

FMC Granger Optimization Project

Wyoming Industrial Development Information and Siting Act

Section 109 Permit Application
FMC Granger Optimization Project



Submitted by



FMC Wyoming Corporation
26 Miles West of Green River
P.O. Box 872
Green River, WY 82935

Prepared by



August 2012

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CH2MHILL®

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Acronyms and Abbreviations

| | |
|-----------------|---|
| ac-ft | acre-feet |
| ACHP | Advisory Council on Historic Preservation |
| ACM | asbestos-containing material |
| ADA | <i>Americans with Disabilities Act</i> |
| amsl | above mean sea level |
| ANSI | American National Standards Institute |
| AQD | Air Quality Division |
| AQRV | air quality related value |
| ASME | American Society of Mechanical Engineers |
| AWWA | American Water Works Association |
| BACT | best available control technology |
| BEA | U.S. Bureau of Economic Analysis |
| BGEPA | <i>Bald and Golden Eagle Protection Act</i> |
| BLM | Bureau of Land Management |
| BLS | Bureau of Labor Statistics |
| BMP | best management practice |
| BOC | Board of County Commissioners |
| BVEA | Bridger Valley Electric Association |
| CCSM | Chokecherry and Sierra Madre |
| CEQ | Council on Environmental Quality |
| CFR | Code of Federal Regulations |
| cfs | cubic feet per second |
| CIP | Capital Improvement Plan |
| CO ₂ | carbon dioxide |
| CSW | construction solid waste |
| CWIP | Construction Work in Progress |
| dBA | A-weighted decibels |
| DDCT | Density Disturbance Calculation Tool |
| EB | eastbound |
| EHS | Environmental, Health, and Safety |
| EMS | emergency medical services |
| EMT | emergency medical technician |
| EPA | U.S. Environmental Protection Agency |
| EPC | Engineering, Procurement, and Construction |
| ERH | Evanston Regional Hospital |
| FAA | Federal Aviation Administration |
| FC4H | First Call for Help |

| | |
|------------------|---|
| FEMA | Federal Emergency Management Agency |
| FEPCA | <i>Federal Environmental Pesticide Control Act</i> |
| FIFRA | <i>Federal Insecticide, Fungicide and Rodenticide Act</i> |
| FMC | FMC Wyoming Corporation |
| FMV | fair market value |
| FTE | full-time equivalent |
| FY | fiscal year |
| GDP | gross domestic product |
| GHG | greenhouse gas |
| gpd | gallons per day |
| gpm | gallons per minute |
| GRFD | Green River Fire Department |
| H ₂ S | hydrogen sulfide |
| hp | horsepower |
| I/O | input-output |
| I-80 | Interstate 80 |
| IMPLAN | Impact Analysis for Planning |
| ISA | <i>Industrial Development Information and Siting Act</i> |
| ISC | Industrial Siting Council |
| ISD | Industrial Siting Division |
| kV | kilovolt |
| LCSD1 | Lincoln County School District No. 1 |
| LCSD2 | Lincoln County School District No. 2 |
| LOS | level of service |
| LQD | Land Quality Division |
| MBTA | <i>Migratory Bird Treaty Act</i> |
| MCC | motor control center |
| MD-1 | Mineral Development District 1 |
| MHSC | Memorial Hospital of Sweetwater County |
| MIG, Inc. | Minnesota IMPLAN Group |
| MMBtu | million British thermal units |
| mph | miles per hour |
| MSW | municipal solid waste |
| MW | megawatt; mine water |
| NAAQS | National Ambient Air Quality Standards |
| NAICS | North American Industry Classification System |
| NB | northbound |
| NEPA | <i>National Environmental Policy Act</i> |
| NFPA | National Fire Protection Association |

