3.7 Recreation

This section provides information concerning recreation opportunities, resources, and activities within and surrounding the Application Area.

3.7.1 Analysis Area and Methodology

Recreation is a primary land use within and surrounding the Application Area. The analysis area for recreation resources (recreation analysis area) includes all federal, state, local, and private recreational resources in the general vicinity of the Application Area and that may be impacted by project alternatives. The recreation analysis area is located entirely within Carbon County, Wyoming, and includes tracts of land and facilities managed by the BLM RFO; USFS, Medicine Bow National Forest, Brush Creek/Hayden Ranger District; WGFD; and private land. This analysis includes a review of available recreation information from the BLM and USFS district offices, the state of Wyoming, Carbon County, and various cities and towns in the analysis area. Available federal, state, and local planning documents relevant to recreation also were reviewed. **Figure 3.7-1** shows the location of developed BLM recreation sites, State of Wyoming recreation sites, and land ownership throughout the project vicinity.

3.7.2 Recreation Opportunities on Public Lands

3.7.2.1 Bureau of Land Management

The primary recreation resources in the recreation analysis area are the public lands managed by the BLM. These opportunities are primarily dispersed activities including hunting, fishing, hiking, camping, off-highway vehicle (OHV) use, mountain biking, pleasure driving, and wildlife viewing. Opportunities for developed recreation in the recreation analysis area also exist to a limited degree.

Developed Recreation

Rim Lake Recreation Site

The Rim Lake Recreation Site is located approximately 7 miles south of Rawlins on WY 71. Rim Lake is a day use area that offers one shelter with picnic tables. The lake supported a fishery when water was available; however, stocking for the lake has been discontinued by the Wyoming Fish and Game as of February 2012 because of anticipated water restrictions (BLM 2012b). A popular segment of the CDNST climbs from the lake to the top of the Atlantic Rim of the Continental Divide and offers 360 degree views of the surrounding area (Schneckenburger and Smith 2008). This CDNST segment also is open to motorized use, as allowed in accordance to a BLM easement. The BLM Recreation Management Information System (RMIS) data indicates a total of 3,757 visits from October 1, 2006 through September 30, 2007; and a total of 2,592 visits from October 1, 2007 through September 30, 2008, at the Rim Lake Recreation Site (RMIS 2008).

Teton Reservoir Recreation Site

The Teton Reservoir Recreation Site is located approximately 13 miles south of Rawlins off WY 71. The Teton Reservoir Recreation Site is used primarily for day use activities, including fishing and motorized and non-motorized boating. The site includes a small campground with five campsites; vault toilets; a boat ramp; and parking. Individual campsites include picnic tables, fire rings, grill, and designated parking spaces. Fish in the reservoir include rainbow and brown trout, and wildlife in the area includes pronghorn, mule deer, coyotes, grouse, rattlesnakes, and ducks (BLM 2008c). Teton Reservoir is popular as both a day use area as well as a camping destination. BLM RMIS data indicates a total of 4,076 visits from October 1, 2006 through September 30, 2007; and a total of 3,289 visits from October 1, 2007, through September 30, 2008, at Teton Reservoir Recreation Site (RMIS 2008).

Dispersed Recreation

The majority of recreation in the analysis area occurs as dispersed activities: camping, hunting, hiking, motorized and mechanized recreation (scenic driving, off-road vehicle riding, biking, picnicking, and snowmobiling), fishing and boating, and wildlife viewing activities, as described in the following sections.

Access for dispersed recreation occurs through Carbon County roads and BLM roads, the CDNST, the North Platte River, and across public lands. Access to public lands for dispersed recreation is limited due to the checkerboard pattern of land ownership, and is described in Section 3.4.4. Public land sections (BLM and State) accessible to the public are shown in **Figure 3.4-1**.

Camping

Little Sage Reservoir is an undeveloped recreation site located approximately 13 miles south of Rawlins west of WY 71 and Teton Reservoir Recreation Site (BLM 2008c). Little Sage Reservoir lies along the CDNST and is used primarily for day use activities and informal, dispersed camping primarily by CDNST users. Wildlife in the area includes pronghorn, mule deer, coyotes, grouse, rattlesnakes, and ducks (BLM 2008c). BLM RMIS data is not available for Little Sage Reservoir (RMIS 2008).

Hunting

Both big and small game hunting is the most popular recreation activity in the study area and participation is high during the open hunting seasons. Primary big game species for hunting include deer, elk, antelope, moose, black bear and mountain lion. Primary small game species include blue grouse, greater sage-grouse, and cottontail rabbit. For each big game species in Wyoming, there are various hunt units throughout the state. Some of these hunt units are granted a limited number of quota licenses, while others are open to general hunt license holders. The Analysis Area contains all or part of three antelope hunt units, three deer (white-tail and mule) hunt units, and three elk hunt units. The majority of hunting that occurs in antelope and deer hunting units is non-resident hunting. **Table 3.7-1** summarizes the number of participating hunters, total hunter days, non-resident hunters, and open season dates for big game hunt units wholly or partially within the Analysis Area (WGFD 2011a).

The majority of the hunt units for antelope (56 and 108), deer (83 and 84), and elk (108 and 130) occur within the checkerboard. Hunting in the checkerboard within the Analysis Area occurs on federal land sections that are accessible by public roads or with permission of the private landowner. Harvest numbers for these units are relatively small compared to hunt units (52, 80, and 15) partially within the Sierra Madre project area. Hunt units 52, 80, and 15 also contain large areas of BLM lands outside of the checkerboard, and portions of USFS lands. A report that evaluates the importance of back country areas in Wyoming for hunting and fishing describes the Sierra Madre region as unprotected back country land that provides quality hunting opportunities, unchecked migration routes, and security cover for wildlife. The quality of the hunting is dependent on the unroaded character of the area (Trout Unlimited 2006). This area occurs south of the Application Area, and includes portions of hunt units 52, 80, and 15.

The hunt units for bighorn sheep, moose, and black bear also contain large areas of consolidated federal lands outside of the Analysis Area.

A campground located at the junction of CRs 503 and 401 (also known as McCarty Campground, Little Cheyenne, Middlewood Campground, and Little Rawlins Campground) is an informal, dispersed area that is a highly popular location for hunters to use as a base camp during the big game hunting season. The BLM estimates that approximately 95 percent of the use for this area occurs between the start of antelope season and the close of cow elk season. These seasons typically occur between late September and late January, with the busiest time being in October and November. At any one time during this period there typically are about 35 recreational vehicles (RV's) parked at the campground. The campground is informal and there are no developed facilities (Smith 2008).

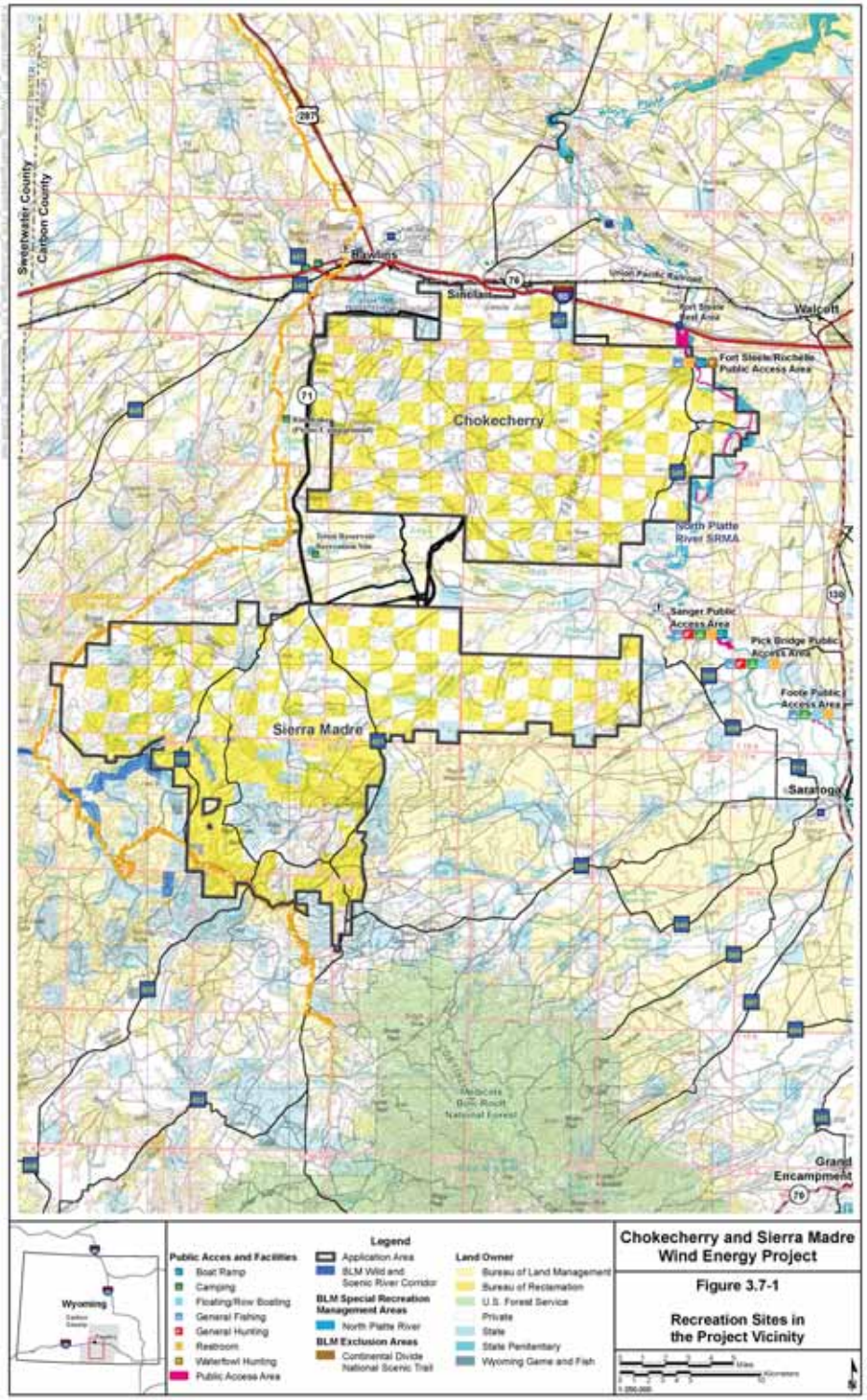

Sweetwater County
Carbon County
Rawlins
Sinclair
Walcott
Fort Steele/Rochelle Public Access Area
Chokecherry
North Platte River SRMA
Sierra Madre
Saratoga
Grand Encampment
Legend
Public Acces and Facilities
Boat Ramp
Camping
Floating/Row Boating
General Fishing
General Hunting
Restroom
Waterfowl Hunting
Public Access Area
Application Area
BLM Wild and Scenic River Corridor
BLM Special Recreation Management Areas
North Platte River
BLM Exclusion Areas
Continental Divide National Scenic Trail
Land Owner
Bureau of Land Management
Bureau of Reclamation
U.S. Forest Service
Private
State
State Penitentiary
Wyoming Game and Fish
Wyoming
Chokecherry and Sierra Madre Wind Energy Project
Figure 3.7-1
Recreation Sites in the Project Vicinity

Table 3.7-1 2010 Hunt Units, Hunters, and Harvest for Big Game Species in the Analysis Area

Big Game Species	2010 Hunt Units	Project Area	Active Hunters	Total Harvest	Hunter Success (%)	Hunter Days[1]	Non-resident Hunters	Percent (%) Non-Resident Hunters	Season Dates[2, 3]
Antelope	52	Sierra Madre	799	736	92.1	2,650	444	55.6	9/16 -11/14
	56	Chokecherry Sierra Madre	43	35	81.4	126	18	41.9	9/20 – 10/14
	108	Sierra Madre	66	52	78.8	137	18	27.3	9/20 – 10/14
Bighorn Sheep	21	Sierra Madre	1	1	100	1	0	0.0	Closed
Deer[4]	80	Sierra Madre	691	179	25.9	3094	217	31.4	9/1 – 12/15
	83	Chokecherry Sierra Madre	60	16	26.7	191	27	45.0	10/1 – 10/14
	84	Sierra Madre	90	46	51.1	412	13	14.4	10/1 – 10/14
Elk	15	Sierra Madre	1,142	378	33.1	6,361	144	12.6	10/15 – 11/30
	108	Sierra Madre	171	126	73.7	872	58	33.9	10/15 – 11/30
	130	Chokecherry Sierra Madre	26	0	0	119	11	42.3	10/1 – 10/23
Moose	41	Chokecherry Sierra Madre	1	1	100	10	0	0.0	10/1 – 11/14
Black Bear	9	Chokecherry Sierra Madre	145	23	15.9	48.3	26	17.9	Spring/fall

[1] Hunter Days is the total number of days spent by total active hunters in the hunt unit.

[2] Season dates may vary for sub-categories within the big game species.

[3] Archery seasons for each big game species generally start September 1, and close when regular hunting seasons begin.

[4] Includes mule deer and white-tailed deer.

Source: WGFD 2011a.

Continental Divide National Scenic Trail

Another popular dispersed recreation destination is the CDNST. The CDNST is approximately 3,100 miles long, from Canada to Mexico through the states of Montana, Idaho, Wyoming, Colorado, and New Mexico. South of Rawlins, the trail parallels WY 71 through the checkerboard to the vicinity of Little Sage Reservoir, where the trail turns to the west and then southeast into the Medicine Bow-Routt National Forest. It leaves the checkerboard at T17N. The CDNST circumvents the Chokecherry site and the majority of the Sierra Madre site. Near the southernmost portion of the Application Area, however, the trail crosses the Sierra Madre site for a distance of approximately 3 miles. The majority of the CDNST through the checkerboard within and adjacent to the Application Area follows or lies adjacent to existing two-tracks, resource roads and County roads, and is generally open to motorized use as allowed in accordance to a BLM easement or when crossing private lands. Small segments of the CDNST cross private land. The Recreation Opportunity Spectrum (ROS) inventory classifies the majority of the CDNST as Front Country (Roaded Natural) and the 2008 Rawlins RMP/ROD establishes the prescribed setting for the CDNST as middle country, which would be difficult to achieve without significant rerouting of the trail and/or trail corridor. Outside of public roads, existing CDNST easements on private land provide legal access for recreationists. While most use along the CDNST consists of day and thru hiking, limited mountain biking and horseback riding also occurs. For the 2007 use season, the BLM recorded approximately 189 visits along the CDNST. For the 2008 use season, the BLM recorded approximately 673 visits along the trail (RMIS 2008).

Within the RFO, the CDNST is managed as a SRMA. The 0.25 mile wide corridor (centered on the trail) of the CDNST SRMA is managed as a significant recreational resource to maintain or enhance a diversity of recreational opportunities and benefits while providing trail users opportunities to view the diverse topographic, geographic, vegetative, wildlife, and scenic phenomena that characterize the CDNST and observe human uses of natural resources (BLM 2008a).

Motorized and Mechanized Recreation

Other dispersed recreation activities in the project study area include scenic driving, biking, picnicking, OHV riding, and snowmobiling. Scenic driving is a highly popular activity from late March through November. There is particularly heavy participation in this activity as the aspen leaves change during the fall season. WY 71 is a primary route for scenic driving as recreationists travel south from Rawlins to Aspen Alley in the Medicine Bow National Forest, which is a destination for scenic driving, leaf viewing, and photography (USDOT 2010). Southbound motorists typically travel west to Baggs, or east towards Saratoga (Smith 2008).

There is moderate to heavy OHV use in the recreation analysis area, typically along established roads. Much of this use also occurs during big game hunting seasons when hunters often establish a base camp then use OHVs to access more remote hunting locations. No specific use numbers are available for OHV use (Smith 2008).

A moderate level of biking use occurs in the recreation analysis area, typically along established roads such as WY 71 and Hydrology Road. Small levels of dispersed picnicking and other day use activities also occur in the recreation analysis area. No specific use numbers are available for any of these activities (Smith 2008).

Fishing and Boating Associated with the North Platte River

The North Platte River is a major recreation resource for the area particularly with respect to fishing and non-motorized boating. Non-motorized boating is allowed from Saratoga to the State line only. From the Colorado border down to Sage Creek, the North Platte River is classified as a blue-ribbon trout fishery and largely considered some of the best wild trout fishing in the continental U.S. This section of river is managed for "wild" trout. Rainbow and brown trout are the predominant game fish, with smaller populations of brook and walleye (BLM 2008c). Also, the river section from the Colorado border downstream to Sanger Public Access Area is highly popular for canoeing, kayaking, and rafting. From

Saratoga downstream to Fort Steele, which runs through the Application Area, boating and fishing use is somewhat less than the upper stretch, but it is still a popular destination. This stretch is very popular with canoeists who float the 44-mile journey in approximately 2 to 3 days. Details on each of the Public Access Areas in the recreation analysis area are described below in Section 3.7.3.

The North Platte River is listed as a SRMA in the 2008 Rawlins RMP. This 3,060-acre SRMA is managed to provide high-quality recreational opportunities.

Much of the North Platte River runs through the checkerboard land ownership pattern where public and private sections of land alternate, but the water over private land is public. The land beneath the water and the river banks are private where the river crosses private land. As such, a person must get permission from private landowners to use their private land unless there is an easement for public use. Where enclosed public lands are within 50 feet of the North Platte River, easements allow anglers and waterfowl hunters access by legally crossing deeded lands within 50 feet of the river on foot. To assist in knowing whether users are on public or private land, blue or red signs have been erected along the river indicating that the river is entering public, state, or private lands with easements (blue), or if the river is entering private land (red).

Other popular fishing resources include Beaver Creek, Little Jack Creek, Low Creek, Willow Creek, Sage Creek, Middlewood Creek, Pass Creek, Fish Creek, Miller Creek, Savery Creek, Truckdrivers Creek, Little Muddy Creek, McCarty Creek, Littlefield Creek, Grover Creek, McKinney Creek, and Stoney Creek as described in Section 3.14.

3.7.2.2 Medicine Bow National Forest

The northern boundary of the Medicine Bow National Forest is approximately 10 miles south of the southernmost turbines in the Application Area. Recreation in the Medicine Bow National Forest is primarily dispersed in nature and revolves heavily around hunting and scenic resources. Other popular recreation activities include OHV riding and snowmobiling. The CDNST also traverses through this portion of the forest (USFS 2008).

Recreation use in this geographic area varies, with dispersed camping and big game hunting the most common activities. Outfitter and guiding opportunities are available for both hunting and fishing. Snowmobile use occurs on several designated routes; however, use in this area is low to moderate, with most use coming from the local communities. Cross-country skiing is another popular activity in the area. The Jack Creek Campground is a destination campground in this area of the Forest (USFS 2003).

3.7.3 State, County, and Municipal Recreation Opportunities

For most visitors, fishing and boating access to the North Platte River is provided through public easements at Public Access Areas managed by WGFD. Public easements extend from midstream of the river outward to a point 100 feet from the high water line (WGFD 2008a). The following are the Public Access Areas within the recreation analysis area:

- The Fort Steele/Rochelle Easement Public Access Area (PAA) is located along I-80, approximately 8 miles east of the Town of Sinclair. The Rochelle Easement provides for public access to approximately 11 continuous miles of the North Platte River immediately south of I-80 (BLM 2008c) within the Application Area. Waterfowl hunting is allowed within the easement (WYGF 2012). Additionally, there is a put-in for non-motorized boating, as well as ample parking. There also are restrooms and picnic facilities associated with the adjoining rest area. While this PAA sits just outside of the Application Area, it is within the recreation analysis area.
- The Sanger PAA is located approximately 13 miles south of I-80 and is accessed via 130 and CR 508. In addition to fishing access, Sanger has a boat ramp, picnic facilities, restrooms, and informal camping areas. Hunting also is permitted in this area (WGFD 2008a). The Sanger PAA lies within the Application Area.

