

TABLE 3.18: POPULATION CHARACTERISTICS BY COUNTY

| | Big Horn | Carbon | Golden Valley | Mussel-shell | Still-water | Sweet Grass | Wheat-land | Yellow-stone | Montana |
|----------------------------------|----------|--------|---------------|--------------|-------------|-------------|------------|--------------|---------|
| 1960 population ¹ | 10,007 | 8,317 | 1,203 | 4,886 | 5,526 | 3,290 | 3,026 | 79,016 | 674,787 |
| 1970 population ¹ | 10,057 | 7,080 | 931 | 3,734 | 4,632 | 2,960 | 2,529 | 87,367 | 694,409 |
| 1980 population ² | 11,096 | 5,699 | 1,026 | 4,428 | 5,595 | 3,216 | 2,359 | 108,035 | 786,690 |
| Percent change 1970-80 | 10 | -14 | 10 | 19 | 21 | 9 | -7 | 24 | 13 |
| 1985 projected pop. ³ | 11,086 | 3,798 | 872 | 4,633 | 5,563 | 3,164 | 2,511 | 116,559 | — |
| 1990 projected pop. ³ | 11,881 | 4,963 | 865 | 4,738 | 5,857 | 3,317 | 2,605 | 128,071 | — |
| 2005 projected pop. ³ | 13,260 | 9,731 | 932 | 4,617 | 6,837 | 3,744 | 2,527 | 155,305 | — |
| Percent urban 1960 ¹ | 27.9 | 0 | 0 | 58.1% | 0 | 0 | 0 | 82.7 | 50.2 |
| Percent urban 1980 ⁴ | 29.7 | 0 | 0 | 0% | 0 | 0 | 0 | 83.1 | 52.9 |

Sources:

¹U.S. Department of Commerce, Bureau of the Census, 1970 Census of Population — Montana, Number of Inhabitants PC1128A.

²U.S. Department of Commerce, Bureau of the Census, 1980 Census of Population and Housing for Montana, Population and Housing Unit Counts PHC80-V-28.

³Economic and Demographic Model, Bureau of Land Management, Montana State Office, 1982

⁴U.S. Department of Commerce, Bureau of the Census, 1980 Census of Population — Montana, Number of inhabitants PC80-1-42B.

※A community is defined as urban if the population is over 2,500. The population of Roundup dropped below 2,500 between 1960 and 1980.

