APPENDIX 4.0-A

Socioeconomic Assessment

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Dewey-Burdock Project

Socioeconomic Assessment

September 2012

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1.0 INTRODUCTION

The following socioeconomic assessment was prepared in 2008 by Barbara Filas of Knight Piésold and Co. using 2000 Census data, population and demographic estimates from 2006, and revenue estimates from 2007. Section 3 was subsequently updated by Doyl Fritz of WWC Engineering to make the analysis of potential socioeconomic impacts consistent with the April 2012 Preliminary Economic Assessment of the Dewey-Burdock Project (SRK, 2012).

2.0 BASELINE SOCIOECONOMICS

2.1 Population

The study area for the socioeconomic baseline study includes population centers within a 50-mile radius of the project's geographic center (latitude 43° 28' 50.071" N, longitude 103° 59' 34.559" W), considered to represent the likely maximum commuting distance for employees of the project (taking into account that actual road miles traveled from communities within the defined radius to the project may be in excess of the "direct line" distance).

A project's direct zone of social influence may be defined as the area within which the proposed project's socioeconomic impacts and benefits are reasonably anticipated to be concentrated, including the population areas most likely to contribute to the project's local workforce and to provide ongoing sources of supplies and services during construction and operations. The direct social zone of influence adopted for the project socioeconomic baseline report primarily includes the townships, towns, and unincorporated areas within the two South Dakota counties hosting the deposits, Custer and Fall River. Approximately 1 mile of the project's western border follows the Wyoming/South Dakota state line south of Dewey, South Dakota. Therefore, the Wyoming locations of Newcastle and Osage[1] in Weston County are also included in the project's direct social zone of influence. These locations are within a 50-mile radius of the permit area's approximate center, and are thus close enough to reasonably supply workers or supplies to the project on a regular basis. No areas of appreciable population size were located within the same radius from the project in other Wyoming counties or to the south in Nebraska.

Within the direct social zone of influence, this baseline study report focuses on Custer and Fall River counties as being the host counties for the project and thus the most likely to benefit

[1] Osage is not an incorporated town but is defined as a "CDP" or census-designated place by the USCB in partnership with State agencies. CDPs are areas of significant population outside of any incorporated municipality that are locally identified by a name.

directly from project implementation, including receipt of tax revenues. Towns within these two counties include:

- Custer County:
  - Buffalo Gap, Custer City, Fairburn, Hermosa, and Pringle
- Fall River County:
  - Edgemont, Hot Springs, and Oelrichs

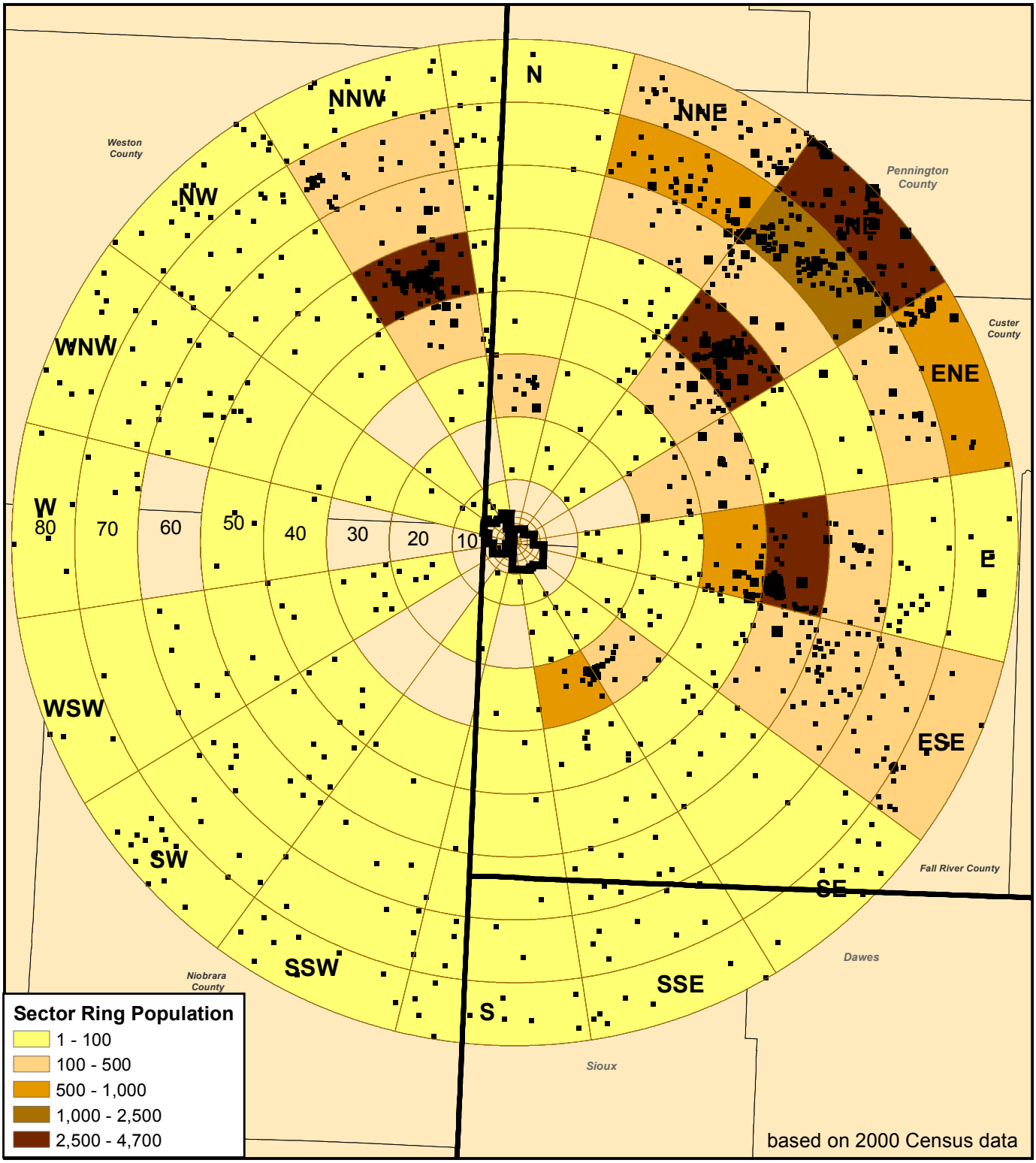
Rapid City, South Dakota, the closest urban area to the project, is approximately 100 miles via road northeast of the permit area, in Pennington County, and may serve as a regional source of workers and supplies for the project as well. Because of its greater distance from the project, Rapid City is considered to be part of the project's indirect zone of social influence. Two other towns in Pennington County also fall within the project's indirect social zone of influence: Hill City and Keystone.

The majority of population and demographic information contained in this baseline report was obtained from Census 2000 data and from the 2006 American Community Survey (ACS), the most recent Federal demographic survey available at the time this report was prepared. Other sources of demographic information include the U.S. Department of Commerce's Bureau of Economic Analysis (BEA), South Dakota Governor's Office of Economic Development (SD GOED), the University of South Dakota's Business Research Bureau, and county and city websites.

Figure 1 provides population by sector within a 50-mile radius from the project's approximate center.

Detailed information on population distribution and demographics is only provided for the towns within the proposed project's direct zone of social influence, as defined in the preceding section, with emphasis on the two South Dakota counties in which the proposed project is located, Custer and Fall River. For some datasets (such as population), estimations based on data trends are cited to provide more updated information; these estimations are acknowledged as projections rather than defined data where used. Population by sector and cumulative population by sector based on Figure 1 are presented in Table 1.

The distance to the nearest resident within each sector was calculated from querying the geographic data in Figure 1 and is presented in Table 2.



Legend

- Permit Boundary
- Counties
- Sectors/Buffers

Block Population

- 1 - 34
- 35 - 130
- 131 - 450
- 451 - 1100

Miles: 0 5 10 15 20

Kilometers: 0 10 20 30

N

App. 4.0-A Fig. 1

Population Sector-Block Analysis

Dewey-Burdock Project

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Table 1: Population within a Given Distance from Project Center

	Distance from Project Center, km							
Sector	**0 - 10**	**10 - 20**	**20 - 30**	**30 - 40**	**40 - 50**	**50 - 60**	**60 - 70**	**70 - 80**
N	0	26	165	54	25	25	39	58
N, cumulative	*0*	*26*	*191*	*245*	*270*	*295*	*334*	*392*
NNE	0	12	8	59	64	229	780	386
NNE, cumulative	*0*	*12*	*20*	*79*	*143*	*372*	*1,152*	*1,538*
NE	0	10	15	494	3,852	391	1,825	3,427
NE, cumulative	*0*	*10*	*25*	*519*	*4,371*	*4,762*	*6,587*	*10,014*
ENE	0	0	154	282	21	73	268	539
ENE, cumulative	*0*	*0*	*154*	*436*	*457*	*530*	*798*	*1,337*
E	0	24	47	501	4,651	278	70	95
E, cumulative	*0*	*24*	*71*	*572*	*5,223*	*5,501*	*5,571*	*5,666*
ESE	0	21	26	76	329	183	143	136
ESE, cumulative	*0*	*21*	*47*	*123*	*452*	*635*	*778*	*914*
SE	0	12	342	18	32	12	13	34
SE, cumulative	*0*	*12*	*354*	*372*	*404*	*416*	*429*	*463*
SSE	2	18	649	52	7	30	20	30
SSE, cumulative	*2*	*20*	*669*	*721*	*728*	*758*	*778*	*808*
S	11	1	7	6	18	2	17	44
S, cumulative	*11*	*12*	*19*	*25*	*43*	*45*	*62*	*106*
SSW	3	7	0	2	2	25	21	48
SSW, cumulative	*3*	*10*	*10*	*12*	*14*	*39*	*60*	*108*
SW	0	0	0	29	18	21	23	61
SW, cumulative	*0*	*0*	*0*	*29*	*47*	*68*	*91*	*152*
WSW	6	19	14	15	4	28	8	9
WSW, cumulative	*6*	*25*	*39*	*54*	*58*	*86*	*94*	*103*
W	0	0	0	2	10	0	22	18
W, cumulative	*0*	*0*	*0*	*2*	*12*	*12*	*34*	*52*
WNW	8	6	2	2	18	57	58	33
WNW, cumulative	*8*	*14*	*16*	*18*	*36*	*93*	*151*	*184*
NW	6	2	0	10	22	30	50	72
NW, cumulative	*6*	*8*	*8*	*18*	*40*	*70*	*120*	*192*
NNW	2	0	35	234	4,129	121	316	77
NNW, cumulative	*2*	*2*	*37*	*271*	*4,400*	*4,521*	*4,837*	*4,914*
Ring Population, all Sectors	**38**	**158**	**1,464**	**1,836**	**13,202**	**1,505**	**3,673**	**5,067**

Data from: U.S. Census Bureau, 2006 American Community Survey population estimates.

