

# Wyoming Landscape Conservation Initiative

*"Conserving world-class wildlife resources. Facilitating responsible development."*



## Rancher and Farmer Quality of Life in the Midst of Energy Development in Southwest Wyoming

Quality of life (QOL) is usually defined as a person's general well-being, and may include individual perceptions of a variety of factors such as family, work, finances, local community services, community relationships, surrounding environment, and other important aspects of their life, ultimately leading to life satisfaction. Energy development can have an effect on QOL components for rural residents. Southwest Wyoming is a rural area with a history of ranching and farming which continues today. This area has also seen a "boom" of increasing wind, solar, oil and gas energy developments over the past decade. Wyoming Department of Agriculture, as part of the Wyoming Landscape Conservation Initiative (WLCI), sponsored research to examine the effect of energy development on ranchers' and farmers' quality of life.

In fall 2009, WLCI researchers mailed 860 surveys to agricultural producers of Lincoln, Sublette, Uinta, Sweetwater, Carbon counties and a portion of Fremont county, Wyoming (fig. 1). There were 205 completed surveys returned, for a 24 percent return rate. This rate is slightly lower than the typical 30–50 percent return rate found by Gay and others, 2006. Approximately 42 percent of the respondents have existing energy development on their land and 71 percent would encourage future energy development.

Based on past QOL research, the survey used 28 QOL components across 4 general categories:

- Community Life
- Economic
- Environmental
- Recreation



Figure 1. Wyoming counties that participated in survey.

### Fast Facts

- The WLCI area encompasses 19 million acres—roughly the size of South Carolina.
- 1,700 family farms and ranches support 225,000 cattle and 120,000 sheep.
- An estimated 100,000 deer; 100,000 antelope; 40,000 elk; 8,000 moose; 1,400 bighorn sheep; and 151 non-game species of greatest conservation need make their home here.
- Five national forests, a national recreation area, and a national monument are included in the WLCI area.
- Numerous historic sites include the Oregon, California, Mormon Trails and the Pony Express Route.
- Enough natural gas is produced to heat 15 million homes per year.
- Approximately 14 million tons of coal are mined.
- The area has premium wind sites that could produce billions of kilowatt hours of electricity.
- The area has the world's largest deposit of trona, supplying 90% of the nation's soda ash.

### Get Involved!

The partnerships represented by the WLCI are most effective if they include the individuals and groups who live and work in southwest Wyoming. Three great ways to get involved are project development, information sharing, and making a contribution.

Prepared in cooperation with the



*The WLCI is a long-term, science-based program to assess and enhance aquatic and terrestrial habitats at the landscape scale in southern Wyoming, while facilitating responsible development through local collaboration and partnerships.*



# Quality of Life Components

## Community Life

- Affordable housing
- Availability of ranching supplies
- Community size
- Community values
- Crime rate
- Fire services quality
- Friendliness/neighborliness
- Illicit drugs in area
- Medical facilities (amount)
- Medical facilities (quality)
- Responsiveness of local government
- Sanitation services quality
- School (number of students)
- School quality
- Traffic congestion

## Economic

- Community economic development
- Employment opportunities
- Salary amount
- Small business development

## Environmental

- Air quality
- Open space
- Scenery/views
- Water quality

## Recreation

- Fishing opportunities
- Hunting opportunities
- Outdoor recreation opportunities
- Tourism opportunities

The survey first queried respondents on the importance of the 28 QOL components for where they live. Results indicate that the categories of community services and environmental QOL components are seen as the top 14 important components (combining the categories of ‘somewhat important’ and ‘highly important’) (fig. 2). Ninety percent or more of the respondents indicate water quality, air quality, and open space as important for where they live. Out of the 90 percent, more than 70 percent indicate that these three components are highly important.

Additional components designated as highly important include: community values, crime rate, fire services quality, friendliness/neighborliness, illicit drugs in area, medical facilities—amount and quality, scenery/views, and school quality. The remaining QOL components, except for tourism opportunities, have a majority of respondents indicating that those components are important. Tourism opportunities have an equal percentage of respondents indicating it is important or are neutral (35.6 percent).

**Energy Development Effects on Quality of Life Factors**  
Factors with greatest percentages in neutral category



**Figure 2.** Top 14 important quality of life factors for living in the community. People value the communities where they live. This figure illustrates the value survey respondents place the top fourteen (n=28) Quality of Life Factors listed on the survey.

The survey also asked respondents whether they thought energy development may have a positive, negative, or neutral effect on the 28 QOL components. Figure 3 shows the top seven positive components and the top six negative components. More than 60 percent of the respondents indicate that economic components such as employment, wages, community economic development, and small business development are seen as positively affected by energy development. The three other QOL components seen as being positively affected had a range of 34–43 percent respond in the positive category.