TABLE 3.19: EMPLOYMENT BY SOURCE, 1979

| | Big Horn | | Carbon | | Golden Valley | | Musselshell | | Stillwater | | Sweetgrass | | Wheatland | | Yellowstone | | Montana | |
|-----------------------------------|----------|------|--------|------|---------------|------|-------------|------|------------|------|------------|------|-----------|------|-------------|------|---------|------|
| | Number | % | Number | % | Number | % | Number | % | Number | % | Number | % | Number | % | Number | % | Number | % |
| TOTAL | 5686 | | 2931 | | 363 | | 1765 | | 2107 | | 1382 | | 1055 | | 55996 | | 365927 | |
| Proprietor | | | | | | | | | | | | | | | | | | |
| Farm | 474 | 8.3 | 670 | 22.9 | 127 | 35.0 | 220 | 12.5 | 405 | 19.2 | 233 | 16.9 | 130 | 12.3 | 1015 | 1.8 | 22622 | 6.2 |
| Non-Farm | 361 | 6.4 | 413 | 14.1 | 49 | 13.5 | 253 | 14.8 | 312 | 14.8 | 172 | 12.4 | 133 | 12.6 | 4825 | 8.6 | 33730 | 9.2 |
| Wage & Salary | | | | | | | | | | | | | | | | | | |
| Farm | 429 | 7.5 | 196 | 6.7 | 69 | 19.5 | 97 | 5.5 | 198 | 9.4 | 126 | 9.1 | 104 | 9.9 | 466 | 0.8 | 10600 | 2.9 |
| Ag Services | D | — | 45 | 1.5 | <10 | <2.8 | D | — | 18 | 0.9 | D | — | <10 | <0.9 | 243 | 0.4 | 2028 | 0.6 |
| Mining | 925 | 16.3 | D | — | 0 | 0.0 | 245 | 13.9 | D | — | 0 | 0.0 | 0 | 0.0 | 466 | 0.8 | 7733 | 2.1 |
| Construction | 242 | 4.3 | 43 | 1.5 | 0 | 0.0 | 14 | 0.8 | 50 | 2.4 | 52 | 3.8 | <10 | <0.9 | 2886 | 5.2 | 15613 | 4.3 |
| Manufacturing | 27 | 0.5 | 26 | 0.9 | 0 | 0.0 | 55 | 3.1 | 114 | 5.4 | 19 | 1.4 | D | — | 4591 | 8.1 | 26847 | 7.3 |
| Transportation & Public Util. | 107 | 1.9 | 128 | 4.4 | <10 | <2.8 | 63 | 3.6 | 74 | 3.5 | 22 | 1.6 | D | — | 4556 | 8.1 | 22575 | 6.2 |
| Wholesale Trade | D | — | 30 | 1.0 | <10 | <2.8 | D | — | 32 | 1.5 | D | — | <10 | <0.9 | 5418 | 9.7 | 17420 | 4.8 |
| Retail Trade | 435 | 7.7 | 365 | 12.5 | 15 | 3.6 | 228 | 13.0 | 234 | 11.1 | 265 | 19.2 | 109 | 10.3 | 10766 | 19.2 | 56199 | 15.4 |
| Finance, Insurance, & Real Estate | 91 | 1.6 | 70 | 2.4 | 0 | 0.0 | 59 | 3.3 | 55 | 2.6 | 30 | 2.2 | 18 | 1.7 | 2462 | 4.4 | 13079 | 3.6 |
| Services | 1410 | 24.8 | D | — | <10 | <2.8 | 172 | 9.7 | D | — | 134 | 9.7 | D | — | 10297 | 18.4 | 60756 | 16.6 |
| Government | | | | | | | | | | | | | | | | | | |
| Federal, Civ. | 345 | 6.1 | 71 | 2.4 | 0 | 0.0 | 20 | 1.1 | 34 | 1.6 | 29 | 2.1 | 37 | 3.6 | 1618 | 2.9 | 13876 | 3.8 |
| Federal, Mil. | 59 | 1.0 | 47 | 1.6 | <10 | <2.8 | 26 | 1.5 | 32 | 1.5 | 18 | 1.3 | 13 | 1.2 | 635 | 1.1 | 9297 | 2.5 |
| State & Local | 601 | 10.6 | 412 | 14.1 | 75 | 20.7 | 245 | 13.9 | 285 | 13.5 | 241 | 17.4 | 139 | 13.2 | 5760 | 10.3 | 53612 | 14.7 |

Source: Regional Economic Information System, Bureau of Economic Analysis, Univ. of Montana, Missoula, MT

D = Not Disclosed

Table 3.22 presents objective indicators of social well-being by county. Both the urban and rural areas exhibit the characteristics generally associated with their respective area. In urban Yellowstone County, the data indicates the positive features of high levels of physicians per person, education, income, housing with plumbing for exclusive use (a housing quality indicator) and a high proportion of the population in the working age groups (18 to 64 years). Negative features include high divorce and crime rates and rapid loss of agricultural land. In the rural areas, levels of physician per person, education, income, housing with plumbing for exclusive use and the proportion of the population in the working age group are generally lower. However, crime rates and divorce rates are also lower and agricultural land is being lost at a slower pace. Therefore, both the urban and rural areas offer positive and negative factors.

The community of Lovell in Big Horn County, Wyoming is located just south of the Montana border approximately 13 miles from the Pryor Mountain Wild Horse Range. The 1980 population for the county was 11,896 while Lovell's population was 2,447. Both the county and community population levels decreased during the decade beginning in 1960; these decreases were regained during the following decade. Government, agriculture and mining account for the largest portions of the county's employment and income. Big Horn County does receive some benefits from tourism due to the Bighorn Canyon National Recreation Area, the Pryor Mountain Wild Horse Range and hunting and fishing opportunities. However, less than 13% of the 1980

wage and salary employment and less than 10% of the total income were from the retail trade and service sectors; these sectors are sometimes used as indicators of recreation related employment and income and are lower in Big Horn County than for Wyoming.