Table 2: Distance to Nearest Residents from Center of the Permit Area

Sector	Number of Residents	Distance from Project Center	
		Miles	Km
N	38	7.2	11.6
NNE	112	8.3	13.3
NE	423	6.7	10.8
ENE	154	13.1	21.1
E	24	6.8	11.0
ESE	110	10.7	17.3
SE	69	7.5	12.1
SSE	88	5.9	9.4
S	23	0.9	1.4
SSW	23	3.4	5.5
SW	39	21.0	33.7
WSW	27	1.7	2.7
W	14	20.3	32.6
WNW	39	6.2	10.0
NW	49	3.5	5.6
NNW	250	4.2	6.7

Data from U.S. Census Bureau, 2000 Census.

2.2 Demography

Demographic data for Custer and Fall River counties collected for this baseline study include population breakdown by sex, age, race, and household size. These data are summarized and compared to similar data for the State of South Dakota in Table 3. Demographic data were collected from the Census 2000 statistical pool at both the county and state levels to provide a descriptive picture of the populations within the two counties in comparison to that of the State of South Dakota.

Review of the tabulated data indicates that the populations of Custer and Fall River counties are older than the state average, with older median ages, lower percentages of households with children, and higher percentages of households with persons 65 years of age or older. Additionally, family and household sizes for both counties were slightly smaller than the State averages.

Female-headed households with no husband present accounted for 6.6 percent and 8.5 percent of the total households during the 2000 Census for Custer and Fall River counties, respectively, somewhat lower than the State average of 9 percent. In both counties, 61 percent (4.0 out of 6.6 in Custer County, and 5.2 out of 8.5 in Fall River County) of these households included children under the age of 18 years; this is lower than the State average of 68 percent (6.1 out of 9.0 in the State of South Dakota) of female-headed households.

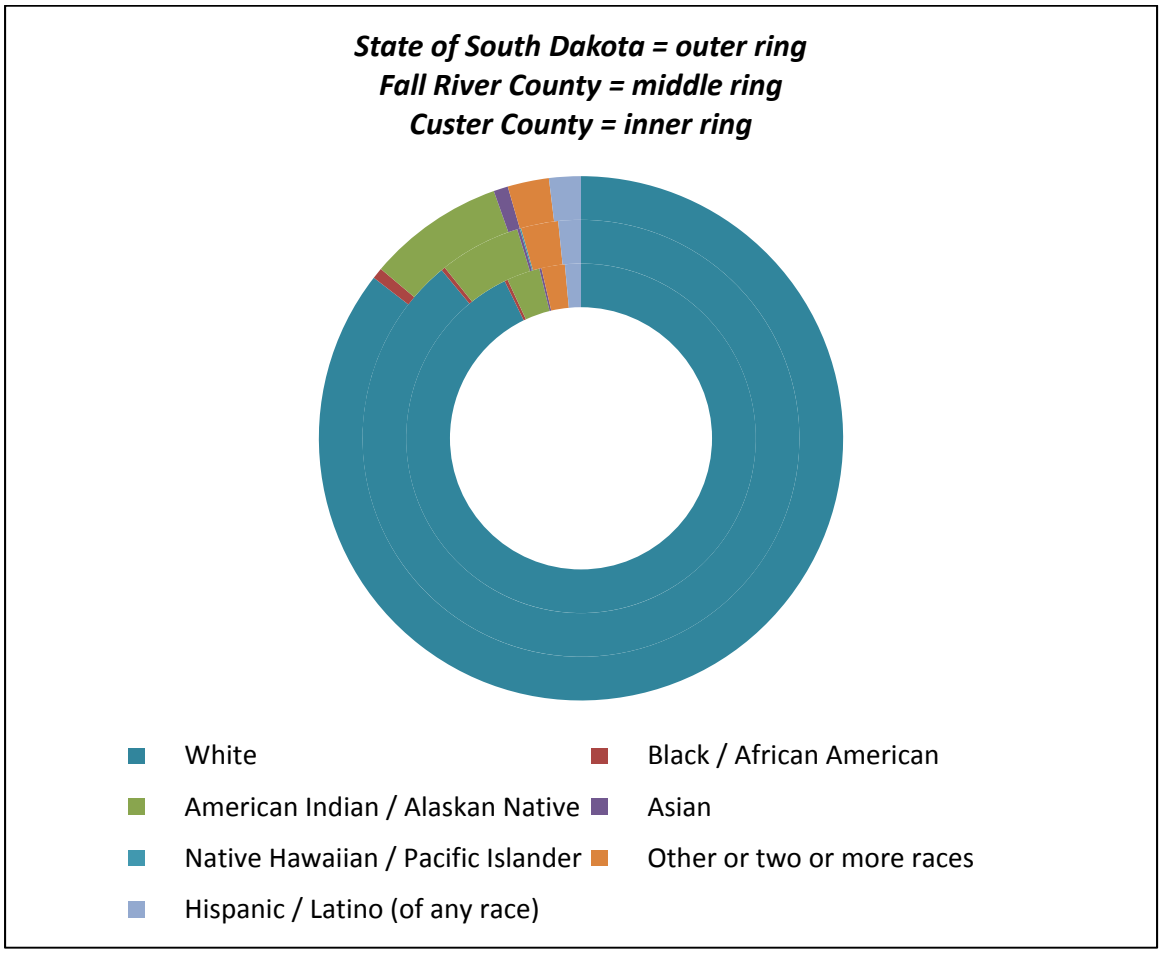
Racial data for the two counties show that the local population is predominantly white, with American Indian/Alaskan Native the predominant minority group. At 6.1 percent, the percentage of American Indians in Fall River County is roughly twice that of Custer County but still below the State average of 8.6 percent. A graphic depiction of the area's racial makeup is shown in Figure 2, again compared to the State average.

For comparative purposes, similar data were tabulated for the two Wyoming counties bordering the project, Niobrara and Weston, as shown in Table 4, compared against Wyoming state-wide data. As with the South Dakota counties hosting the project, the populations of Niobrara and Weston counties are older than the State average, with smaller household and family sizes, lower proportions of children in the home, and higher percentages of senior citizens. The percentage of female-headed households was also similar to the permit area-counties, and lower than the State-wide average. Both Wyoming counties also have lower percentages of Native American populations than the State average, and substantially lower than either Custer or Fall River counties.

Table 3: Custer County, Fall River County and South Dakota Demographic Data

Data Type	Custer County	Fall River County	South Dakota
Male / female ratio, %	51.1 / 48.9	52.3 / 47.7	49.6 / 50.4
Median age, years	43.2	45.5	35.6
Average household size, people	2.35	2.23	2.50
Average family size, people	2.80	2.82	3.07
Households with individuals under 18 years, %	29.1	25.9	34.8
Households with individuals 65 years and over, %	27.4	33.4	25.0
Female householder with no husband present, %	6.6	8.5	9.0
Above, with own children under 18 years, %	4.0	5.2	6.1
Race, %			
White	94.2	90.5	87.2
Black / African American	0.3	0.3	0.7
American Indian / Alaskan Native	3.1	6.1	8.6
Asian	0.2	0.2	0.9
Native Hawaiian / Pacific Islander	0.0	0.1	0.0
Other or two or more races	2.2	2.8	2.6
Hispanic / Latino (of any race)	1.5	1.7	2.0

Data from Census 2000, U.S. Census Bureau.



Data from U.S. Census Bureau, Census 2000.

Figure 2: Racial Makeup Comparison

Table 4: Niobrara County, Weston County and Wyoming Demographic Data

Data Type	Niobrara County	Weston County	Wyoming
Male / female ratio, %	48.8 / 49.1	50.8 / 49.2	50.3 / 49.7
Median age, years	42.8	40.7	36.2
Average household size, people	2.28	2.42	2.48
Average family size, people	2.81	2.88	3.00
Households with individuals under 18 years, %	28.7	33.0	35.0
Households with individuals 65 years and over, %	33.1	26.9	20.8
Female householder with no husband present, %	6.0	7.3	8.7
Above, with own children under 18 years, %	4.2	4.6	6.0
Race, %			
White	98.0	95.9	92.1
Black / African American	0.1	0.1	0.8
American Indian / Alaskan Native	0.5	1.3	2.3
Asian	0.1	0.2	0.6
Native Hawaiian / Pacific Islander	0.0	0.0	0.1
Other or two or more races	1.2	2.4	4.3
Hispanic / Latino (of any race)	1.5	2.1	6.4

Data from U.S. Census Bureau, Census 2000.

2.2.1 Population Projections

The most recent verifiable population data for Fall River and Custer counties at the time of this writing was the 2000 Federal census. Estimations of population changes for South Dakota counties were calculated by the U.S. Census Bureau (USCB) for 2006 and by the SD GOED (based on the USCB's projections) for 2010. As Figure 3 shows, Fall River is projected to have lost almost 2 percent of its population between 2000 and 2006, in comparison to a 9 percent gain in population in Custer County over the same time period.

Projections for the 2010 county populations show a 1.5 percent gain for Fall River County and a slight decrease of 2.3 percent for Custer County, both over the 2006 estimates.

