas

One study in the Greater Yellowstone Ecosystem showed that while only 6.5% of native bird hotspots were located within nature reserves, 67% are within 10 miles (6km) of private lands, which tend to be located in low-elevation areas. Meanwhile, within private lands, rural residential development occurred disproportionately close to bird habitat, particularly those areas critical to many native bird species. Furthermore, the study suggests that low-elevation areas serve as population sources for native bird species, but become population sinks (loss areas) when those areas are subdivided for rural residential development. Subdivided areas were associated with increased rates of nest predation and parasitism by human-adapted species that benefit from development. As a result, even though high-elevation habitat may be in nature reserves, it is often not as productive habitat, and bird species that depend on low-elevation population sources suffer detrimental impacts due to rural residential development near hotspots.⁷⁰

Sprawling rural development damages the environment in a host of ways: by increasing non-native species, harming native plant and bird species, and damaging water supplies. The reasons for this are many and varied. Rural housing development brings new factors into an ecosystem. For example, birdfeeders attract non-native birds, house cats and dogs compete with other wildlife, human trash is consumed by wildlife, and invasive and non-native trees and plants are introduced intentionally and unintentionally, changing the plant ecosystem. Roads and trails related to development are also well recognized as corridors for the spread of noxious weeds.

A study in Pitkin County, Colorado corroborates the notion that the impact of development on native species, even at low densities, is significant. Rural residential areas were found to alter bird densities up to 600 feet from homes at the edge of developments. Human-adapted species (American robin and Black-billed magpie) were found in higher numbers within this distance, while

human-sensitive species (Blue-gray Gnatcatcher and Dusky Flycatcher) populations decreased. These findings led the researchers to suggest that when development — even at low densities — “borders wild or undisturbed lands, a buffer of up to [600 feet] around the development

“Ranchettes had the weediest flora, and the birds and carnivores you’d find in a suburban development.”

—Dr. Richard Knight



Large unbroken landscapes in the Oregon High Desert provide important native plant and animal habitat.

should be considered affected habitat.”⁷¹ Such a buffer has been described as a “zone of disturbance” that captures changes around homes and driveways including removal and alteration of native vegetation, introduction of exotic plant species, the presence of domestic pets, and increased human-wildlife conflicts.⁷²

The relationship between rural land use and the richness of native and non-native plant and animal species is also becoming better understood. A study in a Colorado watershed compared bird, predator, and plant biodiversity in sprawling areas with that in nature reserves and ranching areas.⁷³ Researchers found that rural residential developments had the most non-native plant species and supported the highest number of human-adapted bird species and domestic predators (dogs and cats) at the expense of native plant and bird species. According to

researcher Dr. Knight, ranchettes “had the weediest flora, and the birds and carnivores you’d find in a suburban development.”⁷⁴ Two of the species found only in rural developments, spotted knapweed and leafy spurge, are noxious weeds that threaten the ecological and economic value of rangeland ecosystems.⁷⁵

The same study found that ranches provided better habitat for native species than the nature reserves and

While more research is needed to better describe and quantify the impacts in Oregon, it is clear that a collaborative effort between ranchers and environmental organizations can change the future for these lands.



Over 40 percent of the wildlife in Oregon is found on non-federal lands, including private ranchlands.

significantly better plant and animal habitat than rural residential areas. Ranchlands contained only 11 non-native plant species, half as many as found in rural residential areas (23) and even less than that found in nature reserves (17). Furthermore, ranchlands showed higher native species richness in plant communities. These results suggest that ranches are important for protecting biodiversity and that future conservation efforts may require less reliance on creating new reserves and a greater focus on preventing the fragmentation of large parcels of privately owned lands.⁷⁶

Displacing wildlife and big game habitat

Researchers at Texas A&M have found that with land fragmentation, the amount of “improved” (non-native exotic) pasture increases. But improved pasture has little or no value to many native species, thus turning continuous habitat into a landscape of habitat islands and

checker squares. The decline of native animal species such as the Northern Bobwhite quail, Eastern Meadowlark, Bachman’s Sparrow, and Loggerhead Shrike have been attributed to such habitat islands and checker-boarded landscapes. In all, two-dozen species of grassland birds, plus many species of small mammals and other critters, are threatened by land fragmentation in Texas.⁷⁷

The Wyoming Stock Growers Agricultural Land Trust notes that fifty percent of the winter habitat for Wyoming’s major big game species is located on private land.⁷⁸