Ranch Related Economic Conditions

At the end of 1979, there were 3,377 ranches in the Billings Resource Area (Census of Agriculture, USDA, 1980). Forty-three of these ranches may be affected by this plan. The 43 ranches have a portion of at least one allotment in an "I" category or one of the affected "M" category allotments. All of the affected ranches are located in Carbon, Musselshell or Yellowstone Counties. The affected ranches represent 4% of the total ranches in Carbon and Musselshell Counties, and 1% of the total in Yellowstone County.

The 43 ranch operations were placed into 4 categories according to the numbers of livestock raised (see Table 3.23). Although there are a few ranches that raise sheep and yearlings, the dominant type of ranch is a cow/calf operation. Substantial cash crops, primarily wheat and barley, are raised on some of the operations. Where sheep, horses or yearlings are involved, the total number has been converted to equivalent cow units. The ranches are fairly evenly divided over the size categories. The median size has the largest number of ranches (33%).

TABLE 3.20: PERSONAL INCOME BY MAJOR SOURCE FOR 1979 (Thousands of Dollars)

| | Big Horn | Carbon | Golden Valley | Musselshell | Stillwater | Sweetgrass | Wheatland | Yellowstone | Montana | | | | | | | | | |
|------------------------------------|--------------|--------------|---------------|-------------|--------------|--------------|--------------|---------------|----------------|------|------|------|------|-------|--------|--------|--------|------|
| | \$ | \$ | \$ | \$ | \$ | \$ | \$ | \$ | \$ | | | | | | | | | |
| | % | % | % | % | % | % | % | % | % | | | | | | | | | |
| Farm | 1531 | 5313 | 21.1 | 478 | 28.4 | 3012 | 14.1 | 2649 | 16.0 | 3625 | 30.0 | 4787 | 33.5 | -1479 | -0.2 | 110055 | 2.5 | |
| Ag Services | D | 536 | 2.1 | 50 | 3.0 | D | — | 205 | 1.2 | D | — | 50 | 0.3 | 1964 | 0.3 | 18162 | 0.4 | |
| Mining | 30603 | 424 | 0.2 | 0 | 0.0 | 7879 | 37.0 | D | — | 0 | 0.0 | 0 | 0.0 | 12891 | 1.7 | 200060 | 4.6 | |
| Construction | 4753 | 6.6 | 1742 | 6.9 | 50 | 0.2 | 498 | 2.3 | 1052 | 6.3 | 1143 | 9.5 | 251 | 1.8 | 67308 | 9.1 | 356367 | 8.2 |
| Manufacturing | 332 | 0.5 | 247 | 1.0 | 0 | 0.0 | 391 | 1.8 | 1571 | 9.5 | 167 | 1.4 | D | — | 85328 | 11.5 | 488941 | 11.3 |
| Transportation, & Public Utilities | 1961 | 2.7 | 2979 | 11.8 | 50 | 3.0 | 1599 | 7.5 | 1792 | 10.8 | 379 | 3.1 | D | — | 102414 | 13.8 | 489116 | 11.3 |
| Wholesale Trade | D | — | 728 | 2.9 | 106 | 6.3 | D | — | 471 | 2.8 | D | — | 98 | 0.7 | 99310 | 13.4 | 289116 | 6.7 |
| Retail Trade | 4786 | 6.6 | 2535 | 10.1 | 222 | 13.2 | 1918 | 9.0 | 2200 | 13.3 | 2120 | 17.6 | 1159 | 8.1 | 102250 | 13.8 | 533381 | 12.3 |
| Finance, Insurance, & Real Estate | 1466 | 2.0 | 962 | 3.9 | 0 | 0.0 | 911 | 4.3 | 640 | 3.9 | 503 | 4.2 | 230 | 1.6 | 40431 | 5.5 | 208117 | 4.8 |
| Services | 13446 | 18.6 | D | — | 134 | 8.0 | 1768 | 8.3 | D | — | 1151 | 9.5 | D | — | 132168 | 17.8 | 705306 | 16.3 |
| Government Federal, Civ. | 5166 | 7.1 | 1118 | 4.4 | 50 | 3.0 | 314 | 1.5 | 586 | 3.5 | 419 | 3.5 | 519 | 3.6 | 30524 | 4.1 | 241205 | 5.6 |
| Federal, Mil. | 146 | 0.2 | 115 | 0.5 | 50 | 3.0 | 65 | 0.3 | 80 | 0.5 | 50 | 0.4 | 50 | 0.3 | 2215 | 0.3 | 75582 | 1.7 |
| State & Local | 6184 | 8.6 | 4163 | 16.5 | 606 | 36.0 | 2083 | 9.8 | 2788 | 16.8 | 2073 | 17.2 | 1220 | 8.5 | 65602 | 8.8 | 605286 | 14.0 |
| TOTAL | 72243 | 25171 | | 1685 | 21288 | 12069 | 14304 | 740906 | 4321021 | | | | | | | | | |

