

May 2009

WYOMING

open spaces



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Wyoming's State of the Space

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Diversity Database

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A Comprehensive Review of Land Use Trends in Wyoming



Bibliographic Citation:

Hulme, D., C. Andersen, K. Parady, J. Hamerlinck, S. Lieske, I. Burke. 2009. *Wyoming's State of the Space: A Comprehensive Review of Land Use Trends in Wyoming*, William D. Ruckelshaus Institute of Environment and Natural Resources. University of Wyoming-Laramie, WY, 70 pp.



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Graphic design by Chamois Andersen (5/2009)





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**A Comprehensive Review of
Land Use Trends in Wyoming**



Acknowledgements

The director and staff of the Ruckelshaus Institute of Environment and Natural Resources would like to thank the following faculty and staff at the University of Wyoming for their expertise and generous donation of time over the years to the Wyoming Open Spaces Initiative: Tex Taylor, Roger Coupal and Don McLeod in the Department of Agricultural and Applied Economics, Jeff Hamerlinck and Scott Lieske with the Wyoming Geographic Information Science Center, and Gary Beauvais with the Wyoming Natural Diversity Database.

We want to thank the following staff and students of the Ruckelshaus Institute and Haub School for their hard work and dedication to researching and writing our open space public information bulletins: Nicholas Agopian, Chamois Andersen, Ann Boelter, Melinda Benson, Harold Bergman, Dennis Feeney, Jenna Heermann, Diana Hulme, Jon Iversen, Katy Mays, Abby Mellinger, and Allison Perrigo.

Thanks to the members of the Ruckelshaus Institute Open Space Advisory Committee for their guidance and participation in the many meetings and conference calls over the last eight years.

Special thanks to Don Kendall, who cares deeply about this issue and funded our efforts over the years, as well as the Doris Duke Charitable Foundation.

We would also like to thank Gov. Dave Freudenthal, his staff and cabinet members who brought this issue to the forefront at the right time and called communities to action and challenged them to build the future they want.

Finally, thanks to the people across Wyoming and the West who have assisted us along the way with this effort.

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Wyoming Open Spaces Initiative Preface

The Ruckelshaus Institute of Environment and Natural Resources Program at the University of Wyoming (UW) was established in 1993. It represents a partnership between UW faculty and a prominent board of leaders with expertise in environment and natural resources in Wyoming.

The mission of the Ruckelshaus Institute is to advance effective decision making for environmental and natural resource issues by promoting and assisting collaborative informed approaches that sustain both the economy and environment. The Ruckelshaus Institute accomplishes its mission by partnering and coordinating with UW faculty and students, as well as with government agencies, businesses, non-governmental organizations, communities, elected officials and citizens.

One of the hallmark projects of the Ruckelshaus Institute is the Wyoming Open Spaces Initiative. The Open Spaces Initiative was formed as a result of the Wide Open Spaces forum convened in September of 2000 by the Ruckelshaus Institute at UW. The Open Spaces Initiative is a collaborative effort between a team of faculty, staff and students, led by the Ruckelshaus Institute. Other UW partners include the Department of Agricultural and Applied Economics, the Wyoming Geographic Information Science Center, Wyoming Cooperative Extension Service and the Wyoming Natural Diversity Database. The Open Spaces Initiative also has an advisory committee comprised of members from UW departments listed above, representatives from the Ruckelshaus Institute Board and citizens and stakeholders across Wyoming who have expertise in land use and open spaces issues.

Over the years, the Open Spaces Initiative has focused on researching and publishing information about changing land use and population redistribution in Wyoming. Publications have been produced on a wide variety of topics such as results of polls assessing public opinions of natural resource conservation and development, information on conservation easements, and the benefits of private land to wildlife. These publications are available on the Wyoming Open Spaces Initiative Web site at www.uwyo.edu/openspaces.

Wyoming's State of the Space, a publication of the Open Spaces Initiative, discusses population and land use change in the state and offers options and resources for sustaining Wyoming's open space in the future. The publication compiles eight years of collaborative research efforts by UW faculty for the Open Spaces Initiative. The report is meant to serve as an important resource for local and state decision makers, planners, stakeholders, and the public.

Executive Summary

“Most of us are aware of the changing western landscapes that have accompanied the growing population and the expansion of development onto lands that were once open space. In Wyoming, many have become increasingly alarmed over the past decade about urban and rural sprawl, the associated loss of open spaces, and changes in the tangible and intangible values that Wyoming’s wide open spaces provide....But more recently the causes for concern have been closer to home, extending from the proliferation of 40-acre ranchettes around our southeastern communities to the skyrocketing real estate values...in northwestern Wyoming.”
(Ruckelshaus Institute, summary to the Board, 2000)

The paragraph above was written years ago by staff at the Ruckelshaus Institute of Environment and Natural Resources at the University of Wyoming (UW) as part of a summary of open space issues in Wyoming and the West. Interestingly enough, the paragraph is still relevant years later. The trends have continued, and have become more apparent to the citizens of the state.

Faculty and students from the University of Wyoming have worked in collaboration with the Ruckelshaus Institute staff researching how land use and population have changed over time on privately-owned land. The results of that research, along with those of other institutions and agencies are summarized within. It is the hope of the Ruckelshaus Institute that this publication will serve as a resource that citizens and local decision makers can use when considering planning decisions in their communities.

Wyoming’s population has changed over time, and a portion of that population has redistributed itself from towns to exurban and rural areas. Redistribution of population changes land use patterns, and in Wyoming these changes have resulted in fewer residences per acre, or greater land consumption per person. According to the Wyoming State Engineer’s Office, between 1998 and 2006, nearly 100,000 acres of land were subdivided into lots of 35 acres or less. If current trends continue, by the year 2020, 80 percent of new development in Wyoming will be on lots of 10 to 40 acres in size for each housing unit (Theobald 2003).

Many residents of Wyoming have some common assumptions about the demographics of the people who choose to live on 35-40 acre parcels; primarily that owners of 40-acre parcels moved there from a large city and have never experienced a rural lifestyle. Survey data show the majority of exurban and rural homeowners grew up in small towns and most of them have lived in Wyoming for an average of 13 years. Surprisingly, they are not all from large cities (Mealor 2007).

There are significant impacts from exurban/urban development on the cost of community services. Rural residential developments incur higher property taxes than land taxed as agricultural, because they require more frequent public services, such as emergency services and road maintenance than what is required by agricultural land. On average in Wyoming, it costs \$1.13 to provide services for every \$1 in property tax revenue generated from rural residences. Other impacts of rural development include fragmentation of wildlife migration corridors, and the displacement of wildlife from traditional winter range and birthing areas.

We may take for granted or simply fail to realize the benefits and ecological services that open land provides, such as watershed protection, wildlife habitat, rangeland for livestock, recreational opportunities, spectacular uninterrupted views and solitude. Surveys and assessments presented here indicate that Wyoming citizens highly value the benefits provided by open space and have the desire to preserve open space for future generations.

There are several key tools available to Wyoming citizens for reducing rural sprawl. Individual landowners may opt to enter into a conservation easement with a land trust to protect land from development and still have the option of being able to work the land. Local and state governments can consider stronger land use planning incentives and regulations or assess impact fees to ensure rural development pays for the increased services it demands. Other options include providing developers with the incentive to “cluster” rural housing units, which would allow them to sell more lots, reduce the cost of services, and preserve areas of open space. Local and state government can also implement public funding mechanisms to help pay for open space protection.

Approaches designed to reduce rural sprawl are likely to be most effective if agreed upon through consensus and collaboration among diverse stakeholder groups. Wyoming residents place a high value on open space, while having strong support for private property rights. This can lead to a complex and potentially contentious atmosphere when finding solutions for preserving open space.

Open and transparent communication and collaboration can lead to informed decision making and solutions for considering and achieving a balance between the two desires of residents and newcomers to Wyoming – growth and protection of our ranching culture, wildlife habitat and uncluttered landscapes. Cooperation among federal, state, and local leaders and the public could provide Wyoming with an opportunity to use creative and collaborative approaches that are consistent with western values and desires to preserve the qualities that make places in Wyoming and the West special.



Eagle Creek, outside Yellowstone National Park. Photo courtesy of the National Park Service.

The mission of the Wyoming Open Spaces Initiative is to improve the effectiveness of Wyoming citizens in maintaining Wyoming's open spaces through education, research, information, decision making assistance, and publications.

Introduction

CHAPTER I

For Wyoming residents, open space is key to quality of life by serving as the foundation for Wyoming's agriculture and tourism industries and providing recreational opportunities and wildlife habitat. The vast and unfettered nature of Wyoming's open space reflects the state's western character.

What is open space? Planners classify open space as "natural areas such as forests and grasslands, as well as working farms, ranches, and timberlands." Open space also includes parks, stream and river corridors, and other natural areas within urban and suburban areas," (United States Department of Agriculture 2006). However, the meaning of open space is often contextual. For someone who lives in New York City, Central Park is open space. But a person who lives in the Nebraska plains has a much different view of what constitutes open space. There is also a heartfelt less formal definition of open space that evokes an innate response and emotion: it connects people to nature. The definitions of open space are as varied as the definition of art.

Though the definition of open space can be debated at great lengths, one thing is fairly clear; land use development patterns in the United States and in the Rocky Mountain West in particular have diminished open spaces rapidly since the 1990s.

- The United States loses 6,000 acres of open space each day at a rate of four acres per minute (U.S. Department of Agriculture 2006).
- Rural development on exurban/rural lots (1.7 to 40 acres) has been growing at a rate of 10 to 15% per year, exceeding urban and suburban expansion rates (U.S. Department of Agriculture 2006).
- Fourteen of the fastest growing counties in the United States are in the Rocky Mountain West, and rural population growth rates are exceeding urban rates (U.S. Department of Agriculture 2006).
- Four of the eight states in the Rocky Mountain West (Idaho, Nevada, Utah, and Arizona) had a double digit percentage population increase for the years 2000 to 2005 (Lieske and Taylor 2007).

Though many western states are composed of 50% or more of publicly-owned land, the conversion of privately owned lands (ranches and farms) to housing and commercial uses is changing the face of river valleys, grasslands, and foothill regions in the West. The conversion of ranchlands and farmlands to residential development on a small scale may not have long term impact, but recent patterns of development are stimulating concern about the long-term sustainability of population growth, particularly in the Rocky Mountain West (Travis 2007).

Residential land uses are commonly characterized by housing densities or the number of homes per area of land (Table 1, Theobald 2003).

Table 1: Common Residential Land Density Classifications (Theobald 2003)

Classification	Density (acres/housing unit)
Urban	0.6
Suburban	1.7
Exurban	1.7 - 40
Rural	>40

Exurban and rural developments are increasing at a faster rate than urban development. This pattern of growth results in lower population density or more land being used to accommodate fewer people (Theobald 2003). Exurban and rural sprawl have long been reducing open spaces along Colorado's Front Range, Utah's Wasatch Front, and Montana's Gallatin Valley. Wyoming, however, is only beginning to follow the same pattern.

As the pace and pattern of Wyoming's growth changes, the pressure on ranchers and farmers to consider selling land for development increases. This pressure stems from a desire to live in rural areas adjacent to open land, which creates a paradox where rural residents want to develop their own piece of open space but want the land surrounding them to remain undeveloped.



Sagebrush landscape with the Grand Tetons in the backdrop. Photo by Kimberly Finch, courtesy of the National Park Service, October 2005.

Population and Land Use Change in Wyoming

CHAPTER II

Population Change

Approximately 305 million people live in the United States (U.S. Census Bureau 2008). By 2050, the United States is predicted to gain 120 million more people who will share a finite land base (U.S. Department of Agriculture 2006). Exurban and rural residences with natural amenities are now developing quickly, and further acceleration of growth has been predicted.

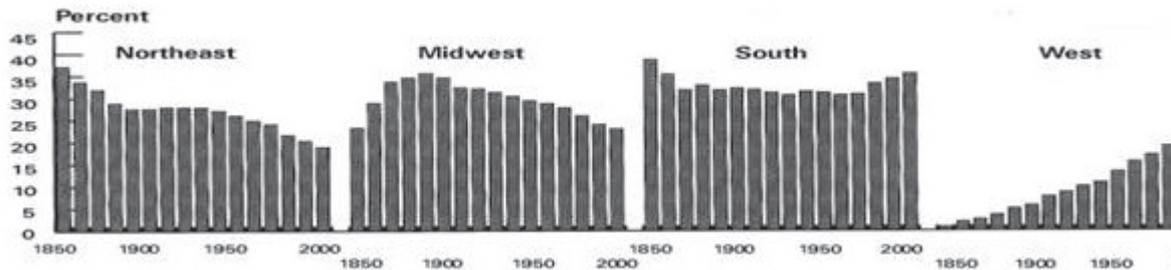
With population pressures increasing on both coastlines of the United States, people are migrating to the spaciousness provided by western states (Figure 1). Census figures for 2000- 2005 show that since the 2000 census, Wyoming's growth has been modest compared to surrounding western states. Wyoming's growth rate compared to other states in the Rocky Mountain West in the 1990-2000, 2000-2005 and 2006-2007 time periods, demonstrates the population pressure that surrounds Wyoming geographically (Table 2).

2008 Population Estimate
WY=533,000 US=305 million

Source: U.S. Census Bureau



Figure 1: Share of U.S. Population by Region, 1850-2000



Source: U.S. Bureau of the Census, Decennial Censuses and 1999 annual population estimates by state. Included in the “West” 13 states, including Alaska, California, Colorado, Hawaii, Idaho, Montana, Nevada, New Mexico, Oregon, Utah, Washington, and Wyoming.

Table 2: Percent population growth in Wyoming and other Rocky Mountain States

State	Annual percent growth during census periods (%/yr)		
	1990-2000 Census	2000-2005 Census	2006-2007 Census
Wyoming	0.89	0.62	2
Colorado	3.06	1.68	2
Idaho	2.85	2.08	2.4
Montana	1.29	0.74	1.2
Utah	2.96	2.12	2.65

Source: Lieske and Taylor 2007, Taylor and Lieske 2002

Nationally, Wyoming ranked 31st in population growth between 2000 and 2005. But for 2006-2007, percent population growth in Wyoming jumped to 9th place nationally. The recent increase in population may be an indication that Wyoming is starting to grow at rates similar to its neighboring states.