- The Pick Bridge PAA is located approximately 14 miles south of I-80 and is accessed via 130 and CR 508. In addition to fishing access, Pick Bridge has picnic facilities, restrooms, and informal camping areas. There also is primitive floating access but no vehicle access to the water. Hunting also is permitted in this area (WGFD 2008a). The Pick Bridge PAA lies within the Application Area.
- The Foote PAA is located approximately 16 miles south of I-80 and is accessed via 130 and CR 508. In addition to fishing access, Foote has picnic facilities, restrooms, and informal camping areas. There also is primitive floating access but no vehicle access to the water (WGFD 2008a). The Foote PAA lies within the Application Area.

Table 3.7.2 indicates the public use data for the WGFD, North Platte River PAA. Data were collected over a 3- to 4-year period using a combination of car counters and public use surveys. The counting methodology was not adjusted for access un-related to recreation, such as trips by employees of TOTCO and other operators for ranch management activities. The highest public use for each PAA is reported in people/year.

Table 3.7-2 Public Use at the North Platte River PAAs in or near the Application Area (WGFD 2008a)

Public Access Area	People per Year
Fort Steele (north of I-80)	3,776
Rochelle (south of I-80)	812
Sanger	6,066
Pick Bridge	9,030
Foote	26,976

There are no developed parks or recreation facilities operated by Carbon County in the recreation analysis area. However, there are several museums in the vicinity of the recreation analysis area including: the Wyoming Frontier Prison in Rawlins; the Carbon County Museum in Rawlins; the Parco/Sinclair Museum in Sinclair; and the Saratoga Museum in Saratoga (Carbon County 2009b). The Historic Fort Steele and Museum at the Fort Steele exit off I-80 also is located in Carbon County. Fort Steele is operated by Wyoming State Parks and is a popular destination for tourists travelling along I-80. Named in honor of Colonel Frederick Steele, Fort Steele was laid out on June 30, 1868, by Major Richard I. Dodge at the place where the Union Pacific – the westward-building portion of the nation's first transcontinental railroad – met the North Platte River. It was one of three military posts established along the railroad in Wyoming during the 1860s to provide protection for the line, the work crews, and the communities that developed along its route. Fort Steele State Historic Site offers an excellent opportunity to preserve and interpret a portion of Wyoming’s diverse cultural heritage (Wyoming Parks 2009).

Other opportunities in the recreation analysis area are operated by the City of Rawlins. The City of Rawlins owns and operates the Rochelle Ranch Golf Course, an 18-hole championship level golf course located on the east-side of the city. Rawlins also owns and operates numerous municipal parks throughout the City, a Recreation Center (with 3 indoor gyms, an indoor track, 3 racquetball courts, a weight room, aerobic equipment, spinning bicycles, and an indoor shooting range), an outdoor shooting range, and a host of recreational programs, green spaces, trails and athletic fields (City of Rawlins 2009b).

Dispersed opportunities such as hunting are provided on Wyoming state lands. The Office of State Lands and Investments (OSLI) maintains access to State trust lands for public use. Road closures on State trust lands are subject to Board approval (OSLI 2012).

3.7.4 Private Recreation Opportunities

There are several private campgrounds and RV parks in the recreation analysis area. Three of these areas are in Rawlins, including the American President's Campground, the KOA Campground, and the Western Hills Campground, which are all open year round. Rawlins also is the location of the RV World Campground, which is open seasonally from April through September. In Saratoga, the Deer Haven RV Park and the Saratoga Lake Campground and RV Park are both open seasonally from May through September.

Numerous private outfitters also operate within the recreation analysis area. These outfitters offer a wide variety of services including guided trips for hunting, fishing, floating, and wildlife viewing. These activities occur primarily on public lands and waters surrounding the Application Area.

3.8 Socioeconomics

The delineation of the socioeconomic study area for the project and the characterization of local socioeconomic conditions are guided by the potential socioeconomic effects of the project. These include:

- The effects of a large temporary and transient construction work force, principally the demand for temporary housing and community services;
- The effects of a relatively small operations work force, principally the demand for long-term housing and community infrastructure and services;
- Project-related materials, equipment, and supplies transport and work force commuting on municipal streets, county roads and state highways and the demand for transportation management, maintenance, and public safety services;
- Economic and fiscal effects of project construction and operations; and
- Economic and social effects of the change in land use and visual/aesthetic character of the area.

The project is located in south-central Carbon County, Wyoming. Carbon County is Wyoming's third-largest county in terms of land area, 60 percent of which is in public ownership, but it ranks 12th (of 23) in terms of population. Except for the alternative site for the proposed RDF, the Application Area lies south of I-80 and the mainline of the UPRR, both of which generally bisect the county east to west. The City of Rawlins and Town of Sinclair are immediately north of the Application Area.

In addition to Rawlins and Sinclair, several other Carbon and Sweetwater county communities are within commuting distance of the project. Primary highway access to the Application Area would be via WY 76/Carbon County Road (CR) 407 (CIG Road) near Sinclair, which would then link to an internal haul road. WY 76 also crosses I-80 at Exit 221 in this area. In addition to providing access for the construction work force and to the preferred site for the proposed RDF, this access could be used by trucks hauling aggregate during the first year of construction, trucks delivering other commodities and equipment where rail delivery is impractical, or all heavy trucks originating from the RDF, including those transporting WTG components, assuming the alternative location. Two transportation scenarios for construction workers remain under consideration: 1) all commuting construction workers also would use this internal haul road; and 2) workers also would be allowed to use WY 71/CR 401 (Sage Creek Road), which travels south from Rawlins and would provide access to the Sierra Madre and Sage Creek parts of the Application Area for workers under this scenario. There are a number of Carbon County roads that provide access to the Application Area from the east, west, and south. These roads are identified in Section 3.10. **Table 3.8-1** displays communities and highway commuting distances.

Table 3.8-1 Highway and Road Distances between the Project and Selected Communities

Community	Distance to I-80 Interchange or WY 71 Project Access Points (miles)	Distance from Project Boundary over County Roads (miles)	Estimated 2009 Population	Community	Distance to I-80 Interchange or WY 71 Project Access Points (miles)[1]	Estimated 2009 Population
Carbon County				**Sweetwater County**		
Rawlins	7/0		8,791[1]	Wamsutter	47/40	694[2]
Sinclair	0/7		406[1]	Bairoil	47/40	173[2]
Baggs	84/77	Approx. 42	423[1]	Rock Springs/	114/107	29,027[2]

Table 3.8-1 Highway and Road Distances between the Project and Selected Communities

Community	Distance to I-80 Interchange or WY 71 Project Access Points (miles)	Distance from Project Boundary over County Roads (miles)	Estimated 2009 Population	Community	Distance to I-80 Interchange or WY 71 Project Access Points (miles)[1]	Estimated 2009 Population
				Reliance		
Dixon	91/84	Approx. 35	79[1]	Superior	107/100	341
Saratoga	35/42	Approx. 15	1,777[1]	**Albany County**		
Elk Mountain	35/42		201[1]	Laramie	100/93	28,850[1]
Hanna	35/42		870[1]			
Medicine Bow	50/57		269[1]			
Riverside	52/59	Approx. 32	64[1]			
Encampment	53/60	Approx. 33	460[1]			

[1] U.S. Census Bureau 2010a.

[2] Sweetwater Economic Development Association 2009.

From Baggs, Dixon, and Saratoga, and possibly Riverside and Encampment, commuting distances on gravel county roads to certain portions of the Application Area would be closer than indicated by the highway distances; however, travel on these roads requires slower speeds. Although each community listed in **Table 3.8-1** is theoretically within commuting distance of the Application Area, only a few are likely to be substantially affected by the project.

For this assessment, the primary study area for socioeconomic effects is southeastern Carbon County, including the communities of Rawlins, Sinclair, and Saratoga. That definition of the primary study area reflects the proximity to the project site and the availability of temporary housing and/or commercial services to support the work force. The Sweetwater County community also is considered for its potential to house construction workers. Rawlins is the largest community near the project and offers the largest inventory of temporary housing. Sinclair has no hotels, motels or RV parks, but the alternate location for a RDF is located along its eastern boundary. Rawlins and Sinclair are the only two communities located on primary access routes to the Application Area and the two incorporated communities from which views of the project would be relatively prominent. Saratoga has the second largest, though substantially smaller inventory of temporary housing in the county, but also has strong seasonal tourism and recreation demand for that housing, particularly during summer months. Baggs and Dixon have limited temporary housing, which is typically absorbed by workers in nearby natural gas fields and by hunters during the fall. An existing mobile home/RV park in Walcott Junction, located at the junction of I-80, U.S. 30, and WY 130, is not currently operating but could be reopened given sufficient demand. The Sweetwater County community of Wamsutter is centered in a number of natural gas fields and most of the town's inventory of temporary housing is absorbed by gas field workers.

The need or willingness of construction and energy resource development workers to travel extended distances is commonly accepted among Wyoming residents; a pattern borne out by analyses of worker residency and place of employment linkages completed by the Wyoming Department of Workforce Services (2010). Such travel can occur in the performance of their work assignment, for example, a completion crew traveling from a service center to a well site, which technically is not commuting, or as a part of their daily commutes to a job site. According to the Department's study on intercounty labor flows,

many residents of Sweetwater, Carbon, and Albany counties are employed outside their county of residency and many jobs based in those counties are filled by residents of other counties. That said, past experience on industrial and energy resource development projects in the region has demonstrated that temporary workers would generally prefer to reside closer to the worksite, rather than commute long distances, given the availability of adequate housing and essential convenience retail services. Consequently, some construction workers might commute from more distant communities, such as Laramie in Albany County and Rock Springs in Sweetwater County, particularly if PCW were to make arrangements for temporary housing in those communities or to provide busing to and from the communities to the Application Area. However, the number of temporary workers residing in any one community would likely be relatively small. As a result, social and economic conditions are not described for those communities.

Similarly, the communities of Elk Mountain, Hanna, Medicine Bow, Riverside, Encampment, Bairoil, and Superior offered limited temporary housing resources, are unlikely to experience transportation effects of the project, and are outside the project's primary viewshed. Furthermore, other wind energy and a proposed coal-to-liquids project in the eastern part of the county that may overlap with the construction timetable for the project and could place demands on the limited temporary housing resources in Hannah, Medicine Bow and Elk Mountain.

- The description of existing social and economic conditions within the socioeconomic study area is organized by the following major topics:
- Human geography;
- Economic conditions;
- Population and demographics;
- Housing;
- Community facilities and services;
- Local fiscal conditions;
- Public education; and
- Environmental justice.

3.8.1 Human Geography

This section describes the factors behind human settlement of the socioeconomic study area for the project and characterizes the communities potentially affected by the project.

3.8.1.1 Human Settlement

Section 3.2 of this EIS describes Native American habitation and use of the lands around the project. Settlement of the surrounding area by people of European descent was in large part a result of the same topography that makes the area attractive for wind power – a natural gap in the Rocky Mountains. Fur trappers and traders, pioneers in covered wagons, the Pony Express, and stage lines all found this gap the easiest way to traverse the Continental Divide. Major settlement of the area was triggered by development of the Union Pacific transcontinental rail line across the region, which again found the natural gap in the mountains to be the best location for a rail line. The Federal Interstate Highway Commission located I-80 across the region for the same general reason. This natural gap in the Rockies also forms a giant wind tunnel, making it attractive for the development of wind farms (Gade 2008).

Construction and operation of the UPRR, along with the coal mines that supported the railroad and later produced coal for export, promoted the expanded economic development of the region. Ranching, supported by the land grants given to the railroad to help fund construction, also developed during this

period as the cattle industry now had a substantial local market and a more convenient, efficient and safe means of shipping livestock and wool to distant markets.

Ranching, the railroads, and more recently the interstate flow of commerce associated with I-80 have been long-term and relatively stable elements of the area's economic base and social fabric. Mineral and energy resource development – initially coal, but later oil, gas, and uranium – also helped shape the area's economic history. The mining, oil, and natural gas industries also have been important but volatile contributors to the regional economic base through employment, spending, and their fiscal support for local government and education.

More recently, wind energy development along the Carbon and Albany County line has been a contributor to the area economy with 440 wind turbines in operation in 2010 (AWEA 2010) and additional projects being proposed and under consideration for the area.

3.8.1.2 Communities of Place

This section describes communities near the Application Area. Rawlins and Sinclair are separated by about 6 miles and are the two communities most likely to be substantially affected by construction and operation of the project. Saratoga also may house some of the construction workforce. The Carbon County towns of Baggs and Dixon and the Sweetwater County town of Wamsutter are communities near the Application Area that may house a relatively small portion of the construction work force.

Rawlins

Rawlins is the Carbon County seat and largest community in the county. Rawlins' historic economic base includes coal production, ranching, and the UPRR. The UPRR remains a key employer in Rawlins, employing about 195 people in 2006. Ranching remains an important part of the region's rural economy and culture.

The Wyoming Department of Corrections has been a major employer in Rawlins for over a century, employing a staff of about 330. The original Wyoming State Penitentiary was opened in Rawlins in 1901 and operated as the state's primary prison until 1981 when a new prison was built just south of Rawlins. The old Wyoming Frontier Prison has been converted to a heritage tourist attraction.

The energy industry also has played a pivotal role in the city's growth and development. During the 1970s and early 1980s, the city's population grew as a result of a multi-faceted energy resource boom, which included coal, oil, and uranium development. During the mid-1980s, Rawlins and much of Wyoming endured an economic downturn as a result of a precipitous decline in energy prices (Ducker 2007; Moulton 1995; Worthington, Lenhart and Carpenter, Inc. 1999). From about 2005 through mid-2008, strong natural gas development in western Carbon and eastern Sweetwater counties brought about economic and population growth to Rawlins. The location of natural gas production and service companies in Rawlins and the expansion of the nearby Sinclair refinery also contributed to the growth in Rawlins, which was characterized by labor and housing shortages during that period. Today, Rawlins continues to host a mix of long-time residents, newcomers, and transient temporary workers. Many of the latter group work in the surrounding natural gas fields and highway and infrastructure construction sites, reside temporarily in the town, and are "single status," that is, either single or married but unaccompanied by a spouse or other family members.

Sinclair

Originally a stage stop, Sinclair began its contemporary history as the town of Parco during the 1920s when the Producers and Refining Corporation developed a refinery in the town. The name changed to Sinclair in 1942 when the Sinclair Refining Company purchased the refinery. The refinery has been a major employer in the area for over 70 years, employing 351 personnel in 2007. The refinery recently completed a major improvement and expansion project.

Saratoga

The Town of Saratoga, located in the Platte Valley, is the center of one of the most productive agricultural areas in Carbon County and is a popular outdoor recreation destination. Although ranching has historically been the most important contributor to the valley's economy, copper mining and lumber milling also have contributed to the area's development. In addition to serving as a commercial center for the Platte Valley ranching community, Saratoga's economy is based on fishing, hunting, natural and cultural heritage amenities, attractions and events, and an increasing number of second/vacation homes in the area surrounding the town.

Beginning with crews employed on the construction of the nearby High Savery Dam in the early 2000s, the motels and RV parks in Saratoga began to attract construction and energy workers employed in the region. More recently a few temporary workers employed on natural gas development and pipeline and wind power projects were housed locally (Crimmins 2008).

Baggs, Dixon, and the Little Snake River Valley

Settlement in the Little Snake River Valley (LSRV) was associated with cattle ranching. Mining, oil, and more recently, natural gas development, have contributed to growth and development in the LSRV; however, ranching is the enduring economic activity and ranching-related activities, such as rodeos and roping competitions, are among the important social interactions in the valley. Some of the ranches and grazing operations in the LSRV have been in the same family for several generations.

Outdoor recreation (hunting in particular) is an important economic and social activity in the LSRV. Some ranchers lease their land to hunting outfitters, or allow hunting access for a fee. Outfitters, game processors, motels, cafés, and other businesses rely on hunting for substantial portions of their annual income. Recently, a large landowner developed a dude ranch south of Savery, near the Wyoming-Colorado state line (Corners 2007; Hicks no date; Stocks 2007; U.S. Department of Agriculture [USDA] 2003).

Wamsutter

Originally named Washakie, when the town was a rail station on the Union Pacific line, Wamsutter was incorporated in 1914 and soon became the central wool-shipping center for the entire Red Desert region (Lauritzen no date). Major growth occurred in Wamsutter in response to oil and gas development in the area and over the years has hosted drilling and well service crews and construction workers for natural gas processing plants, pipelines, and compressor stations.

In addition to its role as a field support center for a number of natural gas producers and service companies, Wamsutter is seeking to capitalize on its location on I-80 by hosting more highway-oriented businesses. Although not yet reflected in state or census statistics, recent population growth in Wamsutter has been substantial. Local officials believe the town has more than doubled its resident population in the recent years; that increase would be even higher with the inclusion of the temporary and transient workers in the natural gas fields. The town has implemented a variety of housing, planning, and infrastructure-development initiatives to accommodate current and anticipated population growth (Colson 2010).

3.8.2 Economic Conditions

Economic conditions and trends for the Application Area were identified based on reviews of data from the Headwater Economics' Economic Profile System, available online at: http://headwatereconomics.org, the U.S. Census Bureau, the U.S. Bureau of Economic Analysis, the U.S. Bureau of Labor Statistics, and other federal, state, and local sources as cited in the text.

3.8.2.1 Employment

Carbon County employment climbed dramatically in the early 1970s, primarily due to energy resource development (coal, uranium, oil, and gas). The net gain of 6,437 jobs from 1970 to 1980 represented a 90 percent increase in total employment. Much of the gain in Carbon County was transitory. Nearly 4,200 jobs were lost during the early/mid-1980s as the local coal and uranium industries contracted in response to weak markets. From about 1985 until 2004 the local economy remained relatively stable, at least in terms of employment, fluctuating at around 9,500 jobs (**Figure 3.8-1**). More than 220 jobs were added between 2002 and 2005, and nearly an additional 1,500 jobs added over the next 3 years (U.S. Bureau of Economic Analysis 2010a).

The industrial composition of the local economy, in terms of employment covered by unemployment insurance, is summarized in **Table 3.8-2**. In addition to natural gas development, pipeline and wind energy facility construction, state government, health care, and the trade, accommodations, and food service industries also are important sectors for the economy.

Carbon County's economy was hard hit by the effects of the global economic recession which began in 2008, and the adverse effects on natural gas development in particular. Total employment in the county declined by more than 1,100 jobs between the beginning of 2008 and year-end 2009. The overwhelming majority of the job losses were in the mining and construction industries. The number of jobs in government actually increased during the period, although local government employment has since declined in the wake of budget cuts brought about by the decline in tax revenues (Wyoming Department of Employment 2010).