Without ranches, “the transition between wild lands and urban areas would be abrupt, leading to more clashes between wildlife and the residents of urban areas, and fragmentation of crucial wildlife habitat.”⁷⁹ In Oregon, migration corridors and winter range for big game, such as elk and mule deer, are critically important and are some of the easiest habitats to displace because they are seasonal. “Virtually all the herds are migratory, and as best we know have been migratory over their existence, in part because of weather. In the West, big game migrates from a summer range that is higher in elevation, to a lower elevation where there is more food and a

milder climate in winter,” explains Dr. Eric Fritzel, Oregon State University. Putting houses or any kind of barriers in a migratory route will change that migration.⁸⁰

The survival of ranches and habitat are related

The spread of rural housing unrelated to agriculture has been shown to be harmful to ranching and to habitat in studies conducted in Texas, Colorado, and the greater Yellowstone area. The conclusions from this research have implications for Oregon: many ranches contain important habitat, and rural residential, exurban, and ranchette development erodes the land base necessary for both habitat and ranching. From a conservation perspective, once parcels have been carved up for rural residential development, they can be “considered fragmented features of the landscape.”⁸¹ While more research is needed to better describe and quantify the impacts in Oregon, it is clear that a collaborative effort between ranchers and environmental organizations can change the future for these lands.

CREATING SUSTAINABLE COMMUNITIES AND LANDSCAPES

Yainix Ranch, Klamath County

Located at the confluence of the Sycan and Sprague rivers in the Upper Klamath Basin, Yainix Ranch is a restoration project for both ranching and ecology. The Sprague River Valley is the primary contributor of degraded water quality to the Upper Klamath Lake. But where others saw a ranch severely degraded after years of poor grazing practices, ranchers Becky and Taylor Hyde saw an opportunity to improve water quality while running a working family ranch.

And so the restoration project at Yainix Ranch was born. The Hydes wanted to accomplish three things: to bring the land back into balance environmentally, economically, and in terms of the broader community of interest concerned about water issues in the Klamath Basin.

The first thing the Hydes knew they needed to do was cut back on the number of cows. Where there had been 800 head of cattle, the Hydes will run only 200. At the same time, however, they needed to address the financial viability of the ranch. The ranch sold for \$750,000, but ranching can only support about \$250,000 sustainably over time. “And so,” explains Becky Hyde, “the question becomes how to come up with that extra \$500,000 to bring the land back into balance.”

These challenges framed the premises by which the Hydes and Sustainable Northwest began to form solutions: **1.** Use an agricultural conservation easement to create affirmative obligations to restore habitat — not just to maintain and protect — and to appraise the economic costs of that restoration. **2.** Make capital more available to ranchers by finding investors who were willing to lend at a substantially discounted rate because they are receiving a blended value — habitat restoration as well as an economic return on their investment. **3.** Account for the full range of interests and values in a community by focusing on dialogue and inclusion of all interests in developing the implementation strategies and monitoring.



“What we have found with the Yainix Ranch project is that we have to find the tools for landowners so they can do the right thing by the land.”

—Becky Hyde

While still in its early stages, Becky Hyde hopes the work on Yainix Ranch can be replicated in other areas. “What we have found with the Yainix Ranch project is that we have to find the tools for landowners so they can do the right thing by the land.”

Conclusions and Recommendations

“There is a shameless threat to our environment and to the whole quality of life — unfettered despoiling of the land. Sagebrush subdivisions, coastal ‘condomania,’ and the ravenous rampage of suburbia in the Willamette Valley all threaten to mock Oregon’s status as the environmental model for the nation. We are dismayed that we have not stopped misuse of the land, our most valuable finite natural resource.

—Governor Tom McCall’s Address to the Legislative Assembly, January 8, 1973.

Over the past 30 years, Oregon’s land use planning program has provided significant protections for ranchlands, bringing a halt to sagebrush subdivisions far too characteristic of other parts of the West.

Yet Oregon’s ranchlands are not free from the impacts of residential development. Rural homesites, vacation cabins, and ranchettes are building up on the

landscape, interspersed with working ranches and in ecologically significant areas. Coupled with other pressures on ranching, the growth of residential development in ranching areas presents a significant threat to the future of Oregon’s family ranches, and the plants and wildlife that depend on large, unfragmented landscapes.