| | |
|-------------------|--|
| NHPA | <i>National Historic Preservation Act</i> |
| NHSFR | National High School Finals Rodeo |
| NHSRA | National High School Rodeo Association |
| NIOSH | National Institute for Occupational Safety and Health |
| NO ₂ | nitrogen dioxide |
| NPDES | National Pollutant Discharge Elimination System |
| NRHP | National Register of Historic Places |
| O&M | operation and maintenance |
| OES | Occupational Employment Statistics |
| OSHA | Occupational Safety and Health Administration |
| PCE | personal consumption expenditure |
| PCP | primary care physician |
| PCW | Power Company of Wyoming, LLC |
| PHRC | public health response coordinators |
| PM | particulate matter |
| PM ₁₀ | particulate matter less than 10 microns in aerodynamic diameter |
| PM _{2.5} | particulate matter less than 2.5 microns in aerodynamic diameter |
| Project | Granger Optimization Project |
| PSD | Prevention of Significant Deterioration |
| PVC | polyvinyl chloride |
| RCRA | <i>Resource Conservation and Recovery Act</i> |
| REIS | Regional Economic Information System |
| REMI | Regional Economic Models, Inc. |
| RERT | Regional Emergency Response Team |
| RIMS | Regional Industrial Multiplier System II |
| RMP | Rocky Mountain Power |
| ROW | right-of-way |
| RSFD | Rock Springs Fire Department |
| RV | recreational vehicle |
| SAM | social accounting matrix |
| SB | southbound |
| SCFD1 | Sweetwater County Fire District #1 |
| SCSD1 | Sweetwater County School District No. 1 |
| SCSD2 | Sweetwater County School District No. 2 |
| SCSWDD1 | Sweetwater County Solid Waste Disposal District #1 |
| SGCN | Species of Greatest Conservation Need |
| SHPO | State Historic Preservation Office or Officer |
| SLMC | South Lincoln Medical Center |
| SO ₂ | sulfur dioxide |

| | |
|-----------------|---|
| SPCC | Spill Prevention, Control, and Countermeasures |
| SPHST | State Parks, Historic Sites, and Trails |
| SW WRAP | Southern Wyoming - Wyoming Recovery Access Programs |
| SWAP | State Wildlife Action Plan |
| SWPPP | Stormwater Pollution Prevention Plan |
| U.S.C. | United States Code |
| UCSD1 | Uinta County School District No. 1 |
| UCSD4 | Uinta County School District No. 4 |
| UCSD6 | Uinta County School District No. 6 |
| UI | unemployment insurance |
| UIC | Underground Injection Control |
| UPRR | Union Pacific Railroad |
| US 30 | US Highway 30 |
| USACE | U.S. Army Corps of Engineers |
| USFS | U.S. Forest Service |
| W.S. | Wyoming Statute |
| WAAQS | Wyoming Ambient Air Quality Standards |
| WAQSR | Wyoming Air Quality Standards and Regulations |
| WB | westbound |
| WBI | Wyoming Behavioral Institute |
| WCDA | Wyoming Community Development Authority |
| WDE | Wyoming Department of Education |
| WDEQ | Wyoming Department of Environmental Quality |
| WDEQ-LQD | Wyoming Department of Environmental Quality-Land Quality Division |
| WDH | Wyoming Department of Health |
| WDOR | Wyoming Department of Revenue |
| WHP | Wyoming Highway Patrol |
| WQD | Water Quality Division |
| WSEO | Wyoming State Engineers Office |
| WSFM | Wyoming State Fire Marshal |
| WY EAD | Wyoming Economic Analysis Division |
| WYDOT | Wyoming Department of Transportation |
| WYPDES | Wyoming Pollution Discharge Elimination System |
| yd ³ | cubic yards |

Executive Summary

On August 13, 2012, FMC Wyoming Corporation (FMC) is submitting this Section 109 Permit Application pursuant to Wyoming Statute (W.S.) § 35-12-109 of the Industrial Development Information and Siting Act (ISA). The permit is for the construction and operation of the Granger Optimization Project (Project), to be constructed in a single phase near Granger, Wyoming.

FMC proposes to own, construct, and operate the Project on private lands located in Sweetwater County, Wyoming. The Project will feature new brine processing equipment to restore production capacity to approximately 1.3 million tons per year of soda ash using mine water as feedstock.

The Project will include engineering, procurement, and construction of all equipment and facilities necessary for optimization of an existing soda ash production facility.