Several community life and environmental QOL components are seen as being negatively affected by energy development. Over 60 percent of respondents indicate negative effects on the crime rate and on illicit drugs in the area. A range of 35–48 percent indicates that affordable housing, open space, scenery/views, and community values

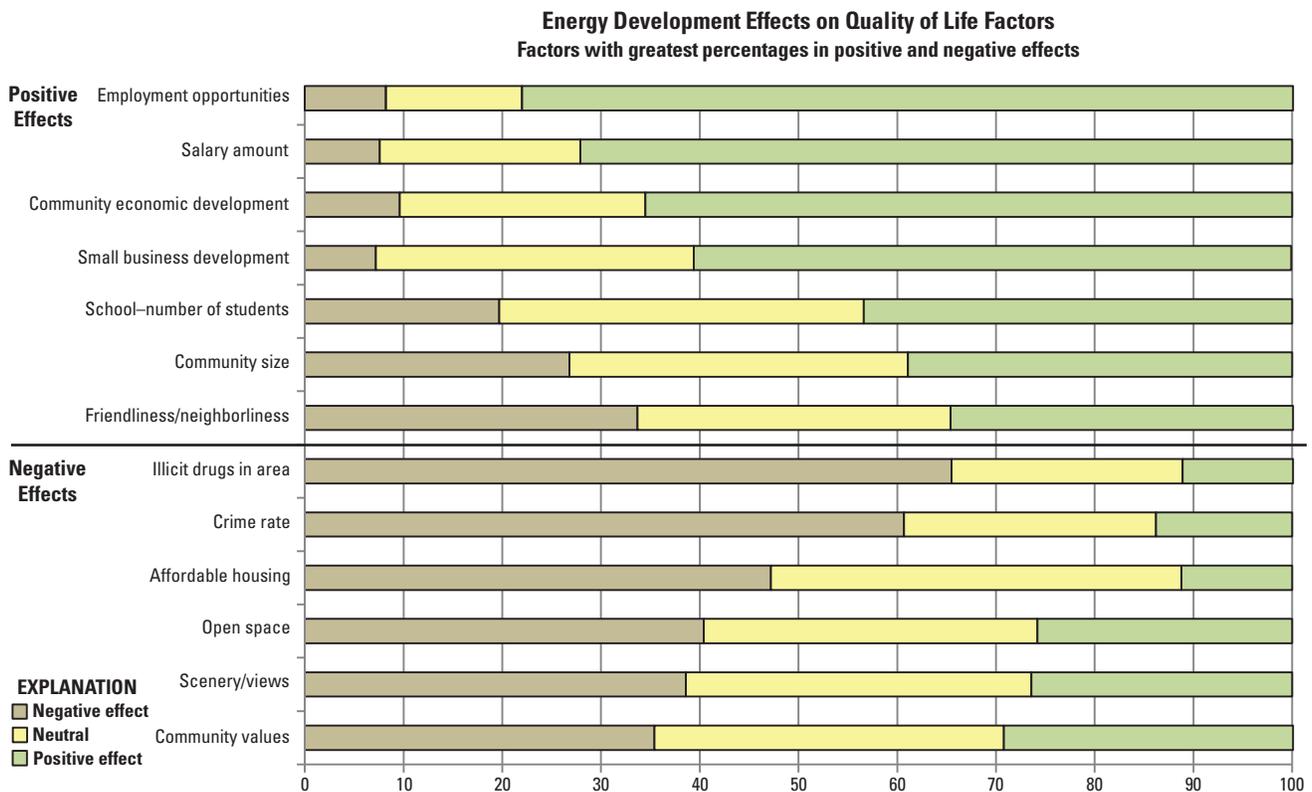
are also negatively affected by energy development.

A majority of the QOL components have the greatest percentages of respondents in the neutral category. Figure 4 identifies these 15 components ranked according to the percentages of respondents that indicated positive or negative effects on QOL components. This enables us to understand, for those ranchers and farmers who are not neutral about the component, how strongly they feel about energy development effects on those QOL components. Many community services such as medical facilities and police/fire services are seen as being positively affected by energy development whereas recreation QOL components, air quality, and traffic are seen as being negatively affected.

Looking at QOL components of importance and how those components are perceived to be potentially affected by energy development may help local decisionmakers prioritize support for

positive effects and mitigation actions for negative effects. Respondents indicate that several of the environmental QOL components are important to them; however, many of these components are seen as being negatively affected by energy development. A majority of the respondents indicate concerns about both crime rate and illicit drugs as important and are seen as being negatively affected by energy development. However, several community lifestyle components are seen as important and as being positively affected by energy development, such as medical facilities, schools, and emergency services. The results also indicate a range of views about the importance of and the effects on the 28 QOL components. In other words, ranchers and farmers should not be grouped as having only one perspective, but need to be seen as having a variety of views.