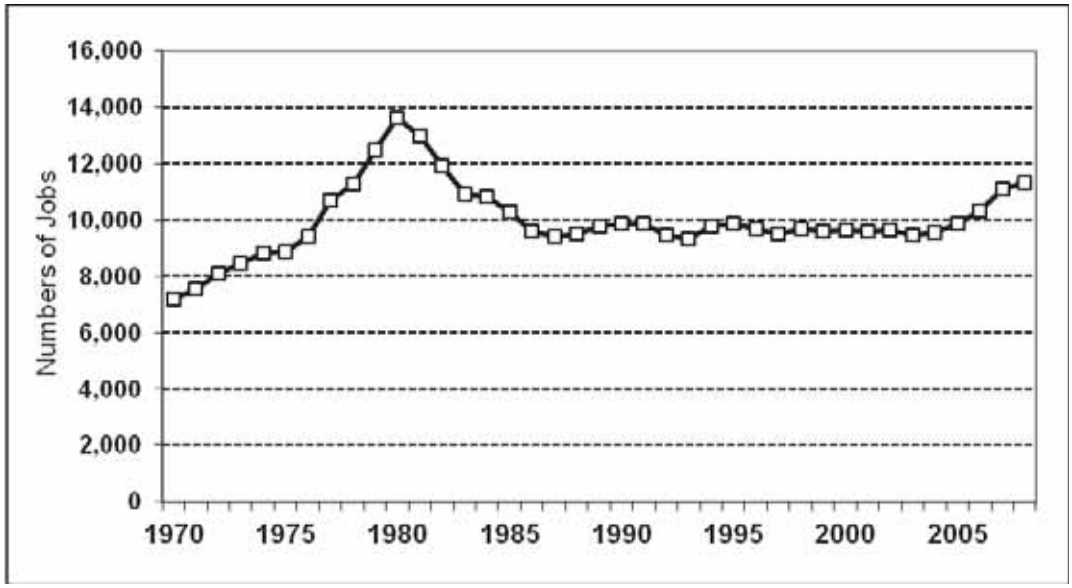
3.8.2.2 Labor Market Conditions

Changes in local labor conditions provide many useful insights into underlying economic and demographic conditions. The local labor force underwent a slow but protracted decline from 1990 through 2004, decreasing by nearly 1,200 individuals, or 14 percent. Steady population out-migration also characterized that period (**Figure 3.8-2**). Following several years of relative stability, the local labor force expanded by approximately 1,200 individuals from the beginning of 2006 through the end of 2007 in response to the increase in employment opportunities associated with natural gas development. Since many employers are not based in Carbon County, mining sector employment statistics do not fully reflect the importance of energy development for the local economy.

As the effects of the recession took hold and construction work at the Sinclair refinery tapered off, the labor force contracted, rapidly shedding approximately 1,000 workers through mid-2009. By year's end the annual average size of the labor force was below that for the preceding year, signaling the end of the most recent period of local economic expansion. In mid 2009, there was a brief rebound with the labor force and employment growing by 350 between March and August, reflecting the typical seasonal expansion related primarily to construction, tourism and travel. The seasonal and overall expansion of the labor force, many of whom are commuters and non-residents who work locally for an extended period but do not establish "residence" locally, is illustrated in **Figure 3.8-3**. Continuing economic weakness and normal seasonal contraction resulted in a subsequent decline in the labor force to below 7,500.

Prior to the recent resurgence in natural gas development, unemployment in the region since 1990 generally had been between 5.0 and 6.5 percent, on par or slightly above the statewide average (**Figure 3.8-4**). Migration and commuting play significant roles in moderating local unemployment rates.

In large measure, due to the high demand for labor associated with ongoing energy development, Carbon County experienced record low unemployment in 2007, just over 250 unemployed, representing 3.1 percent of the local labor force. In fact, the effective unemployment rate was likely lower because the seasonally adjusted labor force estimates that serve as the basis for calculating unemployment rates may not fully capture all non-resident laborers working in the area for an extended period but living in



Source: U.S. Bureau of Economic Analysis 2010a.

Figure 3.8-1 Total Full and Part-time Employment in Carbon County, 1970–2008

Table 3.8-2 Full and Part-time Covered Employment, by Industrial Sector, Comparison of 1st Quarter 2008 to 4th Quarter 2009

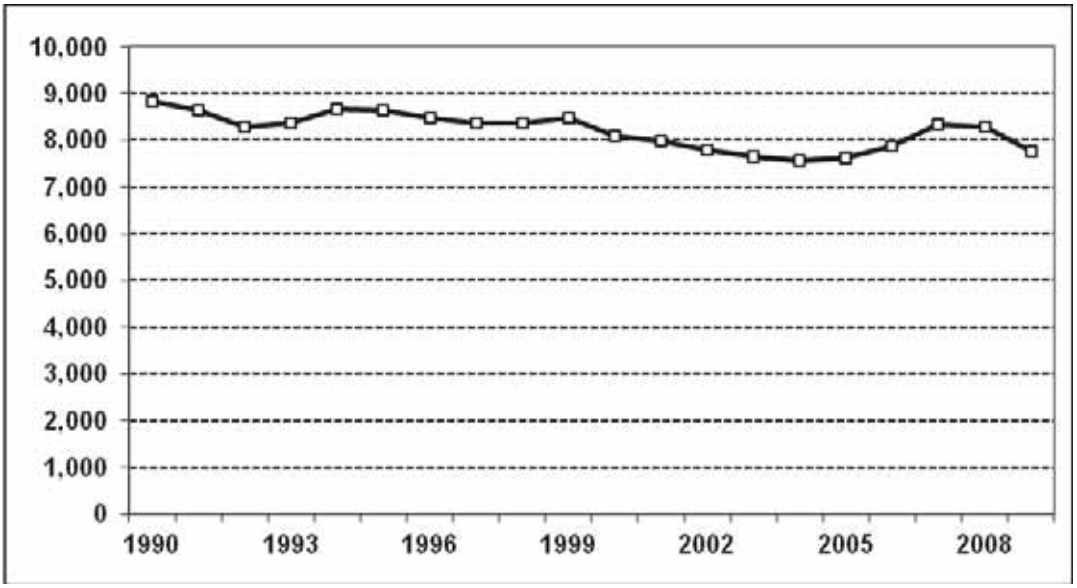
Industrial Sector	Carbon County					
	Number of Jobs 2008 Q1	Number of Jobs 2009 Q4	Share of Total Jobs 2009 Q4	Change 2008 Q1 to 2009 Q4	Changes in the Number of Jobs in Sector 2008 Q1 to 2009 Q4	Share of Total Change in Jobs Loss
Private						
Agriculture, Forestry, Fishing, and Hunting	163	195	3%	20%	32	-3%
Mining	451	283	4%	-37%	-168	15%
Utilities	53	71	1%	34%	18	-2%
Construction	1,505	501	7%	-67%	-1,004	91%
Manufacturing	NA	NA	NA	NA	NA	NA
Wholesale Trade	69	59	1%	-15%	-10	1%
Retail Trade	807	742	11%	-8%	-65	6%
Transportation and Warehousing	253	241	4%	-5%	-12	1%
Information	71	78	1%	10%	7	-1%

Table 3.8-2 Full and Part-time Covered Employment, by Industrial Sector, Comparison of 1st Quarter 2008 to 4th Quarter 2009

Industrial Sector	Carbon County					
	Number of Jobs 2008 Q1	Number of Jobs 2009 Q4	Share of Total Jobs 2009 Q4	Change 2008 Q1 to 2009 Q4	Changes in the Number of Jobs in Sector 2008 Q1 to 2009 Q4	Share of Total Change in Jobs Loss
Finance and Insurance	149	149	2%	0%	0	0%
Real Estate and Rental and Leasing	83	72	1%	-13%	-11	1%
Professional and Technical Services	149	115	2%	-23%	-34	3%
Management of Companies and Enterprises	18	NA	NA	NA	NA	NA
Administrative and Waste Services	115	116	2%	1%	1	0%
Educational Services	NA	NA	NA	NA	NA	NA
Health Care and Social Assistance	442	480	7%	9%	38	-3%
Arts, Entertainment, and Recreation	40	66	1%	65%	26	-2%
Accommodation and Food Services	858	775	12%	-10%	-83	7%
Other Services, Exc. Public Administration	150	147	2%	-2%	-3	0%
Subtotal Private	5,808	4,550	68%	-22%	-1,258	114%
Government	1,995	2,145	32%	8%	150	-14%
Total	**7,802**	**6,695**	**100%**	**-14%**	**-1,107**	**100%**

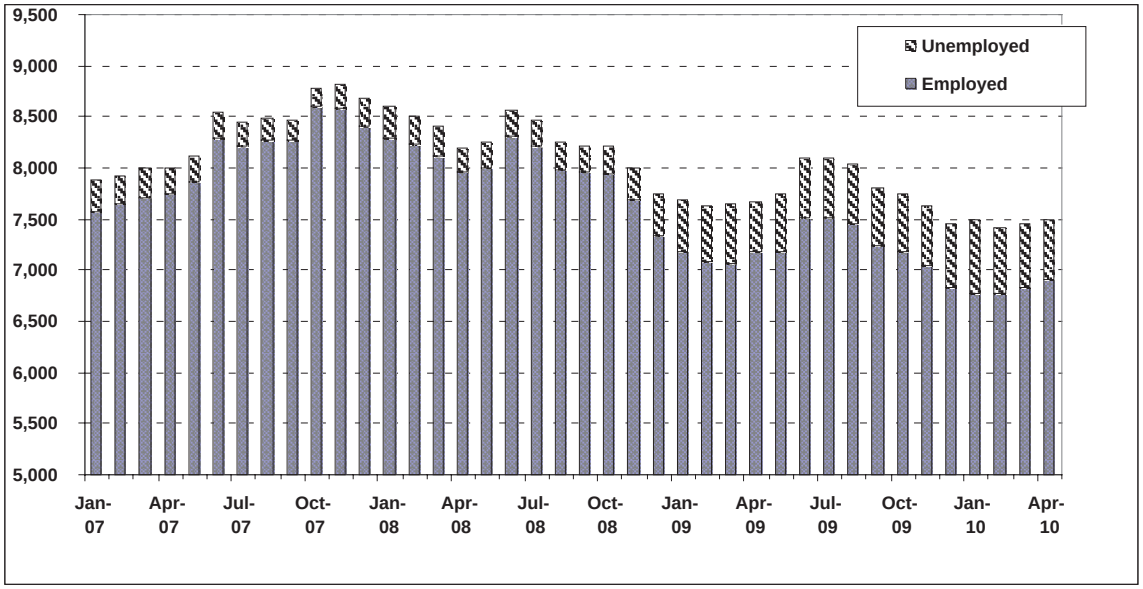
NA = Not reported due to confidentiality disclosure guidelines. There are a combined total of 432 (for 2008) and 460 (for 2009) jobs in these sectors, less than 7 percent of total employment. Other data sources suggest that most of these jobs are in the manufacturing sector.

Source: Wyoming Department of Employment 2010.



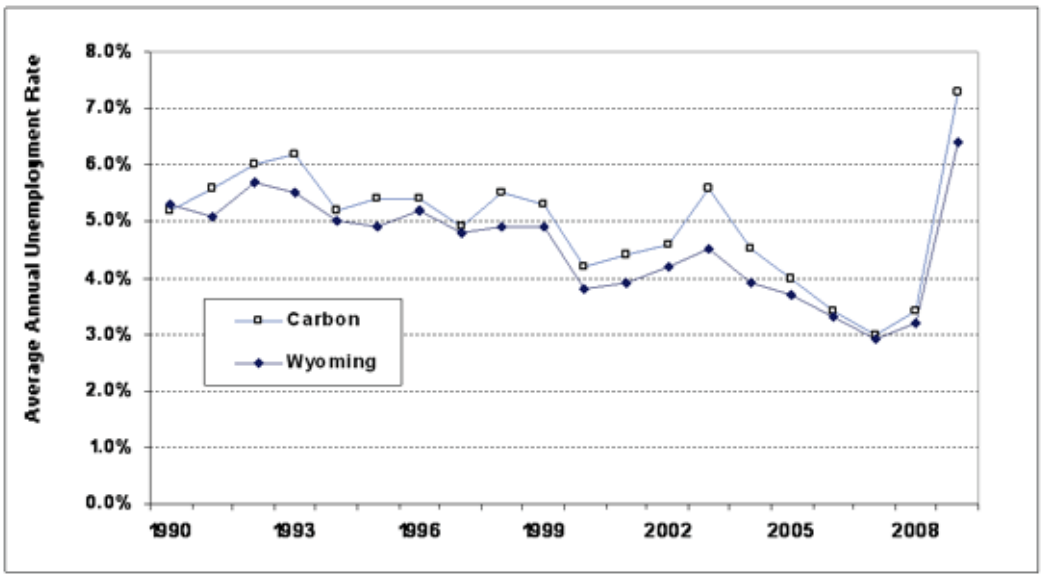
Source: U.S. Bureau of Labor Statistics 2010, 2009 (for last 3 years).

Figure 3.8-2 Carbon County Labor Force (Average Annual) – 1990 to 2009



Source: U.S. Bureau of Labor Statistics 2010.

Figure 3.8-3 Carbon County Monthly Employment and Unemployment – January 2007 to April 2010



Source: U.S. Bureau of Labor Statistics 2010, 2009 (for last 3 years)

Figure 3.8-4 Wyoming and Carbon County Average Annual Unemployment Rates – 1990 to 2009

motels, RV parks, and other temporary housing. More recently, unemployment has increased in Wyoming and Carbon County, with average annual unemployment at 6.4 percent statewide and 7.3 percent in Carbon County (**Figure 3.8-4**). The unemployment rate among Carbon County residents peaked at 9.5 percent in January of 2010, but then declined to 6.5 percent with 525 persons looking for work in June 2010 (U.S. Bureau of Labor Statistics 2010).

The 2005 through 2008 economic expansion associated with natural gas development, pipeline construction, and related activities was characterized by tight labor markets and widespread labor shortages, affecting all sectors of the economy. The labor shortage pushed up wages, bonuses, and per diem payments in the natural gas industry. High wages in the natural gas industry resulted in job shifts and worker loss in other sectors of the economy, creating upward pressure on wages for employees across the private and public sectors. Even with wage increases, local and state government offices and private businesses experienced high employee turnover and were frequently short-staffed. To help address housing availability issues, natural gas service companies developed temporary housing for employees, many of whom are rotated in and out of the area on a temporary basis. Employers in other sectors of the economy limited business hours, in part due to their inability to attract or retain employees. The recent downturn in the pace of energy development has eased pressures on labor demand, wages, and housing.

3.8.3 Key Economic Trends

Agriculture, mining, and industries serving tourism, travel, and outdoor recreation are important sectors in the Carbon County economy. Each of these sectors is profiled below.

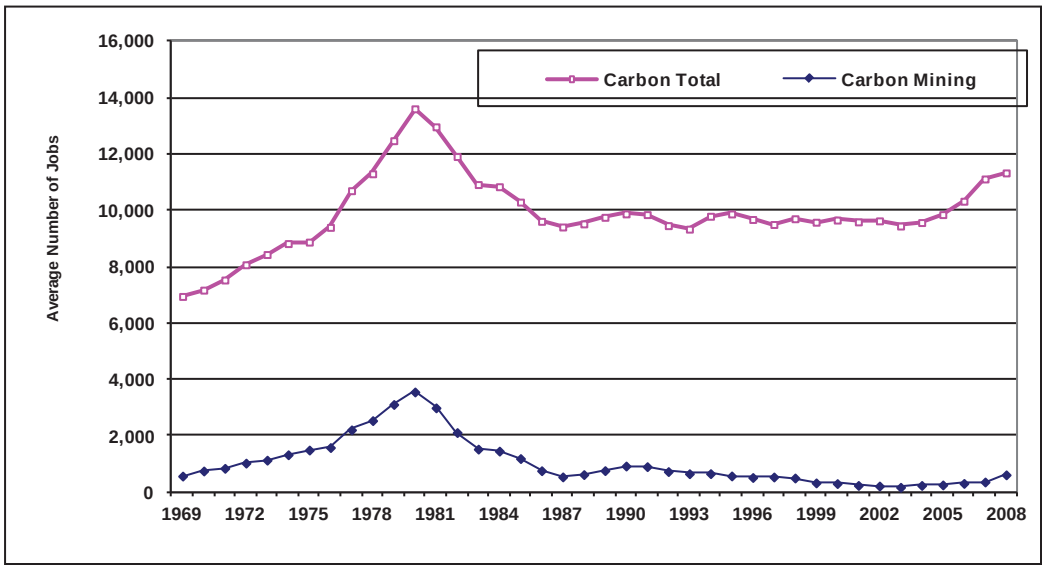
3.8.3.1 Agriculture

As in many areas of the West, agriculture played a critical role in the development of the local economy and it remains an important cultural and economic influence in the economy. Ranches and farms in Carbon County reported more than $48 million in marketing receipts from livestock and crop sales in 2008. Farm employment, however, has trended downward in Carbon County since 1970. Carbon County farm employment decreased from 741 in 1970 to 564 in 2000, a 23 percent decrease over the two

decades (U.S. Bureau of Economic Analysis 2010b). This trend has continued since 2000, with Carbon County farm employment decreasing by 20 jobs, or about 3 percent, between 2001 and 2006. Cattle ranching is the primary agricultural enterprise in the Application Area with cattle grazing on fee and private rangelands and pastures the key land use. Ranches also grow alfalfa and other feed crops on irrigated fields and pastures.

3.8.3.2 Mining

Current and historical mining activity in Carbon County includes coal, uranium, oil, and natural gas production. Mining related employment, and total employment, in Carbon County both reflect the period of intensive energy and minerals development in the late 1970s and early 1980s and the ensuing slowdown as world energy prices fell. The decline in employment also reflects declining coal mining employment in the Hanna Basin (**Figure 3.8-5**).



Note: Mining employment for 2005 was not reported due to disclosure restrictions. Employment was estimated at 263 using data from the Wyoming Department of Employment and U.S. Bureau of Economic Analysis.

Source: U.S. Bureau of Economic Analysis 2010c.

Figure 3.8-5 Carbon County Total and Mining Sector Employment, by Place of Work – 1969 to 2008

Assessing recent mining-sector employment in the socioeconomic study area is complicated by the nature of employment practices in the natural gas industry. Acute labor and housing shortages within the study area, coupled with the mobile nature of many natural gas service company operations, hampers the reporting and tracking of natural gas industry employees. Labor shortages required natural gas service companies to recruit and import workers from other parts of the country. These workers often relocate to the study area on a temporary basis; work at locations in several counties staying in temporary lodging near the work site and return home for extended periods. Consequently, their employment may not be recorded in each county where their employment occurs, or if their employer is located outside the study area, these workers may not be recorded within the affected counties at all.

3.8.3.3 Tourism, Travel, and Outdoor Recreation

Tourism, travel, and outdoor recreation play an important role in the local economy. Outdoor recreation also contributes to the quality of life of residents. Local events and cultural heritage sites also attract visitors. Much of the tourism and travel in the region is associated with traffic passing through on I-80. However, a substantial level of local tourism also occurs, primarily outdoor recreation-oriented visits associated with hunting, fishing, boating, wildlife watching, snowmobiling, and other winter recreation, or

sight-seeing (recreation resources and use in and near the project are described in Section 3.7. Major outdoor recreation attractions include the Seminoe and Pathfinder reservoirs; the Medicine Bow National Forest; public lands open to OHV and snowmobiling use; and public and private lands open to fishing and big and small game hunting. Much of the outdoor recreation use near the project is in the latter two categories, in contrast to the key destination-type attractions that are all located some distance from the Application Area. In addition to its potential role in accessing the proposed project, WY 71/CR 401 serves an important role in outdoor recreation in the region, providing access to public lands and to the western part of the Medicine Bow National Forest (Section 3.10).

An economic analysis of travel in Wyoming estimated annual travel spending of $129.9 million in 2009 for Carbon County (down from $168.7 million in 2008). Travel spending supported nearly 1,600 jobs in 2007 and 1,260 jobs in 2009 in the county (Dean Runyan Associates 2010). Analysis of the seasonal variations in employment in the accommodations and food-service sectors, and the comparative growth in spending in recent years, indicate that a significant portion of those totals reflect travel on the I-80 corridor and the impacts of energy workers residing temporarily in the communities, rather than more traditional destination-type tourism.[1] For instance, the variation between peak and low monthly employment in the regional accommodations sector is much lower than it is across the state.

Between 2002 and 2005, a period corresponding to the dramatic increase in natural gas development, estimated annual traveler spending increased by 39 percent in Carbon County, as compared to 23 percent elsewhere in the state (Dean Runyan Associates 2006). These indicators point to strong demand and potential competition among and between energy workers and various segments of the travel/tourism market, which translates into consistently high nightly room rates and occupancy levels for overnight lodging and strong demand for food services. With the slowdown from the recession, these impacts on nightly room rates, occupancy rates, and demand for food services have likely diminished in recent years.