D = Not Disclosed

Source: Regional Economic Information System, Bureau of Economic Analysis, University of Montana, Missoula, Montana.

TABLE 3.21: PROJECTED AGRICULTURAL AND NON-AGRICULTURAL EMPLOYMENT FOR BILLINGS RESOURCE AREA

| Year | Agricultural Employment | | Non-Agricultural Employment | | Total |
|------|-------------------------|---|-----------------------------|----|--------|
| | Number | % | Number | % | |
| 1981 | 4,634 | 7 | 66,133 | 93 | 70,767 |
| 1985 | 4,545 | 6 | 70,582 | 94 | 75,127 |
| 1990 | 4,461 | 6 | 75,692 | 94 | 80,153 |
| 1995 | 4,387 | 5 | 80,370 | 95 | 84,757 |
| 2000 | 4,326 | 5 | 84,674 | 95 | 89,000 |
| 2005 | 4,277 | 5 | 88,652 | 95 | 92,929 |

Source: North Dakota Economic-Demographic Assessment Model

The dependence of ranch operations on BLM forage is determined by a combination of the percentage of total required forage that public lands provide, the seasons the forage is available and the availability of substitutes for the forage. The percentage of dependence on public lands is the primary indicator. Table 3.23 shows the average dependency according to ranch size categories. The average ranch is about 22% dependent on BLM forage. Generally, the smaller ranches are more dependent on BLM grazing than are the larger ranches.

Table 3.24 shows the estimated ranch returns above cash costs, depreciation and debt service by ranch size. This is the amount available to the operators and their families for their labor and management and return to equity capital. Returns per ranch were estimated by formulating a budget for a representative ranch for each of the same size categories (see Appendix 3.9).

Data was not aggregated to the regional level because changes of the magnitude assessed here were not significant in previous studies (BLM *Prairie Potholes* and *Big Dry Grazing EISs*).

On the basis of 1977-79 average prices, the representative ranch in each size and type category earns enough income to at least cover cash costs and depreciation (see Table 3.24). Returns of \$2,846 annually for the small livestock operation are not enough to pay the operator minimal wages or a return to equity capital. Some of these ranch operators and their families are employed off the ranch to supplement their incomes.

If they do not have off-ranch employment and the returns are not enough to cover family living expenses they usually allocate funds from the depreciation allowance, at least in the short term. If this happens, the operators must live with deteriorating equipment and without improvements and borrow on their equity when replacement becomes necessary.