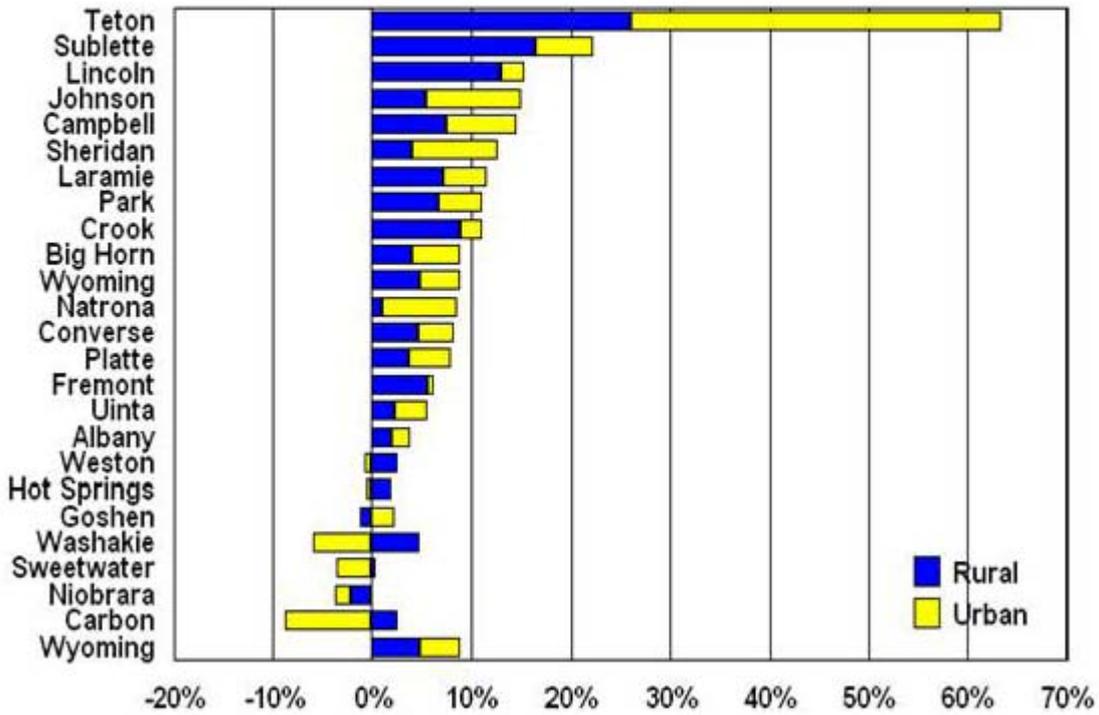
Patterns of Land Use

Wyoming's growth in the last 15 years has primarily fit into the "rural" category, with much of rural housing having a density of one unit per 35 to 40 acres. Counties that offer natural or outdoor leisure amenities such as scenic mountain views, abundant wildlife, recreation opportunities, clean air and water tend to draw more residential growth. This creates growth patterns that are tied to geographic regions that offer these natural amenities. In some parts of Wyoming, this has created a flow of people out of municipalities and into rural areas (Figures 2 and 3). It is important to note that census data does not include second homes, which are also typically located in rural areas (Taylor and Lieske 2002). Because second homes are not included in census data, growth in rural areas tends to be under-represented, especially since Wyoming had a 30% increase in second homes for the 2000 census (Taylor and Lieske 2002).

An example of low density rural residential development. Photo courtesy of Derner, Justin, USDA Agriculture Research Service, 2008.

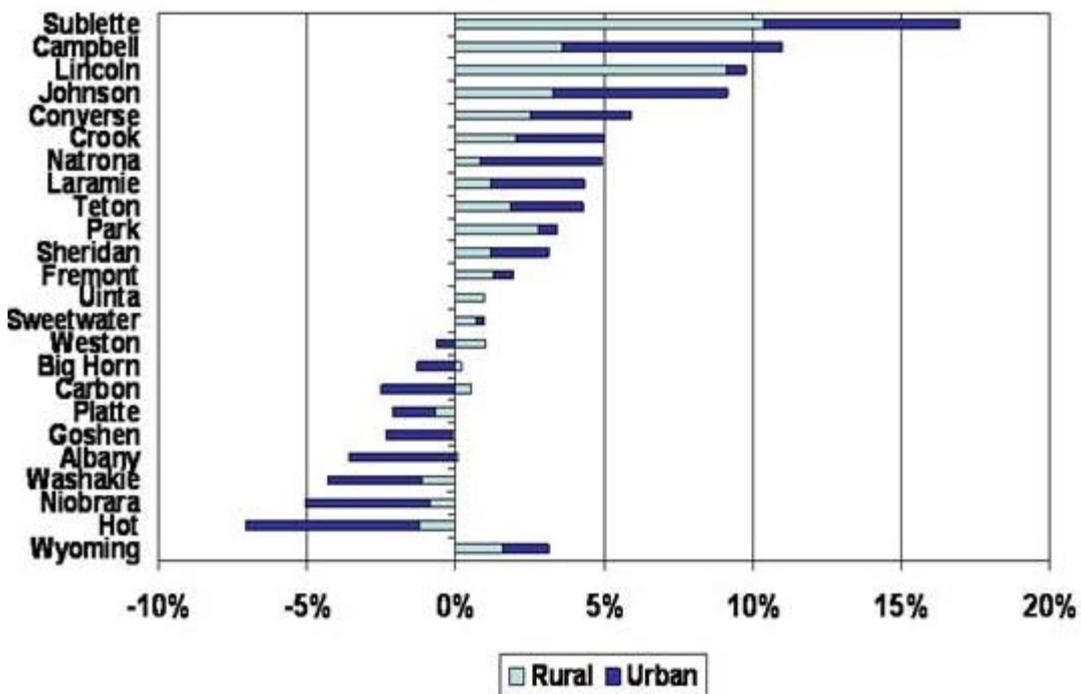


Figure 2: Rural vs Urban Growth for Wyoming Counties 1990-2000



Source: Taylor, Lieske (Population Change in Wyoming 1990-2000, 2002)

Figure 3: Rural vs Urban Growth for Wyoming Counties 2000-2005



Source: Taylor, Lieske (Population Change in WY 2000-2005, 2007)

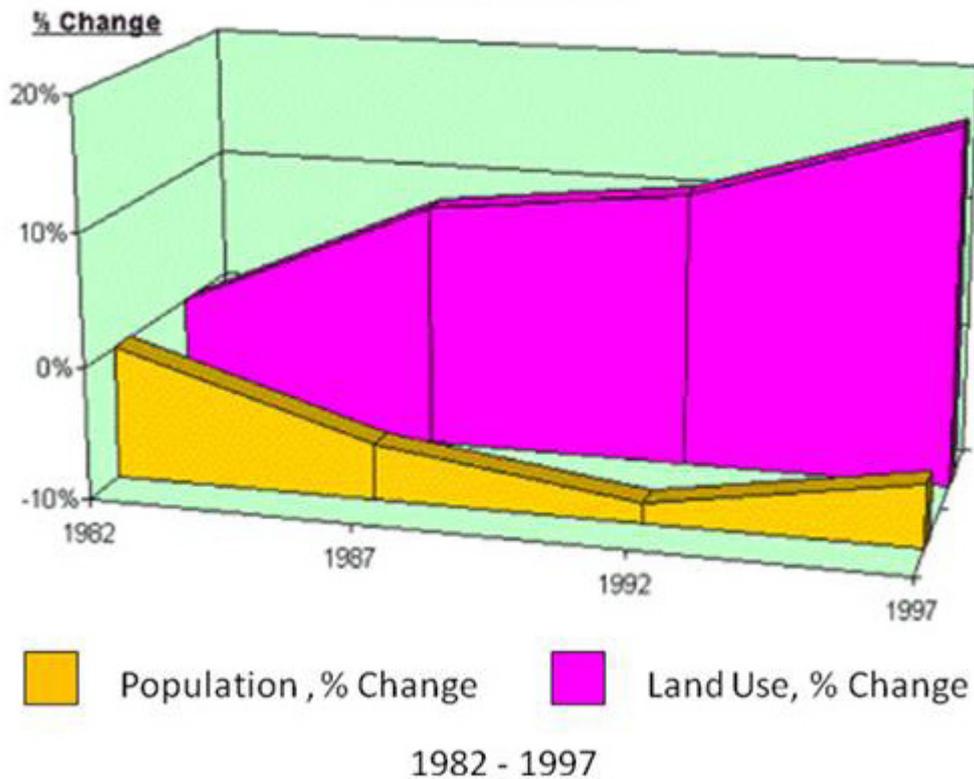
Disappearing Conservation Opportunities

In Wyoming, residential properties of 35 acres or more represent only 7% of the total number of residential properties in the state; however, they represent two-thirds of the total acres of residential development.

Source: State Board of Equalization 2007

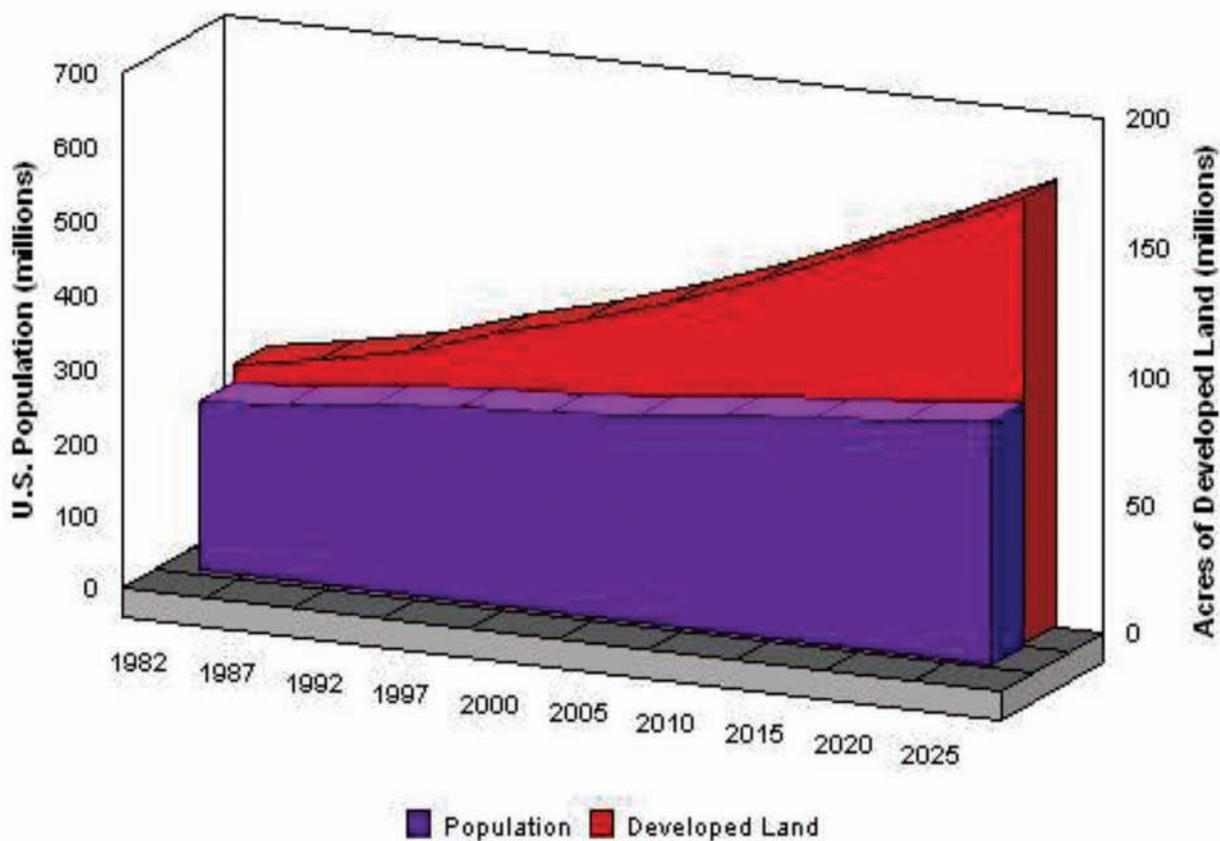
It is estimated that residential growth in Wyoming from 1990 to 2020 could consist of 80% exurban development. This would result in an average of 7.1 acres of residential development per new household or 2.9 acres of residential development per new resident (Theobald 2003). The trend for lower density residential development is not just limited to Wyoming and the West but is a trend nationally as well (Figures 4 and 5).

Figure 4: Wyoming Population Growth and Land Use



Source: Smart Growth Leadership Institute (personal contact, Harriet Tregoning 2006)

Figure 5: Population Growth and Acres of Development for the U.S., 1982-2025



Source: Smart Growth Leadership Institute (personal contact, Harriet Tregoning 2006)

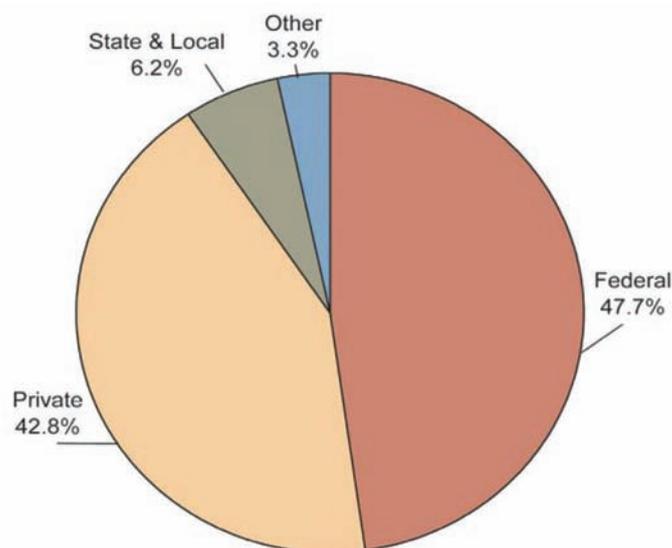
Status of Agricultural Lands

Fifty-four percent of Wyoming’s land is owned by either the state or federal government. This includes national parks, national forests, refuges, grasslands, and monuments under federal domain as well as state owned lands (Figure 6). Tribal lands comprise just over three percent of Wyoming’s total land surface, and of the remaining 43% of Wyoming land that is privately owned, 93% is in agricultural production (Taylor 2003). In addition, a large proportion of federal and state lands are leased by private landowners for agricultural use.

Agriculture by its nature provides open space, scenic views, and wildlife habitat. Out of economic necessity, most agricultural operations in the West cover large areas. Because of generally low precipitation, Wyoming lacks large areas of intensive agricultural productivity. Cropland is limited, and large tracks of rangeland are needed in order to sustain livestock such as cattle and sheep.