Local observations about the travel, tourism, and recreation economy in Carbon County help illuminate the findings of the Dean Runyan Associates (2006) studies. As noted above, the visitor economy in Carbon County is based on outdoor recreation and local events such as historic/cultural celebrations, competitions, and conferences, not on major tourism destinations such as Yellowstone or Grand Teton National Parks. Local tourism strategies include the promotion of outdoor recreation and events and promotion of natural features, recreation resources, and cultural heritage attractions in order to extend the stays of outdoor recreationists, event attendees, and I-80 travelers.

Prior to the current economic recession, natural gas development in the region has both beneficial and adverse effects on travel, tourism, and recreation-related businesses. The beneficial effects of the gas development expansion include increases in customers and occupancy rates during the traditional winter and spring off-seasons, which increases the year-round profitability of businesses catering to travelers. High demand also prompted growth in the number of lodging and dining establishments, which in turn increased the lodging and dining base for tourism and recreation visitors. High occupancy rates for lodging establishments also have resulted in a dramatic increase in lodging tax revenues. Lodging and other travel related tax receipts increased in Carbon County from $1.5 million to $2.7 million between 2002 and 2007. Local tourism and recreation organizations used some of these revenues to develop promotional materials and to promote events that bring visitors to the area and increase the average length of stay.

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[1] "Travel" for the purposes of that analysis includes both business and pleasure travel by residents and non-residents that was more than 50 miles from the traveler's home. In the study area this would include spending by all travelers on I-80, as well as by non-resident workers employed in the area on an extended basis but staying in local motels, hotels, and campgrounds.

Since the recession, and with the decline of jobs in the mining and construction industries, occupancy rates and travel spending and local tax revenues have declined. Direct travel spending declined 23 percent between 2008 and 2009, and travel related tax receipts fell from $2.7 million in 2008 to $2.3 million in 2009 (a 15 percent decline) (Dean Runyan Associates 2010). Local lodging tax receipts suggest further declines in travel and tourism spending occurred in 2010, registering a 13 percent decline in Carbon County as compared to 2009. That decline was coupled with a 37 percent decline in general sales tax receipts, although such receipts are not tied specifically to tourism and travel spending. Rather, they are more reflective of overall economic conditions (Wyoming Department of Revenue 2010a).

Travel and tourism businesses, like most business establishments in the study area, experienced difficulty recruiting and retaining employees during the recent Sinclair Refinery construction and natural gas development expansion. Wages in the travel and tourism industry are typically below those of the natural gas industry, so it was difficult for travel/tourism businesses to compete for employees. As with most businesses in other sectors, the lower wages made competition for housing resources difficult, limiting the amount of non-local workers who could relocate to the area to accept employment in the travel and tourism industries during this period (Radar 2007).

In recent years, concern has risen regarding the potential that energy resource development may diminish the amenity values of public lands, thereby adversely affecting local tourism and recreation. Data on the contributions of such activity is unavailable on a consistent basis across all counties. Consequently, a simple proxy for tourism and recreation employment, based on total retail trade employment, combined with total services employment in 1990 and employment in accommodations and food services in 2005, was developed for this analysis. As shown in **Table 3.8-3** below, employment in the designated sectors has grown more rapidly in Carbon County than in a peer group of 198 "rural" counties in Colorado, Idaho, Montana, Utah, New Mexico, and Wyoming. Demands associated with the energy industry, as well as pass-through travel on I-80 likely account for much of the change. While these results do not preclude the potential that energy resource development has had some adverse impacts on tourism and outdoor recreation, it does suggest that the local gains in most businesses that serve travel, tourism, and recreation visitors exceed those that might have been expected without energy resource development.

Table 3.8-3 Changes in Total Private and Retail Trade and Service Employment, Carbon County Compared to A "Peer" Group of Rural Counties

	Rural "Peer" Group[1]	Carbon
Private Employment (Percent of Total)		
1990	69.3%	72.8%
2005	74.2%	74.0%
Retail and Services (Percent of All Private) [2]		
1990	23.8%	23.4%
2005	24.5%	28.5%

[1] The "peer" group consists of 198 rural counties in Colorado, Idaho, Montana, Utah, New Mexico, and Wyoming; rural being defined as having fewer than 50,000 residents or not one of eight winter resort communities (e.g., Pitkin County, Colorado [Aspen]).

[2] The retail and services shares included all services in 1990, but only the accommodations and food services in 2005. The change in accounting was necessitated by the switch in industrial data reporting by the federal government.

On a statewide basis, there is growing interest among tourism officials and the tourism industry concerning potential effects of the pace and level of energy development on vital tourism and recreation

resources. These include natural resources such as wildlife, air quality, and viewsheds and the ability of tourism-related businesses to deliver basic services. To date the subject has not been addressed systematically on a statewide basis yet 2009 was a record year for summer visitors to Yellowstone National Park and visitation in 2010 is on pace to set another record (National Park Service [NPS] 2010). Despite record visitation, tourism officials are concerned about the potential long-term adverse effects of the combined loss of wildlife habitat and encroachment of energy development on viewsheds near tourist destinations and along routes to those destinations. They also are concerned about the ability of travelers to major tourism destinations to find lodging in communities along routes to those destinations (Bryan 2008).

3.8.4 Population and Demographics

Population statistics in communities affected by energy development are often viewed locally with a degree of skepticism because of the dynamic nature of energy development employment. Such statistics seldom capture fully the temporary and transient work force that accompany drilling, field development and construction projects, even though the work force associated with such projects may reside in a community for months or years. This is because: 1) there is an inability of traditional methods of population estimation to capture workers residing in motels, RVs, and other temporary housing on a long-term basis; 2) seasonal fluctuations in work force; and 3) the delay in estimation and reporting are three of the factors frequently identified as sources of discrepancies. Consequently, the following statistics and discussion reflects the major trends, but not necessarily all of the factors affecting the underlying population conditions in Carbon County and the affected communities.

Figure 3.8-6 displays Carbon County population statistics between 1970 and 2009, illustrating the population effects of the mining and energy expansion, which began in the early 1970s, peaked in the early 1980s, and then began a protracted decline; in sum, Carbon County population increased by 69 percent between 1970 and 1982. Following that increase it continued its downward trend for much of the 1990s, then stabilized between 15,000 and 15,800 beginning in 2000 (**Table 3.8-4**). But for reasons outlined above, Carbon County officials believe that U.S. Census population estimates only partially capture the natural gas and pipeline and refinery-related growth which began in 2005 and decreased in 2008, thereby masking many of the socioeconomic effects and challenges faced by communities dealing with energy resource development.

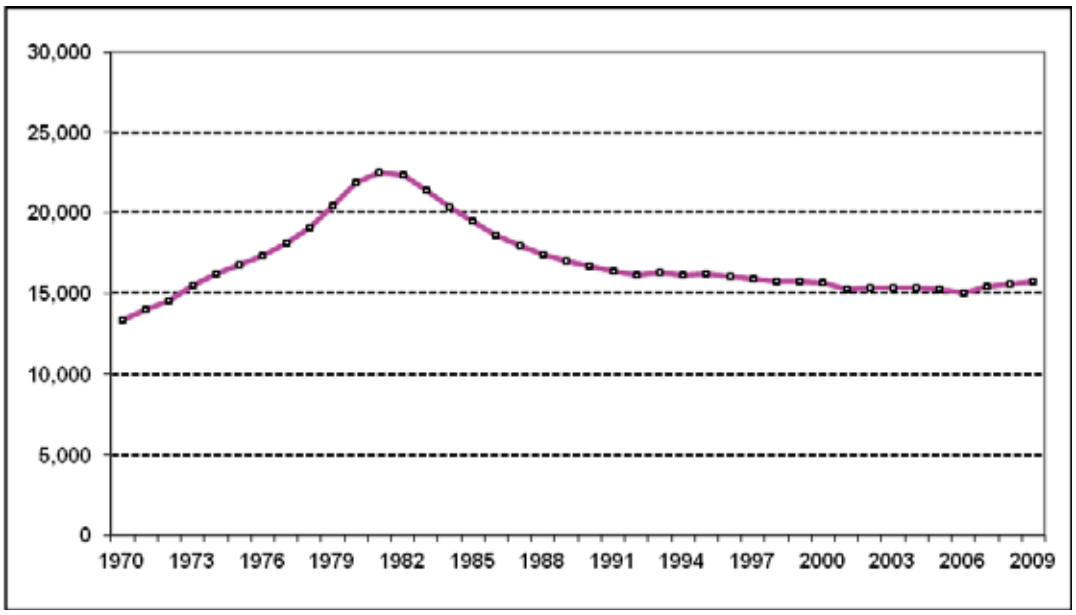
Table 3.8-5 displays recent resident population estimates for selected communities in Carbon and Sweetwater counties. In Carbon County, the population loss reflected in the statistics occurred in Rawlins and Sinclair; other areas of the county remained relatively stable with modest gains. Based on electrical hookups, Wamsutter experienced a 166 percent increase in population over the period.

The components of population change data in **Table 3.8-6** show net out-migration of population in Carbon County between 2000 and 2009, although population increases occurred each year since 2006. Again these statistics do not capture the large temporary population that has accompanied the recent surge in natural gas development and are generally not considered to accurately reflect the growth and decline cycle that has occurred since 2005.

The U.S. Census Bureau estimates the age and racial characteristics of population in counties (**Table 3.8-7**). Based on the estimates for 2007, residents of Carbon County tend to be older than those of the state and the U.S. as a whole. In Carbon County, about one of eight residents is 65 years or older, comparable to the relative shares that persons 65 and over represent across the state and nation. The median age of local residents has increased slightly in the past 6 years.

Individuals of working age, commonly defined as those 18 to 64 years, account for more than 65 percent of all residents, higher than the corresponding values for the state and nation. Furthermore, the number of residents in that age group has increased since 2000, while the number of residents under 18 has declined. Increases in the number of working age persons in the county can be attributed in part to recent increases in jobs, particularly in the mining sector, which attracts a high portion of working adults,

including younger male workers who are unmarried or married, but not accompanied by spouses or school-age children.



Source: U.S. Bureau of Economic Analysis 2010a; U.S. Census Bureau 2010b.

Figure 3.8-6 Carbon County Resident Population – 1970 to 2009

Table 3.8-4 Carbon County Estimated Population – Selected Years

	2000	2006	2007	2008	2009	Absolute Change (2000-2009)	Change (2000-2009)
Wyoming	493,782	512,573	523,414	532,981	544,270	50,488	10.2%
Carbon County	15,639	15,056	15,397	15,564	15,720	81	0.5%

Source: U.S. Census Bureau 2010b, 2009a.

Table 3.8-5 Estimated Population for Carbon and Sweetwater County Communities – Selected Years

	2000	2005	2006	2007	2008	2009	Absolute Change (2000-2009)	Absolute Change (2000-2009)
Rawlins	8,969	8,503	8,435	8,620	8,740	8,791	-178	-1.9%
Sinclair	421	399	398	405	405	406	-15	-3.5%
Saratoga	1,726	1,683	1,700	1,737	1,759	1,777	51	2.9%
Baggs	348	347	362	386	400	423	75	21.5%

Table 3.8-5 Estimated Population for Carbon and Sweetwater County Communities – Selected Years

	2000	2005	2006	2007	2008	2009	Absolute Change (2000-2009)	Absolute Change (2000-2009)
Dixon	79	79	79	80	81	82	3	3.7%
Wamsutter[1]	261	261	261	267	269	272 [694][1]	11 [433][1]	4.2% [166%][1]

[1] Some local officials believe recent U.S. Census Bureau estimates underestimate population in several communities, based on increases in utility hook-ups and building permits. The local estimates for Wamsutter, based on the number of residential electric hook-ups in the town are shown in [brackets].

Source: Sweetwater Economic Development Association 2009; U.S. Census Bureau 2010a, 2009b.

Table 3.8-6 Components of Population Change for Wyoming and Carbon County – April 1, 2000 to July 1, 2009

	Total Population Change	Natural Increase			Net Migration		
		Total	Births	Deaths	Total	Net International Migration	Net Domestic Migration
Wyoming	50,487	27,356	65,633	38,277	25,660	3,278	22,382
Carbon County	81	557	1,828	1,271	-407	24	-431

Source: U.S. Census Bureau 2010c.

Table 3.8-7 Age Distribution and Median Age of Resident Population in 2007 – Carbon County, Wyoming, and U.S.

	Under 18 (%)	18 to 64 (%)	65 and Over (%)	Median Age (2000)	Median Age (2007)
U.S.	24.5	62.9	12.6	34.4	36.7
Wyoming	24.0	63.8	12.2	35.3	37.0
Carbon	22.3	65.2	12.5	38.9	40.8

Source: U.S. Census Bureau 2009c.

The racial and ethnic compositions of the local populations reflect the influences of migration, historical settlement patterns, and economic factors. At the time of the 2000 Census, Carbon County's resident population was 82.4 percent white and not Hispanic or Latino, with 17.6 percent of the population being made up of persons of other races, multiple races, and/or of Hispanic or Latino ethnicity. Although the percentage share of racial and ethnic minorities in Carbon County is higher than for the State of Wyoming as a whole, the percentage share of racial and ethnic minorities in the county is much lower

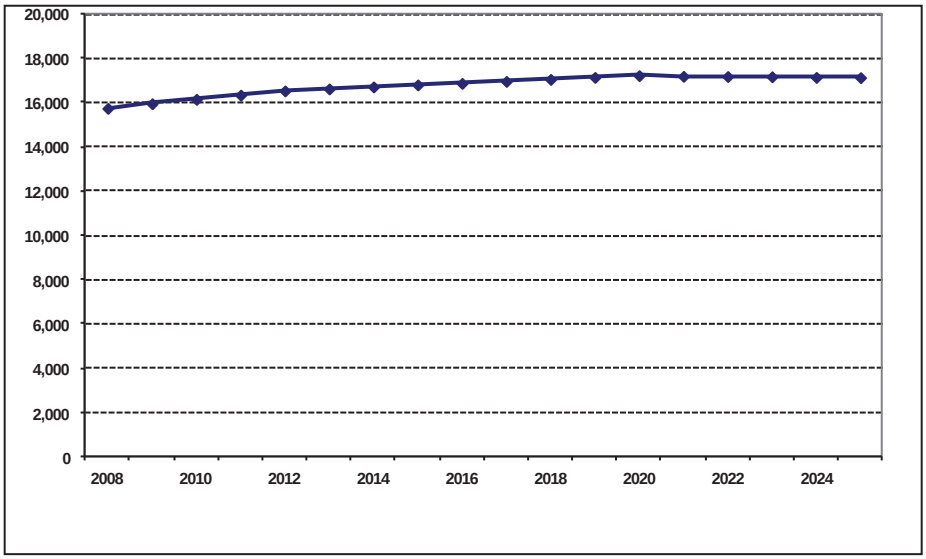
than that for the U.S. The largest racial and ethnic minority group in Carbon County is Hispanic and Latino, making up 13.8 percent of the county population (**Table 3.8-8**).

Table 3.8-8 Racial and Ethnic Population Composition as a Percent of Total Population in 2000 – Carbon County, Wyoming, and U.S.

	White and not Hispanic or Latino (%)	American Indian and Alaska Native and not Hispanic or Latino (%)	Other Races, Two or More Races, and not Hispanic or Latino (%)	Hispanic or Latino Ethnicity (%)
U.S.	69.1	0.7	17.6	12.5
Wyoming	88.9	2.1	2.6	6.4
Carbon County	82.4	1.1	2.6	13.8

Source: U.S. Census Bureau 2000 Census, Summary File 1, 2001.

The Wyoming Department of Administration and Information (2008b) prepares population forecasts for Wyoming and its counties and municipalities. The most recent forecasts (**Figure 3.8-7**) show Carbon County population growing steadily to over 17,200 over the next decade. Thereafter, the county's population is anticipated to decline slightly and then stabilize for several years. These projections were developed prior to the current economic recession and were predicated on continued energy development in the county. Given the recent downturn in activity, future growth will be contingent upon the timing and pace of future resource development, combined with the influences of other sources of economic growth or contraction.



Note: 2008 to 2025 state and county population forecasts were developed based on trends of demographic and economic variables.

Source: Wyoming Department of Administration and Information 2008a.

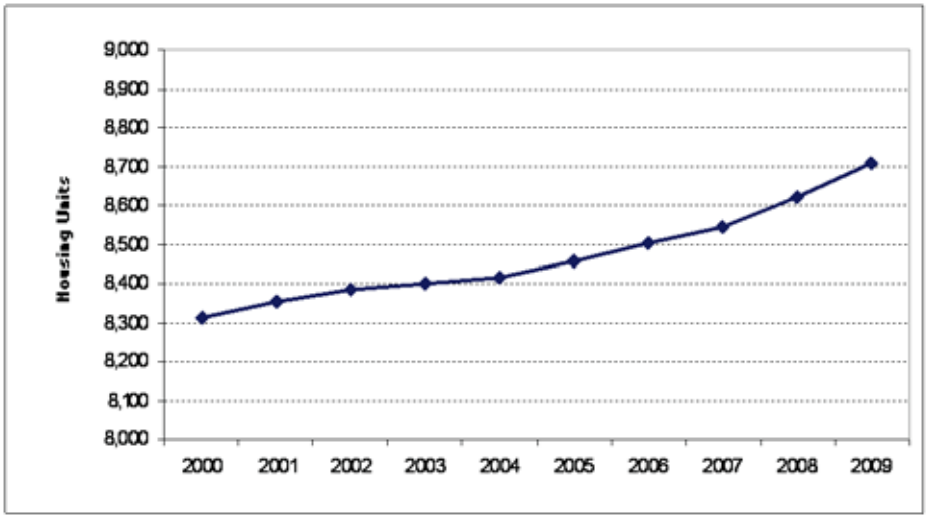
Figure 3.8-7 Carbon County Population Forecasts – 2008 to 2025

3.8.5 Housing

This section provides information about conventional and temporary housing resources in the socioeconomic study area. Temporary and long-term housing resources are characterized for Rawlins and Sinclair and temporary housing resources are characterized for all communities in Carbon County and the Sweetwater County Town of Wamsutter. Conventional or long-term housing includes single and multifamily residences and mobile homes. Temporary housing includes motels, hotels, recreational vehicle parks, and temporary living facilities. Most housing in Carbon County is located within communities. Although some rural subdivisions exist, the county discourages rural residential subdivisions of substantial size or density (Carbon County 2010).

Prior to 2009, several temporary living facilities were operating in Carbon County along WY 789 near Dad and in Sweetwater County near Wamsutter to house gas field workers. Three camps were located near Dad, but only one, operated for Neighbors drilling, remains open. A 250-bed modular facility, with permitted capacity for 500 beds, was developed and operated by ESS Services for BP near Wamsutter. That facility also has closed and the above ground improvements disassembled and moved to a storage location elsewhere in the county (Carnes 2010; Fox 2010a; Rowan 20110).

There were an estimated 8,708 housing units in Carbon County in 2009, a net increase of just over 400 units more than reported in the 2000 Census (**Figure 3.8-8**) (U.S. Census Bureau 2010d). Most of this building has occurred since 2004; however, the number of building permits for residential units dropped from 96 in 2007 to 24 in 2009 (**Table 3.8-9**).



Source: U.S. Census Bureau 2010d.

Figure 3.8-8 Housing Trends in Carbon County: Total Units: 2000 to 2009

Temporary housing resources comprise a critical element of a community's capacity to meet and absorb the short-term demands associated with natural resource development and construction projects. **Table 3.8-10** summarizes existing temporary housing resources in Carbon County communities and Wamsutter in 2010.