Permit Value

The BLM does not recognize the right of the permittee to treat grazing permits as real property. However, these permits do have value and are bought and sold in the marketplace and used as collateral for loans (McCouney, 1976). The value of the permits varies considerably. If the permit is for small isolated, landlocked tracts of public lands, the value is minor. Where public lands provide a large block of grazing, the permit value can be substantial. Permit value is difficult to estimate because it usually is not separated from the total value of the ranch. Ranches are usually valued and sold on a cow-unit basis. It is estimated that an average value for BLM grazing permits is approximately \$100 per AUM or \$1,200 per animal unit. The average permit values for the different sized ranches are as follows:

| | | |
|------------|---|----------|
| Small | — | \$19,100 |
| Medium | — | \$48,900 |
| Large | — | \$65,800 |
| Very Large | — | \$98,700 |

General and Issue Related Attitudes

The following information is based on the BLM's interactions with permittees and other interested individuals and groups, and the responses from the RMP issues brochure. In addition, results from several opinion surveys have been utilized.

General Attitudes

It is assumed the general attitudes of the rural residents in the Billings Resource Area are similar to those that have been documented in other parts of Montana. The following information was gathered in the Prairie Potholes region of northern Montana (Abt, 1980). The rural character of the area was mentioned most frequently when residents were asked what they valued about their lifestyle. Specific comments included an appreciation of the wide open spaces, naturalness, fresh air and solitude. The personal characteristics of the local people (friendliness, independence and industriousness) were frequently mentioned as positive aspects. The residents also valued the lifestyle offered by the local communities, mentioning such desirable qualities as everyone knowing everyone else, the lack of urban problems, relaxed pace, personal freedom and its being a good place to raise children. In addition, these residents indicated they wanted to see the land controlled at the local level. Outside interference, whether from agencies or groups was resented.

The residents of the Billings area exhibit a diversity of lifestyles and interests. This diversity causes a wide range of values and attitudes to be present in the area.

TABLE 3.22: SOCIAL WELL-BEING CHARACTERISTICS BY COUNTY

| | Big Horn | Carbon | Golden Valley | Musselshell | Stillwater | Sweetgrass | Wheatland | Yellowstone | Montana |
|--|-----------|-----------|---------------|-------------|------------|------------|-----------|-------------|----------|
| Percent Population by Age (1980) ¹ | | | | | | | | | |
| 17 yrs or less | 36.6 | 27.6 | 31.3 | 29.7 | 28.5 | 26.9 | 28.6 | 29.3 | 29.6 |
| 18 to 64 yrs | 55.3 | 54.7 | 54.4 | 54.6 | 55.6 | 54.2 | 55.9 | 61.6 | 59.7 |
| 65 yrs or more | 8.1 | 17.7 | 14.3 | 15.7 | 15.9 | 18.9 | 15.5 | 9.1 | 10.7 |
| Percent Non-White Population (1980) ¹ | | | | | | | | | |
| | 47.9 | 1.0 | 1.6 | 0.7 | 0.7 | 0.7 | 0.6 | 4.2 | 5.9 |
| Physicians per 100,000 people (1975) ² | | | | | | | | | |
| | 9.5 | 64.1 | 0.0 | 23.8 | 76.1 | 33.7 | 82.7 | 164.6 | 115.1 |
| % High School Graduates Male/Female (1970) ³ | | | | | | | | | |
| | 40.3/48.4 | 44.8/55.9 | 46.3/69.5 | 39.7/52.9 | 52.2/60.2 | 52.2/60.7 | 52.6/61.4 | 61.8/66.6 | 60.1 |
| Crime Rate per 100,000 Population (1979) ⁴ | | | | | | | | | |
| | 2061 | 2114 | 0 | 1498 | 2031 | 3588 | 6198 | 5993 | 4438 |
| Unemployment Rate (1980) ⁵ | | | | | | | | | |
| | 6.2 | 4.2 | 4.0 | 2.4 | 3.3 | 1.9 | 3.4 | 4.6 | 6.0 |
| Divorce Rate per 100 Marriages 1975 (1970) ⁶ | | | | | | | | | |
| | 6.0(5.5) | 2.9(4.0) | 0.0(2.1) | 6.2(7.2) | 3.6(5.6) | 7.8(2.3) | 4.5(4.0) | 7.8(5.4) | 5.7(4.4) |
| Per Capita Income (1980 Dollars) ⁶ | | | | | | | | | |
| | 8,082 | 7,898 | 8,478 | 8,813 | 7,443 | 8,223 | 9,073 | 10,098 | 8,652 |
| Housing Lacking Plumbing for Exclusive Use (1980) ⁷ | | | | | | | | | |
| | 4.3 | 2.4 | 7.7 | 5.3 | 1.9 | 2.2 | 5.7 | 1.5 | — |
| % Change in Acreages for Farms & Ranches (1969-78) ^{8,9} | | | | | | | | | |
| | -1.9 | -5.0 | -10.7 | -0.3 | -5.3 | -3.0 | -3.8 | -17.0 | -1.0 |
| % Change in Number of Farms & Ranches (1969-78) ^{8,9} | | | | | | | | | |
| | -8.1 | -9.1 | -9.7 | 0.0 | -4.0 | -2.7 | -4.2 | -10.1 | -1.9 |
| % Change in Average Size of Farms & Ranches (1969-78) ^{8,9} | | | | | | | | | |
| | +6.8 | +4.5 | -1.1 | -0.4 | -1.4 | -0.2 | +4.2 | -7.7 | 0.9 |