A breakdown of population per town within each county is shown in Table 5, based again on Census 2000 data and 2006 USCB population projections. Custer City and Hot Springs, the county seats of Custer and Fall River counties, respectively, also are the largest towns in each county.

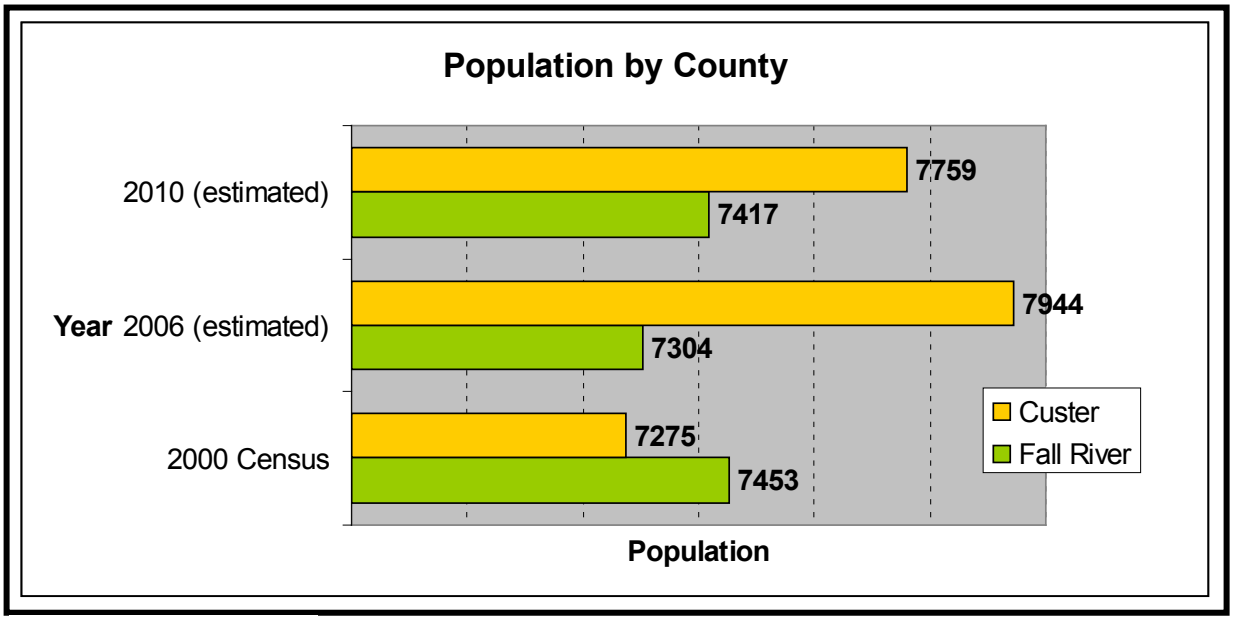
General population trends within both counties are shown Figure 4 and indicate that while Custer County overall was projected to gain population, the three smallest towns in the county (Fairburn, Pringle, and Buffalo Gap) were estimated to lose between 1.8 percent (at Buffalo Gap) to 5.6 percent (at Pringle) of their populations between 2000 and 2006.

The two larger towns, Hermosa and Custer City, both were projected to gain in population over the same time period, with Hermosa's rate of increase nearly twice as high as that of Custer City. In keeping with the general county population trend, all three towns in Fall River County show estimated population decreases from 2000 to 2006, with the highest percent decrease in Edgemont (the closest town to the project site), at 6.6 percent.

Rapid City, the urban area nearest to the project, had a 2000 population of 59,607, projected to increase by 5.2 percent to 62,715 by 2006.

Estimated 2006 population densities for both Custer and Fall River counties were quite low, at approximately 4 to 5 people per mi^2. In comparison, the state average population density estimate for 2006 was approximately 10 people per mi^2.

Population data for some other areas of interest to the project are shown in Table 6, and include population statistics for two towns in Pennington County (which includes Rapid City) – Hill



Data from U.S. Census Bureau.

Figure 3: Population by County

Table 5: Population Change, Custer and Fall River Counties, 2000 - 2006

County / Town	Population	
	2000 Census	2006 (estimate)
Custer		
Buffalo Gap	164	161
Custer City	1860	1984
Fairburn	80	78
Hermosa	315	354
Pringle	125	118
Fall River		
Edgemont	867	810
Hot Springs	4129	4102
Oelrichs	145	143

Data provided by U.S. Census Bureau, 2000 and 2006.

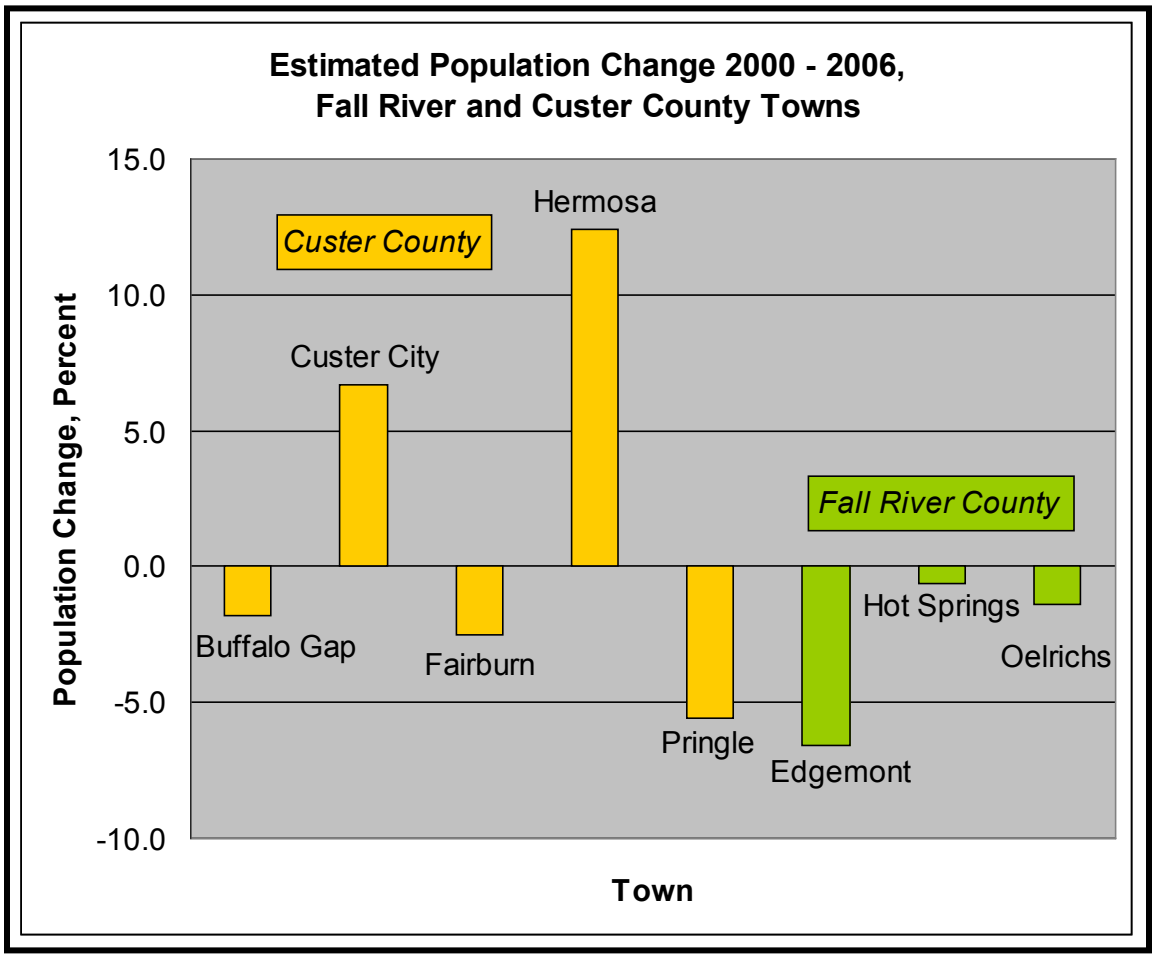


Figure 4: Estimated Population Change 2000 - 2006, Fall River and Custer Counties

Table 6: Population Data for Other Areas of Interest, 2000-2006

County, State / Town	Population		
	2000 Census	**2006 (estimate)**	***% Change***
Pennington Co, SD			
Hill City	780	871	***+ 11.7***
Keystone	311	315	***+ 1.3***
Weston Co, WY			
Newcastle	3,065	3,272	***+ 6.8***
Osage	215	n/a	***n/a***

Data provided by U.S. Census Bureau, 2000 and 2006; "n/a" = inter-census data not available.

City and Keystone, and two locations in Weston County, Wyoming – Newcastle and Osage, all considered close enough to the project to be within in its direct zone of social influence.

2.2.2 Schools

Public schools (kindergarten through 12th grade) in South Dakota are generally organized at the county or sub-county level by school district. The five public school districts in and around the permit area and their attendant schools and age levels are:

- **Custer School District:**
  - Custer Elementary, Pre-Kindergarten (PK) - 5th
  - Custer Middle, 6th – 8th
  - Custer High, 9th – 12th
  - Hermosa Elementary, PK – 8th
  - Fairburn Elementary, Kindergarten (K) – 8th
  - Spring Creek Elementary, K – 8th
- **Elk Mountain School District:**
  - Elk Mountain Elementary, K – 6th
- **Hot Springs School District:**
  - Hot Springs Elementary, PK - 5th
  - Hot Springs Middle, 6th - 8th
  - Hot Springs High, 9th – 12th
- **Edgemont School District:**
  - Edgemont Elementary, K – 6th
  - Edgemont Junior High, 7th – 8th
  - Edgemont High, 9th – 12th
- **Oelrichs School District:**
  - Oelrichs Elementary, K – 6th
  - Oelrichs Junior High, 7th – 8th
  - Oelrichs High, 9th – 12th

There are no private or charter primary or secondary schools in Custer County. Bethesda Lutheran School in Hot Springs is the only private school in Fall River County and serves grades PK – 5th.