3.8.5.1 City of Rawlins

A comprehensive assessment of existing housing conditions and future housing needs was completed for Rawlins in 2007 (Kirkham & Associates LLC 2007). The housing assessment was intended to assist city officials, community leaders, and developers in planning for infrastructure and housing development in response to current and future growth. That assessment, combined with more current information from

other primary and secondary sources provides the basis for the following description of existing conditions.

Table 3.8-9 Annual Housing Units Authorized by Building Permits – 2006 to 2009

	2006	2007	2008	2009
Total Residential Building Permits				
Wyoming	3,846	4,584	2,669	2,294
Carbon	78	96	55	24
Single Family Homes Permitted				
Wyoming	3,349	3,735	2,178	1,574
Carbon	72	94	55	24

Source: Wyoming Department of Administration and Information 2010a.

Table 3.8-10 Temporary Housing Resources in Carbon County and Wamsutter – Summer 2010

Community	Motel Rooms	Campground/RV Spaces	Total
Baggs	14	23	37
Dixon	8	0	8
Elk Mountain	13	0	13
Encampment	33	0	33
Hanna	10	10	20
Medicine Bow	64	0	64
Rawlins	1,252	303	1,555
Riverside	20	33	53
Saratoga	174	30	204
Sinclair	0	0	0
Wamsutter	23	160[1]	183
Walcott Junction	0	50[2]	50

[1] Wamsutter RV spaces include mobile home parks, which also allow RVs.

[2] Walcott Junction is located at the junction of I-80, U.S. 30, and WY 130. The mobile home/RV park is currently not operating. However, its infrastructure systems are functional and it could be reopened on short notice given sufficient demand.

Sources: Carbon County Visitors Council 2009; CH2M Hill 2009; Colson 2010; Howell 2010.

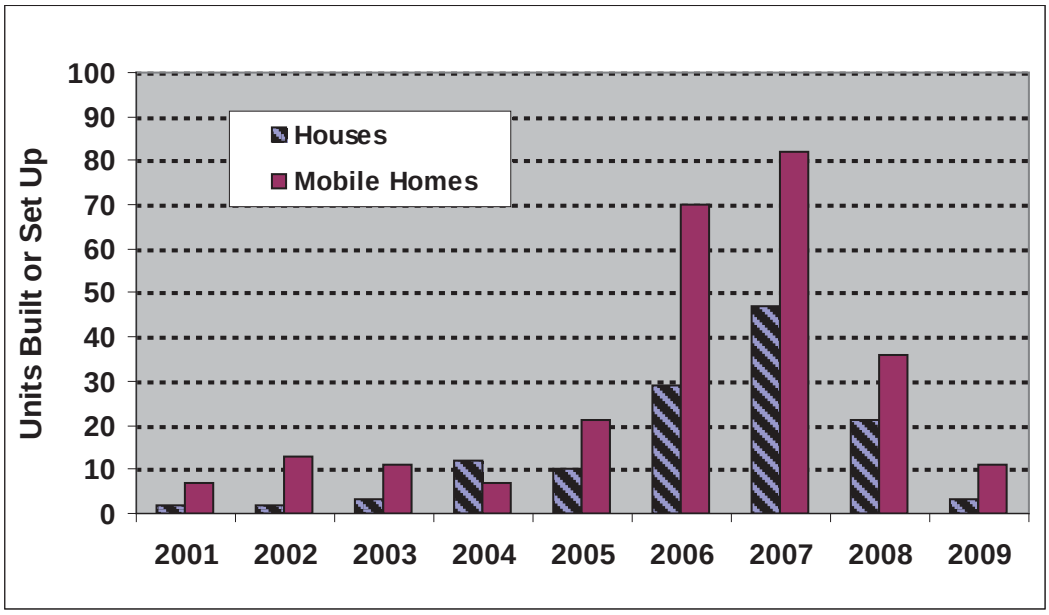
The 2000 Census tallied 3,860 housing units in the City of Rawlins, 86 percent of which were occupied and 14 percent which were vacant. Eighty percent of the city's housing stock is at least 30 years old. Houses vacant for seasonal use total just over 1 percent of the total housing. Some of the remaining vacancies were homes in substandard condition. Of the occupied units, 68 percent were owner-occupied and 32 percent were renter-occupied (**Table 3.8-11**).

Table 3.8-11 2000 Census – Rawlins Housing Profile

Total Housing Units	Total Occupied	Total Vacant	Vacant for Seasonal Use	Home-owner Vacancy Rate	Rental Vacancy Rate	Home-owner Occupied Units	Renter Occupied Units
3,860	3,320	540	50	4.1%	17.3%	2,247	1,073

Source: U.S. Census Bureau 2000.

Figure 3.8-9 displays the number of residential building permits and mobile home set-up permits within the City of Rawlins for 2001 through 2009. Residential building permits increased from 2 in 2001 to 47 in 2007, then decreased to 3 in 2009. Mobile home set-ups increased from 7 to 82, then decreased to 11 during those years. The increase in mobile home placements during the 2006-2007 period was associated with the expansion of two mobile home parks (Golnar 2010a; Rawlins Daily Times 2007).



Source: Golnar 2010a; Rawlins Daily Times 2007.

Figure 3.8-9 Rawlins Residential Building Permits and Mobile Home Set-ups – 2001 to 2009

Recent subdivision activity within Rawlins has included the approval of the 99-lot Stone Ridge Village Planned Unit Development in March 2009 and the conditional approval of the three-phase, 47-lot Post and Rail subdivision, pending execution of a subdivision agreement. The city also is exploring a possible development on 50 acres of city-owned property through a contract with a private company to develop transitional housing, including apartments, town homes, and entry level single family houses (Golnar 2010a). In 2008, there were about 30 vacant infill lots in some previously approved subdivisions and as many as 50 substandard homes that could be redeveloped (Mika 2008).

There are 11 apartment complexes with a total of 439 units in Rawlins. The newest of these is an 85-unit complex built in 1997, although the Bitter Creek low-income rent-assisted apartments were rehabilitated in 2003.

The 2007 Housing Assessment estimated rental housing vacancies at less than 1 percent in December 2006. According to that assessment, there were virtually no apartment vacancies in mid 2007

and most complexes had waiting lists. Rental housing and apartment vacancies increased during 2008 and early 2009 due in part to the reduction in construction work force at the Sinclair refinery (Mika 2009). The Wyoming Housing Database Partnership estimated overall vacancy rates at 16 percent during the second half of 2009 (WCDA 2010).

The 2007 Housing Assessment reported monthly rental rates for apartments ranged from $358 (subsidized) to $1,800. Average rental rates for apartments were estimated at $676 during the second half of 2009 (WCDA 2010).

Rawlins has 16 mobile home parks with 639 pads (MHPS 2010). In recent years, three mobile home parks with a combined total of 146 pads were converted from a rental basis to lot ownership where the mobile home owner also owns the lot. RVs are allowed in some mobile home parks, at the discretion of the mobile home park operator.

Rawlins has 23 motels with a total of over 1,252 rooms (Carbon County Visitors Council [CCVC] 2010). Some motels offer weekly or monthly rates and typically host energy industry and construction workers. Rawlins also has 3 recreational vehicle (RV) parks with a total of 303 pads, although one RV park is not winterized (Stolns 2010). The CCVC conducted an informal motel and RV park occupancy survey by telephone during August 2010. The CCVC reported that newer motels in Rawlins that are affiliated with national chains averaged 95 to 98 percent occupancy, while the older and smaller motels, which were more likely to accommodate construction and gas field workers on a weekly or monthly basis averaged 75 to 80 percent occupancy, and RV parks averaged 80 to 85 percent occupancy (CCVC 2010).

Rawlins has no housing dedicated for seniors or for the homeless.

The 2007 Rawlins Housing Assessment estimated the following near-term housing needs in Rawlins:

- 72 new single family homes per year;
- 170 additional multi-family units, of which 100 should be rent-assisted; and
- Three new mobile home parks.

3.8.5.2 Sinclair

The 2000 Census counted 211 total housing units in the Town of Sinclair, 80 percent of which were occupied. Houses vacant for seasonal use totaled 1 percent of total housing. Of the occupied units, 87 percent were owner-occupied (**Table 3.8-12**).

Except for existing houses and businesses, most land in Sinclair is owned either by the refinery or the railroad. The relatively few rental properties in Sinclair are rarely vacant. There are no motels, mobile home parks or RV parks in the town (McWhorter 2008).

Table 3.8-12 2000 Census, Sinclair Housing Profile

Total Housing Units	Total Occupied	Total Vacant	Vacant for Seasonal Use	Home-owner Vacancy Rate	Rental Vacancy Rate	Home-owner Occupied Units	Renter Occupied Units
211	168	43	3	3.3%	12.0%	146	22

Source: U.S. Census Bureau 2001b.

3.8.5.3 Saratoga and the Platte River Valley

There are a total of 344 rooms in hotels, motels, bed and breakfast establishments, and rustic cabins in the Platte Valley. Saratoga has a total of 174 rooms, including 122 rooms in the town's three largest motels. There is one private RV park in Saratoga with 30 spaces that typically hosts energy and construction workers and longer term recreation visitors. The town operates a 25-space campground at Saratoga Lake, but it typically caters to tourists, as does a 33-space campground in Riverside.

Competition for motel rooms and RV spaces from recreation visitors is strong during summer months (Crimmins 2008). The August 2010 CCVC survey found that motels in Saratoga averaged 75 to 80 percent occupancy and the RV parks averaged 95 to 100 percent occupancy (CCVC 2010). Saratoga has two mobile home parks with 102 pads, 40 of which were vacant in August of 2010.

3.8.5.4 Baggs and Dixon

In the Baggs area, temporary housing resources include one motel with 14 rooms. Two RV parks with a total of 23 pads are located just north of Baggs (CCVC 2010; Corners 2008). Dixon has one recently constructed eight-room motel.

3.8.5.5 Wamsutter

Temporary housing resources in Wamsutter include seven mobile home/RV parks with a total of 160 spaces. Some drilling and gas service contractors have put dormitory units in these mobile home parks. Wamsutter also has one motel with 28 rooms and a 60-room motel is planned for development in the next 2 years (Carnes 2010; Colson 2010).

3.8.5.6 Other Carbon County Communities

The Carbon County communities of Elk Mountain, Encampment, Hanna, Medicine Bow, Riverside, and Walcott Junction have a total of 140 motel rooms and 93 RV/mobile home spaces. There also is a small RV park located at the unincorporated community of Arlington. In Encampment and Riverside, these facilities are typically occupied by tourism and recreation visitors during summer months. In Elk Mountain, Hanna, Medicine Bow, and Arlington, these facilities are heavily used by construction workers and maintenance contractors for area energy facilities including wind energy projects. An existing 50-unit mobile home/RV park in Walcott Junction originally built to exploit its location at the junction of I-80, U.S. 30, and Wyoming 130, serving highway travelers and construction and energy workers, is currently not operating. However, its infrastructure systems are functional and it could be reopened on short notice given sufficient demand, as it did in 2009.

3.8.5.7 Temporary Housing Outside of Carbon County

Seasonal demand for temporary housing increases during the summer across southern Wyoming, due to the concurrent demands associated with summer time travel, tourism, construction and energy development. While benefitting local lodging, eating and drinking, and retail establishments economically, that demand represents competition for the available supply. High occupancy rates for lodging in Carbon County and Wamsutter can displace demand to other locations, be it associated with travelers or temporary nonlocal workers in Carbon County. Such displacement typically occurs along the "path of least resistance" in terms of highway accessibility. I-80 serves that function across southern Wyoming, reflecting the predominant east-west traffic flow pattern. Laramie (100 miles) and Rock Springs (108 miles) are the next major cities east and west of Rawlins, respectively. Casper (117 miles) to the north is farther. Recent tallies identified the following inventories of motel rooms in these three communities: 1,638, 1,556, and 2,679, respectively (CH2M Hill 2010, 2009).

3.8.6 Community Infrastructure and Services

This section describes the current condition of community infrastructure and services likely to be directly affected by the project. The full range of community infrastructure and services is characterized for

Carbon County and Rawlins, where the bulk of the construction and operations work force is anticipated to reside. Community services likely to be affected by transportation issues or by an influx of temporary workers (i.e., law enforcement, emergency response, and medical services) are summarized for Sinclair, Saratoga, Baggs, Dixon, and Wamsutter.

3.8.6.1 Carbon County

Carbon County provides law enforcement, emergency management, and road and bridge construction and maintenance services to the unincorporated portion of the county including the Application Area, and provides a variety of other services to all county residents. Carbon County services generally are headquartered in Rawlins, in the Carbon County Court House, the Carbon Building, the County Road and Bridge Office and Shop, and the National Guard Armory.

Carbon County Sheriff

The Carbon County Sheriff's Office provides law enforcement services throughout Carbon County, including certain services in incorporated municipalities. In and near the Application Area, the Sheriff's Office provides patrol services, civil service, traffic enforcement, response to accidents and emergencies, criminal investigation, coordination of local search and rescue, and responds to calls for other law enforcement-related services. The Sheriff's Office provides dispatch services for most of the county, including the Application Area, and operates the Carbon County Jail, which provides detention services for the entire county. The Sheriff's Office, jail, and dispatch facilities are located in Rawlins.

During the summer of 2009, the Carbon County Sheriff's Office staff included the Sheriff, 16 additional sworn officers, 20 detention deputies, and 7 dispatchers, as well as a number of civilian administrative staff. Most of the sheriff's deputies are based in Rawlins, but deputies also are stationed in Baggs, Hanna, McFadden, and Saratoga. New sheriff's office employees who relocated to the area during 2007 and 2008 often had difficulty finding affordable housing. Attendance at the state law enforcement academy and on-the-job training required to prepare a new officer for duty generally takes 6 months.

The Carbon County detention facility, completed in 2004, has 78 beds, including some dedicated for female inmates. Adolescent detainees are transported to a facility in Casper. The jail has been in operation for about 5 years. Occupancy in the detention facility averaged 52 in 2007and 65 in 2008. The design capacity was exceeded periodically during the summer of 2009 (Colson 2009). The Sheriff's Office is concerned that the facility will routinely exceed capacity sooner than its intended design life of 10 to15 years.

The Sheriff's Office generally experiences an increase in industrial accident calls, vehicle accidents, traffic infractions and crime in unincorporated areas of the county as a result of energy development. The increase in calls reflects, in large part, the increase in industrial and human activity in remote rural areas (Colson 2009; Morris 2010).

Emergency Management and Response

Carbon County Emergency Management coordinates emergency response services within the county. Emergency response services in western Carbon County, including the Application Area, are provided by fire departments and ambulance services from Rawlins, Saratoga, Baggs, and Wamsutter. These services are described in the sections dealing with each community (Zeiger 2010).

The Rawlins Interagency Dispatch Center provides a central location for reporting all wild land fires in southern Wyoming. Additionally, the BLM RFO also maintains trained and equipped fire crews that respond to wild land fires on BLM surface and, if needed, will support other agencies on other public, state, and private lands.

Carbon County Fire Department

The Carbon County Fire Department operates 10 divisions or stations located in Baggs, Elk Mountain, Encampment, Hanna, Medicine Bow, Muddy Gap, Rawlins, Rock Creek, Ryan Park, and Saratoga. A county fire truck also is stationed at the Sinclair Fire Department. The department maintains approximately 170 volunteers who are paid on a per call basis. The department operates 64 pieces of equipment; 3 to 5 are stationed at each division, and 10, including the county's hazardous material response vehicle, are stationed in Rawlins. Each division has a rescue truck with "jaws of life" vehicle extraction equipment. Funding for the County Fire Department is provided by the Carbon County Commissioners and by each division's fund raising activities. To date (September 2010), the department has responded to few calls related to wind energy project construction or operations (Trapp 2010).

Ambulance/Emergency Medical Response

Ambulance and emergency medical response services are provided by three organizations in Carbon County, some of which serve multiple communities.

Memorial Hospital of Carbon County (MHCC) operates the Carbon County Emergency Medical Service (CCEMS), providing ambulance and emergency medical services in the northern and most of the western part of Carbon County, including part of the Application Area. CCEMS, a full-time Emergency Medical Service (EMS), currently operates three ambulances and is staffed with 12 full-time Emergency Medical Technician positions and 8 per-diem staff positions. CCEMS operates 24 hours a day, 7 days a week. The ambulance service averaged 75 runs per month during 2007 (Carter 2007; Shulze 2009).

South Central Wyoming Emergency Medical Services (SCWEMS) operates under the auspices of a joint powers board comprised of Carbon County and the municipalities of Elk Mountain, Medicine Bow, Saratoga, Encampment and Riverside. SCWEMS provides services to Hanna under a contract basis. The agency operates eight ambulances and has 87 on-call employees, who are paid on a per call basis (Zeiger 2010).

The Little Snake River Emergency Medical Services (EMS), based in Baggs, has 10 volunteer Emergency Medical Technicians who staff two county-owned ambulances. The ambulances respond to accidents in the southwestern part of the county and about 30 miles north along WY 789 (Jones 2007). Seriously injured patients are transported to Craig, Colorado, or Rawlins, depending on the location of the accident. Casper-based Flight-for-Life also is available if needed.

Ambulance and emergency medical response services in Wamsutter and portions of western Carbon County are provided by the ambulance service department of Wamsutter Health Care, Inc. The Wamsutter Ambulance Service has about 10 volunteers. Patients are typically transported to MHCC. The service does not bill for transport and is supported primarily through fundraising and donations. The gas and oil industry has provided substantial financial support for the service. Medical direction, EMS training, and continuing education are provided by MHCC (LLP 2008; SafeTech Solutions).

Memorial Hospital of Carbon County

MHCC is a 35-bed acute-care facility (including 10 beds dedicated for obstetrics or births and other specialty needs), designated by the state as a Level 3 Community Trauma Hospital, one requirement is that it has a surgeon on staff. MHCC's emergency room is staffed 24 hours per day, 7 days per week with an emergency-care physician, a registered nurse, and emergency medical technicians. Currently the hospital has adequate staffing and facility capacity to serve substantially more patients than are currently treated. During the summer of 2010, MHCC had eight active medical staff physicians, over 35 courtesy (visiting) physicians, and five locum tenems physicians who are hired on a temporary, short-term basis to fill in when active medical staff are on leave (Jessop 2010).

The MHCC-operated Wagon Circle Health Clinic in Rawlins is staffed by a family-practice doctor and an orthopedic surgeon. MHCC's Outpatient Clinic also is staffed by visiting specialists who travel to Rawlins

periodically depending on their specialty and need. An urgent care facility is located across the street from MHCC.

3.8.6.2 Rawlins

The City of Rawlins is the Carbon County seat and the largest community in the county. The city's municipal staff includes about 95 employees, a reduction of approximately 20 positions from 2008, due to budget cuts reflecting declines in sales taxes and other revenues (Golnar 2010b; Izzo 2010). The City believes the cutbacks have adversely affected the level and quality of services provided and its capacity to respond in a timely manner to short-term increases in demand.

Rawlins Public Works

The Rawlins Public Works Department includes eight divisions: central shop (maintenance of city vehicles and rolling stock), facilities maintenance, grounds maintenance, solid waste, streets, water and wastewater treatment, and utilities (water distribution and wastewater collection). In response to the Carbon County Comprehensive Land Use Plan, the Rawlins City Council adopted a policy limiting the expansion of water and sewer service outside of the corporate limits unless the extension conformed with an adopted utility and infrastructure plan. The Council also authorized development of such a plan.