Land fragmentation and loss of ranchlands is occurring but it is not too late. Working together, ranchers, environmental organizations, land use planners, and county commissions can ensure the long-term viability and sustainability of Oregon’s ranchlands.

Recommendations

The following recommendations identify several strategies to slow the breakup and fragmentation of Oregon’s ranchlands, and to protect this valuable resource. Underlying these recommendations is the understanding that in order for ranchers to be able to stay on the land, the ranching must be economically viable. Therefore, efforts to maintain and enhance the agricultural economy are critical to the long-term sustainability and protection of these landscapes.

1. Support Oregon family ranchers at the grocery store. Buy local beef, lamb, and other agricultural products. There is no ranchland without ranchers.

2. Promote efforts to reduce the loss of ranchlands in Central and Eastern Oregon. Ranching is particularly vulnerable to fragmentation and increasing land costs further threaten its viability. Oregon has protected more ranchland through exclusive farm use zoning than any other state has through agricultural conservation easements. However, there is a significant role for other complimentary tools (such as agricultural conservation easements and transferable development credits) to



Without ranches, the transition between wild lands and urban areas would be abrupt.

protect strategic ranchlands, provide for additional conservation values, and assure that ranches are maintained in large enough parcels to be economically viable and environmentally sustainable. This effort should be funded at the state level and implemented locally, working with ranchers, environmental and conservation organizations, local officials, and the larger community of interest in the area.

3. Increase dialogue between ranchers, environmentalists, state and local policy makers. There is an opportunity in Oregon to have collaborative discussions and influence policy development for the protection of Oregon's ranchlands. Too frequently foundations and other funders look for immediate returns on the land, but projects such as this one can help forge new alliances and foster understanding of the crucial role of land use planning in maintaining the ranchland base and protecting wildlife, habitat, and biodiversity.

4. Increase understanding of the economic impact of ranchlands. Counties should be encouraged to conduct an analysis of the economic contributions of ranching. Such a fiscal impact analysis should also examine the economic impact of rezoning ranchlands to other uses (e.g. low-density ranchette development and rural residential zoning) in order to better understand the cumulative financial impact that rural residential development will have on the county.

5. Increase understanding of the public costs of rural sprawl. Cost of community services studies should be conducted for Central and Eastern Oregon, particularly in areas with the highest rates of ex-urban and ranchette development.

6. Invest in programs that add value to ranch products. Continue to support and expand programs like the Food Innovation Center and Oregon State University Extension Service that add value to ranch products and help those ranchers who wish to transition beyond the commodity market.

Working together, ranchers, environmental organizations, land use planners, and county commissions can ensure the long-term viability and sustainability of Oregon's ranchlands.



Endnotes

1 “Exurban” development describes low-density development occurring beyond the limits of incorporated towns and cities. Depending on the region, such development will vary in density, generally between one dwelling for every 10-40 acres.

2 As used in this report, “ranchette” development refers to non-ranching residential and/or vacation home development on land zoned for agricultural use. In many cases the terms “exurban” and “ranchette” are overlapping.

3 American Farmland Trust, *Going, Going, Gone: Impacts of Land Fragmentation on Texas Agriculture and Wildlife*, Texas Regional Office, 2003, p. 8 (Hereafter cited as “American Farmland Trust, Going, Going, Gone.”).

4 Eastern Oregon includes all of the counties east of the Cascades: Baker, Crook, Deschutes, Gilliam, Grant, Harney, Jefferson, Klamath, Lake, Malheur, Morrow, Sherman, Umatilla, Union, Wallowa, Wasco, and Wheeler.

5 Data from the Department of Land Conservation and Development received February 2004 and analyzed by 1000 Friends of Oregon (hereinafter cited as “1000 Friends of Oregon, Analysis of DLCD data, February 2004”).

6 Oregon Department of Agriculture, *Oregon Agriculture: Facts and Figures*, June 2004 <<http://www.nass.usda.gov/or/factsfigures04.pdf>> (December 3, 2004).

7 J. A. Tanaka, et al., *The Oregon Beef Cattle Industry: Impact on the Oregon Economy*, Department of Agricultural and Resource Economics, Oregon State University Extension Service, September 1997.

8 The term “agricultural lands” includes both farm and ranch lands.

9 See ORS Chapter 215, enumerating the uses authorized in exclusive farm use zones.

10 Based on the *2002 Census of Agriculture*, hobby farms account for only 2% of the state’s gross farm sales, but comprise 70% of the “farms” in Oregon. See U. S. Department of Agriculture, “Oregon State and County Data”, *2002 Census of Agriculture*, Vol. 1: Geographic Area Series, Part 37, June 2004 – State Data, Table 56 (hereinafter cited as “*2002 Oregon Census of Agriculture*”).