Agricultural land is at the greatest risk for residential development. The majority of land that is going into low density rural development is coming from the sale of “prime” farm and ranchland to residential and commercial developers.

Figure 6: Land Surface Ownership in Wyoming (Taylor 2003)



To be classified as “prime” ranchland, the land exhibits the following characteristics: high agricultural productivity, desirable habitat for wildlife, low rural development densities, proximity to publicly-owned lands, year-round water availability, mixed grass and tree cover, and a high variety of vegetation classes (American Farmland Trust). Thus, much of the concern about maintaining open space in the West has focused on private lands where landowners face increasing residential and urban development pressures, especially on prime ranchland (Taylor 2003).

According to the State of Wyoming Board of Equalization (BOE), the amount of land classified as agricultural decreased from 25.8 million acres to 25.2 million acres between the years 2003 and 2006 ¹ (State Board of Equalization 2007). Therefore, an estimate of the reduction in agricultural land during this time was 600,000 acres ², an area similar in size to the state of Rhode Island (668,000 acres). This change from agricultural to residential property suggests that land fragmentation is occurring. The average size of a farm or ranch in Wyoming is over 3,600 acres with more than 80% of farms and ranches operating on 5,000 acres or more (U.S. Department of Agriculture 2004). In comparison, the average size of residential property of 35 acres or more in Wyoming is 80 acres (State Board of Equalization 2007). Because agriculture is the dominant private land use in Wyoming, the future of open spaces on private lands in the state depends to a large extent on what happens to the agricultural industry. According to agricultural economist Tex Taylor, a number of factors may adversely affect the retention of agricultural land in Wyoming (Taylor 2003).

¹ Wyoming agricultural property tax assessment statutes (Wyo. Stat. § 39-13-103) qualify land as agricultural based on the valuation of the current use of the land and the capability of the land to produce agricultural products and revenues from the marketing of agricultural products.

² Land that is not classified as agricultural may still be undeveloped. If land does not meet the criteria for agricultural classification, it may appear on the county abstracts as rural residential, not agricultural, but still be undeveloped. In addition, in many counties there may be large parcels, which in a given year may not be classified as agricultural due to the failure of the owner to request such classification. If a request is made the next year and the land qualifies, it may re-appear as agricultural.

These factors include:

- The aging of Wyoming agricultural operators and the effects of estate taxes. Using Census of Agriculture data from 1959 to 2002, Foulke, Coupal and Taylor (2000) found that the percentage of Wyoming agricultural operators 65 years-of-age and older had more than doubled from less than 12% in 1964 to nearly 26% in 1997, while the percentage of Wyoming agricultural operators under 35 years of age had declined by two-thirds from more than 15% in 1982 to less than 5% in 2002.

Of particular concern is what will happen to the 8.7 million acres of agricultural land in Wyoming that are managed by operators 65 years-of-age and older when these individuals retire. While there have been some short-term changes in estate tax law in recent years, these changes remain a concern in terms of intergenerational transfer of agricultural land with no certainty regarding the future level of these taxes.

- The current limited profitability of Wyoming agriculture. After a high in 1993 of almost \$200 million, the net proprietor income for agriculture in Wyoming has averaged less than \$40 million per year through 2006, and because of drought was negative in 2002 (-\$16.5 million) and 2006 (-\$63.2 million) (U.S. Department of Commerce 2008). This low level of profitability makes it difficult to retain land in agricultural production, particularly when there are other more profitable land uses, such as development.
- The increase in agricultural land prices despite the limited profitability of agriculture. Despite the current lower levels of profitability for agriculture in Wyoming, the average price of a ranch in Wyoming increased by more than three times on a production-unit basis from 1993-1995 and 2002-2004. Similarly, the average price for irrigated meadowland in Wyoming has nearly doubled (Taylor 2003).
- Continued uncertainty about livestock grazing on federal lands. Competing uses of federal lands, such as for energy development and recreation, have created debate about the use of federal lands for grazing. Agricultural operations with federal land grazing permits control 20.4 million acres of private agricultural land in Wyoming. This represents nearly three-fourths of ranchland and associated open space in Wyoming. The private land holding of agriculture operations with federal land grazing permits represents 60% of the total private land in Wyoming. Federal land grazing permits are important to the profitability and financial stability of some of the agricultural operations holding them. Decreased profitability could result in selling and subsequent subdivision of land.

The recent limited profitability of privately-owned agricultural operations is most likely a deterrent for young people to enter the field. Uncertainties about federal land grazing permits, which contribute to the profitability of the operation, increase the amount of agricultural lands converted to residential development. The study also found that five counties in Wyoming (Sublette, Park, Uinta, Big Horn, and Fremont) were among the top 25 counties in the Rocky Mountain region in terms of the potential for conversion of prime ranchland to residential development (Taylor 2003).

In support of the American Farmland Trust prediction (Travis et al. 2002) found that nearly 145,000 acres of ranchland in Sublette County and more than 218,500 acres of ranchland in Fremont County had changed hands between 1990 and 2001. In addition, they found that more than 178,400 acres in Park County and nearly 69,000 acres in Lincoln County had also changed hands. While only a small portion of these lands were sold directly to developers, Travis et al. noted, "... the current transition in ranchland probably implies a long period of instability in ranchland status and uncertainty over the role that ranchland will play," (Taylor 2003).

Changing Landscapes

The American Farmland Trust estimates that 2.6 million acres of prime ranchland in Wyoming could be converted to residential development by 2020.

Source: American Farmland Trust

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Ranchlands development in Wyoming is on the rise and in many cases these 40 acre parcels are advertised nationwide to draw in perspective buyers.

Source: US Airways In-Flight Magazine

Demographics of Rural Population in Wyoming

CHAPTER III

In Wyoming exurban and rural growth are increasing at a much faster rate than urban growth. This leads to two questions: who are the people who want to live on 40 acres of land, and why do they want to live there?

A recent survey evaluated demographics of individuals who own or live on lots of two to 40 acres in size within the state of Wyoming (Mealor 2007). A total of 4,800 landowners in Albany, Fremont, Teton, Campbell, Laramie, and Sublette counties were surveyed regarding why they chose to live in a rural area and about some of their rural land management concerns (Table 3).

Table 3: Exurban Landowner Responses

Responses of exurban landowners to demographic questions in a survey circulated from August through October 2006. Respondents are Wyoming residents who own between two to 40 acres of land.

Demographic Statement	Categories	Result, %
Age, in years	Less than 29	3
	30-49	31
	50-69	53
	70+	13
Highest level of education	Did not complete high school	2
	High school diploma	16
	Some college, not a 4 year degree	28
	Technical school	7
	Bachelor's degree	24
	Graduate degree	23
Setting where raised, by population	Large metro/urban (>100,000)	12
	Metro/urban (50,000-99,999)	5
	City (20,000-49,000)	12
	Small city (10,000-19,999)	9
	Small town (<10,000)	21
	Outside of town (non-farm)	16
	Farm or ranch	24
Approximate annual household income	Less than \$20,000	5
	\$20,000-\$39,999	13
	\$40,000-\$59,999	19
	\$60,000-\$79,999	21
	\$80,000-\$99,999	15
	\$100,000 and above	26

Additional information derived from the survey include the following:

- Sixty-seven percent (67%) reported there were no livestock such as horses or cows on their property. Of the respondents who had animals on their property, 80% had horses or mules.
- Based on a 1-to-5 scale (1 = not important ... 5 = very important), enjoyment of the rural lifestyle (4.6), aesthetic values or open space (4.5) and wildlife on their property (4.0) were the reasons that ranked highest for purchasing exurban/rural parcels.
- Based on a 1-to-5 scale (1 = not concerned...5 = very concerned), the spread of invasive weeds (4.3) and reduced water quality (4.2) ranked as the greatest land condition concerns.

The results of this study indicate that commonly held perceptions of the people who choose to live in exurban and rural areas are not altogether correct. The common thought is that those who purchase exurban/rural lots are from out of state and have recently moved to the rural areas from large cities; this survey showed that respondents had lived in Wyoming for an average of 13.2 years. Fifty-six percent of the respondents stated that they moved to their rural residence from another location in Wyoming, and 43% said they moved from a residence that was outside city limits. It is also commonly thought that people living in rural areas attempt to support several horses or cows on their land, but the results of this survey show otherwise, as stated above.

These results generally agree with other studies that suggest exurban/rural landowners may have moved to return to an atmosphere close to that in which they were raised (Lage 2005). Also, exurban/rural landowners in Wyoming appear to value land for the lifestyle, aesthetic value, and open space, and are much less concerned with gaining income from their property than traditional ranchers (Rowan and White 1994).

**The landscape of today's West is increasingly amenity-oriented,
not production-orientated.**

Source: Lage 2005

People are increasingly attracted to the natural amenities offered by rural living, such as open space and proximity to wildlife; however, as more homes are built in open landscapes, scenic views and wildlife habitat are compromised and the spread of invasive weeds is exacerbated. As a result, exurban/rural property owners may in some cases end up negatively affecting the very aesthetic values they were attracted to in the first place.



ENR Photo

The Red Desert in southwest Wyoming is one of the last remaining high-desert ecosystems in North America.

Impacts of Exurban/Rural Residential Development

CHAPTER IV

Land use in Wyoming has changed in recent decades due to residents' desires to live in rural areas with access to natural settings and views while maintaining their privacy. As noted above, the presence of rural homes and outbuildings (detached buildings) affects the values people were seeking when they moved there. Other impacts of this pattern of development are discussed below.

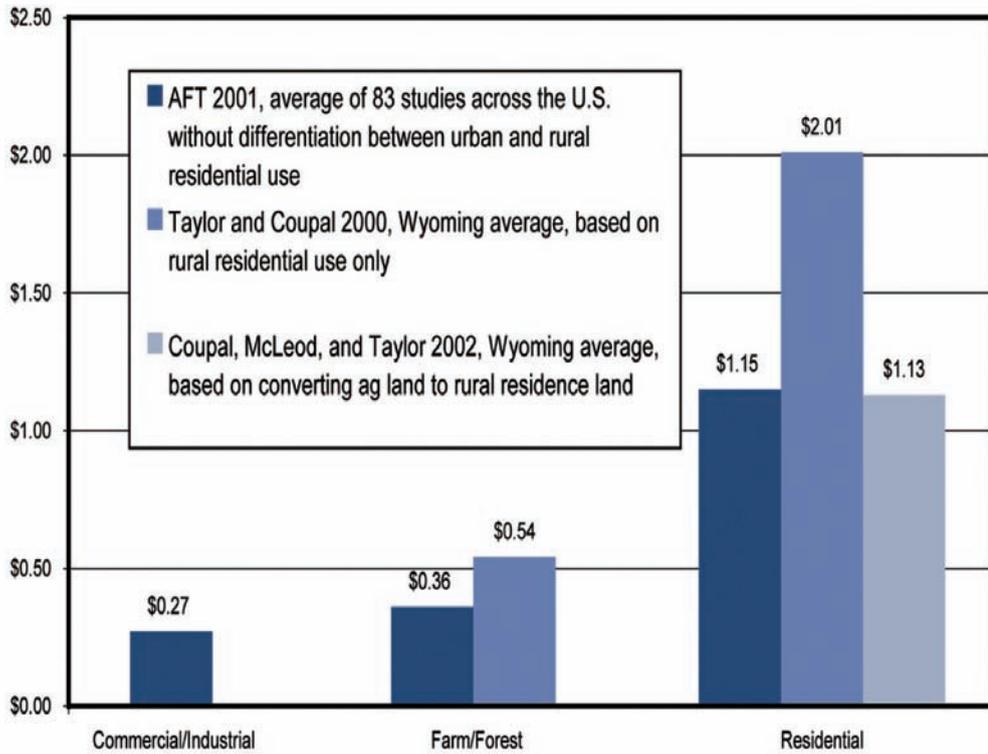
Cost of Community Services

It is a commonly held belief that the conversion of agricultural lands to residential development benefits the local tax base, because developed land is assessed at a higher value than agricultural land. However, this revenue increase is negated by the increased costs of providing services such as fire and police protection, roads, and busing to area schools. In the end, all residents of a county, including those who live in incorporated areas and also pay county taxes, subsidize those who choose to live in exurban/rural settings.

In 2001, the American Farmland Trust (AFT) summarized 83 studies from across the United States of the cost of community services (law enforcement, fire protection, road maintenance, social services, and public schools) and found that on average, residential land use costs counties \$1.15 for every \$1 in revenue generated (Figure 7). Farm and forest uses, on the other hand, cost only 36 cents for every \$1 in revenue, similar to the cost of commercial use of the land (27 cents). A study conducted for Wyoming in 2001 found similar results, with a statewide average of 54 cents in cost-per-dollar of revenue for lands under agricultural production, compared to \$2.01 in cost per dollar of revenue for rural residential lands (Coupal, Taylor and McLeod 2002) (Figure 7). The higher residential cost amount (\$2.01) compared to the AFT figure (\$1.15) can be explained in part by the fact that the AFT studies did not differentiate between urban and rural residential land use; a significant differentiation because rural residences tend to represent higher costs to county governments and school districts than urban residences.

Figure 7: Cost of Community Services

Cost of Community Services for different land-use categories as determined by three different studies (represented as cost of services per dollar of revenue).



Source: Coupal, Taylor and McLeod 2002

It is also important to note that most cost of community services studies do not consider the spatial aspects of the costs for continued operation and maintenance of public services. In general, costs for services decrease the closer new development is located to well-established or existing service centers. Even if new development in a rural area is built in a clustered pattern, the cost to provide services still remains a financial drain on the local government if that clustered development is located distant from the service center.

Impacts to Wildlife

Open space provides wildlife habitat in Wyoming. And Wyoming's wildlife is an important asset to residents and visitors, providing pleasure for viewing, hunting and fishing and generating millions of dollars for the state's economy. Wildlife species generally do not recognize the boundaries of human society as animals move among private, state, tribal, and federal lands. These movements occur in yearly, seasonal, and daily patterns. In the western United States, migratory game species tend to inhabit or migrate through public lands during the summer and autumn, especially in areas of high elevation, and are often found on lower elevation private lands during the winter. Private lands often include bottomlands along rivers and other areas that provide important wildlife habitat, especially in the winter. These lands provide wildlife migration corridors that link to public lands (Taylor 2003). The mix, availability, spatial distribution, and quality of seasonal range, both private and public, are critically important to big game herd size and viability (Coupal, Lieske, et al. 2004).