Rawlins Water System

The Rawlins water system, which also supplies treated water for the Town of Sinclair, was developed in the 1970s with a target capacity to serve about 17,000 residents. The system includes an 8-million-gallon-per-day (MGD) treatment plant, which registered a 2006 peak daily usage of 4.45 MGD. Consequently the water treatment plant could accommodate a service population almost double the current population at current usage rates. There are four storage tanks, with a combined capacity of 6 million gallons for the City of Rawlins and a 0.8-million-gallon tank for Sinclair. There also is a raw water storage reservoir that feeds the treatment plant. Rawlins has ample water rights in the North Platte River and in springs and wells, to serve both current and anticipated future water needs (Stolns 2010).

Rawlins Wastewater System

The wastewater system for Rawlins also was designed for a population of about 17,000. The system has three aerated lagoons, two settling lagoons, and two storage lagoons. The maximum capacity of the treatment plant is 342.2 million gallons annually; current usage is 171.1 million gallons, about half of the maximum capacity. In order to achieve maximum capacity, several lagoons would need to be cleaned and restructured. Given sufficient growth-related increases in effluent discharge, the City foresees a potential of having to implement additional testing and adding tertiary treatment capacity. The changes would increase costs, but by an undetermined amount. There are currently over 65 miles of wastewater collection lines within the city and recent expansions have extended the collection system to serve additional land along I-80 (Stolns 2010). Further planning efforts are needs to address how and when system expansion may be required to extend service to additional development areas in and near the City.

Rawlins Solid Waste Disposal

Rawlins, along with Casper, Douglas, and other east-central Wyoming communities, is participating in the Wyoming Integrated Solid Waste Management process as a member of the East Central Solid Waste Management Area. In June of 2009, the Rawlins City Council approved the development of a transfer station and transportation of municipal solid waste to the regional landfill near Casper. The transfer operation became operational in early 2011.

Following the initiation of the transfer operation, the Rawlins' landfill was restricted to accepting only construction and demolition waste. Even given the subsequent reduction in intake volumes, that landfill only has a remaining life of a few years. Consequently, the City is currently seeking to obtain an additional section of land from the BLM to extend the operational life of the landfill. At present, the need

for that land and associated permit extension is foreseen in about 2016. Disposal fees are designed to cover costs and some construction waste is recycled (Stolns 2010).

Rawlins Police Department

Law enforcement services for the City of Rawlins are provided by the Rawlins Police Department (RPD), which also operates the Rawlins Dispatch Center. Individuals taken into custody by the RPD are booked into the Carbon County jail. As of August 2010, the RPD had a staffing level of 29.5 positions, including 13 patrol officers, 3 investigators, 3 administrative staff, 2 animal control officers, 7 dispatch/records staff, and one full-time and one half-time victim advocates. The 2010 staffing was 5.5 staff below what the department had in 2008. Staff reductions occurred as a result of the decline in sales and use tax and other revenues experienced during the national recession.

The Police Chief observed a transition in the most common types of offenses during the mid 2006 to mid 2008 boom years, from traffic offenses to fights and domestic violence. The level of violence increased during that period, according to the Chief, and drug abuse also has become a serious issue. Dispatched calls for service were over 5 percent lower in 2009 than 2008, but larceny, motor vehicle theft, and fraud were all higher in 2009 than 2008, which may be a reflection of the recession.

RPD facilities are adequate for current needs, but there is a need for improved training facilities for follow-up and advanced training (Reed 2010).

Rawlins Fire Department

The Rawlins Fire Department (RFD) provides fire suppression and rescue services within the city and within a 60-mile radius of the city, including incidents along I-80 and WY 789. RFD responds to Level A hazardous material incidents throughout the county. The RFD has two fire stations in Rawlins, both of which are staffed on an around-the-clock (24/7/365) basis. The department has mutual-aid agreements with other municipalities in the county and provides training and conducts joint exercises with companies at some natural gas facilities. RFD personnel conduct semi-annual fire safety inspections and plan reviews for subdivisions and all public-access structures within the city.

RFD currently has 20 volunteers but recently cut 2 of its 10 paid staff due to city budget constraints. The department may be able to reinstate these positions during the fall of 2010. During periods of major construction and gas field development, staff recruitment and retention has been difficult as a result of the high wages and salaries paid in those industries. Volunteer recruiting and retention also is difficult because many Rawlins residents spend long hours working and traveling to job sites and correspondingly have less time to spend on community work, including volunteering for the fire department. Remote energy industry job sites also increase response times. Volunteers respond to Station #1 for fire calls outside of the city; for calls within the city, the paid staff takes the equipment to the incident location and the volunteers respond directly to the incident location in their own vehicles.

RFD currently has four pumpers, a wild land response unit, a ladder truck, a fully equipped rescue unit, a combination utility vehicle/crew transport for extrications/wild land response, an incident command trailer, a HAZMAT response trailer, and a motor home outfitted as a safety house, which is used for public education, primarily in schools (Hannum 2010).

Rawlins Parks and Recreation

The Rawlins Department of Recreation Services manages a number of indoor and outdoor recreation facilities offering a wide range of recreational programs and services to residents and non-resident customers. Facilities include indoor and outdoor shooting ranges, the Rochelle Ranch Golf Course, and the Rawlins Family Recreation Center. The recreation center offers a variety of fitness equipment, classes, three gymnasiums, indoor running track, three racquetball courts, and other facilities. Use is on a fee basis, through the purchase of either a membership or a daily fee. In the past, the facilities have

experienced noticeable utilization by construction and energy resource workers residing in the region on a temporary basis (City of Rawlins 2011 and 2012).

3.8.6.3 Sinclair

The Town of Sinclair is the closest community to the project, the RDF and the primary project access. The town has a staff of five full-time and several part-time employees. Sinclair has one full time police chief and four to five part-time officers. Detainees are taken to the Carbon County jail in Rawlins. Sinclair has a volunteer Fire Department which currently has about 10 volunteers. The Sinclair Refinery operates a highly trained and equipped fire brigade and maintains one fire station with approximately 35 volunteers (McWhorter 2008).

3.8.6.4 Saratoga

Saratoga is located east of the project, on WY 130. Saratoga maintains its own water and wastewater treatment systems.

The Saratoga Volunteer Fire Department, a division of the Carbon County Fire Department, maintains about 30 volunteers and provides fire suppression services to the town and the surrounding area, including assistance on range and forest fires. Saratoga has a police department that responds to law enforcement issues within the town and provides emergency dispatch services. The Saratoga Ambulance, which is affiliated with SCWEMS, provides emergency medical care and transport for patients throughout the Upper Platte River Valley from the Colorado state line to I- 80 in south central Carbon County. The Saratoga Platte Valley Medical Clinic, which operates a community trauma center, also is located in the Town (Town of Saratoga 2010).

3.8.6.5 Baggs and Dixon

Baggs provides water and wastewater services, which are sized to accommodate some growth. The Town of Baggs has one police chief and positions for two police officers, who provide law enforcement services within the towns of Baggs and Dixon. Baggs Fire and Rescue provides fire suppression services within the communities of Baggs and Dixon and the surrounding area. The Noyes Clinic, a rural health clinic located in Baggs is staffed by a physician's assistant, supervised by a doctor and supported by five full-time and one part-time staff, most of whom perform both medical and administrative duties. The clinic is funded by a recently formed rural health-care district (Corners 2008; Jones 2007).

The Dixon water system is sized to accommodate some growth but the wastewater system occasionally exceeds its permitted capacity (O'Neil 2007). Law enforcement, emergency response, and fire suppression services in Dixon are provided by the agencies described above for Baggs.

3.8.6.6 Wamsutter

The Sweetwater County Town of Wamsutter is located east of the Application Area. Wamsutter has recently upgraded its water and wastewater systems and paved a number of town streets. The town's utility systems are designed to accommodate a population of 1,200 residents, about twice the town's current population, although at times the temporary population in the community is much higher. Wamsutter no longer has a town police department; law enforcement services are provided by two resident Sweetwater County Sheriff's deputies and four resident Wyoming State Highway Patrol troopers. Wamsutter has volunteer fire and ambulance/emergency medical service, each staffed by about 10 volunteers. Wamsutter also has a community health clinic staffed by a physician's assistant and number of visiting physicians (Carnes 2010; Colson 2010).

3.8.7 Local Government Fiscal Conditions

Development of the proposed project would affect certain local and state government revenues and expenditures. Affected revenues would include ad valorem taxes (commonly known as property taxes) collected by Carbon County, Carbon County School District (CCSD) #1, and certain special districts and

sales and use tax revenues of the State of Wyoming, Carbon County, and its municipalities. The two counties and the affected school districts, special districts, and municipalities also would see increases in expenditures to serve development and associated population growth. This section describes existing conditions and trends in the local government jurisdictions that are likely to be affected by the proposed project.

3.8.7.1 County Fiscal Conditions and Trends

Property Taxes

Property taxes, assessed on the taxable value of real and personal property, utilities and mineral production are a vital element of Carbon County's revenue base. Due to the presence of significant energy resource production in Carbon County and generally rising prices, assessed valuation has climbed dramatically in recent years, from $337 million in fiscal year 2000 to over $1.2 billion in fiscal year 2009, including increases of more than $200 million from 2005 to 2006 and of more than $300 million from 2008 to 2009 (**Figure 3.8-10**). The increase includes a quadrupling of assessed value on oil and gas production.

The high dependency on mineral valuation, however, also exposes local budgets to volatility associated with rapid declines in energy commodity prices, as was demonstrated between 2001 and 2003 when assessed valuation declined by approximately $180 million, and more dramatically by the $459 million (38 percent) drop in countywide valuation between 2009 and 2010. Approximately 90 percent of the latter was due to a 50 percent decline in the total valuations on natural gas and other mineral production, which in turn, reflected sharply declining natural gas prices. Decreases in industrial property valuation, some of which also is related to lower energy prices, accounted for most of the remaining decline.

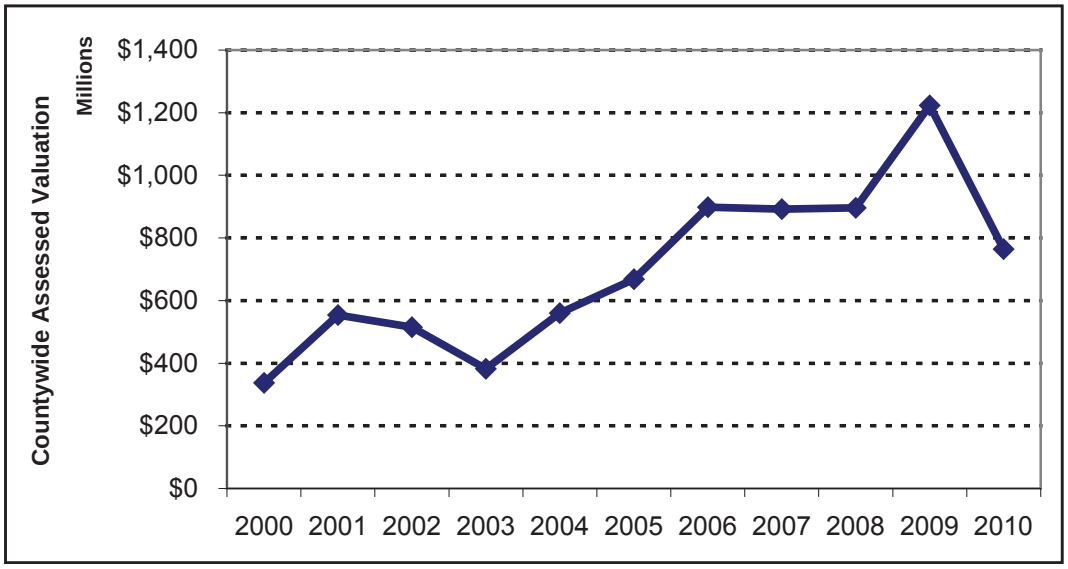
Due to past growth in mineral production and prices, the assessed value of minerals increased from 64.5 percent to 71.2 percent of the tax base in Carbon County between 2000 and 2009, exceeding $870 million in 2009. The value of mineral production as a share of the total valuation declined in the past 2 years, due in part to lower prices. However, rising industrial property valuations, including energy related equipment and natural gas pipelines, as well as higher valuations on residential property reflecting rising home prices, both of which are indirectly related to recent energy development, also factored into the declining lower share from minerals. **Table 3.8-13** shows recent trends in assessed value, by type of property.

Sales and Use Tax Trends

Rivaling property taxes in importance to county government is the sales and use taxes imposed by the state and, when approved by the local electorate, the counties themselves. Counties can elect to impose a 1.0 percent optional general purpose local tax and a 1.0 percent specific-purpose tax for capital improvements. Carbon County currently imposes the 1 percent general purpose tax and Carbon County voters approved a renewal of the specific purpose tax in November of 2008. Carbon County voters also have approved the imposition of a 2.0 percent lodging tax, imposed on stays of less than 30 days in hotels, motels, and other temporary accommodations, including RV/tent campgrounds. Lodging tax receipts are used to promote tourism.

The state sales and use tax of 4.0 percent is collected based on the point of sale, but the share returned to counties and incorporated municipalities (a statutorily established amount, currently 31 percent of the statewide total receipts) is on a population-based formula, irrespective of where the sales were generated. The state collects these taxes and distributes the local share based on the above-referenced formula.

Table 3.8-14 summarizes the amount of sales, use, and lodging taxes distributed to Carbon County by the state in recent years. The distributions include both the full distribution of local option taxes and the county's proportional share of the state taxes. As shown, total sales and use tax revenues generated



Sources: Wyoming Department of Revenue, various; Wyoming State Board of Equalization 2010, 2009.

Figure 3.8-10 Total Assessed Value, Carbon County – 2000 to 2010

Table 3.8-13 Carbon County Assessed Value by Class – Selected Fiscal Years

	For Taxes in the Following Fiscal Year				Change 2009-2010
	2000	2008	2009	2010	
Real Property					
Agriculture	$6,269,760	$8,404,925	$8,689,968	$9,491,329	9%
Commercial	$9,995,472	$14,365,703	$17,647,309	$18,859,877	7%
Residential	$34,336,241	$77,381,140	$80,585,537	$79,638,056	-1%
Subtotal	$50,601,473	$100,151,768	$106,922,814	$107,989,262	1%
Minerals					
Coal	$40,784,620	$3,811,351	$6,749,862	$6,987,193	4%
Gas	$159,074,447	$530,169,868	$744,469,866	$368,885,934	-50%
Oil	$16,939,926	$89,901,463	$117,613,768	$81,478,110	-31%
Other	$366,717	$1,653,617	$ 1,978,534	$2,236,137	13%
Subtotal	$217,165,710	$625,536,299	$870,812,030	$459,587,374	-47%
Utilities	$37,017,889	$69,383,475	$91,276,378	$84,309,578	-8%
Industrial and Personal property	$31,988,670	$101,144,447	$154,219,097	$112,309,465	-27%
Total	**$336,773,742**	**$896,215,989**	**$1,223,230,319**	**$764,195,679**	**-38%**
% Minerals	64.5	69.8	71.2	60.1	-16%

Note: Mineral detail is for state assessed value only. Valuation is based on production for previous year.

Sources: Wyoming Department of Revenue, Annual Reports, various; Wyoming State Board of Equalization 2010, 2009 (for minerals detail for 2010, 2009, and 2008).

Table 3.8-14 Annual Sales and Use Tax Distributions, Carbon County, Fiscal Years 2006 to 2010

Source of Distributions	Fiscal Year				
	2006	2007	2008	2009	2010
General purpose local sales	$4,481,031	$5,466,724	$5,625,450	$6,293,772	$3,955,550
General purpose local use	$409,374	$1,368,627	$1,077,816	$717,474	$ 596,977
Specific purpose local sales	$4,450,047	$4,879,915	$50,200	$454,429	$3,924,130
Specific purpose local use	$407,808	$1,306,446	-$ 21,491	$87,900	$598,009
State sales	$17,924,890	$21,867,275	$22,502,258	$25,175,135	$15,822,251
State use	$1,637,544	$5,475,415	$4,311,431	$2,871,311	$2,387,907
Lodging	$307,846	$405,083	$472,174	$432,060	$377,233
Total Distributed	**$29,618,540**	**$40,769,485**	**$34,017,838**	**$36,032,081**	**$27,662,057**

Sources: Wyoming Department of Administration and Information, Lodging Tax Reports, various years; Wyoming Department of Revenue 2010b, 2009.

within Carbon County approached $41 million in 2007 more than double the total of just 5 years earlier. The resurgence of natural gas development activity and pipeline construction is evident in the substantial total sales and use taxes generated on sales in the county and the receipts from the local specific-purpose sales tax.

Sales and use tax distributions to the county declined to just over $34 million in fiscal year 2008 as a 1.0 percent specific purpose local option tax, which requires voter approval and is enacted for a defined term, expired in June 2008 and declines in use tax as the pace of oil and gas development declined. The significance of the local option tax is readily apparent, having generated more than $13.0 million in sales and use tax revenues in fiscal year 2007, but declining below $7.0 million in fiscal year 2008. Local voters subsequently reinstated the specific purpose local option tax in the November 2008 general election. However, the additional taxes generated were more than offset by declines associated with the economic recession and declines in construction and mineral resource development activity, as the total distribution to Carbon County fell by more than $13 million between 2007 and 2010.

Table 3.8-15 shows total fund revenues and expenditures in several broad categories for Carbon County's general fund over the past three fiscal years. As shown, property tax receipts increased by $2.7 million from 2009 to 2010 in response to increases in assessed valuation, driven primarily by mineral valuation. Budgeted expenditures for selected departments that tend to be particularly sensitive to growth increased from 2008 to 2009 and were budgeted to increase again in 2010. However, as described elsewhere, the economic downturn and reduction in the pace of development had significant adverse effects on revenues; actual revenues from sources other than property taxes were 40 percent below the budgeted sums. Consequently, the county's total general fund revenue was 22 percent below budget, requiring substantial reductions in operating outlays, deferral of planned capital outlays, and use of some reserve funds. Part of the reductions reflected savings due to lower service demand; however, the cutbacks also resulted in diminished levels of services for county residents.

Table 3.8-15 Annual General Fund Revenues and Expenditures, Carbon County

	Fiscal Years				Change: 2010 Original vs. Adjusted
	2008	2009	2010 Original	2010 Adjusted Actual	
General Fund Revenue					
Property tax revenue	$9,603,868	$9,700,506	$12,472,882	$12,472,882	0%
Other revenue	$11,999,836	$12,156,935	$15,976,118	$9,593,391	-40%
Total revenue	**$21,603,704**	**$21,857,441**	**$28,449,000**	**$22,066,273**	**-22%**
General Fund Expenditures					
Select Departments					
Criminal justice	$1,507,178	$1,674,792	$1,743,346	$1,691,878	-3%
Sheriff	$1,467,007	$1,704,024	$2,139,065	$1,654,892	-23%
Jail	$1,749,921	$1,913,701	$3,032,959	$2,583,053	-15%
Road and bridge	$2,310,140	$3,393,772	$3,253,057	$2,015,528	-38%
Select departments subtotal	$7,034,246	$8,686,289	$10,168,427	$7,945,351	-22%
Other[1]	$13,414,088	$13,277,770	$31,176,149	$12,826,271	-59%
Total Expenditures	**$20,448,334**	**$21,964,059**	**$41,344,576**	**$ 20,771,622**	**-50%**

[1] Other includes all other departments, budgeted capital outlays and closing balances/reserves. The 2010 original budgeted expenditures included anticipated receipts of a $10 million grant.

Source: Carbon County, County Budgets, fiscal year 2008-2010.

3.8.7.2 Municipal Fiscal Conditions and Trends

Assessed Valuation

Most mineral development occurs in unincorporated areas. Consequently, local municipal valuations are more heavily dependent on residential and commercial valuations, than are the counties. Furthermore, residential and commercial property is assessed at 9.5 percent of the market value, whereas minerals are assessed at 100 percent of market value. As a result, property taxes are a relatively less significant revenue source for municipalities than for counties and generally a function of the size of community and local economic growth.