Sources:

¹U.S. Dept. of Commerce, Bureau of the Census 1980, General Population Characteristics for Montana²U.S. Dept. of Commerce, Bureau of the Census 1977, City and County Data Book³U.S. Dept. of Commerce, Bureau of the Census 1970, Census of Population General Social & Economic Characteristics, Montana PC(1)-C2B⁴Montana Board of Crime Control, Criminal Justice Data Center Crime in Montana 1979 Annual Report, June 1980⁵State of Montana, Dept. of Labor and Industry, Employment Security Division, personal communication⁶Univ. of Montana, School of Business Administration, Bureau of Business and Economic Research⁷U.S. Dept. of Commerce, Bureau of the Census 1980, General Housing Characteristics for Montana⁸U.S. Dept. of Commerce, Bureau of the Census 1978, Census of Agriculture Vol. 1, State and County Data, Part 26, Montana⁹U.S. Dept. of Commerce, Bureau of the Census 1969, Census of Agriculture Vol. 1, Area Reports, Part 3B, Montana

TABLE 3.23: ESTIMATED RANCH DEPENDENCY ON BLM GRAZING

| Ranch Size Category | Ranches in Category No. | Average % | Average Herd Size (in Cows) | Dependency | | | | Average % Dependency |
|----------------------------|-------------------------|-----------|-----------------------------|------------|--------|--------|--------|----------------------|
| | | | | 0-15% | 16-30% | 31-45% | 46-80% | |
| Small (1-100 cows) | 11 | 26% | 65 | | 7(64%) | 4(36%) | — | 29.1 |
| Medium (101-250 cows) | 14 | 33% | 170 | 5(36%) | 4(29%) | 4(29%) | 1(7%) | 26.5 |
| Large (251-499 cows) | 7 | 16% | 385 | 4(57%) | 1(14%) | 2(29%) | — | 15.9 |
| Very Large (500 cows & up) | 11 | 26% | 880 | 7(64%) | 3(27%) | 1(9%) | — | 12.1 |
| | 43 | | | | | | | |

Source: BLM, 1982

TABLE 3.24: ESTIMATED RANCH INCOME BY RANCH SIZE

| Ranch Size Category | Number of Cows | Average Number BLM AUMs per Ranch | Livestock Enterprise—Average per Ranch* |
|---------------------|----------------|-----------------------------------|---|
| Small | 1-100 | 191 | \$2,846 |
| Medium | 101-250 | 489 | \$10,662 |
| Large | 251-499 | 658 | \$24,501 |
| Very Large | 500 & up | 987 | \$65,341 |

* Returns above cash costs, depreciation and debt source.

Sources: 1. BLM, 1982
2. ASCS, 1980

Issue Related Attitudes

Grazing Management

There is a general agreement that livestock grazing is an appropriate use of BLM land. Many permittees favor the continuation of the status quo in terms of management. However, some individuals would like the BLM to interfere less with leased land while others would prefer the BLM to work more closely with the ranchers to increase productivity. Some individuals also feel the BLM should more closely monitor rangeland conditions.