Because the land surface of Wyoming is a complex mix of private land and land under federal or state management, most big game herds in the state encounter a diversity of land-management regimes during their migrations. Winter range for six big game species on private and public land accounts for more than 35.1 million acres, spring-summer-fall range represents approximately 19.2 million acres, and year-long range totals 32.2 million acres (Figure 8). Year-long range is composed of 56% private land, and further, is located in areas of the state that are predominantly privately owned. Forty-four percent of winter range is in private ownership; much of this is critical to animals that spend summer at higher elevations. Spring-summer-fall range is predominantly on public land, with 25% on private land. For many big game species, a high percentage of spring-summer-fall range on public land typically correlates with a high percentage of winter range on private land.

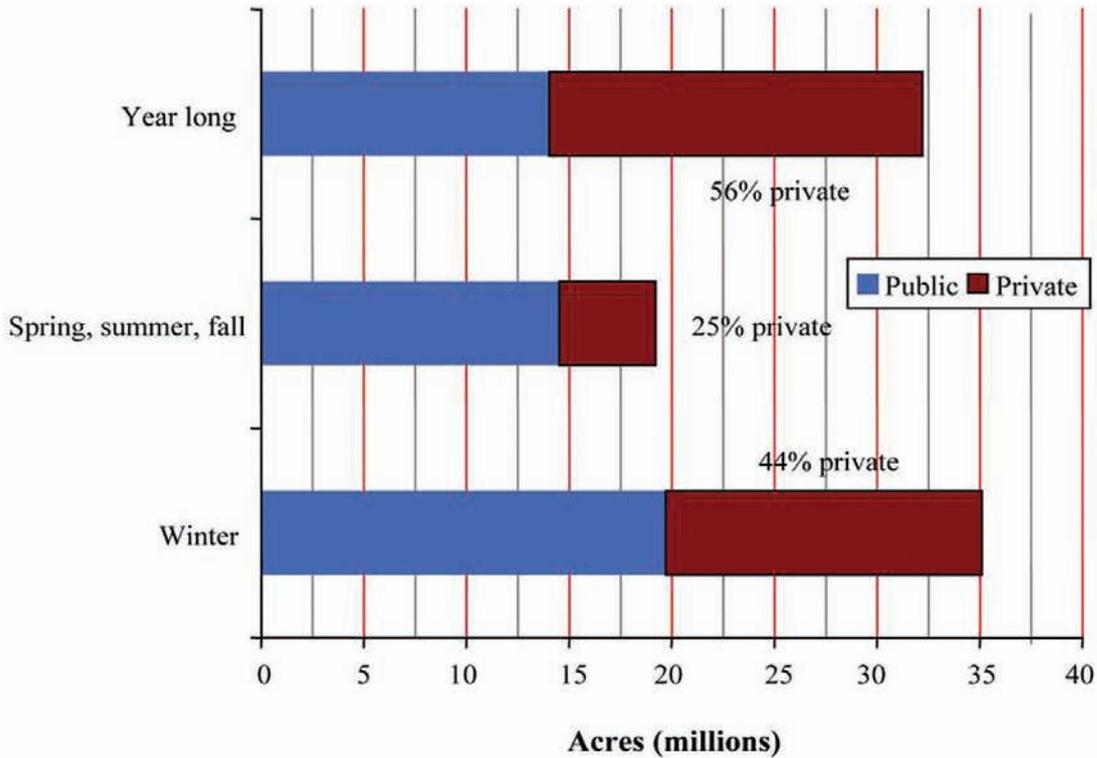


Photo by Chamois Andersen

Bull moose grazing in Big-horn National Forest in northern Wyoming.

Figure 8: Wildlife Seasonal Range and Acreage on Private and Public Lands

Seasonal range categories and acreages on private and public lands in Wyoming (Combined for six big game species: pronghorn, mule deer, white tail deer, elk, moose and bighorn sheep).



Source: Coupal, Lieske, et al. 2004

Big game animals migrate when seasonal changes reduce food availability, limit mobility (due to snow pack, for example), and make local conditions unsuitable for bearing young. Animals use migration corridors that provide reliable passage between seasonal ranges and they also serve as important transition range, providing food along the migration route.

Because long distance migration is critical to balancing seasonal resources, fragmentation of migration corridors and disturbance of traditional wintering and birthing areas can have an impact on big game animals' herd viability. In addition to weather, food availability, and predator pressure, big game animals are increasingly challenged by mineral development, urban sprawl, and outdoor recreation, and the roads and fences that accompany such developments. For Wyoming wildlife to continue to benefit from this integral mix of private and public lands in the future, historic migration corridors for big game species must be managed. Such management that crosses jurisdictional boundaries can be challenging.



Source: www.pronghornpassage.com/work.html

Pronghorn antelope often encounter migration barriers while moving across private land.

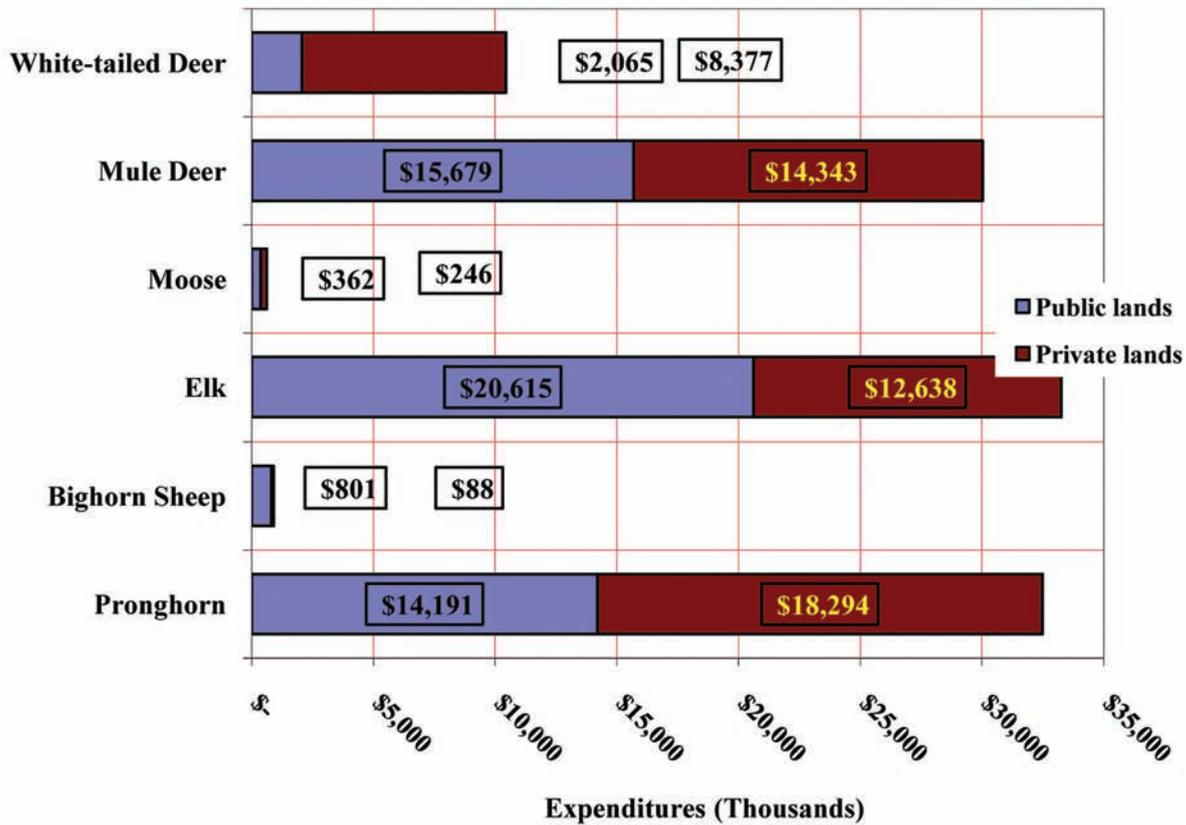
Big game animals are not the only wildlife populations impacted by the fragmentation of open space habitats. Urban sprawl and outdoor recreation are the second and fourth leading causes of decline of federally listed threatened and endangered species (Mealor 2007). The state legislature addressed this issue in 2008 by granting \$1.82 million for sensitive species and nongame research. Aside from the ecological impacts of reduced big game numbers, wildlife-related recreation significantly contributes to Wyoming's economy.

While it is difficult to estimate the economic value of hunting, fishing and wildlife watching to Wyoming's economy overall, it is possible to estimate the activity and economic benefits related to hunting. Open space has a strong influence on these benefits, as private lands support hunters and wildlife enthusiasts directly through access arrangements and indirectly by providing habitat for animals during other times of the year (Coupal, Lieske, et al. 2004).

Annual data collected by the Wyoming Game and Fish Department for the year 2006 were used to estimate expenditures by resident and non-resident hunters pursuing six big game species: white-tailed deer, mule deer, moose, elk, bighorn sheep and pronghorn (Figure 9). The six species reviewed generated \$107.7 million in hunter expenditures, with resident hunters accounting for 67% and non-resident hunters accounting for 33 % of this total. Based on the acreages of private seasonal range for each species and hunter information in 2006, it is estimated that private lands supported more than \$53 million in hunter expenditures, or just over 50% of the total. Values ranged from \$88,000 for bighorn sheep to \$18.3 million for pronghorn (Coupal, Lieske, et al. 2004).

Figure 9: Annual Hunter Expenditures in 2006

Annual hunter expenditures in 2006 (for six big game species supported by habitat on private and public lands).



People are drawn to areas with abundant wildlife to experience nature, view and photograph animals in their native habitat, and engage in hunting and fishing. However, the desire to build homes in wildlife habitat, when multiplied over and over, can conflict with the needs of wildlife, compromise their habitats, and potentially reduce recreational activity as well as revenue.

Water Quantity and Quality

Modern technology has enabled many people to live in remote areas while remaining connected to the outside world. However a continuous, clean supply of water remains a fundamental limitation to a rural lifestyle. In Wyoming, 95% of the rural population depends on groundwater for domestic needs (Frederick 2004). Because the average annual precipitation in Wyoming is only 13 inches (Curtis and Grimes 2004), water is a highly valued resource in the state.

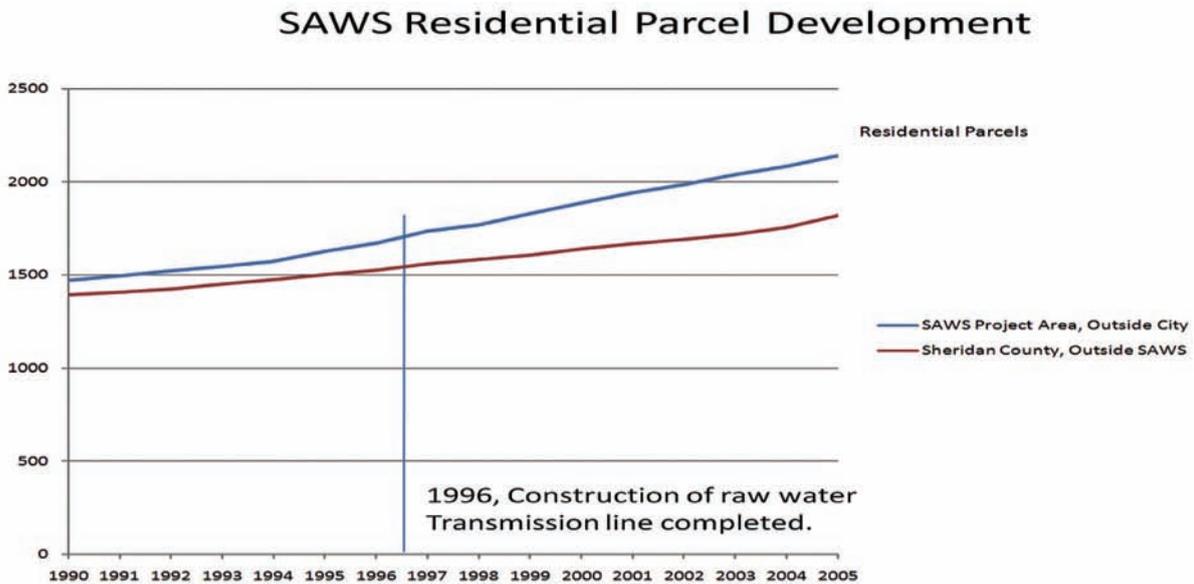
The increased demand to live in exurban/rural areas creates a demand for water. In many areas of the state, natural water availability and human driven changes in water availability due to water line development are a strong influence over exurban development. However, development occasionally occurs in the absence of sufficient water to support residential use.

In Wyoming, when buyers purchase rural property, they are responsible for drilling their own water well and managing their waste with a septic system. Unfortunately, there are cases where a developer does not provide information to the buyer about the availability of water and the buyer does not know to ask the question. If residents cannot find a quality groundwater source with an adequate flow rate, they either have to install a water holding tank on their property and haul their water in from the nearest town, or they cannot live on their property as they had intended.

Lack of disclosure about adequate water supply for rural properties has resulted in residents and their local governments to occasionally ask the Wyoming Water Development Commission (WWDC) to assist and provide domestic water resources. The WWDC was established in 1979 to implement the Wyoming Water Development Program and conduct water and related resource planning (Wyoming Water Development Commission 2008). The goal of the WWDC program is to promote the optimal development of the state's human, industrial, mineral, agricultural, water and recreational resources. The WWDC has approved projects to develop groundwater for municipalities and rural subdivisions, as well as constructed water pipelines from towns out to rural subdivisions. Although this is an important endeavor, installation of water pipelines tends to encourage additional rural development along the pipeline (Figure 10) and as discussed earlier, increased rural development places a financial burden on county governments to provide services. Cooperation between local and state government could help avoid the use of state funds for subdivisions that did not plan for adequate water, and instead allow for the allocation of funds to support water projects that encourage a more fiscally responsible pattern of growth (Cook et al. 2008).

Figure 10: SAWS Water Pipeline Project

Sheridan Area Water System (SAWS) Water Pipeline Project, Sheridan County, WY. Increase in number of residential parcels over time of the SAWS pipeline project area (blue line) versus the remainder of Sheridan County (red line). The SAWS pipeline was put into service in 1996.