As shown in **Table 3.8-16**, the resurgence in oil and gas development resulted in increases in the municipal assessed valuations in the region during the period leading up to the recession. Rawlins and Sinclair each have an ad valorem tax base in excess of $50 million, while those for Saratoga, Baggs, and Wamsutter were each substantially lower. The most significant change disclosed by these data is that Sinclair's tax base more than quintupled between 2006 and 2009, primarily due to a major upgrade and modernization at the refinery located within the town's boundaries. Although less pronounced than the fluctuations associated with mineral prices, assessed valuation in Baggs and Wamsutter has fluctuated in response to the level of oil and gas development and oil and gas equipment and facilities that are located in the communities on a temporary basis. The decline in the pace of natural gas

development and pipeline and refinery construction activities resulted in reductions in assessed valuation in Rawlins, Sinclair, Baggs, and Wamsutter between 2009 and 2010.

Table 3.8-16 Total Assessed Value, Potentially Affected Cities and Towns

City/Town	Fiscal Year					Change 2009 to 2010
	2006	2007	2008	2009	2010	
Rawlins	$31,466,624	$40,026,026	$46,593,587	$51,449,273	$50,599,959	-2%
Sinclair	$18,951,493	$34,022,194	$56,951,801	$101,559,335	$58,908,547	-42%
Saratoga	$10,176,335	$11,169,625	$13,836,362	$14,003,982	$14,327,425	2%
Baggs	$1,253,046	$1,740,673	$2,061,521	$3,363,378	$2,733,582	-19%
Wamsutter	$5,438,372	$1,804,230	$2,791,829	$3,988,816	$3,942,481	-1%

Source: Wyoming Taxpayers Association, various years and Wyoming State Board of Equalization 2010, 2009.

Local municipal governments in Wyoming assess a standard 8.0 mils for property taxes. Estimated revenues generated by that levy on the 2010 assessed values presented in **Table 3.8-16** would range from $471,268 for the Town of Sinclair to $21,869 for the Town of Baggs.

Sales and Use Tax Distributions

Sales and use taxes are typically the single largest sources of general fund revenue for municipalities. That pattern applies to the affected municipalities in the Application Area. **Table 3.8-17** shows the annual sales and use tax distributions reported by the state for the past 6 years to the potentially affected communities. The comparative distributions among the communities generally reflect their relative sizes, but also differences in the level of economic activity and growth associated with natural gas industry and other construction activities. As evidenced by the $3.1 million reduction in sales and use tax distributions received by Rawlins, the general economic downturn and slower pace of oil and gas development has dramatically affected local sales and use tax receipts in the region. The sudden and precipitous reductions in revenues have posed fiscal challenges for local governments striving to maintain public facilities and services, while at the same time completing major capital improvements programs initiated prior to the decline.

Table 3.8-17 Total Sales and Use Tax Distributions, Cities and Towns – Fiscal Years 2005 to 2010

	Fiscal Year						Change 2009-2010
	2005	2006	2007	2008	2009	2010	
Rawlins	$5,252,016	$6,336,901	$8,594,271	$8,417,212	$8,808,209	$5,695,922	-35%
Sinclair	$240,852	$287,600	$403,662	$395,345	$413,710	$267,530	-35%
Saratoga	$982,768	$1,173,515	$1,647,092	$1,613,159	$1,688,093	$1,091,624	-35%
Baggs	$205,710	$245,475	$332,090	$325,249	$340,357	$220,096	-35%
Dixon	$110,613	$53,712	$75,388	$73,835	$77,265	$49,964	-35%
Wamsutter	$228,118	$282,659	$338,173	$337,136	$341,689	$259,250	-24%

Source: Wyoming Department of Revenue 2010c.

City of Rawlins General Fund Revenue and Expenditures

Table 3.8-18 summarizes general fund budget data (most recent actual plus 2 years of budgets) for the City of Rawlins. General fund revenues and expenses will effectively equalize over the long term, but there may be variances in any one year due to inter-fund transfers, contributions to or from reserves, and varying year-end cash balances. In Rawlins, budgeted revenue was anticipated to increase modestly over the 3-year period, with increased tax receipts accounting for more than half of the total change. On the expenditure side, the largest single category – both in terms of absolute size and increase over the 3-year period – is public safety.

The budget data shown in **Table 3.8-18** represented local expectations prior to realizing the full import of the recession and declining energy prices on revenues. In fact, the city has been forced to undertake dramatic cost-saving measures, including reductions in staffing, to cope with the revenue shortfalls. The city's budget for the current year is austere, anticipating little, if any, significant improvement in its revenue outlook. The city's adopted budget for fiscal year 2010-2011 reflected a $4.7 million (31 percent) reduction in total budgeted expenditures, as compared to the original budget adopted for 2009-2010. Although cutbacks in capital spending accounted for the majority of the reduction, nearly $1.8 million came from the operating budget (Izzo 2010). The City believes the revenue reductions and resulting staff and spending cutbacks have adversely affected the level and quality of services provided and diminished its capacity to respond in a timely manner to short-term increases in demand. The City also is undertaking preparation of a financial plan to outline a fiscal framework for providing services over the next 5 years in a fiscally responsible manner, given uncertainties regarding future revenues.

3.8.8 Public Education

Two public school districts serve Carbon County: CCSDs #1 and #2. CCSD #1 serves Rawlins; Sinclair; the LSRV, including the communities of Baggs and Dixon; and the remainder of western Carbon County. Additionally, the district serves students in the Sweetwater County community of Bairoil and high school students in the Sweetwater County community of Wamsutter. CCSD #2 serves eastern Carbon County, including the communities of Saratoga, Encampment, and Riverside, south of I-80, and the communities of Hanna and Medicine Bow north of I-80 along US 30/287.

Virtually all of the project's facilities and infrastructure would be located with CCSD #1 boundaries. Furthermore, most of the project's work force is likely to reside in and near the Town of Rawlins. However, only limited enrollment effects are expected because of the relatively small number of operations jobs, the potential to fill at least a portion of operations jobs locally, the seasonal nature of construction (April to November) and, as demonstrated by recent wind energy construction projects, the fact that most construction workers are unlikely to be accompanied by households or school children.

Table 3.8-18 General Fund Revenue and Expenditures, City of Rawlins

	2007-2008 Actual	2008-2009 Budget	2009-2010 Budget	Change 2007-2008 to 2009-2010
General Fund Revenue				
Taxes	$7,454,450	$7,468,667	$8,348,500	12.0%
Franchises	359,000	394,000	430,000	19.8%
Intergovernmental	2,969,635	2,547,347	2,380,139	-19.9%
Charges for Services	1,053,513	1,077,050	1,030,200	-2.2%
Police and Court	354,700	387,400	390,900	10.2%
Other Revenue	119,500	82,900	71,140	-40.5%

Table 3.8-18 General Fund Revenue and Expenditures, City of Rawlins

	2007-2008 Actual	2008-2009 Budget	2009-2010 Budget	Change 2007-2008 to 2009-2010
Transfers In	425,850	483,610	687,497	61.4%
Beginning Balance	2,638,736	3,820,237	3,593,656	36.2%
Total Revenue	**$15,375,384**	**$16,261,211**	**$16,932,032**	**10.1%**
General Fund Expenditures				
Administration	2,511,368	2,652,215	3,097,286	23.3%
Courts	287,597	289,915	284,631	-1.0%
Public Safety	4,666,059	5,059,741	5,234,031	12.2%
Public Works	2,482,836	2,426,548	2,937,439	18.3%
Parks & Recreation	1,623,278	1,291,187	1,314,228	-19.0%
Miscellaneous	617,235	842,476	1,037,273	68.1%
Capital Improvements	1,060,242	1,473,192	274,349	-74.1%
Ending Balance	2,026,769	2,225,937	2,752,795	35.8%
Total Expenditures	**$15,275,384**	**$16,261,211**	**$16,932,032**	**10.8%**

Note: Taxes include state-rebated sales and use tax.

Source: City of Rawlins 2010.

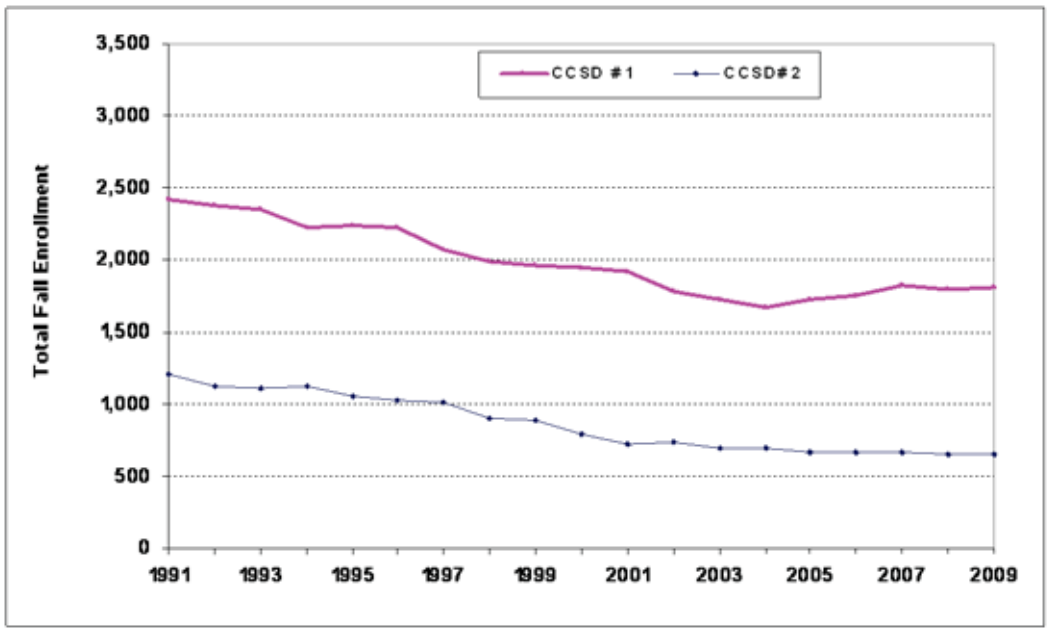
3.8.8.1 Enrollment

Until recently, CCSD #1 had experienced a long-term decline in overall enrollment, losing 756 students between fall 1991 and fall 2004, a 31 percent reduction in total enrollment. Renewed energy development triggered enrollment gains totaling 150 students, or 9 percent, over the ensuing 3 years (**Figure 3.8-11**). Total fall enrollment has been fairly stable the last 3 years, declining by 28 students from 2007 to 2008 and increasing by 16 between 2008 and 2009 (a 1 percent to 2 percent variance). There have been substantial increases in kindergarten and first grades in recent years, which is more of a demographic phenomenon than a result of migration. The district typically sees attendance decline over the course of the year, but reports no extraordinary decline due to the current economic recession. There is uncertainty regarding the extent to which household relocations will occur during the summer, with changes first becoming apparent next fall.

CCSD #2 also has experienced long-term declines in student enrollment, as fall enrollment dropped from 1,209 in the fall of 1991 to 662 in the fall of 2005. The district's total enrollment has been relatively stable since as energy resource development in northeastern Carbon County and "lifestyle" migration growth in the Saratoga area have generated some population growth to eastern Carbon County. Fall 2009 enrollment was 648 students.

3.8.8.2 Facilities

Currently CCSD #1 operates three elementary schools, a middle school, a high school, and a cooperative high school in Rawlins. Additionally, the district operates a fine-arts center, swimming pool, and a sports complex. It also operates elementary schools in Sinclair and Bairoil, and a K–12 comprehensive school in Baggs, which serves the entire LSRV.



Source: Wyoming Department of Education 2010a, 2009a.

Figure 3.8-11 1991–2009 Fall Enrollment in CCSDs #1 and #2

The district's three elementary schools in Rawlins are at capacity and the district is using modular classroom buildings to accommodate elementary students. To remedy this problem, CCSD #1 recently completed and opened a new elementary school to replace the existing three elementary schools and consolidate all Rawlins elementary students in one facility. The Rawlins middle school can accommodate higher enrollments. Enrollment at the high school is less than half of the 1,000 student design capacity but the facility is outdated. The District is in the planning process for a new state-of-the-art high school with a capacity of approximately 500 students. Construction of the school has been approved by the Wyoming School Facilities Department, with funding tentatively included in the department's fiscal year 2013 and 2014 budgets (City of Rawlins 2012; Rawlins Daily Times 2009; Sanders 2007; WSFD 2011).

Declining enrollments across CCSD #2 necessitated the closure/consolidation of four schools in recent years. The district presently operates seven schools: four elementary, two middle/high schools, and a K-12 school, including the Saratoga Elementary School and Saratoga middle/high school. Both can accommodate additional students.

3.8.8.3 School District Fiscal Conditions

Financing for school O&M is governed by the provisions of the Wyoming School Foundation Program and the Wyoming School Facilities Commission. A statewide school finance system, the Wyoming School Foundation Program (WSFP) (W.S. Title 21, Chapter 13), regulates operating revenues and expenditures for public education services delivered at the local level. The WSFP provides a guaranteed level of funding to every school district in the state, with funding based on numbers of students, classrooms, and other factors such as adjustments for small schools, transportation, special programs, and the cost of living. The system is structured to achieve equalization in educational opportunities across the state, irrespective of differences in the local revenue-generating capacities of individual districts. Carbon and other mineral-rich counties play an important role in funding the school finance system because of their combined energy and minerals-related tax base. Revenues for school funding come from taxes on minerals production, real estate and taxable personal property, and various other local, state, and federal program funds and grants.

To fund public education, all districts are statutorily required to levy an ad valorem tax of 43 mills, of which 31 mills are deemed local resources. A "mill" is one-tenth of a cent ($0.001) and typically denotes the rate of taxation per $1 of assessed valuation as it relates to property taxes. The remaining 12 mills represent a statewide levy used to fund the guaranteed revenue for districts with fewer local resources. If local property tax revenues fail to meet a district's guaranteed funding level, the WSFP makes up the difference. If the district's revenues exceed the guaranteed level, the excess is transferred to the state to aid in the funding of other districts under "recapture" provisions of the WSFP.

Like the county, CCSD #1 has experienced substantial increases in assessed value in recent years. As illustrated in **Figure 3.8-12**, CCSD #1 had a 403 percent increase in assessed value over the 9 years, reaching nearly $1.27 billion for fiscal year 2009. Increases in the level and value of oil and gas production accounted for virtually all of the increase. The volatility of mineral related valuation due to fluctuating prices also is evident in **Figure 3.8-12** as the district's assessed value for 2010 dropped by approximately $500 million. Increases in CCSD #2 assessed valuation were more modest, growing by 40 percent since 2000. As described above, the districts do not experience a corresponding increase in operating revenues associated with the increase in assessed valuation due to the provisions of the WSFP.

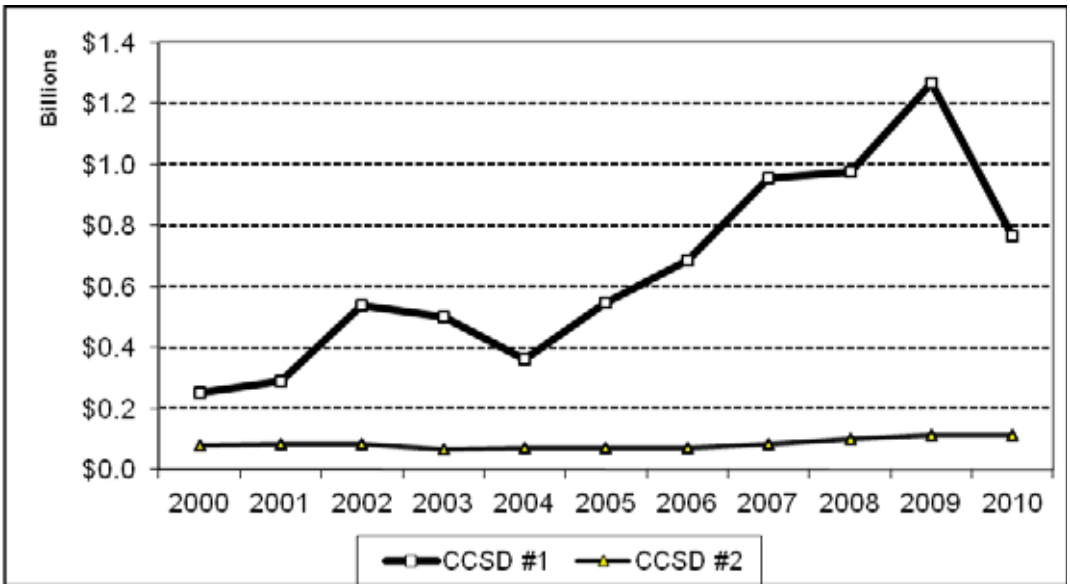
Table 3.8-19 shows the annual revenues derived by CCSD #1 from various sources. Total annual revenues for CCSD #1 have climbed by 63 percent. As noted, most of the revenue comes from local property taxes, which are included in the category of general revenue. As described above, locally derived property tax revenues in excess of certain limits are remitted to the WSFP for redistribution to other districts. CCSD #1 consistently makes such transfers. The Special Revenue Fund consists primarily of state and federal grants. State funds to support capital construction are included in the "Other" category.

Staffing levels for CCSD #1 also increased between 2006 and 2009, in part to respond to higher enrollments. The increases allowed the district to maintain an average student/teacher ratio below 12.0.

Table 3.8-20 shows the annual revenues derived by CCSD #2 from various sources. Total annual revenues for CCSD #2 climbed by about 37 percent between 2006 and 2009. As noted, most of the revenue came from local property taxes, which are included in the category of general revenue. Likely tax revenues in excess of certain limits are remitted to the WSFP for redistribution to other districts. CCSD #2 has made such transfers in recent years, although of much smaller magnitude than those made by CCSD #1.

Staffing levels for CCSD #2 fluctuated between 2006 and 2009, due in part to changes associated with the closure/consolidation of several schools. The teaching faculty grew. The increases allowed the district to maintain its average student/teacher ratio below 9.0.

Funding for school facilities functions under the rules, policies, and procedures of the Wyoming School Facilities Commission (WSFC), Title 21, Chapter 15, of Wyoming Statutes. The WSFC was established during the 2002 Legislative session to oversee all aspects of construction and maintenance of school facilities and physical plant. Its mission is to provide adequate educational facilities for all children in Wyoming, mirroring the mission of the WSFP that focuses on operations. Districts are required to formulate 5-year capital plans, which must then be approved by the WSFC. The WSFC also is responsible for funding the improvements using legislatively appropriated funds, most of which are derived from taxes imposed on energy and mineral resource production.



Source: Wyoming Department of Education 2010b, 2009b.

Figure 3.8-12 Total Assessed Valuation, CCSDs #1 and #2: 2000–2010

Table 3.8-19 Carbon County School District #1, Revenue, Staffing, and Enrollment Trends

	Fiscal Year			
	2006	**2007**	**2008**	**2009**
Revenue by Fund				
General	$17,517,449	$22,139,242	$23,688,317	$25,142,289
Special	$1,599,625	$3,047,323	$2,899,926	$5,263,491
Other (Capital projects, debt service and enterprise	$500,695	$1,045,628	$3,430,914	$1,696,362
Total	**$19,717,769**	**$26,232,193**	**$30,028,597**	**$32,102,143**
Staff (Full-time Equivalent [FTE])				
Teachers	137.9	134.7	147.8	152.8
Others	139.6	168.4	153.5	150.5
Total	277.5	303.1	301.3	303.3
Enrollment	1,727	1,753	1,815	1,787
Student/teacher Ratio	12.5	13.0	12.3	11.7

Source: Wyoming Department of Education 2010c, 2009b.