Primary school attendance rates in Custer County are at or below the State average, while they are above the State average in Fall River County (Table 7). Both counties are above the State average in high school attendance and below the State average in college-level attendance rates.

The closest post-secondary schools to the project are in Rapid City, approximately 100 miles northeast via road, and include the Western Dakota Technical Institute (WDTI), the South Dakota School of Mines and Technology (SDSMT), and the Rapid City Campus of the National American University (NAU).

WDTI is one of four State-run technical institutes in South Dakota and offers 25 career programs leading to the Associate of Applied Science degree, as well as many non-credit classes, workshops, short-term training programs, and online courses. Approximately 850 full-time students were enrolled at WDTI in 2006-2007, with over 4,000 students participating in full-, part-time, or non-credit courses annually.

SDSMT is one of the six public universities governed by the South Dakota Board of Regents and offers undergraduate (Associate of Arts, Bachelor of Science) and graduate degrees (Master and Doctor of Science) in various science and engineering fields. 2006-2007 enrollment was 1,572 full-time and 498 part-time students.

The Rapid City campus is one of NAU's 20 campuses in six states, including an online campus also based in Rapid City. NAU is a private institute of higher learning, offering regionally accredited and degree programs in a variety of fields, both at its campuses and on-line. 2006-2007 enrollment at NAU's Rapid City campus was 1,005, including 646 full-time and 359 part-time students.

2.3 Local Socioeconomic Baseline Conditions

2.3.1 Major Economic Sectors

The South Dakota Department of Labor (SD DOL) defines "labor force" as all civilians not in institutions, 16 years of age and older, who are employed or unemployed and actively seeking employment. SD DOL develops its labor force estimates in cooperation with the U.S.

Table 7: Primary and Secondary School Attendance Rates, 2000 & 2006

School Category	Percent of Population ≥ 3 Years Old Attending School		
	Custer County (1)	Fall River County (1)	South Dakota (1), (2)
Nursery, pre-kindergarten, and pre-school	4.0	5.9	6.1, 6.7
Kindergarten	4.8	6.1	5.4, 4.9
Elementary (grades 1st – 8th)	42.7	51.8	44.6, 41.9
High (grades 9th – 12th)	37.7	27.4	23.4, 21.5
College or graduate school	10.7	8.8	20.6, 25.0

Data from U.S. Census Bureau: (1) Census 2000, (2) 2006 American Community Survey estimates.

Bureau of Labor Statistics. "Labor supply" is defined by the SD DOL as the number of persons who would be available to staff a new or expanding business in the area of interest and includes people who are currently employed but are seeking to change jobs and people who are unemployed but actively seeking jobs. Labor supply also considers workers who would commute into the area to work. Labor supply statistics developed by SD DOL are provided in Table 8.

The percentage of the total county populations represented by their labor forces is roughly the same for Custer and Fall River counties but lower than the State-wide rate, potentially due to the older populations in the area as noted in Section 1.1.2. Annual unemployment rates in 2007 in both counties were higher than the State-wide rate of 3.1 percent, with unemployment higher in Fall River County.

Nearly half of workers between the ages of 25 and 64 in both counties have 12 years or less of formal education (high-school level), as shown in Table 9.

2.3.2 Unemployment Trends

Unemployment trends for Custer and Fall River counties and South Dakota's state-wide rate over the last decade are shown in Figure 5, which plots the average unemployment rate for each year determined from monthly county and state data from the SD DOL's Labor Market Information Center.

As the chart shows, the disparity between county and State unemployment rates has been decreasing, so that since 2005 Custer and Fall River county unemployment rates are closely matched to that of the State. This trend adjustment has been most pronounced for Custer County, which had an unemployment rate of nearly twice the State average in 1997, but which now is within 4 percent of the State average. Fall River County's 2007 average unemployment rate was approximately 16 percent higher than the State-wide rate of 3.1 percent.

2.3.3 Employment

Employment data from 2006 for major sectors of employment including private sector enterprises and local, state, and federal government for Custer and Fall River counties are shown in Table 10 and illustrated in Figure 6. "Covered workers" are defined by the SD DOL as workers at firms for whom unemployment insurance is provided. Workers excluded from the "covered" category include the self-employed, unpaid family workers, elected government

Table 8: Area Labor Statistics, December 2007

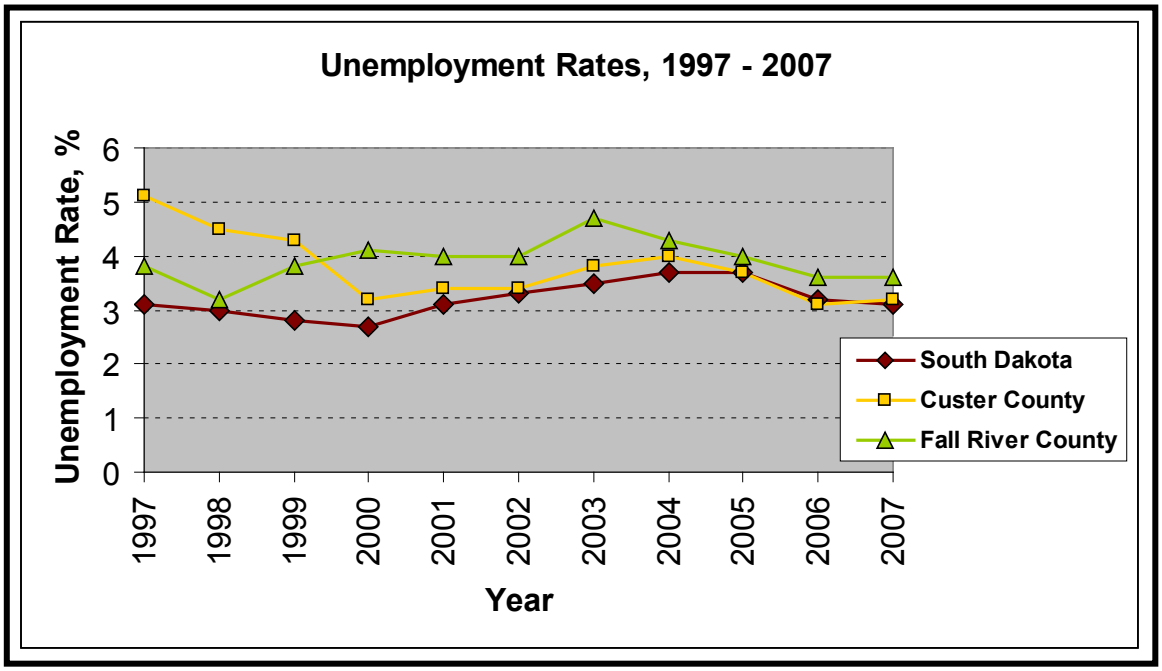
	Custer County	Fall River County	South Dakota*
Labor force, persons	3,955	3,680	440,085
Labor force, % of total population	49.8	50.4	56.3
Employed, persons	3,810	3,520	426,815
Unemployed, persons	145	160	13,270
Unemployment rate, annual %	3.2%	3.6%	3.1%
Labor supply, persons	470	535	67,570
Labor supply, % of labor force	11.9	14.5	15.4

Data from Labor Market Information Center, SD DOL
*State-wide data are seasonally adjusted

Table 9: Labor Force Educational Attainment (25 to 64 Years of Age), 2000

	Custer County, %	Fall River County, %	South Dakota
Less than 12 years of school	6.3	12.1	15.5
High school (12 years of school)	31.1	35.0	32.9
Some college (no degree)	27.1	28.6	23.0
Associate degree	7.5	3.8	7.1
Bachelor's degree	20.3	13.1	15.5
Graduate degree	7.7	7.4	6.0

Data from SD GOED and the U.S. Census Bureau, 2000



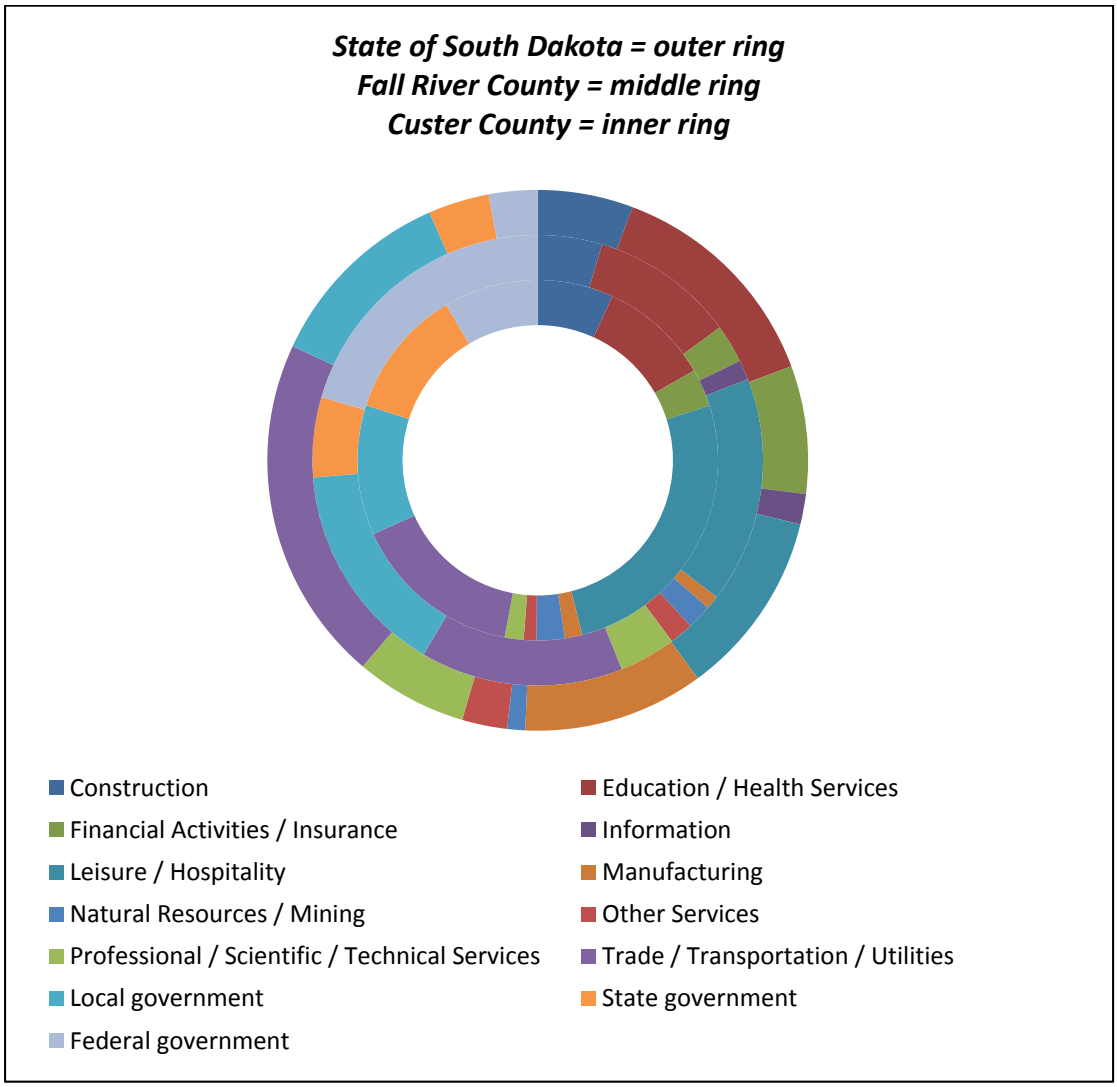
Data from SD DOL, Labor Market Information Center