Source: The Sheridan County Assessor's Office and the Sheridan County GIS Office

Although the majority of exurban/rural housing depends on groundwater for domestic use, water quality can be impacted by the increased human activity in these areas. Groundwater wells can be impacted by septic system failures, pesticides, and the dumping of other household chemicals on the ground. Nearby streams and rivers can be impacted by run-off from roads, livestock corrals, pesticide use and vehicles. With the spread of development and intensified agricultural practices across watersheds, pollutant runoff, or non-point source pollution, has become the greatest threat to drinking water sources (Trust for Public Land 1997).



ENR Photo

A skate skier racing at Happy Jack Recreation Area in the Laramie Range.

Benefits of Open Space and Public Support for Protection

CHAPTER V

The benefits of open space are numerous, including substantial economic benefits as well as other values. Both public and private open space provides opportunities for recreation and tourism. Tourists are drawn to the recreation, scenic, and wildlife viewing opportunities offered by public and private land. In 2006, state residents and nonresidents spent \$1.1 billion on wildlife-related recreation, including fishing, hunting and wildlife watching in Wyoming (U.S. Fish and Wildlife Service 2006). Tourists also enjoy the scenic views and western heritage provided by farms and ranches. In 2006, travel spending by all domestic and international visitors in Wyoming was approximately \$2.5 billion. This is equivalent to \$6.8 million dollars per day (Dean Runyan Associates 2007).

Open space can also add to property value. The monetary value of property adjacent to either public or privately owned open space is measurably higher than for comparable properties without this amenity. The value further increases when the adjacent open land has been permanently protected. (U.S. Department of Agriculture 2006).

Open space also offers many potential public goods and services that are less measurable, including preserving biological diversity and other associated ecosystem services such as flood control and water purification (Gogenhegan 2002). Finally, open space provides humans with a connection to nature that is becoming more difficult to find. People desire the solitude and peace that untouched natural landscapes provide. This is evidenced by the public's response to several surveys, as well as assessments and conferences that have been conducted in recent years in Wyoming, as follows.

In 2000, the Wyoming Rural Development Council (WRDC) began a series of assessments that asked individual communities to identify strengths and assets, weaknesses and problems, and needs for the future. The WRDC has conducted assessments in more than 75 Wyoming communities over the last seven years. Some of the strengths consistently named by these rural communities included the people in communities (often listed as the most important asset), and their friendliness and willingness to pull together in times of need, great volunteerism, the small size of the community, safety, low crime, the location and rural atmosphere, natural resources, outdoor recreational activities of every possible type, and good community leadership. Many communities expressed interest in wanting to preserve their unique history and culture, while building a future in which their children are proud to return to their home communities (Wyoming Rural Development Council 2007).

WYOMING'S STATE OF THE SPACE

Other statewide polls have shown public support for maintaining natural resources and family farms and ranches in Wyoming. In addition, as residential development increases over time, support for protecting open space and scenic vistas becomes more important to the public (Table 4).

Table 4: Results from 2004 and 2007 Statewide Wyoming Public Opinion Polls ³

Conservation Project	Extremely/Very Important	
	2004 Poll	2007 Poll
Protecting water quality of rivers, lakes and streams	77%	70%
Preserving family farms and ranches	66%	67%
Protecting fish and wildlife habitat	66%	66%
Protecting open space and scenic vistas	53%	73%

Polls have shown that the loss of working family farms and ranches is an important concern of Wyoming voters.



Source: www.wsgalt.org

³ 2004 poll conducted by Fairbank, Maslin, Maullin & Assoc., for the Ruckelshaus Institute at the University of Wyoming and The Nature Conservancy, surveyed 500 registered Wyoming voters with a margin of error of +/-4%. 2007 poll conducted by Fairbank, Maslin, Maullin & Assoc. and Public Opinion Strategies for the Ruckelshaus Institute at the University of Wyoming, the Wyoming Stock Growers Association and The Nature Conservancy, surveyed 600 registered Wyoming voters with a margin of error of +/-4%.

In January of 2008, Gov. Freudenthal's office hosted and convened a statewide conference entitled, "Building the Wyoming We Want." The intent of the conference was to provide a forum for dialogue for Wyoming citizens on how to welcome growth and still protect the things that make Wyoming a special place (Wyoming Office of Governor 2008). The conference was held in Casper, Wyoming and nearly 500 people attended. Speakers from within and outside of the state presented information on growth trends in Wyoming and the West, domestic water supply availability for rural homeowners, the cost of community services for rural residential development, and information on how other western states, specifically Utah, have dealt with rapid growth. The conference allowed for audience participation in the form of breakout sessions where participants were asked to identify tools and solutions to this issue. Conference participants expressed their desire for their communities to take action to plan for growth and guide development to protect and enhance community character.



Gov. Dave Freudenthal speaks to a packed house at the "Building the Wyoming We Want" Conference in January 2008 at Casper College in Casper, Wyoming.

Source: www.wyomingbusiness.org



ENR photo

Example of a new housing development in Wyoming.

Options for Sustaining Open Space

CHAPTER VI

Every day, communities are making choices about the future of open space, whether it is deciding where to encourage new growth or allowing development to proceed largely unchecked. Wherever new houses are built on rural lands, the impacts are felt by owners on adjacent lands and even farther away. Taking a landscape perspective and working together are key strategies for balancing growth with open space conservation in the future (U.S. Department of Agriculture 2006).

This section reviews some tools for conserving open space including, funding resources to finance implementation of these tools, and issues related to community planning. It also includes specific measures taken by the Wyoming State Legislature in the last several years to improve wildlife habitat and grant local governments the option of reviewing large-acre rural development proposals. Last, this section addresses tools for balancing open space with development, and includes specific examples of successful projects in the Northern Rockies.

Tools for Conserving Open Space

Conservation Easements

Land ownership can be described as a bundle of rights, such as the right to harvest crops or timber, to construct buildings, to limit access, or to subdivide the land. A landowner may sell or donate all or any number of those rights. By selling or donating a conservation easement, a landowner exchanges certain rights, usually the right to develop, for cash or tax benefits for the purpose of protecting the land. A landowner retains all other rights, however, and the traditional uses of the land are typically not affected, ensuring an opportunity to continue agricultural production of the land, to protect wildlife habitat and natural areas, to protect historic structures, or to protect open space and views. Thus, conservation easements are a tool for preserving open space. They are voluntary agreements that protect resources by limiting land development.

Conservation easements can be in place for any length of time, but donated easements are usually granted in perpetuity to ensure permanent protection of the land and to enable the donation to qualify for federal income and estate tax benefits. The easement must protect conservation values that benefit the public, but public access is not necessarily required and individual restrictions are tailored to the land and the landowner's circumstances. The landowner may choose to either donate or sell a conservation easement to a land trust or other qualified non-profit organization, or to a local, state, or federal government entity. The organization holding the easement is responsible for ensuring that the terms of the easement are carried out (Perrigo and Iverson 2002).

If a landowner wants to recognize immediate income from selling land and would like the property to go to a land trust, a bargain sale provides a possible option. In a bargain sale, the landowner sells the land to a qualified organization for less than its fair market value. In other words, a bargain sale is partly a sale and partly a charitable gift. The difference between the fair market value and the bargain sale price is tax-deductible as a charitable contribution (The Trustees of Reservations 2008). This not only makes it more affordable for the land trust, but offers several benefits to the landowner: it provides cash, avoids some capital gains tax, and entitles them to a charitable income tax deduction based on the difference between the fair market value of the land and its sale price (Lummi Island Heritage Trust 2008).

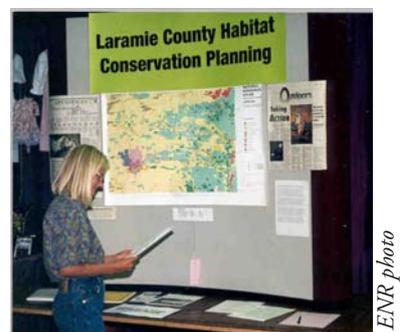
Conservation Buyers

A conservation buyer is generally an individual of means who will purchase land at full price (or close to full price) and then place a conservation restriction on the land or a major portion of the land, thus ensuring its permanent conservation (The Trustees of Reservations 2008). Some land trusts will establish conservation buyer programs that match properties with buyers who wish to enjoy and protect them. Individuals are encouraged to buy properties with high conservation values and to protect them by donating conservation easements to a land trust. In many cases the conservation buyer can benefit from the tax advantages of donating a conservation easement to the land trust (Land Trust of Santa Cruz County 2008).

Land Trusts

Land trusts purchase land or development rights from landowners and hold them for conservation purposes (Travis 2007). Each organization and agency that holds easements has its own mission and strategy for land protection. Priorities include agriculture, preserving open land for future generations, wildlife habitat, river corridors, community separators, and greenways, although many organizations enter into agreements for more than one primary purpose. A landowner can choose the land trust or agency with the mission that best coincides with their own desires. Some active land trusts in Wyoming include the Green River Valley Land Trust, Jackson Hole Land Trust, Sheridan County Land Trust, The Nature Conservancy, The Conservation Fund, and the Wyoming Stock Growers Land Trust. In 2007, it was estimated that approximately 389,000 acres of land across Wyoming were under conservation easements held by the various land trusts⁴ or approximately 1.45% of the privately-owned land in Wyoming. In 2005, Wyoming ranked third of northwestern states in land area in conservation easements (Figure 11).

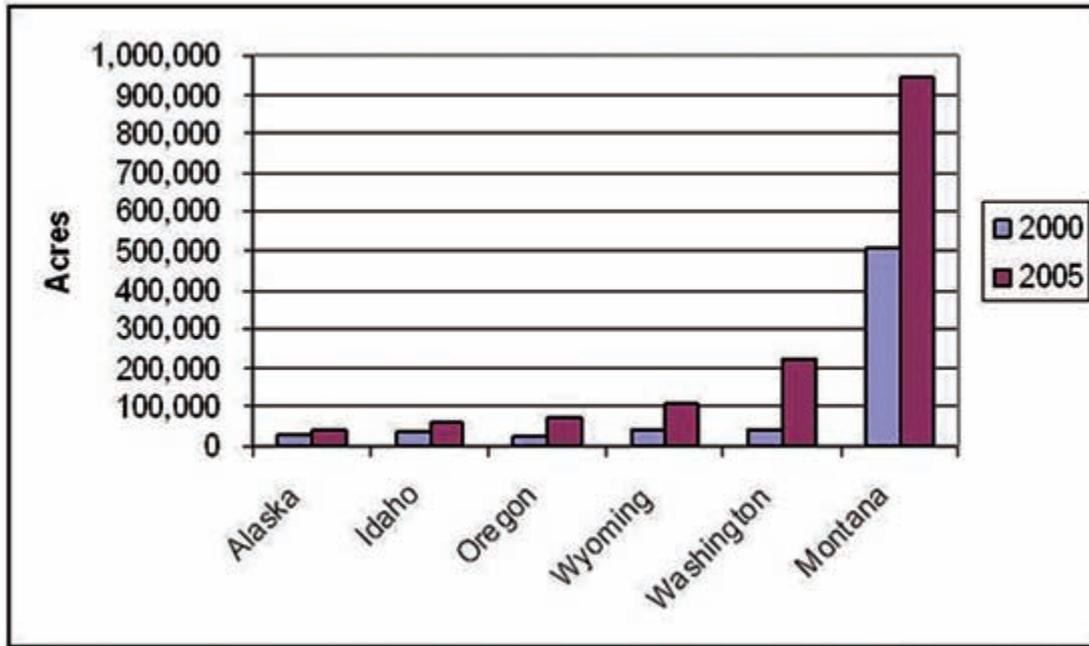
Conservation planning and providing the public with maps and information are important to land use planning efforts.



⁴ The estimated number of acres of land in Wyoming under conservation easement was compiled from the various private land trusts in Wyoming. The number of acres does not include lands held in conservation easements by public or government entities.

Figure 11: Total Acres Conserved by Northwest States from 2000-2005

Land Trust Alliance, 2005, National Land Trust Census Report



Land Use Planning

Land use planning as a public policy endeavor is in theory, the process through which the values of residents and the goals of landowners and developers are coordinated to achieve desirable community development patterns and to meet citizens' expectations for a certain quality of life. It is the main expression of government restriction on the unfettered use of private property, and it rests on well-established legal principles. But, land use planning is also in tension with private property rights, especially the right to change land from one use to another and to reap the benefits of land appreciation. Because regulation that manages the spread of development is in effect, growth control, planning is also in a struggle with the commonly-held belief that growth is good (Travis 2007).

Regulations on the use of land existed in colonial America, but the demand for public regulation of real estate development did not become significant until the 20th century. As the United States shifted from a dominantly rural society to an urban one, municipalities have responded by prescribing parameters such as maximum height, property line setbacks, and the materials and methods of construction.

Patterns of land use tend to develop naturally depending on the natural and environmental characteristics of the land, such as proximity to water or food resources. As land use becomes denser in some areas, development patterns may be shaped through private agreements or governmental legislation and regulations (Hamerlinck, et al. 2008, in review).

One means for addressing future growth issues is to implement land use planning practices. Wyoming statutes prescribe the authority for county land use planning. Local authorities in land use include

county commissioners, planning and zoning commissions (city and county) and municipalities (incorporated and unincorporated). Wyoming law requires that both municipal and county governments develop a land use plan. Any unincorporated city or town in Wyoming may develop a land use plan, but is not obligated to do so (Wyoming Statute § 9-8-301, et seq. 2007).

Property Rights and Public Values

Community planning must consider the balance of individual property rights and public values. Commissioners frequently encounter the term “takings” when addressing land use decisions. The issue of “takings,” or “property rights,” derives from the Takings Clause, within the Fifth Amendment of the U.S. Constitution. The clause provides: “[N]or shall private property be taken for public use, without just compensation.” At the crux of the matter is the question, “at what point does a land use or decision ‘take’ private property, thus entitling an owner to compensation?”

The language of the clause suggests that individual property rights must be defined in relation to the rights of all other citizens. The Georgetown Environmental Law and Policy Institute concluded that the definition of private property rights — and, as appropriate, the redefinition of private property rights over time — should generally be left to elected representatives rather than to the courts.

Many of the laws resulting from court cases have stemmed from arguments about private property rights that address whether the owner has ultimate control over any use. U.S. courts have consistently held that the Constitution allows for the public regulation of private land for the common good. The U.S. Supreme Court, however, has ruled that certain regulations exceed the law and therefore result in takings as well. Advocates of the modern “takings” agenda say takings occur under a wide variety of local, state and federal rules, including zoning regulations, historic landmark law, wetlands permitting requirements, habitat protection measures, and others (Georgetown Environmental Law & Policy Institute 2008).