Wild Horse Management

The Pryor Mountain Wild Horse Range is the subject of diverse public opinion which ranges from the horse range being a waste of the taxpayer's money to very strong support for its existence. A controversy exists over the concept of horse population control. There are those who support population control and others who favor population determination by natural factors. There are hunters who would prefer to see more elk and bighorn sheep in the area. There is strong support for the horse range in the nearby community of Lovell, Wyoming.

Wildlife

There is general support for wildlife values having an important part in multiple resource management. Such management includes cooperation with ranchers, communication with the State Department of Fish, Wildlife and Parks, the U.S. Fish and Wildlife Service and local groups interested in promoting wildlife and wildlife habitat.

Timber Management

While there is little commercial timber land in the resource area, there seems to be general support for the use of BLM lands to provide forest products such as saw timber, fence posts and fuelwood. Concern has been expressed for the protection of timber areas in keeping with other important resource values.

Coal

There is support for the leasing and development of coal in the resource area if the coal is needed and developed in a careful manner with reclamation. There are also individuals and organizations within the resource area strongly opposed to coal development and its possible impact to the environment and the agrarian way of life.

A study completed in 1978 (John Short and Associates) assessed attitudes regarding population growth and energy development in Carbon County. Surveys were mailed to every household in the county. Six hundred and seventy-two completed surveys were received for a return rate of 20.5%. Based on telephone surveys conducted to test for non-response bias, the surveyors concluded those who responded were representative of the county population. Approximately half of the respondents preferred the county population to grow as expected (in this study the respondent was told the Carbon County population was expected to increase

from 8,400 in 1978—a high estimate given the 1980 census figure of 8,099—to 12,000 by 1990, much higher than the Economic/Demographic Model predictions) while 45% of the respondents wanted the population to remain stable or decline. Over 70% of those who responded felt the city and county governments should seek new industry; mining was the type of industry favored by over 25% of these respondents. Support was stronger for underground than for surface mining. Nineteen percent of the respondents said no mining should be allowed in the county. A substantial majority preferred new industry to bring people who both work and live in the county. Development in and around existing communities rather than in rural areas seemed most desirable. Over 55% of the respondents felt mineral development would affect them personally. Perceived positive benefits from mining included increases in employment opportunities, a broader tax base, increases in business opportunities and better jobs for young people so they are able to stay in the area. Concerns about mining included increases in crime, deterioration of air and water quality and problems associated with population growth and overcrowded schools. Two-thirds of the respondents said maintaining their lifestyles had priority over new jobs. Younger respondents (those aged 18 to 24 years) and those in the rural areas were more likely to be against population growth and development.

In 1979 a study conducted in Musselshell County by MT Energy, MHD Research and Development Institute Incorporated examined attitudes toward growth and development, and the levels of satisfaction with local services. Ninety-two people in the county were interviewed; respondents were randomly selected and contacted via telephone (the response rate was 72%). The responses were provided in the context of a coal-fired power plant being built in the area which would employ 600-650 construction and operations workers and thus can only give a limited indication of how residents might respond to the surface mine development analyzed in this RMP. Over 80% of the survey respondents indicated the standard of living of Musselshell County residents needed to be improved and that more jobs were needed in the county. A majority said that an increase in population would improve the quality of life; a similar number agreed with the statement that more people would cause more problems. Economic, industrial and agricultural growth were viewed as important for the county by over 85% of the respondents. Over 50% of the respondents were dissatisfied with the county housing situation. In addition, recreation services, county roads and shopping facilities were given unsatisfactory ratings by over 40% of the respondents. If growth were to occur (600 to 650 jobs) over half of the respondents felt housing and schools would be adversely affected. On the other hand, over 50% also felt medical and dental services and shopping facilities would be improved. Over 70% of the respondents felt the development would result in increases in crime, alcohol, drug abuse and pollution. Over 65% said the development would reduce poverty and unemployment.