The application includes all the information required by W.S. 35-12-109, including all applicable ISA implementing rules and regulations. The data and analyses are included here in Sections 1 through 8 and corresponding appendices. In addition, the signature letter was submitted under separate cover to the Wyoming Department of Environmental Quality (WDEQ) Industrial Siting Division (ISD). FMC requests issuance of a Section 109 Permit pursuant to W.S. § 35-12-109 that covers the construction and operation of the Project.

Industrial Siting Act Statute and Cost

A meeting was held with the WDEQ-ISD on January 10, 2012, in which the ISD staff determined that the estimated capital cost of construction for the Project meets or exceeds the current statutory jurisdictional capital construction cost threshold of \$186.1 million (W.S. § 35-12-102).

Location

The Project site is located in Sweetwater County, Wyoming, approximately 26 miles west of Green River. Specifically, the Project would be located within the existing Granger plant by adding solution processing equipment to the existing facilities. The Project site will be accessed using County Road 11 from the east and Granger Road from the west to reach the existing facility's road network. The Project site is located near an unnamed tributary to Sevenmile Gulch, which is, in turn, tributary to Blacks Fork of the Green River.

Land Use

The entire Project will be located on private lands in Sweetwater County. The Project site is zoned for and is in industrial use as the Granger facility. The surrounding landscape is a checkerboard of private and Bureau of Land Management (BLM)-administered lands. A parcel of state land is located immediately east of the Project. The area is generally undeveloped except for wells and pipelines supporting the Granger plant. No residences are located within 6 miles of the Project.

Components

The primary components of the Project involve processing equipment that concentrates the mine water, crystallizes and purifies the desired components, and then sends the purified components to existing equipment for crystallizing and drying the soda ash. Additional infrastructure will include control equipment, storage tanks, clarifiers, and a new cooling tower. The ongoing program of installing injection wells, extraction wells, and mine water pipelines will continue. The continuing mine water program will enhance the recovery of the leased trona resource.

Project Schedule

Permitting is under way for the Project. The Prevention of Significant Deterioration (PSD) Greenhouse Gas (GHG) air construction permit application was submitted to U.S. Environmental Protection Agency (EPA) Region 8 on May 10, 2012, and the PSD air construction modification permit application will be submitted to WDEQ by August 31, 2012. This ISA permit application has been submitted in August 2012 with a public hearing planned for November 2012. Major equipment is expected to be ordered in late 2012/early 2013. A 26-month construction period is anticipated to commence in the second quarter of 2013. Completion of construction is expected in the third quarter of 2015.

Construction activities will consist of equipment mobilization; preliminary site work including clearing, leveling, and grading work; excavation; substructures and piping; and foundation work including erection of foundations and steel structures. Major construction activities will commence in third quarter 2013, including mechanical and electrical work, and construction of caustic clarifier and the new process building.

Construction and Operations Workforce

Construction Workforce

Site preparation and clearing would begin in the second quarter of 2013. Construction activities and the corresponding workforce will ramp up over the following several months. The construction workforce is estimated to peak at approximately 338 during the height of construction activities in the second quarter of 2014.

Operations Workforce

During the operations phase, an estimated additional workforce of approximately 26 full-time positions will be needed to fully staff the Granger facility.

Transportation

The Project is expected to generate additional personnel and equipment traffic during both the construction and operations stages. The workforce and delivery vehicles will primarily use Interstate 80 to US 30 or WY 372 to access the site. The Project is contained within the current Granger facility, so the traffic would all be routed on the existing roadway network.

All deliveries will be trucked directly to the Project site using semi-tractor trailers. It is anticipated that the truck deliveries to the site will be scheduled during the off-peak periods. Transportation routes associated with oversized loads will be finalized with the Wyoming Department of Transportation (WYDOT).

A study has been completed that analyzed the potential impacts of construction and operation traffic on local roadway systems. The study evaluated both worker traffic and construction delivery truck traffic. Impacts are expected to be minor with only slight changes in level of service during the peak construction period.

WYDOT reviewed the traffic study prepared for the Project. On June 5, 2012, WYDOT issued a letter confirming the findings that the Project would have relatively minimal impact to the highways governed by WYDOT. WYDOT also stated it has no concern with the proposed plan of operation for the Project.