In general, the Supreme Court has ruled that regulation only results in a “taking” when it eliminates all or substantially all of the property’s values.

Source: Georgetown Environmental Law and Policy Institute 2008

Eminent Domain

In apparent contrast to the Takings Clause, the Supreme Court has held that the federal government and each state have the power of eminent domain – the power to take private property for “public use.” The Fifth Amendment limits the power of eminent domain by requiring that “just compensation,” normally the fair market value, be paid if private property is taken for public use. In essence, the property must be used or disposed of in such a manner as to benefit the public welfare or interest (Cornell 2008).

Eminent domain may be exercised by numerous local government bodies, including drainage, levee, or flood control agencies, highway or road authorities, and housing authorities. For example, if a city wishes to build a new bridge, and the land it needs is occupied by 30 houses, it may use its eminent domain power to take the 30 houses, compensate the owners, remove the buildings, and build the bridge (Meltz 1999).

Public Involvement in Land Use Planning

Typically, the development of a land use plan involves the local government gathering input from local residents to assess desired growth patterns that will assure the long-term sustainability of their community. Public input can be assessed and gathered in a variety of ways, either through surveys or public meetings. Computer technology, such as in the form of geographic information systems (GIS), is being used more frequently to gather public input for community design. Software tools can bring mapped information about a community (land use, zoning, transportation, water and sewer, telecommunications, environmental constraints, etc.) together into a flexible computerized mapping environment where the public and decision makers can better evaluate the costs, benefits, and impacts of alternative community planning decisions (Plan-IT Wyoming 2007). Public involvement, combined with such data and visualization software, can provide a powerful tool for developing a comprehensive plan for future growth.

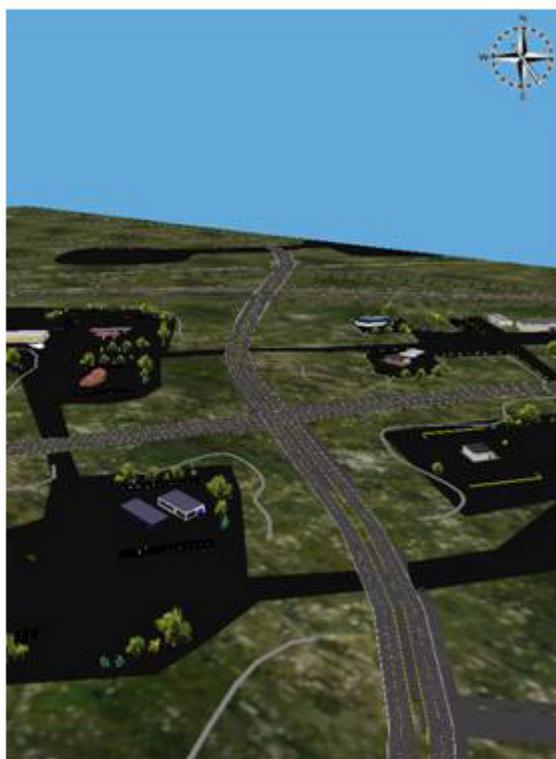
Figure 12: Decision-Support Software Examples

Examples of decision-support software to show different development scenarios for a new interstate interchange south of Cheyenne, Wyoming. Scenario B actually provided better vehicular access to commercial parcels while incorporating more open space.

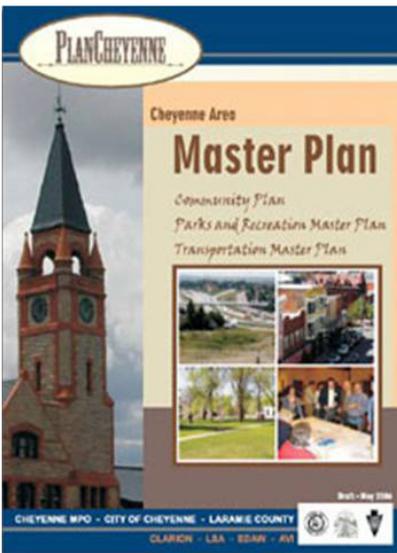
Scenario A



Scenario B



Source: Lieske, Plan-IT Wyoming 2009

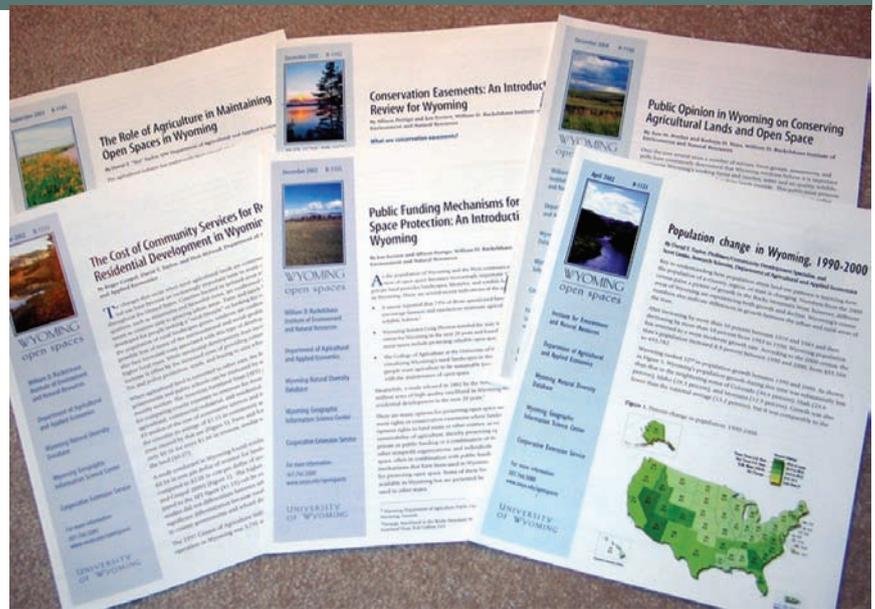


The outcomes from public participation are outlined in a comprehensive master plan, a dynamic document, which can be the roadmap for the community's future.

Plan Cheyenne

In 2005 and 2006, *Plan Cheyenne*, the flagship project of the Metropolitan Planning Organization in Cheyenne, Wyoming, won the Award for Outstanding Achievement in Metropolitan Transportation Planning for organizations under 200,000 people. *Plan Cheyenne* stands as proof that small communities can create innovative plans.

Public involvement is enhanced with public information and knowledge sharing. The *Wyoming Open Spaces Initiative*, for example, has publications that provide the public with background information, including information on public polls and conservation options for landowners.



The local government then develops incentives, regulations and ordinances that will guide growth according to the goals of the comprehensive plan. Land use authority is mainly delegated to the county commissioners, with the county planning and zoning commission assisting in the process. County commissioners have the power to regulate and restrict the location and use of buildings and structures and the use, condition of use, or occupancy of lands for residence, recreation, agriculture, industry, commerce, public use, and other purposes in the unincorporated area of the county in accordance with the restrictions of the police power (Wyoming Statute § 18-5-202 et seq. 2007).

Land Use Controls and Incentives

Land use controls for private property can be an important tool for preserving open space, especially if used constructively as a positive force for community good (McMahon 2001).

One myth about land use regulation is that sparsely populated rural areas do not need land use planning; however, some of these areas are those experiencing the most rapid change, particularly in Wyoming. Land use planning is one way to mitigate and manage change (McMahon 2001). Rural communities that want to preserve their landscapes have to carefully choose land use planning tools to maintain the character of rural landscapes while considering the strong private property right sentiments that tend to exist in the rural areas of many western states.

Zoning

Zoning is a land use planning tool often used to regulate development; it is the legal control a municipality or county uses to shape the physical configuration of development. In Wyoming, local governments have authority to engage in zoning to conserve and promote the public health, safety, welfare and property value of its citizens. City and county planning commissions recommend boundaries and regulations and the governing body, either the respective city council or board of county commissioners, acts on these recommendations and determines how regulations, restrictions and boundaries of the districts are established and enforced (Wyoming Statute § 18-5-316/7, et seq. 2008). Of Wyoming's 23 counties, 14 have partial or full-county zoning (Reid 2006). And, according to George Parks, executive director of the Wyoming Association of Municipalities, it is estimated that approximately half of Wyoming's 93 municipalities implement zoning (email communication, George Parks, Dec.11, 2008).

Zoning remains the most prevalent land use control tool in affecting the location of different land uses, but in general it can only affect the type and density of residential development and does not prohibit it outright. As a tool, zoning may be most effective when it is based on a vision and closely tied to the long-term comprehensive plan of a community. It can provide landowners and the marketplace with predictability and certainty, protecting critical resources and increasing property values (McMahon 2001). While conventional zoning is effective for protecting existing features, it has limitations for shaping the future or for improving the quality of new development. Most zoning codes are prohibitive, designed to prevent poor land use decisions from occurring prior to the development of a community plan for land use.

The most common objection to zoning is a perceived loss of control by the landowner, and a concern that regulation of any kind might reduce property values. However, most of the value of an individual parcel of real estate comes from beyond the property lines through the investment of others – usually in what taxpayers have paid toward community services such as water and sewer, school buses, etc. Thus, low density sprawl that is not managed through zoning tends to increase taxes.

Occasionally, instances occur when a land use regulation simply reduces land value, and the question then must be asked whether the owner is entitled to compensation. In most of the property rights and takings legislation, this is the issue. Public decisions – zoning included – affect the value of real estate in both directions. It is one of the risks and potential rewards of land ownership (Rypkema 2001).

Cities and counties that are successful with using zoning as a tool generally add additional value to conventional zoning through using education, incentives, and voluntary initiatives, in addition to regulation. They also use design standards, incentive zoning, density bonuses and other innovative techniques (McMahon 2001). Zoning gives citizens a voice in local government and it also makes land use decisions public. Zoning and land use controls are really about striking a balance between individual rights and the public good.

Subdivision Regulations

In addition to, and separate from zoning, city and county subdivision regulations control the subdivision of land to ensure that proposed building sites are adequate and appropriate for the intended purpose; that adjoining properties will not be harmed and that the community at large benefits.

Land use controls almost always enhance rather than diminish property values.

Source: McMahon 2001

The subdivision of land in incorporated areas (cities and towns) requires thorough review of the proposed development. However, until recently unincorporated areas or counties in Wyoming did not have authority to review the subdivision of land where the divided parcels were 35 acres or more but counties have been able to use zoning to regulate the use of parcels of 35 acres or larger.

This exemption from county subdivision review inadvertently created an incentive for rural land to be divided into parcels of 35 acres or greater. Some land speculators took advantage of the exemption to purchase very large tracts of land and divide them into 40-acre parcels. These parcels are often sold on the Internet and marketed through other national media. Often, buyers do not understand that the parcel they purchased may not have access to water or other utilities or maintained roads. The result is that counties have little notice or time to find the means to provide services to residents in these areas.

To help address this problem, a bill was passed in the 2008 legislative session that allows counties, by resolution, to regulate subdivisions in Wyoming between 35 and 140 acres just as they do for parcels smaller than 35 acres (Wyoming Statute § 18-5-316/7, et seq. 2008). The bill did include an exception for any parcel existing prior to July 1, 2008, and for the division of up to 10 parcels of 35 or more acres to be created without undergoing subdivision regulation review (Wyoming Statute § 18-5-316/7, et seq. 2008).

Subdivision Regulations vs Zoning Ordinances

Subdivision Regulations: Subdivision regulations govern the manner in which vacant land is platted into roads, streets, and lots in preparation for development. They establish the pattern and the type of improvements that must be made as land is brought into use.

Zoning Ordinances: Zoning ordinances provide the means to define the type and intensity of uses permitted on any piece of property. After land is subdivided according to subdivision regulations, zoning determines the type of development that can occur on those lots, whether it be residential, commercial or industrial.

Source: University of Northern Alabama 2009

Conservation Development and Density Bonus

As an alternative to regulating where development can and cannot occur, local governments can also create incentives to encourage development in certain areas and discourage it in others. One incentive that has gained more attention in recent years is conservation or “cluster” development with a density bonus. The concept of cluster or conservation development is to increase housing density and allow for common open space to be shared by all residents of the subdivision (Figure 12). The benefit for the developer is that more lots can be sold in a cluster development than what would normally be the case for selling smaller numbers of large parcels. For example, with 160 acres, a developer can either sell four 40-acre parcels or design a cluster development that would keep 100 acres of open land and divide up the remaining 60 acres for housing. The 60 acres could be divided in any number of ways, such as six 10-acre lots or 12, 5-acre lots. In this case, the developer gets to sell more than four 40-acre lots and potentially increase profit by increasing the housing density.

Conservation or cluster development has advantages for local government as well. It is more cost effective to provide services to clustered development than to sprawling development, as long as the development is located within a reasonable distance from a service center. Conservation development can also operate centralized water and sewer systems as opposed to each home relying on individual wells and septic systems.

In 2009, the Wyoming Legislature passed legislation to facilitate and incentivize conservation or cluster development in rural areas by providing an exemption to the requirements for a subdivision application for subdivisions that use a conservation design process. A conservation design process is defined as a planning process that uses density bonuses to preserve open space for protection of wildlife habitat or enhancement and maintenance of the rural character of the lands contiguous to agricultural lands. Two-thirds of the total area of the parcel being divided must be retained in open space under the process.

In the law, open space is defined as land substantially free of structures, impervious surfaces, roads or other land altering activities and does not include golf courses, residential yards, parking areas or areas reserved for nonagricultural private use. The open space designation shall be for at least 65 years and must provide for a process by which the owners of the lots in the development may retain the designation after the 65 year period. Each board of county commissioners may opt to allow this exemption (Wyoming Legislative Service Office 2009).

Figure 13: Conventional Subdivision Design vs Conservation or “Cluster” Design

Town of Cary, North Carolina, Open Space and Historic Resource Plan, Conservation Subdivision Design.



Example of a conventional subdivision design.



Example of a conservation subdivision design developed to maximize the use of common open space access for residents.

Capital Improvement Programs

A capital improvement program (CIP) is a short-range plan that a municipality may use, usually spanning four to six years, which identifies capital projects and equipment purchases, provides a planning schedule, and identifies options for financing the plan. Essentially, the plan provides a link among a municipality, school district, parks and recreation department, and/or other local government entity and a comprehensive and strategic plan and annual budget.

Prior to undertaking the development of the CIP, the government entity defines the criteria for what kind of projects or equipment are to be included and organizes a process for developing the plan. The definition of what constitutes a capital project or capital purchase may vary from city to county to state depending on the size of the local government. Generally, projects are tangible and have a life expectancy greater than one year.