11 Lynn Huntsinger and Peter Hopkinson, “Viewpoint: Sustaining Rangeland Landscapes: a Social and Ecological Process,” *Journal of Range Management*, Vol. 49 (2): March 1996, p. 170.

12 *2002 Oregon Census of Agriculture – State Data*, Table 1. (Note that the *Census of Agriculture* includes all places from which at least \$1,000 of agricultural products were or normally would have been sold – irrespective of zoning. Therefore, this estimate includes hobby farms, as well as agricultural operations located within other zones, such as forest, rural residential, industrial or commercial zones, and undeveloped areas within urban growth boundaries).

13 *2002 Oregon Census of Agriculture – State Data*, Table 56.

14 Hobby farms and ranches rely on off-farm jobs for all of their income and produce a very small percentage of farm sales.

15 Farms grossing less than \$50,000 annually account for 85% of the “farms” reported by the *Census of Agriculture*, but only 7 percent of the value of gross sales. See *2002 Oregon Census of Agriculture – State Data*, Table 56. Even farms and ranches grossing more than \$50,000 annually are not necessarily commercial-scale operations. For example, the Natural Resource Conservation Service of the US Department of Agriculture defines commercial farms as those with agricultural sales above \$250,000 annually or those where farming or ranching was reported as the principal occupation of the operator. See also, Robert L. Kellogg, “*Profile of Farms with Livestock in the United States: A Statistical Summary*,” Natural Resources Conservation Service, USDA, February 4, 2002, <http://www.nrcs.usda.gov/technical/land/pubs/livestockfarm.html> (December 3, 2004).

16 Taken together, between 1994–2002, 7,806 acres of EFU land were lost to UGB expansions (note that this figure includes 3,261 acres of EFU-zoned land added to Metro’s UGB in the Portland area, now in litigation). Department of Land Conservation and Development, *2002 Farm Report*, DLCD, Salem, Ore., Table N (Hereafter cited as “DLCD 2002 Farm Report”).

17 For 1994–2002, such rural rezoning consumed 6,300 acres of agricultural lands. DLCD, *2002 Farm Report*, Table N.

18 1000 Friends of Oregon, Analysis of DLCD data, February 2004.

19 Lynn Huntsinger and Peter Hopkinson, “Viewpoint: Sustaining Rangeland Landscapes: a Social and Ecological Process,” *Journal of Range Management*, Vol. 49 (2): March 1996.

20 See, e.g., OAR 660-033-0020(8), defining “high-value farmland.” Nonfarm dwellings are authorized on “generally unsuitable” lands (ORS 215.284); lot-of-record dwellings are generally prohibited on high-value farmland (ORS 215.705); destination resorts are not allowed on unique or prime farmland and not within 3 miles of a “high value crop area” (ORS 197.455).

21 ORS 215.262(1).

22 HB 3326, 2001 Legislature, codified in ORS 215.263 and ORS 215.284.

23 For a complete list, see ORS Chapter 215, or go to www.friends.org/resources/efuses.html.

24 Quoted May 21, 2004, *Too Many Homes on the Range? The Impact of Rural Sprawl on Ranching and Habitat*. Forum sponsored by 1000 Friends of Oregon, Defenders of Wildlife, and Oregon Department of Agriculture, Portland Oregon (hereinafter cited as “Forum ‘Too Many Homes on the Range?’”).

25 DLCD, *2002 Farm Report*, Table D.

26 Ibid.

27 Map 1 shows the residential development patterns within farm and ranch zones in Eastern Oregon between 1994–2002. Map 2 illustrates the location of that residential development in relation to areas of environmental importance. While much of the development is centered around Bend/Prineville, Klamath Falls, Upper Klamath Lake, and Christmas Valley, other areas of Eastern Oregon have experienced significant concentrations of development in the past nine years.

28 1000 Friends of Oregon, Analysis of DLCD data, February 2004.

29 Ibid.

30 Ibid.

31 *2002 Oregon Census of Agriculture – State Data*, Table 2.

32 1000 Friends of Oregon, Analysis of DLCD data, February 2004.