—Leslie Allen, Jessica Montag, Katie Lyon, Suzanna Soileau, and Rudy Schuster

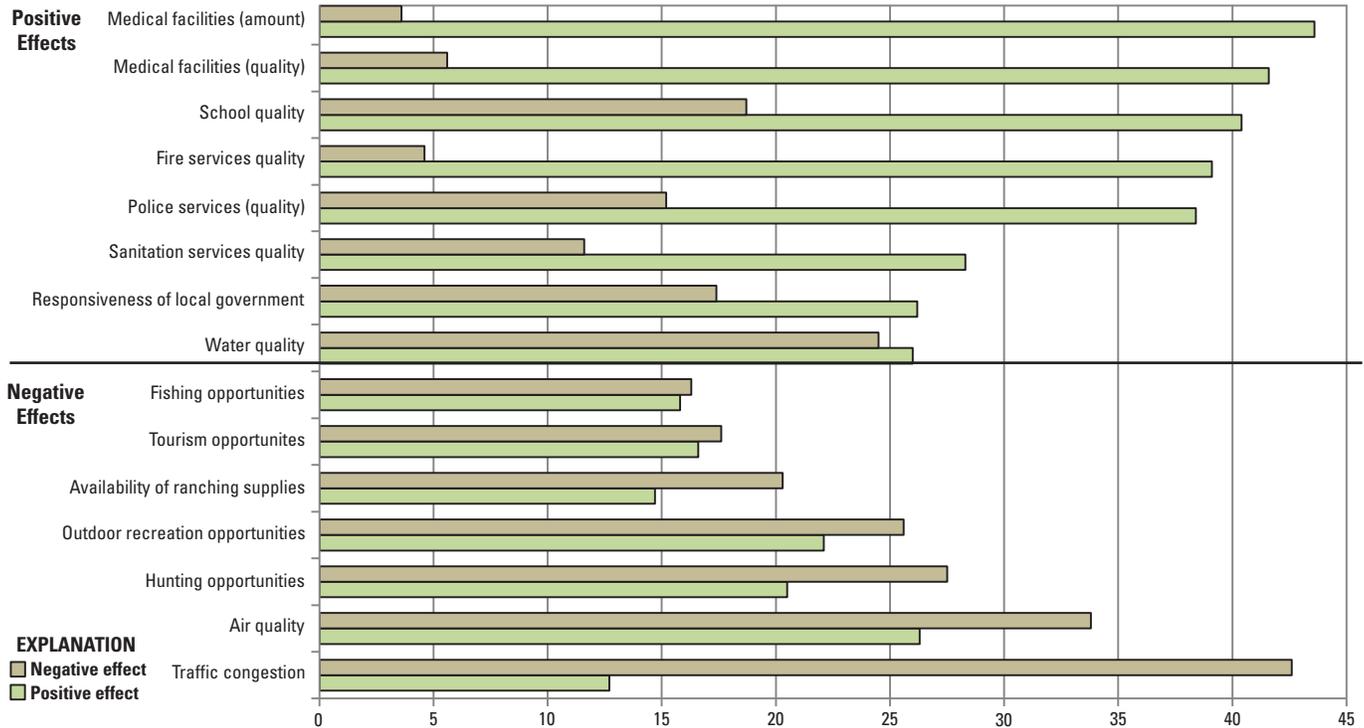


**Figure 3.** Energy development effects on quality of life factors—Components with greatest percentages in positive and negative effects. Energy development in southwest Wyoming can affect the attributes that people consider important for where they live. This figure illustrates the top positive and negative effects of energy development to survey respondent’s aspects of life based on a list of attributes for where to live (n=27).



### Energy Development Effects on Quality of Life Factors

Percentages of positive and negative effects for factors with the neutral category having the greatest percentage



**Figure 4.** Energy development effects on quality of life factors—Percentages of positive and negative effects for factors with the neutral category having the greatest percentage. Energy development in southwest Wyoming can affect the attributes that people consider important for where they live. This figure illustrates the top positive and negative effects for factors with the neutral category having the greatest percentage in survey respondent’s perceptions of energy development’s effects on aspects of life based on a list of attributes for where to live (n=27).

## Reference:

Gay, L. R., Mills, G. E., and Airasian, P. W., 2006, Educational Research: Competencies for Analysis and Applications: New Jersey, Pearson Prentice Hall, 1-614.

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## Donate!



The WLCI has an agreement with the Wyoming Community Foundation to manage contributions for WLCI work. Donations can be made through [www.wlci.gov](http://www.wlci.gov) or send a tax-free contribution to:

**Wyoming Community Foundation/WLCI**  
 P.O. Box 20088  
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[www.wycf.org](http://www.wycf.org)

## Partnerships

The WLCI partnership formally includes the Bureau of Land Management, U.S. Fish and Wildlife Service, U.S. Geological Survey, U.S. Forest Service, Natural Resources Conservation Service, National Park Service, Wyoming Department of Agriculture, Wyoming Game and Fish Department, local conservation districts, and local county commissions. Additional groups and individuals participate as well.



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