These responses indicate fairly positive attitudes toward growth in general coupled with an awareness that this growth would cause some problems. These attitudes, however, cannot be extended to indicate support for the surface mine examined in this document. The BLM personnel are aware that opposition to coal mining exists in the county; the exact extent of this opposition is not known. This is also true of the support for coal mining.

Oil and Gas

There is general support for oil and gas exploration and development on public lands if it proceeds slowly, as needed, and in keeping with good reclamation measures.

Land Tenure Adjustment

There is general support for the exchange of public land that lacks compelling public resource values. There is also concern about the loss of public values, such as recreational opportunities, if public lands are sold. If land exchanges are pursued, it is generally understood that the acquired land would have higher public values than those given up. This type of adjustment would be approved of by those concerned with public values. Some grazing permittees have shown either interest in, or concern about, possible land sales.

Recreation Access

There are diverse opinions regarding the acquisition of access for recreation purposes. The BLM employees who deal with recreationists indicate support for acquiring access from that group. Responses from the RMP issues brochure showed support for increased access although some individuals felt access should not be forced, was too expensive, or made areas accessible that should be left isolated.

Off-Road Vehicles

There is general support for the management of off-road vehicle use including use restrictions on certain areas.

Wild Horse Interpretation

There has been some support, particularly within the community of Lovell, for a wild horse observation and interpretive site.

Environmental Education

There is strong support by some individuals in the Billings area for environmental education sites. Educators who have used the sites in the past have expressed interest for future use of the sites.

Wilderness

There is both support for and opposition to wilderness designation in the resource area. Those who have expressed support for wilderness advocate protecting potential wilderness areas near population centers such as Billings. They also argue for the preservation of

unique or dwindling wilderness characteristics. Opponents to wilderness designation cite a variety of reasons. Some individuals argue that wilderness designation would keep older people out of the area and would threaten nearby private landowners through government attempts to acquire more land. The Pryor Mountain Wild Horse Range, where three wilderness study areas and units are located, was described as "pseudo-wilderness" already, and considered to be too small an area to constitute a true wilderness area. Concern was expressed that if designated, wilderness values would have priority over the management of wild horses present in the area.

The results of a recent statewide poll (Keegan, Lenihan, Polzin and Wallwork, 1982) indicate that Montanans overwhelmingly approve of the concept of setting aside certain Federal and state lands as designated wilderness areas. They like the idea of preserving an area from development so that it will be available to future generations. There appears to be widespread support for wilderness areas among all kinds of Montanans. Regardless of age, sex, political preference or place of residence, more than 75% of the respondents said they favored wilderness areas. Even among nonusers, 84% supported designated wilderness areas.

About 40% of the Montanans surveyed favored the addition of more wilderness areas in the United States. However, only 25% said that Montana needs more wilderness areas. There were no major differences in opinions concerning wilderness between those living in eastern Montana and those in western Montana, where most of the state's wilderness areas are located.

National opinion surveys indicate the United States population is divided on the subject of wilderness. In 1977 a study conducted by Opinion Research Corporation (ORC) showed 7% of the population thought there was too much wilderness, 32% too little wilderness and 46% thought the amount was about right. Those favoring more wilderness said it is needed for recreation; too much land is being lost to business or industry and wildlife needs more space. Those favoring no additional wilderness felt the land could be better used for buildings, farming and a growing population. In another survey by ORC (1978), Americans rated wilderness fifth (after clean air, clean water, oil and natural gas) as basic resources in short supply. In a 1979 survey conducted by Cambridge Reports, 39% of the U.S. population felt there was already enough wilderness, while 37% indicated the need for more wilderness (the remaining 23% did not express a preference). The results of these surveys vary because of the changing political and economic climate in the United States and because the questions were phrased differently in each survey. It appears that about 33% to 50% of the population feels there are currently enough wilderness areas while a similar proportion feels there is a shortage. The attitudes of those living in Montana, Idaho and Wyoming are provided by three 1978 ORC surveys. In each state, a majority (52-58%) felt the current wilderness areas to be adequate. Smaller portions of the samples felt there was either too little (19-24%) or too much wilderness (14-21%).