Figure 5: Unemployment Rates, 1997 - 2007

Table 10: Covered Worker Employment by Sector, 2006

Employment Sector	Custer County, % Employed (1)	Fall River County, % Employed (1)	South Dakota, % Employed (2)
Construction	6.59	4.62	5.69
Education / Health Services	9.62	10.36	13.6
Financial Activities / Insurance	3.31	2.75	7.61
Information	NR	1.43	1.81
Leisure / Hospitality	25.15	16.26	11.06
Manufacturing	1.52	0.96	10.78
Natural Resources / Mining	2.44	1.79	1.07
Other Services	1.12	1.71	2.69
Professional / Scientific / Technical Services	1.64	4.07	6.66
Trade / Transportation / Utilities	14.89	14.55	20.66
% Total, Private Ownership (3)	***66.28***	***58.50***	***82.00***
Local government	11.30	15.34	11.47
State government	11.26	5.74	3.63
Federal government	8.22	20.49	2.90
% Total, Government (3)	***30.78***	***41.57***	***18.00***
Total Covered Workers:	**2,505**	**2,509**	**383,856**

Data from SD GOED and SD DOL Market Information Center, 2007.
Notes: (1) County data are from 2007; (2) State data are from 2006; (3) Totals exceed 100% due to rounding; NR = not reported



Data from SD GOED and SD DOL, Labor Market Information Center, 2006.

Figure 6: Covered Worker Employment by Sector, 2006

officials, railroad employees, election officials, work-study students, some religious and non-profit organization employees, smaller business employees, and part-time or seasonal workers.

Government (local, state, or federal) was a much larger employment sector for both Custer and Fall River counties than for the State. In 2006, slightly under half of all covered workers in Fall River County were employed by some form of government, in comparison to 31 percent of the covered workforce in Custer County and 18 percent of the workforce State-wide. Major private enterprise sectors of employment for both counties were leisure/hospitality (including arts, entertainment, recreation, food service, and accommodations) and trade/transportation/utilities (including retail, wholesale, transportation, warehousing, and utilities), see Figure 6.

A more detailed breakdown of private and public sector employers for both counties is provided in Table 11, based on 2006 data collected by the SD GOED from local development corporations. Major employers in Custer County include the USFS (whose Black Hills National Forest headquarters are in Custer City), local school districts, and various health care providers. Major employers in Fall River County include the U.S. Department of Veteran's Affairs (which operates a VA Medical Center in Hot Springs) and the National Park Service, in addition to local school districts and health care providers.

2.3.4 Income Levels

Information regarding median and per capita incomes and poverty statistics for Custer and Fall River counties is only available from the decennial federal census; state-level information is updated during the USCB's annual American Community Survey. Therefore, the county- and town-level information in Table 12 is presented in 1999 dollars, and has not been adjusted for inflation; State-wide data are for 2006 (2005 dollars).

Median incomes at the household and family level were higher for both Custer and Fall River counties than for the individual towns within each county, indicating that unincorporated county residents contribute substantially to the area's gross income. Income values for both counties were lower than the comparable State-wide values, possibly due in part to the time disparity of the available data. To facilitate comparison, the county-level data were adjusted for inflation to 2005 dollars (2006 data) using a web-based gross domestic product (GDP) deflator calculator (http://www.measuringworth.com/calculators/uscompare/result.php) based on the ratio of nominal GDP to real GDP, a broad measure of inflation representing the price of all goods and services in the economy. The county adjusted median values are still lower than the comparable State-wide incomes in each category, but Custer County median income values range from

Table 11: Major Employers, Custer and Fall River Counties, 2006

Employment Sector	Total Employed	Major Employers	Custer County	Fall River County
	Custer / Fall River		# Employed – Town	# Employed – Town
Construction	34 / 11	Jorgenson Log Homes	34 – Custer City	
		Barker Concrete Construction		11 - Edgemont
Education / Health Services	283 / 321	Custer Regional Senior Center	100 - Custer City	
		Custer School District	183 – Custer City	
		Cactus Hills Retirement Community		9 - Edgemont
		Edgemont School District		47 - Edgemont
		Castle Manor Nursing Home		140 – Hot Springs
		Hot Springs School District		125 – Hot Springs
Financial Activities	4 / -	Battle Creek Agency	4 - Hermosa	
Leisure / Hospitality	79 / 20	Cuny Table Café	4 - Buffalo Gap	
		Crazy Horse Memorial	60 – Custer City	
		Trails West	5 - Hermosa	
		Waterhole Restaurant & Bar	10 - Hermosa	
		Super 8 Motel		15 – Hot Springs
		State Line Club		3 - Oelrichs
		Horsehead		2 – Oelrichs
Natural Resources / Mining	33 / -	Pacer Corporation	33 – Custer City	
Other Services	- / 36	Black Hills Special Services		36 – Hot Springs
Trade / Transportation / Utilities	84 / 115	Black Hills Electric Cooperative	30 – Custer City	
		Buffalo Gap Repair	2 - Buffalo Gap	
		Rancher Feed & Seed	2 - Buffalo Gap	
		Lynn's Dakotamart	35 – Custer City	43 – Hot Springs
		Fresh Start	15 - Hermosa	
		Nelson's Oil & Gas		4 - Edgemont
		Maverick Junction		33 – Hot Springs
		Pamida		35 – Hot Springs
Local Government	74 / 7	Custer County	74 – Custer City	
		City of Edgemont		7 - Edgemont
State Government	30 / 106	Custer State Park	30 – Custer City	
		State Veterans' Home		106 – Hot Springs
Federal Government	583 / 504	Black Hills National Forest	583 - Custer City	
		VA Medical Center		402 – Hot Springs
		Wind Cave National Park		100 – Hot Springs
		U.S. Post Office		2 – Oelrichs

Data from SD DOL and SD GOED

Table 12: Income Levels

Location	Covered Workers, Annual Average Pay (1)	Median Household Income (2)	Median Family Income (2)	Per Capita Income (2)
Custer County	*$25,141*	*$36,303*	*$43,628*	*$17,945*
Custer County - Adjusted for inflation		*$41,917*	*$50,376*	*$20,721*
Buffalo Gap		$25,000	$28,750	$14,680
Custer City		$31,739	$41,313	$17,216
Hermosa		$23,750	$33,125	$20,832
Fall River County	*$26,727*	*$29,631*	*$37,827*	*$17,048*
Fall River County – Adjusted for inflation		*$34,214*	*$43,678*	*$19,685*
Edgemont		$24,919	$36,667	$17,273
Hot Springs		$27,079	$35,786	$16,618
Oelrichs		$27,222	$28,906	$13,454
South Dakota (3)	***$30,282***	***$42,791***	***$53,806***	***$22,066***

Data provided by SD DOL, Labor Market Information Center and USCB.
Note: (1) 2006 data; (2) Census 2000 data (1999 dollars) except State data; (3) State data = 2006 American Community Survey.

2 percent (household income) to less than 7 percent (family income) below their State analogs, while Fall River County median values diverge by almost 11 percent (per capita income) to 20 percent (household income) from comparable State-wide values.

2.3.5 Tax Base

South Dakota imposes an Energy Minerals tax for the privilege of severing said minerals (authority: SDCL 10-39A). The tax rate is 4.5% of taxable value. The energy minerals tax is distributed 50% to the State General Fund and 50% to local government. There is also a State-imposed conservation tax (authority: SDCL 10-39B). The rate base is 2.4 mills of taxable value, and 100% of the tax is placed in the Environment and Natural Resources fee fund. In FY2011 the state-wide energy mineral tax amounted to about $5.3 million (SD Department of Revenue, 2011 Annual Report).

South Dakota does not impose a state income tax on its citizens or businesses and abolished its estate tax in 2001. The majority of State revenue is generated from the 4 percent State-wide sales and use (services) tax, with other sales and use taxes levied by many municipalities, typically an additional 1–2 percent. The South Dakota Department of Revenue and Regulation (SD DRR) is the entity responsible for collection and regulation of various taxes at the State level, including:

- Non-income business taxes – including sales and use, contractor's excise, and municipal (city) and special jurisdiction (tribal) taxes;
- Special taxes – including tobacco excise, bank franchise, ore and energy mineral severance, gaming excise, coin-operated laundromat licensing, and various alcohol taxes; and
- Motor vehicles taxes – including titles, licensing, motor fuel, and dealer licensing.