Table 3.8-20 Carbon County School District #2, Revenue, Staffing, and Enrollment Trends

	Fiscal Year			
	2006	**2007**	**2008**	**2009**
Revenue by Fund				
General	$10,597,371	$13,138,335	$13,921,123	$13,639,935
Special	$936,804	$1,500,589	$1,533,118	$1,529,015
Other (capital projects, debt service and enterprise	$1,734,355	$1,761,733	$1,121,460	$2,971,712
Total	**$13,268,530**	**$16,400,657**	**$16,825,289**	**$18,140,661**
Staff (FTE)				
Teachers	80.7	77.1	83.3	85.3
Others	100.5	94.0	96.9	96.7
Total	180.2	171.1	180.2	182
Enrollment	662	662	669	650
Student/Teacher Ratio	8.1	8.6	8.0	7.6

Source: Wyoming Department of Education 2010c, 2009b.

3.8.9 Non-Market Benefits and Values

Residents of, and visitors to, the Rawlins area derive a diverse array of economic, recreational, environmental, social well-being/quality of life, and other benefits from the area's public and private lands. Rawlins tied for third place in Outdoor Life Magazines' annual ranking of Top 200 Town's for Sportsmen (Outdoor Life 2009). Many economic benefits accrue to individuals, businesses, and other entities directly from activities and uses supported by the lands; for example, grazing, timber production, mineral and energy resource production, and commercial outfitting. These activities support local employment, both directly and indirectly for other individuals, enterprises, and governmental entities, through expenditures that occur within the local and regional economies in conjunction with these activities. Other benefits arise in conjunction with individual non-commercial use, such as hunting or fishing, as other individuals, firms and governmental entities supported by expenditures for lodging, equipment, licenses, food, travel, and other activity-related goods and services. However, while the jobs and expenditures associated with the activities can be estimated from various economic data, the satisfaction, potential improved health, and other quality-of-life benefits associated with recreation is more subjective.

Individuals and society as a whole also realize benefits from various environmental functions and processes that take place within a landscape and ecosystem associated with these lands, for example, supporting groundwater recharge, providing cleaner water, or providing wildlife habitat. However, once again the values assigned to these benefits, or the dis-benefit or costs associated with degradation of these processes, does not occur within a traditional market framework involving monetary transactions to help establish values. Economists refer to such benefits, as well as analogous costs, which do not involve monetary transactions to help establish values, as non-market goods. A concept related to that of non-market goods is that of externalities. Externalities refers to the effects of resource use decisions by one party on others who did not have a choice in the decision and whose interests were not taken into account in the decision. An example of a negative externality would be noise from a highway or airport that detracts from the value of nearby property or diminishes the quality of life of residents living nearby. Externalities can be positive or beneficial as well.

Economists have developed a variety of non-market valuation techniques to estimate the monetary value people associate with public lands and the benefits they provide. Around the country, on-site use values have been calculated for public goods like recreation and water quality. Passive use values have been calculated for rare species and environments such as wilderness. Valuation studies of recreation use are common nationally and many studies of this type are available for the intermountain area (Rosenberger and Loomis 2001). **Table 3.8-21** presents an example of such estimates, displaying the average on-site use values for selected recreation activities that resemble public use near the Application Area. These values represent the economic value received by users that is over and above what they received for their direct expenditures.

Table 3.8-21 Non-market Use Value of Recreation on Public Lands in the Intermountain Area[1]

Recreational Activity	Value per Person per Activity Day (2006 dollars)[2]
Biking	$69
Camping	$28
General Recreation[3]	$16
Hiking	$35
Picnicking	$28
Sightseeing	$14
Wildlife Viewing	$38

[1] Intermountain Area is USDA Forest Service Regions 1 through 4.

[2] Original data in 1996 dollars. Adjusted to 2006 dollars using Gross Domestic Product Inflation Index.

[3] General recreation is a composite of recreation opportunities at a site with a measure for the site, not a specific activity.

Source: Rosenberger and Loomis 2001.

Individuals, groups, and society also may value lands and landscapes for their non-use, or “passive”, attributes and characteristics that do not involve active on-site use. Examples of passive, or non-use, values include the pleasure associated with viewing a scenic open vista or a ranching landscape with cattle grazing in an irrigated pasture; individual actions to support establishment of wilderness and the opportunities for solitude thereby provided, whether one ever intends to recreate in a wilderness or not; or, satisfaction from the knowledge that efforts are being taken to protect critical habitat for an endangered species.

Use values and passive or non-use values associated with public lands are very much a matter of individual preference, lifestyle, and social and economic circumstances. Non-market values can vary over time or in response to changing levels of availability, jeopardy, or scarcity of a resource or condition. Thus, for instance, while individuals may not assign much value to protecting mosquito habitat and the mosquito species itself, they would assign higher values to efforts to protect and restore the bald eagle. On the other hand, where one group of individuals might view improved access onto public lands as a benefit by supporting motorized recreation and easier access to fishing, others would view it negatively because it may increase pressures on wildlife.

Perhaps more so than other industrial and quasi-industrial development, the installation of wind turbines in open spaces presents challenges in terms of assessing non-market values. To date, research on the effects of having wind farms present on the landscape in terms of non-market values has been limited. The lack of research on the topic may reflect the relative “newness” of commercial scale wind farm

deployment, the fact that wind farms had enjoyed relatively broad acceptance based on their status as renewable energy sources, and that some individuals find wind turbines aesthetically pleasing. Concerns regarding potential adverse effects of wind farms have risen over time as the scientific community and public at large gained more experience and exposure to the development and operation of wind farms. Included among the concerns are the following:

- The visual effects of larger-scale wind farm development, particularly ones that are located within the "foreground" setting of a larger vista;
- Adverse effects on avian species, including migration, and adverse effects on habitat fragmentation;
- Potential or perceived effects on human health and quality of life due to the flicker effect created by the rotating blades during certain lighting conditions, low frequency pulsating sound during operations, and the strobe effects of aviation avoidance lights;
- Potential conflicts with established traditional uses, including agriculture, hunting, grazing, and other outdoor recreation on public lands, or diminishment of the level of enjoyment/pleasure gained from such use; and
- Potential or perceived adverse effects on property values, particularly to nearby/adjacent property on which wind farm development may preempt other uses, including additional wind farm development and private flight operations.

Proximity and spatial orientation between a wind farm and nearby development plays a role in the potential effects of a wind farm project. For example, the flicker effects tend to be more prominent when an adjacent property is located north of one or more turbines, while awareness of the sound is somewhat less directionally sensitive. The flicker effects and adverse effects on human health associated with low frequency sounds, increasingly referred to as the wind turbine syndrome, decrease with distance. The latter has given rise to recommendations to increase the horizontal separation between residential development and wind turbines from 500 feet when such developments were new, to as much as 1.25 miles now (CAWT 2010). While some of these effects have a market value dimension to them (e.g., property value effects) others are decidedly non-market in nature.

The increasing public awareness of the potential linkages between wind farm development and public goods has become part of the community dialogue in Rawlins. Although the foundation of non-market values is rooted in economic terms, the local dialogue regarding impacts, compatibility with other uses and other effects is subjective and qualitative in nature, often using personal perspectives and frames of reference and terms that are more "social" in character than they are "economic". The fact that the dialogue is occurring is an indication of a shift in public attitudes towards wind farm development among some members of the public.

3.8.10 Social Conditions and Trends

This section was developed based on scoping comments, interviews with local officials and residents, articles and editorials appearing in local and regional newspapers, and other secondary sources as cited. As noted previously, Carbon County has experienced several cycles of energy and mineral growth and decline in recent decades, the most recent a spike in natural gas and energy infrastructure development from mid 2005 through mid 2008. Consequently, residents of the socioeconomic study area are familiar with the social change that accompanies large-scale energy development.

Most study area residents are familiar with wind energy development. Several wind energy projects are in operation along the eastern border of the county, immediately adjacent to and visible from I-80. The first of these became operational in 1999. Other projects have been developed in the Hanna/Medicine Bow area. Moreover, several additional such projects are under construction or proposed in the county, and yet others are located west of Carbon County along the I-80 corridor that many residents travel. Long-time residents of the region were introduced to the potential for commercial scale wind energy

generation in the mid 1970s when the USDOE and National Aeronautics and Space Administration (NASA) sponsored a wind energy research and development program just east of Carbon County near Medicine Bow. Although wind energy development became the subject of local skepticism due to technological problems experienced with this early project, the program provided an important foundation for today's technologies.

Many Carbon County residents value clean air and water, wildlife, wildlife habitat, and access to and the health of public lands (Carbon County Board of Commissioners and Carbon County Planning Commission 1998; Markert 2008; USDA 2003). A key concern for many residents is the compatibility of energy development of any type with other uses on public lands, particularly those lands seen as having high resource values. Lands in the Sierra Madre site and near the Application Area as a whole provide recreation opportunities for local residents, many of whom value the relatively wild nature of these lands, the abundance of wildlife, and the opportunities for solitude.

Some Rawlins officials, staff, and community leaders have expressed increased interest in economic diversification, community sustainability, and quality of life. Based in part on the experience of the recent construction and energy development boom, Rawlins has embarked on an effort to improve its infrastructure and image, with the intent of enhancing the city's competitive position to recruit new industry and attract new residents. Some public officials, community leaders, and residents have expressed concern about the problems associated with the recurring boom and bust cycle and have begun to plan and implement measures to enhance community livability, sustainability, and quality of life. Institutional actions resulting from this initiative have included revisions to municipal ordinances regarding parking RVs on streets, prohibiting the placement of additional RVs in mobile home parks, strengthening nuisance enforcement capabilities, and developing economic and community development plans. Rawlins recently volunteered to be among the first communities to develop a plan under the Wyoming's "Building the Wyoming We Want" program (Golnar 2010a, 2009).

3.8.10.1 Affected Publics

Affected publics for the proposed project would include:

- Residents of Rawlins, Sinclair, and nearby unincorporated areas – where almost 60 percent of Carbon County residents live – would experience project-related changes in the familiar landscape and seasonal changes in community social conditions during construction. As a result of housing shortage issues in the Rawlins area, workers may be forced to travel further in search of housing. So even though Saratoga, Baggs/Dixon and Wamsutter are located further from the Application Area, the residents in these communities could be affected by substantially smaller seasonal changes in community social conditions during the 5 year construction period.
- Users of public lands in and near the Application Area, including livestock grazing permittees, outdoor sportsmen/recreationists/backcountry travelers, and oil and gas field personnel who would be affected by the change in the visual and recreation setting and higher volumes of industrial traffic during construction.
- Individuals and organizations that place high values or priority on resource protection, including those concerned with species and habitat protection, clean air and water, and preservation of scenic vistas and open space.
- Individuals and organizations that place high values or priority on development of renewable energy resources, reductions in GHG emissions, and other efforts to address global climate change.

With the exception of the first group, affected publics can include people who live elsewhere in Wyoming or the nation, as well as local residents. Moreover, these affected public orientations are not mutually exclusive; an individual can be affiliated with two or more of these groups. For example, a Rawlins resident may be a user of the backcountry near the Application Area and place a high priority on both

resource protection and the development of renewable energy resources. In fact, many individuals interviewed for this assessment commonly expressed their support for development of renewable energy alternatives while also expressing concern for protection of sensitive environmental and wildlife resources and community quality of life.

3.8.10.2 Attitudes and Opinions

Carbon County officials and residents – along with officials and residents in other areas of Wyoming and the nation – are engaged in an ongoing dialogue about the relative benefits and costs of wind energy development. This discourse is evolving as officials and residents have become more aware of the potential scale and pace of development that could occur within the county, the potential for such development to occur near communities and within areas with high resource values, and growing concern regarding potential indirect effects of wind energy projects on property values, public health, land use and other factors based on a decade of operational experience.

Many Carbon County officials and residents have voiced support for the development of wind energy projects but also expressed concern about the scale, pace, and location of such projects. Support is commonly based on the value of the county's contribution to the regional and national renewable energy development effort, recognition of the "quality" of wind resources in the area, and the economic potential associated with a new and technologically expanding industry. Officials and residents also have expressed concerns about the effect of wind energy development on wildlife, particularly avian and bat species, sensitive wildlife habitat areas, such as greater sage-grouse breeding areas, and fisheries. Additionally, there are those who have expressed uneasiness regarding the potential effects on watersheds and air quality during construction and the long-term effects on recreation and cultural areas and scenic vistas. Concerns also have been expressed that wind energy development in certain locations within the county could adversely impact local tourism, outdoor recreation, ranching/grazing, and other forms of energy development.

Local officials also voiced concern that the state's tax structure for wind energy development did not provide ongoing production revenues similar to other energy development, and might not generate adequate tax revenues to offset the costs of providing public services to wind energy development.

Institutional responses to concerns associated with wind energy development are occurring at both the local and state level. In 2010, the Carbon County Commissioners adopted a new land use plan that contains an element on wind energy development, and the Wyoming State legislature chose not to renew a sales tax exemption for wind energy projects that will expire at the end of 2011 and approved a $1.00 per megawatt hour tax on power produced by wind projects, which will take effect in 2012.

3.8.11 Environmental Justice

E.O. 12898, "Federal Action to Address Environmental Justice in Minority Populations and Low-Income Populations" was published in 59 FR 7629 on February 11, 1994. E.O. 12898 requires federal agencies to identify and address disproportionately high and adverse human health or environmental effects of their programs, policies, and activities on minority populations and low-income populations (defined as those living below the poverty level).

The assessment of potential environmental justice impacts is guided by the Council on Environmental Quality's *Environmental Justice Guidance under the National Environmental Policy Act* (CEQ 1997). Determination of environmental justice impacts requires three steps: 1) determining the geographic distribution of low-income and minority populations in the affected area; 2) assessing whether the action under consideration would produce impacts that are high and adverse; and 3) if impacts are high and adverse, a determination as to whether these impacts would disproportionately affect minority and low-income populations. This section of the assessment describes the distribution of minority and low-income populations in areas potentially affected by the project.

3.8.11.1 Racial and Ethnic Minority Populations in Potentially Affected Areas

The immediate Application Area is extremely rural, due to the "checkerboard" pattern of alternating sections of public and private land and the fact that the private land is operated as a ranch primarily under a single owner. There are few or no full time residents living within the Application Area, although some structures are occupied temporarily by ranch hands and there are a few seasonally occupied recreation cabins in the southern part of the Sierra Madre portion of the Application Area. The entire Sierra Madre site and virtually the entire Chokecherry site are located in census block 2 of census track 9676 in Carbon County. That census tract generally encompasses the southwest quadrant of Carbon County south of the I-80 corridor.

The City of Rawlins, adjacent areas of unincorporated development, and the Town of Sinclair are located near the northern boundary of the Chokecherry site; therefore, within the potentially affected area. There are no communities within immediate proximity to the Sierra Madre site. Rawlins, the largest city in the immediately surrounding region, is located about 3 miles north of the northern boundary of the Chokecherry site. Sinclair, about 1 mile north of the project boundary is essentially a one industry town where most residents are employed by the Sinclair Refinery.

The towns of Baggs, Dixon, Saratoga, Encampment, and Wamsutter are further from the Sierra Madre portion of the project than is Rawlins, separated visually from the project by topography, much smaller in size, not along the primary access routes to the Application Area, and with resident populations that are predominately white and not low-income. Consequently, these communities are not considered to be potentially affected from an environmental justice perspective.

Data from the 2000 Census, presented in **Table 3.8-22**, are used to characterize the racial, ethnic, and poverty characteristics of the potentially affected populations identified above.

- Minorities comprised a higher share of the population in Carbon County than across Wyoming as a whole, but still substantially below the national average of 30.9 percent.
- The resident Hispanic and Latino population is concentrated in and around Rawlins: 2,171 of the countywide total 2,747 racial and ethnic minority residents. Racial and ethnic minorities comprise 25.4 percent of the resident population of Rawlins.
- The Wyoming State Penitentiary, a high security prison for men, is located south of I-80 near Rawlins and about 1.5 miles north of the northern boundary of the Chokecherry site. In 2000, the inmate population included a higher percentage of racial minorities than the general populations of either the state or county.
- The Town of Sinclair had a population of 423, with a 5.4 percent minority population.
- American Indians, Hispanics, and Latinos represent the most predominate segments of the racial and ethnic minorities in the local population, with relatively fewer blacks, African Americans, and multiracial individuals.

Table 3.8-22 Racial and Ethnic Minority Populations Near the Application Area, Census 2000

Geographic Area	Total Population	Population Which is White and not Hispanic nor Latino	Population Which is a Racial and Ethnic Minority	Percent of Population Which is a Racial or Ethnic Minority
Wyoming	493,782	438,799	54,983	11.1
Carbon County	15,639	12,892	2,747	17.6

Table 3.8-22 Racial and Ethnic Minority Populations Near the Application Area, Census 2000

Geographic Area	Total Population	Population Which is White and not Hispanic nor Latino	Population Which is a Racial and Ethnic Minority	Percent of Population Which is a Racial or Ethnic Minority
Communities near the Application Area				
Rawlins	8,538	6,367	2,171	25.4
Sinclair	423	400	23	5.4
Census Block 2 of Census Tract 9676	1,796	1,471	325	18.1
Application Area	17	17	0	0.0

Note: Racial minorities include all persons identifying themselves in the census as a non-white race, including "Black or African American," "American Indian and Alaska Native," "Asian," "Native Hawaiian and Other Pacific Islander," "Some other race alone," and "Two or more races." Ethnic minorities include persons who identify themselves as Hispanic or Latino. Persons of Hispanic or Latino origin can identify themselves as part of any race (including white) and as persons of Hispanic or Latino origin are an ethnic minority; the racial group of White alone does not include persons of Hispanic or Latino origin.

Source: U.S. Census Bureau 2001b.

3.8.11.2 Persons in Poverty

Table 3.8-23 summarizes the incidence of poverty in the socioeconomic study area using data from the 2000 Census. In general, the incidence of poverty in Carbon County, Rawlins, and the nearby areas was slightly higher than the statewide or national averages. Persons with incomes below the poverty level in census block 2 of tract 9676 represent 14.1 percent of the population; 2.7 percent higher than the 11.4 percent rate of poverty across the state. Many of those residents live in and near the smaller towns in the southern portions of the county. The incidence of poverty in Rawlins, 13.7 percent of the population, also is slightly higher than the countywide and statewide averages. The low-income population in the city is relatively more concentrated in an older residential neighborhood that also is home to many racial and ethnic minority residents. That neighborhood is located south of the UPRR rail line but north of I-80, the latter of which separates it from both the Chokecherry site and the Wyoming State Penitentiary.

Table 3.8-23 Persons in Poverty Near the Application Area – 2000

Geographic Areas	Proportion of Population Below Poverty Level (%)	Number of Persons with Incomes Below Poverty Level
U.S.	12.4	33,899,812
Wyoming	11.4	54,777
Carbon County	12.9	1,879
Communities near the Application Area		
Rawlins	13.7	1,114
Sinclair	4.7	19

Table 3.8-23 Persons in Poverty Near the Application Area – 2000

Geographic Areas	Proportion of Population Below Poverty Level (%)	Number of Persons with Incomes Below Poverty Level
Census Block Group 2, Census Tract 9676	14.1	130

Note: Racial minorities include all persons identifying themselves in the census as a non-white race, including "Black or African American," "American Indian and Alaska Native," "Asian," "Native Hawaiian and Other Pacific Islander," "Some other race alone," and "Two or more races." Ethnic minorities include persons who identify themselves as Hispanic or Latino. Persons of Hispanic or Latino origin can identify themselves as part of any race (including white) and as persons of Hispanic or Latino origin are an ethnic minority; the racial group of White alone does not include persons of Hispanic or Latino origin.

Source: U.S. Census Bureau 2000.