33 Quoted May 21, 2004 at Forum “*Too Many Homes on the Range?*”

34 American Farmland Trust, *Farming on the Edge, Sprawling development threatens America’s best farmland*, (undated) <http://www.farmland.org/farmingontheedge/major_findings.htm> (November 29, 2004).

35 Todd Wilkinson, “Ranchers bank together to resist sprawl,” *The Christian Science Monitor*, July 29, 2002.

36 American Farmland Trust, “*Strategic Ranchland in the Rocky Mountain West*” Mapping the Treats to Prime Ranchland in Seven Western States (undated) text box.

37 Bill Obermann, et al., *Tracking Agricultural Land Conversion in Colorado*, Colorado Department of Agriculture. September 2000, <http://www.ag.state.co.us/resource/documents/ag_conv_4%20pager_1.pdf> (November 30, 2004).

38 *2002 Oregon Census of Agriculture – State Data*, Table 1 – For comparative purposes, this figure was calculated using the same data source (*Census of Agriculture*) and time period (1987–1997).

- 39 Western Placer County Agricultural Land Assessment and Agricultural Land Conservation Evaluation Criteria, Placer County, January 2002, Chap. 5, "Effects of Land Conversion on Agricultural Productivity," <<http://www.placer.ca.gov/agriculture/western-placer-ag-study-2002/draft-report-toc.htm>> (November 30, 2004) p. 5-1 (Hereafter cited as "Western Placer County Agricultural Assessment").
- 40 Jim Wood, quoted May 21, 2004 at Forum "Too Many Homes on the Range?"
- 41 Western Placer County Agricultural Land Assessment at 5-3.
- 42 Benjamin S. Rashford, et al., *Farm Neighbors, Land Use Policy and Farmland Conversion: A Dynamic Simulation of Land Use Change in Polk County Oregon*, Department of Agricultural and Resource Economics, Oregon State University, February 2003, p. 16.
- 43 Janet Carpenter and Lori Lynch, "Critical Mass of Agricultural Land Report," Maryland Center for Agro-Ecology, Inc. University of Maryland, January 2003, p.1.
- 44 Ibid at 53.
- 45 Ibid.
- 46 David L. Azuma, et al., *Forest, Farms & People: Land Use Change on Non-Federal Land in Eastern Oregon*, 1975-2001, Oregon Department of Forestry, August 2004, p. 14.
- 47 Ibid at 15.
- 48 Quoted May 21, 2004 at Forum "Too Many Homes on the Range?"
- 49 Quoted May 21, 2004 at Forum "Too Many Homes on the Range?"
- 50 ORS 30.930
- 51 Brent Searle, "Right-to-farm' Law in Oregon", *The Agriculture Quarterly*, Oregon Department of Agriculture, Spring 2001, <<http://www.oda.state.or.us/Information/AQ/AQSpring2001/06.html>> (December 3, 2004).
- 52 Sanchita Sengupta and Daniel Edward Osgood, "The Value of Remoteness: a hedonic estimation of ranch prices", *Ecological Economics*, Vol. 44, No. 1, February 2003 ("Parcels adjacent to ranchettes that had previously sold had an increased per acre value of \$2,858.63.").
- 53 Western Placer County Agricultural Land Assessment at 5-1.
- 54 Robert E. Coughlin and John C. Keane, The Protection of Farmland: Report to the National Agricultural Land Commission, Government Printing Office, 1981, cited by Yue Jin Shi, et al., "Agricultural Land Values Under Urbanizing Influences", *Land Economics*, Vol. 73(1): February 1997, p. 93.
- 55 American Farmland Trust, *Going, Going, Gone* (2003).
- 56 See 2002 Oregon Census of Agriculture - County Data, Table 8; and 1992 Oregon Census of Agriculture - County Data, Table 6. (Note: not in constant dollars)
- 57 David Berry "Effects of Urbanization on Agricultural Activities", *Growth and Change*, July 1978, p.3.
- 58 Ibid.
- 59 To date, no such study has been completed in Oregon.
- 60 American Farmland Trust, *Cost of Community Services: The Value of Farm & Ranch Land in Hays County, Texas*, Texas Field Office (undated).
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About 1000 Friends of Oregon

1000 Friends of Oregon is a non-profit public service organization formed in 1975 to protect Oregon's quality of life through the conservation of farm and forestlands, protection of natural and historic resources, and promotion of more livable cities. For more information about 1000 Friends, see www.friends.org.

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