A local government engaged in a CIP also forecasts future demands and growth by producing an inventory of existing facilities, infrastructure and equipment, and basic policies for implementing the plan. Because the CIP includes financing issues, the municipality may choose financial advising and/or bond counsel. Once the CIP is finalized, the local government may be required to hold a public hearing before the plan is adopted by the governing body.

The CIP typically includes a listing of the capital projects or equipment to be purchased, the projects ranked in order of preference, a plan for financing the projects, a timetable for the construction or completion of the projects, and justification for the projects. Benefits of a CIP include allowing for a systematic evaluation of all potential projects at the same time and the ability to stabilize debt and consolidate projects to reduce borrowing costs. They are also helpful in serving as a public relations and economic development tool, ensuring the efficient use of public funds and fostering cooperation between local government entities (Massachusetts Department of Revenue 2008).

Funding Sources

Funding for the protection of open space can be obtained from local, state or federal sources. Across the nation, people have demonstrated their willingness to pay for open space conservation. The Trust for Public Land, which tracks local and state ballot initiatives for land conservation, lists approximately \$96 billion approved from 1997 to 2007 for land conservation in the United States (Trust for Public Land 2008).

American voters pass three of every four funding measures for conserving open space and parks.

Source: Trust for Public Land 2008

Local Funding Sources

In real estate, impact fees for new infrastructure that must be built or expanded due to new property development may be imposed on property developers by municipalities, with the goal of supporting enhancements that benefit the entire community (Milwaukee River Basin Partnership 2003). These fees are designed to offset the impact of additional development and population growth on the municipality's infrastructure and services, which include the city's water and sewer network, police and fire protection services, schools, and libraries. Impact fees can also be assessed by local governments on development that may impact sensitive environmental areas, such as watersheds and aquifer recharge areas as a disincentive to develop in these areas.

Most of the costs associated with impact fees may ultimately be passed on to the residential, commercial or industrial buying or leasing consumer, which drives up the cost of housing and business through higher lot prices or higher rents.

As development becomes more widespread and infrastructure costs mount, citizens tend to favor the use of impact fees. A 2007 public opinion survey of 600 registered Wyoming voters conducted by two national polling firms and commissioned by the Ruckelshaus Institute of Environment and Natural Resources, the Wyoming Stock Growers Association and the Wyoming Chapter of The Nature Conservancy, showed that 74% of Wyoming voters support the use of impact fees on developers who build in areas that may impact water, wildlife and/or working ranches (Hulme et al. 2007).

Across the nation, state legislatures are increasingly granting local governments the authority to implement new and creative funding programs. The most common methods at the state level are general allocations, sales taxes, and bonds. Local governments commonly use bonds, sales taxes, and property taxes. Government agencies may directly use these funds for open space programs or may distribute grants to local and national land trusts and similar organizations. Some examples of local and state public funding efforts are listed below:

- Teton County in Wyoming has used a portion of a 1% specific-purpose tax increase for open space and parks (Iversen and Perrigo 2002).
- Helena and Missoula, Montana, approved property tax increases for open space programs (Iversen and Perrigo 2002).
- Santa Fe, New Mexico, approved a retail tax increase that will provide up to \$1.2 million annually for open space acquisition and trail improvements (Iversen and Perrigo 2002).

State Funding Sources

As the impacts of increased development become more apparent, it often becomes necessary for government to approve programs or impart regulations to reduce or mitigate for those impacts. The land use changes seen in Wyoming in the last decade have resulted in important actions by the Wyoming State Legislature.

In 2005, the state Legislature established the Wyoming Wildlife and Natural Resource Trust (WWN-RT). Funded by interest earned on a permanent account containing donations and legislative appropriation, the purpose of the program is to enhance and conserve wildlife habitat and natural resource values throughout the state. Project goals include the preservation of open space by purchase or acquisition of development rights, or contractual obligations. Any project designed to improve wildlife habitat or natural resource values is eligible for funding.

The WWNRT is an independent agency guided by a nine-member citizen board. The corpus of the trust was funded at \$57 million and was allocated an additional \$29.5 million in the 2008 state legislative session, bringing the corpus total to \$86.5 million. The annual interest generated from this amount is available for project use (Wyoming Legislative Service Office 2008). By statute, the corpus of the WWNRT can be allocated up to \$200 million in funds.

In the first year of operation, the WWNRT reviewed 97 applications from 45 different applicants in each of the state's 23 counties. Of these, a total of 48 projects in 21 counties received full or partial funding for a total allocation of more than \$2.29 million. The total impact of these projects on the ground is nearly \$18 million, meaning that WWNRT investments are matched at a rate of more than eight-to-one. Projects focus on a variety of habitat improvement efforts as well as the purchase of conservation easements (Wyoming Wildlife and Natural Resource Trust n.d.).



Source: wwnrt.state.wy.us

Diamond H Easement, December 2007. Conservation easement on approximately 3,000 acres of crucial habitat for mule deer, elk, moose, sage grouse and other species in Lincoln County. The property includes key spawning and migratory habitat for Colorado River cutthroat trout.

Other land protection funding strategies used by state governments are real estate transfer taxes, tax credits, bonding initiatives, and state lottery funds. For example, Great Outdoors Colorado (GOCO), a constitutionally chartered agency created by Colorado voters in 1992, invests state lottery funds in open space protection and outdoor recreation. A real-estate transfer tax typically amounts to a small percentage of the real-estate purchase price and are usually paid by the buyer. These funds can be designated for specific programs, such as the protection of natural areas or agricultural lands through the purchase of development rights. States may offer state income or property tax benefits for landowners who donate conservation easements. Bonds can be used to borrow funds for open space programs and spread repayment over an extended period of time.

Federal Funding Programs

There are also a number of federal programs that provide funding for the purchase of land or conservation easements, though funding for some of these programs has been reduced in recent years. Examples include:

- Land and Water Conservation Fund
- Farm and Ranchland Protection Program
- Conservation Reserve Program (CRP)
- Wetlands Reserve Program (WRP)
- Grasslands Reserve Program

Source: Trust for Public Land 2008, Natural Resource Conservation Service 2008

Balancing Open Space and Development in the Northern Rockies

The combination of stunning landscapes and livable communities in the Northern Rockies has become a magnet for new residents, making the Northern Rockies one of the fastest growing regions in the country (Sonoran Institute 2007). As part of the Northern Rockies, Wyoming contains some of the nation's most iconic Western landscapes, from sage-covered plains and valleys to tree-covered mountains and snow-capped peaks. It is this natural environment that has attracted both historic settlers and today's contemporary families. While change is inevitable every place in America, many rural communities with the desire to preserve their historic landscapes, ranchlands and towns have found ways to accommodate growth and maintain their rural western character.

Noteworthy Sustainable Development Projects

There are many noteworthy examples of projects in the West that have considered landscapes in a manner sensitive to physical characteristics and environmental limits. Several examples that illustrate successful integration of building sites into the rural landscape and continued ranching and habitat preservation are detailed below (Sonoran Institute 2007).

Sun West Ranch - Madison County, Montana

This rural project is an example of cluster development, designed to ensure viewshed preservation for the 18,000-acre Sun West Ranch development in the Upper Madison Valley, in which 80% of the 2,000 acre ranch remains in common land with shared ownership. This project was conceived as a shared-ranch community. The 55 home sites are limited to 400 acres of the development and effectively blend into the landscape. The remainder of the ranch is devoted to raising beef on pastureland, preserving diverse wildlife habitats and maintaining the 3-mile corridor of the Madison River waterfront (Sonoran Institute 2007).

Wilson Sage Meadows - Wilson, Wyoming

Wilson Sage Meadows is an example of a community design, open space and transportation project. This community typically boasts homes that on average sell for \$565,000 to more than \$1 million. In an attempt to provide affordable housing, the Teton County Housing Authority integrated eight single-family duplex homes in a manner that brings the views, open space and neighborhood characteristics of market-rate developments to those in need of affordable-housing. The affordable homes range in size from 1,000-square feet with two bedrooms and one bath up to 1,300 square foot, three-bedroom, two-bath units, all of which have front porches and attached one-car garages. Native landscape materials within the development blend seamlessly into the adjacent open lands preserved by the Jackson Hole Land Trust (Sonoran Institute 2007).

Powell, Wyoming

Many people who live in the West will agree that in order to preserve our historic landscapes and open space we must also preserve our historic downtowns as centers where communities can thrive. Economic viability is a vital key to preserving a town's historic charm. One example of an economic success, urban revitalization, and community engagement project is the Town of Powell in northern Wyoming. From 1970 to 1990, Powell suffered a \$76 million drop in assessed property valuations. As a result, stores and buildings closed leading to many residents having to travel to Billings or Cody for supplies. After three failed attempts to revitalize the downtown, the Powell Valley Chamber of Commerce began in 1991 to address the downtown revitalization in a public-private partnership for the downtown's design, promotion, organization and management. City government then invested in new streetscape elements and infrastructure, public parking, park enhancements, and the creation of a new community plaza for downtown events and activities. The local government and community's collaborative efforts paid off. Once considered a ghost town, Powell is now the centerpiece of a healthy and vigorous community (Sonoran Institute 2007).

These examples of successful projects represent a new vision that is starting to take shape in both large and small towns, at the edge of communities and out on the rural landscapes. Communities are beginning to craft plans and ordinances that support these new ventures.

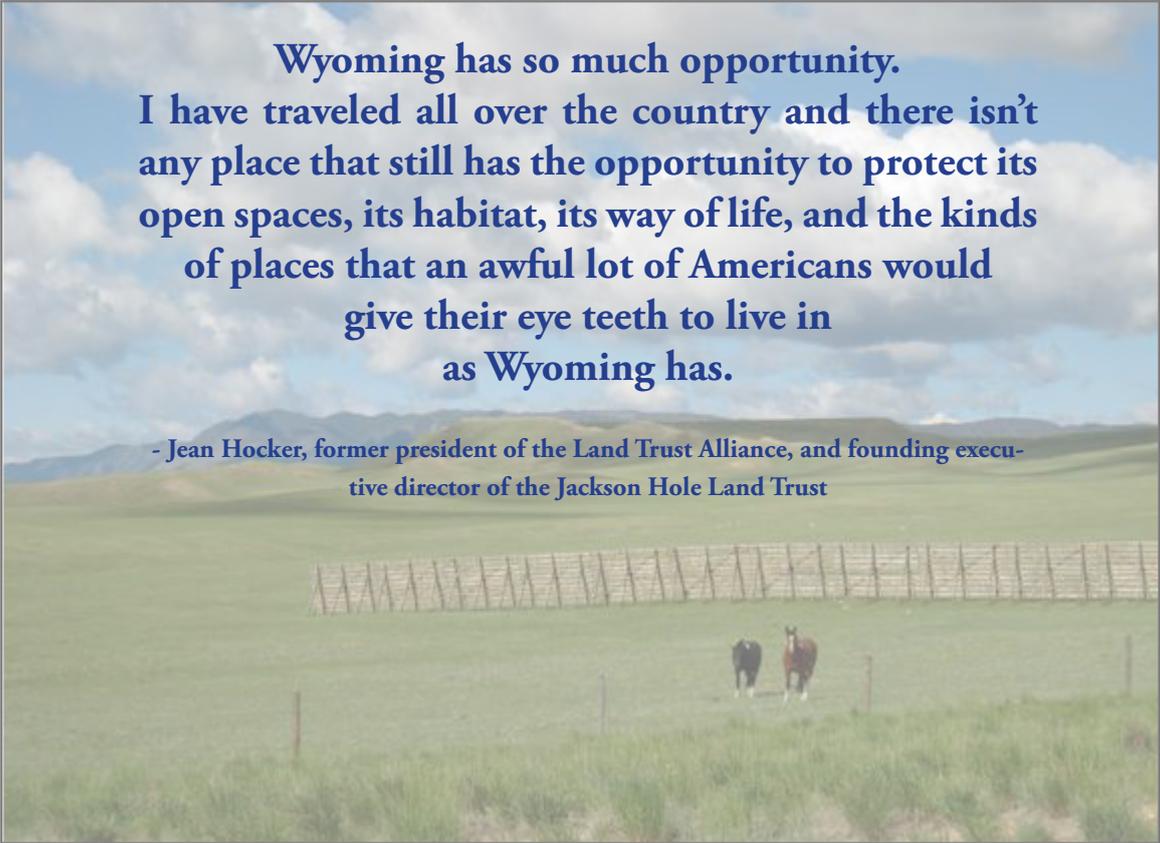
Conclusion

CHAPTER VII

The population of the United States (approximately 305 million) is projected to double by 2100 from what it was in the year 2000, reaching 571 million. The recent pattern of development, consisting of larger homes on larger lots for fewer people, may not be sustainable as population increases. This pattern of growth results in higher environmental impacts per house than urban or suburban development, due to the larger areas affected and incursion into areas less altered by human presence (U.S. Department of Agriculture 2006).

Wyoming has not been immune to the trend toward rural development and its population will also increase over time. Even with all of the open space Wyoming currently has, land will be a limited resource if current land use patterns do not change. Continuation of the rural development trend could impact what Wyomingites say that they value most – family farms and ranches, clean and plentiful water, and wildlife (Hulme, et al. 2007, Boelter 2004).

Wyoming has an outstanding opportunity to shape its future growth. Wyoming residents are beginning to voice their desires and show support for thoughtfully planning for the growth they realize is coming. The successful 2008 conference “Building the Wyoming We Want,” convened by the Governor’s Office, indicates the public’s readiness to work together and take action on this issue in Wyoming.