Towns with a municipal sales and use tax also may impose a gross receipts tax on various sales, including lodging, restaurants, alcoholic beverage sales, and admissions to places of amusement and cultural and sports events. SD DRR is responsible for collection of municipal taxes. Towns in the vicinity of the permit area imposing a municipal sales and use tax are listed in Table 13.

Local governments are solely responsible for collection of property taxes, which are the primary source of funding for school systems, counties, municipalities, and other local government units.

Table 13: Municipal Tax Rates - 2007

Location	Municipal Tax Rate	Gross Receipts Tax Rate
Custer County		
Custer City	2%	1%
Hermosa	2%	No
Pringle	2%	No
Fall River County		
Edgemont	2%	1%
Hot Springs	2%	1%

Data from SD DRR, 2008.

Table 14 presents the total taxable amounts for calendar year 2007 on sales and services for the larger towns in Custer and Fall River counties and shows the amounts as a percent of South Dakota's total taxable sales over the same time period. The county total rates are approximate as they do not take into account any sales taking place in the unincorporated areas of the county.

Figure 7 shows the percentage various business sectors contributed to the total taxable sales and use revenue for Custer City and Hot Springs, the respective county seats for Custer and Fall River counties and the largest cities in each county. Businesses are grouped by standard industrial classification (SIC) as defined by SD DRR, and data reflect 2007 calendar year totals from SD DRR's annual report. The chart shows that the manufacturing, mining, transportation and public utilities, and services sectors were more important to Custer County than to Fall River, while agriculture, forestry, and fishing; construction; and retail trade were more important to Fall River County than to Custer. Wholesale trade and finance, insurance, and real estate sectors were approximately equal in terms of % of revenue generated for each county.

SIC categories generating the most taxable sales for Custer City in 2007 were services ($30,987,910), retail trade ($30,916,880), and transportation and public utilities ($12,340,925), accounting for 94.3 percent of the city's total sales and use tax revenue. SIC categories generating the most taxable sales for Hot Springs in 2007 were retail trade ($37,494,437), services ($12,989,107), and transportation and public utilities ($2,056,135), generating 94 percent of the city's total sales and use tax revenue.

Property tax categories include agricultural land, owner-occupied property, and other valuations (such as residential property not occupied by the owner, commercial property, and utility property). Each county is responsible for administering and collecting its own property tax system and monies, which are the primary source of funding for school systems and local government entities. Table 15 lists the property tax base for Custer and Fall River counties in 2007 and compares them to the State-wide totals. In 2007, agricultural land accounted for only 14 percent of the property tax base in Custer County, in comparison to 24.6 percent of the property tax base in Fall River County and 24.9 percent State-wide. Owner-occupied housing accounted for 47.9 percent of Custer County's tax base, compared to 38.7 percent in Fall River County and 39.0 percent State-wide. Other valuation percentages for both counties were similar to the State-wide rate of 36.1 percent of total property taxes collected in 2007.

Figure 8 shows that the majority (58.5 percent) of property taxes collected in South Dakota are used to fund local school districts. Another 38.4 percent of property tax revenue is used to

Table 14: Total Taxable Sales for Nearby Towns - 2007

Location	Total Taxable Sales	% of State Taxable Sales
Custer County		*~ 5.52*
Buffalo Gap	$404,188	0.03
Custer City	$79,332,055	5.08
Fairburn	$106,078	0.01
Hermosa	$5,768,664	0.37
Pringle	$552,539	0.04
Other cities	$351,520	0.02
Fall River County		*~ 4.2*
Edgemont	$6,863,927	0.44
Hot Springs	$57,148,891	3.66
Oelrichs	$714,584	0.05
Other cities	$704,086	0.05

Data from SD DRR, South Dakota Sales and Use Tax Report, Calendar Year 2007.

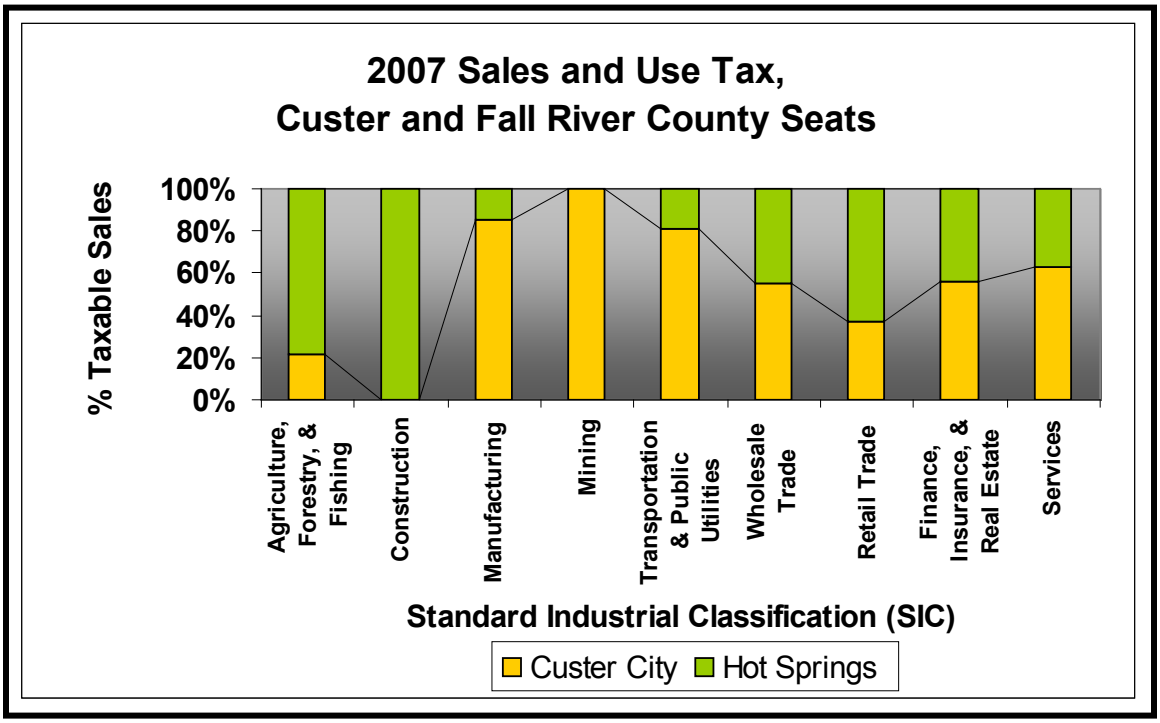
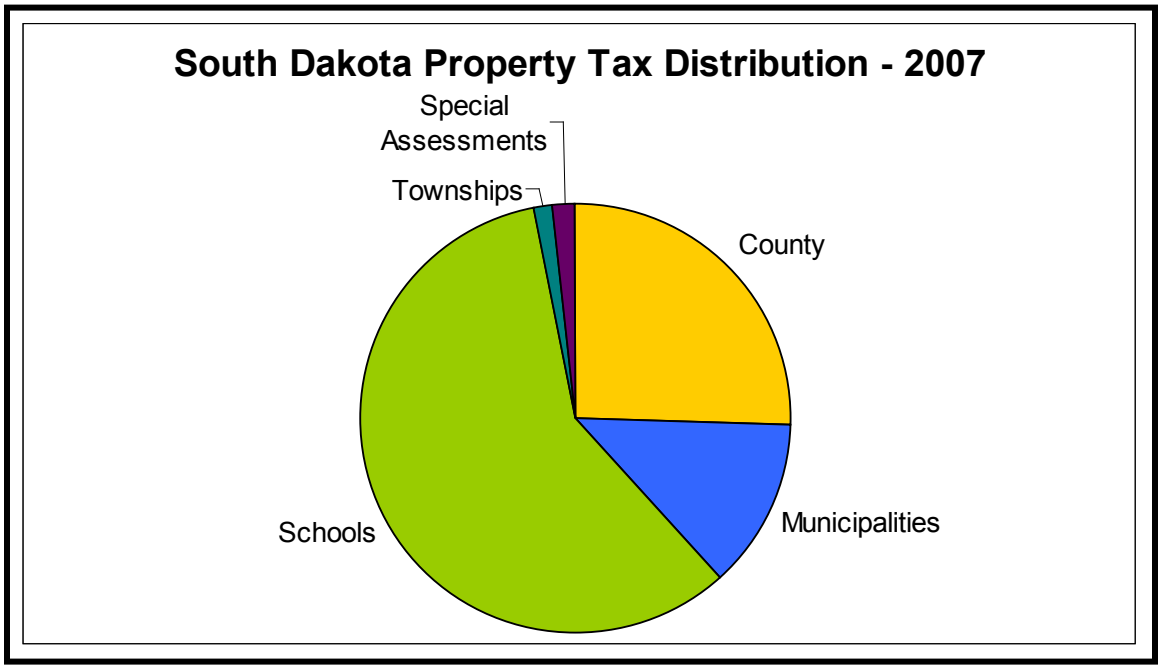


Figure 7: Sales and Use Tax for Custer and Fall River Counties, 2007

Table 15: Property Tax Base - 2007

Property Tax Category	Custer County	Fall River County	South Dakota
Agricultural Real Valuation	$84,160,015	$96,691,027	$17,297,437,066
Owner-Occupied Real Valuation	$285,740,111	$152,274,225	$20,353,223,881
Other Valuation	$227,203,660	$144,165,093	$14,066,547,327
Total Valuation	**$597,103,786**	**$393,130,345**	**$51,717,208,274**

Data from SD DRR, 2007 Annual Report.



Data from SD SRR, 2007 Annual Report.

Figure 8: South Dakota Property Tax Distribution, 2007

fund county (25.4 percent) and municipality (13.0 percent) governments, with the remaining 3.1 percent used for funding townships and for special assessment purposes, generally for use by improvement districts for infrastructure (road, bridge, water, sewer, etc.) improvements (Goldman et al., 2001). South Dakota provides property tax relief for agricultural and owner-occupied property owners by using a portion of its General Fund ($120 M in 2007) to pay school taxes for these taxpayers.