**Wyoming has so much opportunity.
I have traveled all over the country and there isn't
any place that still has the opportunity to protect its
open spaces, its habitat, its way of life, and the kinds
of places that an awful lot of Americans would
give their eye teeth to live in
as Wyoming has.**

- Jean Hocker, former president of the Land Trust Alliance, and founding executive director of the Jackson Hole Land Trust

Photo courtesy of Zach Guir

Resources

CHAPTER VIII

University of Wyoming Programs and Departments

Cooperative Extension Service – Community Development Program

The Community Development Education (CDE) Initiative Team is a group of educators and specialists located across Wyoming that aim to increase the capacity of communities, enterprises and families to create a sustainable future in which to live, learn, and work. <http://uwadmnweb.uwyo.edu/CDE/>

Department of Geography

The UW Department of Geography offers a diverse set of programs in geography, planning, and natural resources management, including a Master of Planning degree. www.uwyo.edu/geog/

Plan-It Wyoming

The Plan-IT Wyoming is a partnership between several state and university entities in Wyoming designed to promote the use of geographic information systems and other information technology planning support systems in community land-use planning and economic development activities. www.planitwyoming.org

Ruckelshaus Institute of Environment and Natural Resources

The Institute's mission is to advance effective decision-making on environmental and natural resource issues through research, policy analysis, education, process support, and proactive outreach. The Ruckelshaus Institute provides Wyoming-specific information about how land use has changed over time and the impacts of these changes. It also provides assistance with identifying public participation processes for local land-use planning decisions. www.uwyo.edu/enr and www.uwyo.edu/openspaces

Small Acreage Outreach Program

The Small Acreage Outreach Program seeks to help landowners maintain or improve quality of life in Wyoming, while protecting natural resources such as water, soil, and plants. This program places special emphasis on combating soil erosion, water quality contamination and water waste, decreased and fragmented wildlife habitat, invasive noxious weed infestations, poor animal health, air quality issues, grassland degradation, degradation of riparian areas, and other natural resource problems. www.barnyardsandbackyards.com/

Wyoming State Agencies

Wyoming Department of Environmental Quality (DEQ)

DEQ contributes to Wyoming's quality of life through a combination of monitoring, permitting, inspection, enforcement, and restoration/remediation activities which protect, conserve and enhance the environment while supporting responsible stewardship of our state's land, water, and air resources. It also regulates the siting of large industrial facilities.

<http://deq.state.wy.us/>

Wyoming State Geological Survey

The Wyoming State Geological Survey is a Separate Operating Agency under the executive branch of state government. The Geological Survey's purposes are (1) to study, examine, and understand the geology, mineral resources, and physical features of the state; (2) to prepare, publish, and distribute (free or for sale) reports and maps of the state's geology, mineral resources, and physical features; and (3) to provide information, advice, and services related to the geology, mineral resources, and physical features of the state. The agency's stated mission is to promote the beneficial and environmentally sound use of Wyoming's vast geologic, mineral, and energy resources while helping protect the public from geologic hazards. www.wsgs.uwyo.edu

Wyoming State Historic Preservation Office (SHPO)

The Wyoming State Historic Preservation Office's mandate is to promote the preservation of cultural resources and to explore all alternatives for their preservation. The National Historic Preservation Act of 1966 establishes certain SHPO responsibilities and provides the basis for our philosophy and legal responsibilities in the historic preservation process. <http://wyoshpo.state.wy.us/>

Wyoming Water Development Commission

The Wyoming Water Development Program was established in 1975 to promote the optimal development of the state's human, industrial, mineral, agricultural, water, and recreational resources. This can include projects for the conservation, storage, distribution and use of water, necessary in the public interest to develop and preserve Wyoming's water and related land resources. <http://wwdc.state.wy.us/>

Wyoming Resources and Programs

Wyoming Association of Municipalities

The Wyoming Association of Municipalities' passion is to build strong communities and effective leadership in municipalities through education and services, and to facilitate and/or manage cooperative programs and specialized service to municipalities. www.wyomuni.org

Wyoming Business Council

The Wyoming Business Council focuses on public and private efforts to build a strong job creation base in the new economy with manufacturing and technology as the core while strengthening the existing business and industry groups under energy, agriculture, tourism and travel. The Wyoming Business Council regional directors partner with communities to assist with their development efforts. The regional offices are the first points of contact for the Wyoming Business Council. www.wyomingbusiness.org/index.aspx

Wyoming Business Council - Business Ready Community Grant and Loan Program

This program provides financing for publicly owned infrastructure that serves the needs of businesses and promotes economic development within Wyoming communities. <http://wyomingbusiness.org/community/businessready.aspx>

Wyoming Business Council - Community Development Grant Block Program

The Community Development Block Grant Program (CDBG) is a federally funded pass through grant program from the U.S. Department of Housing and Urban Development. The Business Council is Wyoming's designated agency for administering the program. <http://wyomingbusiness.org/community/cdbg.aspx>

Wyoming Business Council - Community Facilities Grant and Loan Program

Gov. Freudenthal stated in his 2005 State of the State address that he supports efforts to develop new funding partnerships between local governments and the state to provide community facilities. The Legislature responded by creating the new Community Facilities Grant and Loan Program with a \$7.5 million appropriation. <http://wyomingbusiness.org/community/facilities.aspx>

Wyoming Community Foundation

The Wyoming Community Foundation connects people who care with causes that matter to build a better Wyoming. The Wyoming Community Foundation works with a wide range of donors to create permanent, named funds that are then granted to non-profit organizations who serve critical community needs. <http://www.wycf.org/>

Wyoming County Commissioners' Association

The WCCA exists to strengthen Wyoming's Counties and the people who lead them through a program of networking, education, and unified action. The WCCA is comprised of the boards of county commissioners from all 23 counties in Wyoming. County land use decisions are made by the boards of county commissioners in each county. <http://www.wyo-wcca.org/>

Wyoming Cultural Trust

The Wyoming Cultural Trust provides grant funds to assist with a wide variety of projects, events and activities. The program is offered through the Wyoming Department of State Parks and Cultural Resources. <http://wyospcr.state.wy.us/CTF/index.asp>

Wyoming Main Street

Wyoming Main Street is dedicated to providing Wyoming communities with the opportunities to strengthen local pride and revitalize historic downtown districts by utilizing the Main Street Four Point Approach. www.wyomingmainstreet.org/

Wyoming Planning Association

The Wyoming Planning Association is an organization of professional and laymen planners who are involved in planning activities which affect the physical, economic, and social well being of Wyoming residents. The association was formed for the purposes of advocating planning programs, to preserve the quality of life in Wyoming, to facilitate coordination and cooperation between planners, and to provide continuing education opportunities. www.wyopass.org/about.htm

Wyoming Rural Development Council

The Wyoming Rural Development Council's (WRDC) mission is to create partnerships that strengthen the viability of rural Wyoming. WRDC assists rural communities in visioning and strategic planning, serves as a resource for assisting communities in finding and acquiring grants for rural projects, is recognized as a neutral forum for identification and resolution of multi-jurisdictional issues, promotes, through education, the understanding of the needs, values, and contributions of rural communities. www.wyomingrural.org

Wyoming Wildlife and Natural Resource Trust

The Wyoming Wildlife and Natural Resource Trust is funded by interest earned on a permanent account, donations, and legislative appropriation. The purpose of the program is to enhance and conserve wildlife habitat and natural resource values throughout the state. <http://wwnrt.state.wy.us/>

Federal Agencies

USDA – Wyoming Natural Resource Conservation Service

The U.S. Department of Agriculture, Natural Resources Conservation Service (NRCS) works hand-in-hand with the American people to conserve natural resources on private lands. It helps land users approach conservation planning and implementation with an understanding of how natural resources relate to each other and to all of us, and how our activities affect those resources. <http://www.wy.nrcs.usda.gov/>

U.S. Dept. of Energy – Energy Efficiency and Renewable Energy

The U.S. Department of Energy's Office of Energy Efficiency and Renewable Energy aims to strengthen America's energy security, environmental quality, and economic vitality in public-private partnerships that enhance energy efficiency and productivity; bring clean, reliable and affordable energy technologies to the marketplace; and make a difference in the everyday lives of Americans by enhancing their energy choices and their quality of life. <http://www.eere.energy.gov/redirects/eren.html>

U.S. Environmental Protection Agency (EPA) – Smart Growth

The EPA smart growth program helps communities improve their development practices and get the type of development they want. They work with local, state, and national experts to discover and encourage successful, environmentally sensitive development strategies. The EPA smart growth program conducts research, publishes reports and other publications, showcases outstanding communities, works with communities through grants and technical assistance and brings together diverse interests to encourage better growth and development. <http://www.epa.gov/smartgrowth/index.htm>

USGS – Environmental Affairs Program

As a federal agency with special expertise in the earth sciences, the U.S. Geological Survey (USGS) is required to evaluate, review, and prepare technical comments on environmental impact statements (EIS) and associated documents prepared by other federal agencies. In addition, through its Environmental Affairs Program (EAP), the USGS has established policies to implement the National Environmental Policy Act (NEPA). http://water.usgs.gov/eap/env_data.html

Nonprofit Organizations

American Planning Association

The American Planning Association provides leadership in the development of vital communities by advocating excellence in community planning, promoting education and citizen empowerment, and providing the tools and support necessary to meet the challenges of growth and change. It champions good planning through direct public advocacy at the national, state and local levels and advocates good planning through vigorous public information and education programs that include dissemination of materials to the media and through its Web site. www.planning.org

Green River Valley Land Trust

The Green River Valley Land Trust (GRVLT) relies upon voluntary, market-based land conservation methods. Through the creative use of conservation easements, the GRVLT is able to provide numerous options to landowners as they consider the future of their land. www.grvlandtrust.org

Jackson Hole Land Trust

Works to preserve open space and the scenic, ranching and wildlife values of Jackson Hole by assisting landowners who wish to protect their land in perpetuity. <http://jhlandtrust.org>

LandScope America

LandScope America is a collaborative project of NatureServe and the National Geographic Society. It is a new online resource for the land-protection community and the public. LandScope America brings together maps, data, photography and information about our environment from a variety of sources and presents them in dynamic and accessible formats.

www.landscape.org

Land Trust Alliance

The Land Trust Alliance has worked for more than 25 years with the national land conservation community, comprised of numerous dedicated land conservation professionals, volunteers and supporters who work to quickly, effectively and permanently save the nation's most valued natural places across America. www.landtrustalliance.org

Lincoln Institute of Land Policy

The Lincoln Institute of Land Policy is a leading resource for policy makers and practitioners addressing issues involving the use, regulation and taxation of land. The Lincoln Institute seeks to improve the dialogue about urban development, the built environment, and tax policy in the United States and abroad. www.lincolninst.edu

Private Landowner Network (PLN)

The Private Landowner Network provides a simple and effective means for landowners to connect with qualified, often local, professionals to navigate the complex ins and outs of real estate transactions, tax and estate planning, and regional land conservation activities. The PLN resource database contains local land trusts, nonprofit conservation organizations, and others who are in the business to help people fulfill their conservation objectives. www.privatelandownernetwork.org

Smart Growth Network

In 1996, the U.S. Environmental Protection Agency joined with several non-profit and government organizations to form the Smart Growth Network (SGN). The Network works to encourage development that serves the economy, community and the environment by raising public awareness of how growth can improve community quality of life; developing and sharing information, innovative policies, tools and ideas; and cultivating strategies to address barriers to and advance opportunities for smart growth. www.smartgrowth.org

The Conservation Fund

The Conservation Fund is dedicated to protecting America's most important landscapes and waterways for future generations. The Conservation Fund pioneers a balanced, non-advocacy, non-membership approach to conservation, one that blends environmental and economic goals and objectives. The Fund has helped its partners safeguard wildlife habitat, working farms and forests, community greenspace, and historic sites totaling more than 6 million acres nationwide and operates an office in Jackson Hole, WY. www.conservationfund.org

The Nature Conservancy (Wyoming Chapter)

The Nature Conservancy is the leading conservation organization working around the world to protect ecologically important lands and waters for nature and people. www.nature.org/wherewework/northamerica/states/wyoming/

Partnership for Wyoming's Future

The Partnership is organizing a broad coalition of individuals and organizations to promote better land-use policies in Wyoming and to help the state's communities and counties deal successfully with growth and change. Contact Jim Whalen at jwhalen@sonoran.org.

Urban Lands Institute

The mission of the Urban Land Institute (ULI) is to provide leadership in the responsible use of land and in creating and sustaining thriving communities worldwide. ULI facilitates the open exchange of ideas, information and experience among local, national and international industry leaders and policy makers dedicated to creating better places. <http://uli.org>

Western Planning Resources, Inc.

Western Planning Resources (WPR) serves as a network for planning professionals who are separated geographically by the expanses of the open plains. The organization has a strong set of traditions and values that guide a commitment to a professional network. In addition, WPR works with state organizations that hold the annual Western Planner conference. This conference provides an opportunity for planners to network in person and the proceeds allow for production of The Western Planner magazine to continue. www.westernplanner.org/index.htm

Wyoming Stock Growers Agricultural Land Trust

The Wyoming Stock Growers Agricultural Land Trust is dedicated to Wyoming's ranching and farming heritage. Their goal is to provide agriculture landowners with land conservation options to enhance their business planning to remain productive and independent today, and better prepared to pass on their tradition to future generations. www.wsgalt.org

Additional Information

CHAPTER IX

For additional information on the topics discussed in this paper, the following resources are recommended:

- Conservation Easements: Wyoming Update by Nicholas M. Agopian and Melinda Harm Benson, UW Ruckelshaus Institute of Environment and Natural Resources, published in 2007 by the Wyoming Cooperative Extension Service (Bulletin B-1177), University of Wyoming, Laramie.
- “Perpetuity” -- What Does It Mean for Conservation Easements and the Wyoming Constitution?, published in 2004 by the Wyoming Cooperative Extension Service (Bulletin B-1158), University of Wyoming, Laramie.
- Big Game Migration Corridors in Wyoming by Dennis Feeney, Gary Beauvais, Roger Coupal, Nathan Nibbelink, Kirk Nordyke, Shawn Lanning, and Scott Lieske, published in 2004 by the Wyoming Cooperative Extension Service (Bulletin B-1155), University of Wyoming, Laramie.
- Public Opinion in Wyoming on Conserving Agricultural Lands and Open Space by Ann Boelter and Kathryn Mays, Ruckelshaus Institute of Environment and Natural Resources, published in 2004 by the Wyoming Cooperative Extension Service (Bulletin B-1160), University of Wyoming, Laramie.
- Wyoming Public Opinion on Natural Resource Conservation and Development by Diana Hulme Abigail Mellinger, Jim Magagna, and Andrea Erickson-Quiroz, Ruckelshaus Institute of Environment and Natural Resources; Wyoming Stock Growers Association, The Nature Conservancy, published in 2007 by the Wyoming Cooperative Extension Service, Bulletin (B-1189), University of Wyoming, Laramie.
- C. Timothy Lindstrom, Esq. A Guide to Tax Aspects of Conservation Easement Contributions, 7 Wyo. L. Rev. 441 (2007)
- The Federal Tax Law of Conservation Easements, by Stephen J. Small, published by the Land Trust Alliance.

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CHAPTER X

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