2.3.6 Housing

Housing data were obtained from the USCB, which compiles various housing statistics from the most recent census on a state-wide or county-wide basis. Data used for this baseline study included information about the number and type of housing units, home ownership rates, and median home values. USCB also updates certain municipal data on an annual basis via the American Community Survey (ACS), including building permits issued and number of housing units present, so that these data reflect more current trends and can be used in economic forecasting. Housing data for Newcastle and Osage in Weston County, Wyoming are also provided as these locations could also serve as potential host communities for project employees.

2.3.7 Dwelling Types

Census 2000 data were collected for various types of housing units, including single-family detached and attached homes, multi-unit dwellings (apartments), mobile homes, and rooms or groups of rooms designed as separate living quarters with direct occupant access. Census 2000 data are subdivided by single unit (detached and attached) and specific housing unit type; the USCB provides the information on housing units in multi-unit structures as a percentage of total housing units. Table 16 summarizes the Census 2000 housing data for the vicinity of the permit area, including owner-occupied (generally equivalent to for sale) and rental unit vacancy rates and seasonal/recreational/occasional use unit vacancy rates. Custer County has the highest seasonal unit vacancy rate (more than double Fall River and the two adjacent Wyoming counties), indicative of its proximity to the many recreational and scenic areas in the Black Hills.

At the time of the 2000 census, the majority of residences in all four counties were single-family owner-occupied homes on less than 10 acres of land.

Periodic estimations are made by the USCB to update the total number of housing units available within a given geography, based on building permits issued, mobile home shipments, and estimates of housing unit loss since the last census. The most recent housing unit estimation at the county level in South Dakota at the time of this writing was in 2006; however data are not

Table 16: Housing Unit Statistics - 2000

Housing Unit Type	Custer County, SD		Fall River County, SD		Niobrara County, WY		Weston County, WY	
	Units	% of Total	Units	% of Total	Units	% of Total	Units	% of Total
Total housing units	3,624	100%	3,812	100%	1,338	100%	3,231	100%
Single family homes	2,358	65.0%	2,429	63.7%	1,096	81.9%	2,186	67.6%
Multi-unit housing	261	7.2%	568	14.9%	104	7.8%	203	6.3%
Mobile homes	990	27.3%	807	21.2%	133	9.9%	823	25.5%
Other (boat, RV, van, etc.)	15	0.4%	8	0.2%	5	0.4	19	0.6%
Rental units	615	17.0%	901	23.6%	222	16.7%	549	17.0
Owner-occupied vacancy	-	2.3%	-	4.8%	-	7.5%	-	4.8%
Rental vacancy	-	9.1%	-	9.6%	-	18.2%	-	12.0%
Seasonal / recreational / occasional use vacancy	-	10.1%	-	7.5%	-	4.7%	-	4.4%
Units lacking complete plumbing	26	0.9%	47	1.5%	17	1.7%	11	0.4%
Units lacking complete kitchen facilities	51	1.7%	49	1.6%	4	0.4%	13	0.5%
No telephone service	77	2.6%	123	3.9%	44	4.4%	113	4.3%

Data from U.S. Census Bureau, Census 2000 Summary File 3 Dataset

divided into housing unit types. Fall River County had an estimated 4,007 housing units in 2006 (USCB), an increase of 5.1 percent over Census 2000 data, although the county suffered an approximate 2 percent population decline over the same period (Section 1.1.2.1). In comparison, Custer County posted a 16.5 percent increase in housing units since 2000, with a total of 4,223 units in 2006. These data support economic forecasting that lists Custer County as one of South Dakota's 10 fastest-growing counties (Business Research Bureau, 2007).

The 2006 estimation data for the bordering Wyoming counties showed a much more modest increase in housing units since the 2000 census, with an increase of 1.1 percent (15 additional units) in Niobrara County and an increase of 2.5 percent (81 additional units) in Weston County.

3.0 POTENTIAL SOCIOECONOMIC IMPACTS

3.1 Economic Impact Analysis

3.1.1 Introduction

The following economic analysis was created using IMPLAN (IMpact analysis for PLANning), an industry standard software used to measure the impacts due to a change in economic activity on a regional or local economy. IMPLAN was developed by the USFS in cooperation with the Federal Emergency Management Agency (FEMA) to estimate the economic effects of proposed resource outputs on local communities. Since 1988, the Minnesota IMPLAN Group, Inc. (MIG) has managed IMPLAN for public users.

This analysis was updated in September 2012 to be consistent with the NI 43-101 Preliminary Economic Assessment for the Dewey-Burdock Project (SRK, 2012).

The results of the economic impact analysis presented in this section establish that the proposed project is cost-effective and will provide a positive economic benefit to the direct zone of social influence and the State of South Dakota.

3.1.2 Key Assumptions

Key assumptions involved in the economic analysis of the proposed project include: (1) the operating life of the proposed project; (2) the discount rate; and (3) the zone of influence. These assumptions are described in more detail below.

3.1.2.1 Operating Life of the Project

A key input into the economic impact analysis is the operating life of the proposed project. The proposed project is considered as a single unit of analysis including the sequentially developed well fields, a CPP, Satellite Facility and other ancillary facilities. For this analysis, the total operating life of the proposed project is assumed to be 14 years. There are three phases of operation analyzed as separate units:

- 1 year of site development and facility construction (designated Year -1)
- 9 years of well field and CPP operations – includes contemporaneous well field construction and initiation of groundwater restoration (designated Years 1-9)
- 4 years of site reclamation, groundwater restoration and decommissioning of well fields and ancillary facilities (designated Years 10-13)

The economic impact analysis assumes that the Dewey and Burdock portions of the permit area would be developed simultaneously. This would begin with construction of the CPP, Satellite Facility, and initial well field in each area. Subsequent well fields would be developed sequentially in both of the Dewey and Burdock portions of the permit area. As an alternative to this development scenario, Powertech (USA) is considering developing the Satellite Facility and Dewey-area well fields initially, followed by the CPP and Burdock-area well fields. If Powertech (USA) chooses to pursue this alternate development scenario, a revised economic impact analysis will be provided, likely prior to LSM permit issuance.

3.1.2.2 Discount Rate

The economic analysis is presented in terms of net-present value (NPV). The NPV is calculated using a discount rate that allows for the comparison of the present value of future expenditures and allows all relevant future cost and benefits to be compared in present-value terms. A discount rate of 8 percent was used for the Preliminary Economic Assessment referenced above.

3.1.2.3 Zone of Influence

This analysis has been limited to the proposed project's direct zone of influence that is defined as the area within which the proposed project's impacts and benefits are reasonably anticipated to be concentrated, including the population areas most likely to contribute to the proposed project's local workforce and to provide ongoing sources of supplies and commodities during construction and operations.

As described in Section 2.1, the direct zone of influence includes a radius of 50 miles from the center of the permit area and includes the townships, towns, and unincorporated areas within Fall River and Custer counties. It also includes the Wyoming locations of Newcastle and Osage in Weston County; however, because the proposed project is located entirely within Custer and Fall River counties the economic analysis evaluates the proposed project's economic impact only within Custer and Fall River counties and the South Dakota taxes that will be levied. These locations are considered close enough to reasonably supply workers or supplies to the proposed project on a regular basis. No areas of appreciable population were located within this radius (50 miles) from the proposed project in other Wyoming counties or to the south in Nebraska.

Rapid City may serve as a regional logistics hub and source of workers and supplies for the proposed project as well. Because of its greater distance from the proposed project, Rapid City is considered to be part of the proposed project's indirect zone of influence. Two other communities in Pennington County also fall within the proposed project's indirect zone of influence: Hill City and Keystone.

3.1.3 Potential Benefits and Impacts

This section evaluates the economic benefits and potential socioeconomic impacts of construction and operation-related activities over the life of the proposed project. Economic benefits created from the proposed project include the number of jobs created and local and state tax revenues generated and other activities that have the potential to favorably affect the local economy.

This analysis uses IMPLAN and the Preliminary Economic Assessment as previously described to estimate the potential economic benefits to Custer and Fall River counties. IMPLAN can tailor the input-output models according to specific regional or community data and the program can analyze the impacts from more than 500 different types of industries for counties throughout the United States. In order to analyze the impacts of the proposed project on the local economies affected, the proposed project's industry classification has been identified as mining and construction. The model also requires labor and capital expenditures as inputs in order to evaluate the potential economic impacts of the proposed project. Among the outputs calculated are potential direct, indirect and induced employment impacts and tax revenues generated.

The surrounding counties of Custer and Fall River, South Dakota were analyzed using the two industry sectors most closely associated with the stages of development of the proposed project: construction (IMPLAN code 41) and support activities for mining (IMPLAN code 29).

3.1.3.1 Input Data

Table 17 shows the input data for construction, operation and reclamation expenditures over the life of the proposed project. The total estimated number of construction workers directly involved in construction is 86. It is likely that most of the employees during construction will be hired by contractors due to the short time frame for construction. Some construction will be ongoing throughout the production phase of the operation as new well fields are developed and brought on line. The total non-payroll capital construction expenditures are estimated at $47.5 million in Year -1, $2 million per year in Years 1-9 and nothing during years 10-13.

Table 17: Input Data for the Project

Activities	IMPLAN Code	Per Year		
		Year -1	Years 1-9	Years 10-13
Construction Expenditures				
Non-payroll	41	$47.478 M	$2.0 M	N/A
Payroll	41	86 Workers $3.537 M	$1.799 M	N/A
Operation Expenditures				
Non-payroll	29	$1.459 M	$16.345 M	$ 3.564 M
Payroll	29	$1.397 M	84 Workers $4.844 M	18 Workers $5.26 M

Payroll expenditures for construction are estimated to be $3.537 million during Year -1, $1.799 million per year during Years 1-9, and nothing during Years 10-13.

Upon completion of the well fields and CPP, the operation will employ approximately 84 full-time employees over the following 9-year period and approximately 18 employees during the final 4 years of restoration and reclamation. It is likely that many of these employees will come from Custer and Fall River counties. Non-payroll operation expenditures are expected to total $1.459 million in Year -1, $16.345 million per year in Years 1-9, and $3.564 million per year in Years 10-13. Payroll expenditures for operations are expected to total $1.397 million in Year -1, $4.844 million per year in Years 1-9, and $5.26 million per year in Years 10-13.

3.1.3.2 Employment Effects

Using the input data from Table 17, IMPLAN was used to generate the potential employment-related effects of the proposed project. IMPLAN defines employment as total wage and salary employees, including self-employed jobs that are related to the proposed project. It also includes both full-time and part-time workers and is measured in annual average jobs.

Table 18 shows the potential direct, indirect and induced effects on Custer and Fall River counties' employment. The direct employment effects refer to the employment directly generated by the proposed project. For the initial construction phase in Year -1, the model estimated the potential for an additional 171 non-payroll (indirect and induced) workers that could be hired in Custer and Fall River counties based on the 86 payroll workers engaged directly in construction activities and the $47.5 million in non-payroll capital expenditures incurred by the proposed project in the first year.

Potential indirect effects, which pertain to the interaction of local industries (direct effects) purchasing from local industries could include increased labor demands, goods and services required to support the proposed project (e.g., retail and restaurant staff). In addition, new workers living within Custer and Fall River counties would spend their income locally, which would induce additional income and employment. The sum of potential direct, indirect and induced effects represents the total potential employment impacts of the proposed project.

These results indicate that the proposed project has the potential to create a total of 257 (including 86 Powertech (USA) employees) jobs during the construction stage, a total of 155 (including 84 Powertech (USA) employees) jobs during the operation stage and 24 (including 18 Powertech (USA) employees) jobs during the reclamation stage of the proposed

Table 18: Employment Effects of the Project in Custer and Fall River Counties

Years	Employment			
	Direct	Indirect	Induced	Total
-1	86	45	126	257
1 - 9	84	36	35	155
10 - 13	18	3	3	24

project. The economic impacts of the proposed project will not be limited to Custer and Fall River counties, but will likely benefit the surrounding counties of Weston, Niobrara, and Pennington because of increased commerce and capital exchange within the region.

3.1.3.3 State and Local Tax Revenues

Expected State and local tax revenues over the life of the project were estimated as a part of the Preliminary Economic Assessment. Federal taxes are not included in this analysis. The results presented in Table 19 are standardized to Q1 2012 dollar equivalents using a discount rate of 8 percent.

Potential state and local tax revenue associated with the proposed project are presented in Table 19. Only indirect business taxes, which include excise taxes, property taxes, fees, licenses, and sales taxes that stem directly from the construction and operation of the proposed project and paid by Powertech (USA) are presented instead of the tax revenue generated from employee or employer social insurance taxes, which represent only a transfer of wealth rather than a net economic gain.

As shown in Table 19, the construction, operation and reclamation stages of the proposed project are expected to generate a net present value of approximately $16.52 million in total indirect business tax revenue over the life of the proposed project.

In addition to the indirect business tax revenues, the Special Tax Division of the SD DRR levies a uranium severance tax of 4.5 percent as well as 0.24 percent conservation tax on the taxable value of any energy mineral produced from mining operations (South Dakota Department of Revenue, 2011). The current resource estimate for the proposed project is 8.41 million lbs. recoverable U_3O_8 (43-101 compliant). Assuming that the recovered 8.41 million lbs. were sold at $65 per pound, the severance tax would yield approximately $24.59 million in net economic benefits over the life of the operation, 50 percent of which would be collected by the counties, and an additional $1.31 million for the conservation tax. The total taxes generated over the lifetime of the proposed project, including indirect business taxes, are estimated to be approximately $42.42 million.

3.1.3.4 State and Local Value Added Benefits

IMPLAN was used to estimate the value added benefits to Custer and Fall River counties. Value added is a measure of wealth created by an economy. In other words, as an industry buys goods and services and remanufactures those goods to create a product of greater value, this increase in

Table 19: Projections of State and Local Tax and Royalty Revenue

	Construction 1 year	Operation 9 years	Reclamation 4 years	Total
Severance Tax Revenue	**0**	**$24,591,000**	**0**	**$24,591,000**
Conservation Tax Revenue	**0**	**$1,311,000**	**0**	**$1,311,000**
Indirect Business Tax Revenue	**Net Present Value ($)***			
Motor Vehicle License (per annum)	$10,800	$6,107	$552	
Other Taxes (per annum)	$51,351	$29,037	$2,627	
Property Tax (per annum)	$0	$683,100	$738,000	
State/Local Non Taxes (per annum)	$28,602	$16,173	$1,463	
Sales Tax[1] (per annum)	$1,468,000	$550,000	$106,900	
Total Indirect Business Taxes per Year	$1,558,753	$1,284,417	$849,542	
Total Indirect Business Taxes	$1,558,753	$11,559,753	$3,398,168	**$16,516,674**
Total Direct and Indirect Business Taxes	$1,558,753	$37,461,753	$3,398,168	**$42,418,674**

*2012 dollar equivalents

[1]Sales tax was estimated by applying 3% to the total non-payroll expenditures in Table 18.

value represents the value added. The IMPLAN model calculates the value added based on four components: employee compensation, proprietor income, other property income and indirect business tax. Employee compensation is wage and salary payments as well as benefits. Proprietary income consists of payments received by self-employed individuals as income. Other property type income consists of payments from interest, rents, royalties, dividends, and profits. Indirect business taxes consist primarily of excise and sales taxes paid by individuals to businesses. As shown in Table 20, the results from the IMPLAN analysis indicate that the construction, operation and reclamation stages of the proposed project are expected to generate approximately $171.8 million in value added benefits over the life of the proposed project.

3.1.3.5 Benefits of Environmental Research and Monitoring

Due to the remoteness and low population of the permit area, the ongoing environmental baseline studies and monitoring have greatly increased the information available on the area's natural resources. Required operational monitoring as presented in Section 5.5 of the report accompanying the LSM permit application will continue to provide beneficial scientific data about the area.

3.1.3.6 Potential Effects to Housing

Because of the project's close proximity to the communities of Edgemont, Custer City and Hot Springs, South Dakota and Newcastle, Wyoming, with a combined population greater than 9,000 people, it can be assumed that most of the workforce would come from these localities. The remaining workforce likely would relocate from the surrounding area (e.g., South Dakota, Nebraska and Wyoming) and from other Powertech (USA) offices. Some supervisory and technical people likely will be new hires from outside the area. The IMPLAN model results show that during the 1-year construction stage, the project has the potential to create 257 new jobs for one year. During the following 9-year operation stage the project has the potential to sustain the creation of 155 jobs, and 24 jobs over the final 4 years.

In the unlikely event that the entire direct payroll and non-payroll workforce relocated to Custer and Fall River counties, the population increase for the three stages of operations would be 619, 374 and 58, based on the average family size in South Dakota of 2.41 as of 2006. This increase in population would account for an increase of 6.9 percent (total population 15,248) in the total population of Custer and Fall River counties. This is a very conservatively high estimate because it is likely that a large percentage of the workforce for construction will not relocate their families to the area due to the short construction period, and the operation and reclamation

Table 20: Value Added Benefits

	Construction 1 year	Operation 9 years	Reclamation 4 years	
South Dakota/Fall River & Custer Counties				**Total**
Value Added (per annum)	$39,091,679	$14,135,859	$1,366,119	
Total	$39,091,679	$127,222,731	$5,464,476	$171,778,886

workforce will be sourced from the existing workforce, thereby reducing the total population increase substantially. The impacts associated with an increase in population are expected to be dispersed because of the remoteness of the project site and the phased nature of construction, operation and reclamation. Also, some of the construction workforce will be hired for the operation phase and will not represent new employees. The project would have a moderate increase in the overall percentage of the local population, and any influx of immigration will be partially mitigated by implementing a preferential hiring scheme and using regional educational/ training institutions to help train workers and to ensure that as many of the local residents are hired as possible.

3.1.3.7 Potential Impacts to Services

There are several schools located within Custer and Fall River counties as described in Section 2.2.2. Total enrollment for the Custer School District is 991 students with a student to teacher ratio of 12.1 to 1. Total enrollment for the Hot Springs School District is 873 students with a student to teacher ratio of 12.9 to 1. The Edgemont School District has a total enrollment of 138 students and a student to teacher ratio of 8.8 to 1.

Families moving into the aforementioned school districts near the project site as a result of the project are not expected to strain the current school system because they are presently under-capacity as shown by the combined student teacher ratio for the three school districts of 12.1:1 as compared to the State-wide student teacher ratio of 13.4:1 and the national average of 15.7:1.

The costs associated with increased demand of public facilities and services are expected to be minimal. The need for additional water supply and waste disposal facilities are expected to be minimal based on adequate existing capacity. Existing emergency response and medical treatment facilities are capable of responding to any possible incident at the project site; therefore the basic services required to support the project already exist. Since the majority of the workforce will be local there are no significant changes or stresses anticipated for other public services, such as police, health care, or utilities.

3.1.4 Economic Impact Summary

According to the economic impact analysis, the most significant benefits are the potential to sustain the creation of 257 new jobs during construction, 155 jobs during operation, and 24 jobs during reclamation, all of which will have direct, indirect and induced effects on the local economies. In addition, an estimated $65.47 million will be spent on non-payroll construction expenditures, $42.42 million in state and local tax revenues will be received, and $186.7 million in value added benefits are expected to be generated over the life of the project. Severance taxes

could be $24.6 million or more depending upon market prices and the availability of additional reserves proven during ongoing exploration and delineation.

Impacts to the regional housing market should be minimal because of the large percentage of local workers. Impacts to schools and public facilities should be negligible because of their present ability to absorb any associated regional influx.

This economic impact analysis indicates that the construction and operation costs including capital costs of this project will result in positive economic benefits to the local and regional economy by the creation of hundreds of jobs and millions of dollars in tax revenue over the life of the project.

The development the ISR project should present Custer and Fall River counties with net positive gain.

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