Water Use

The water balance for the Project estimates a maximum annual water use of approximately 5,000 acre-feet/year. This use is less than the adjudicated water right equivalent to 5,419 acre-feet/year. The water source for the Project will be the existing 7.5 cubic feet per second (cfs) Green River water right FMC currently holds. This water right is sufficient to supply the Project during both construction and operation.

The Wyoming State Engineers Office (WSEO) was provided the Water Supply and Yield Analysis on April 10, 2012. On May 22, 2012, the WSEO submitted written comment to the ISC that it had found FMC to be operating within the limits of its permits, and approved the analysis. Therefore, impacts to surface and groundwater during operations are expected to be less than significant.

Public Involvement

Through numerous informational meetings and presentations, FMC representatives have actively sought out municipalities, counties, state agencies, and other stakeholders. The objective of this outreach has been to discuss potential environmental, social, and economic issues and identify mitigation recommendations and solutions to incorporate into the planning and design of the Project. The Project area of study, as identified by ISD staff during the Jurisdictional Meeting, determined the local governments where informational meetings were held.

FMC staff have met with elected government officials in Sweetwater, Lincoln, and Uinta counties as part of the pre-application filing process to inform them of the Project, receive comments and input, and address concerns.

Two public open house meetings were held to provide the public the opportunity to discuss the Project and any concerns. The meetings were held in Green River on May 8, 2012, and in Rock Springs on May 9, 2012.

Socioeconomic Impacts

A detailed analysis of social and economic impacts has been submitted as part of the ISA permit application to evaluate the benefits and impacts to the social and economic resources in the area of study and primary area of site influence. To measure potential impacts, the socioeconomic analysis compares the expected future conditions in the area of study with and without the Project. The counties included in the area of study were determined in consultation with ISD staff and were defined as Sweetwater, Lincoln, and Uinta Counties.

Both local communities and the state will realize benefits from the Project. Wyoming will gain economic benefits including permanent job creation and tax revenues. Locally, the Project may result in allocation and distribution of impact assistance payment funds, local spending on goods and services, additional local economic activity, and tax revenues.

Construction of the Project is expected to place minimal demands on water, sewer, roads, electrical lines, or other local infrastructure. Therefore, construction and operation of the Project is not expected to significantly affect the various public and nonpublic facilities and municipal services as a result of in-migration of workers for non-basic employment opportunities.

Environmental Resources

FMC has reviewed the data and reports from independent consultants that indicate there would be no significant environmental impacts as a result of the project. All baseline resource information will be used to design Project components to avoid or minimize the potential for environmental and natural resource impacts. Because of the Project's location within the remote Granger facility and the overall disturbed nature of the area, minimal environmental impacts are expected. It is anticipated operation of the Project will be indiscernible from current facility operations.

1.0 Purpose, Need, and Benefit

1.1 Purpose

The FMC Alkali Chemicals Division is the world's largest producer of natural soda ash and the market leader in North America. FMC is a mining and production leader, having developed and implemented multiple proprietary, low-cost mining technologies. The purpose of the Granger Optimization Project is to restore the production capacity of the FMC Granger facility to approximately 1.3 million tons per year of refined soda ash. The Project will enable FMC to maintain the ability to meet market demands for soda ash by leveraging existing ore resources and its supporting infrastructure.

1.2 Need

Restoration of production capacity is necessary in order to meet the soda ash product needs of FMC's customers and the optimized facilities will need to be in place by third quarter 2015. Restoration of production capacity will be accomplished in the Granger Optimization Project through the addition of new brine processing equipment designed to provide the existing facilities with a soda ash liquor concentration similar to that which was obtainable from dry ore processing. Construction of the Project is scheduled to begin during the second quarter 2013.

The FMC Granger facility currently produces soda ash and caustic soda using weak alkaline brine. The facility presently consists of a flooded underground trona mine used for recovery of brine, soda ash plant, caustic plant, and ancillary utilities (e.g., boilers, water treatment). From the start of operations in 1976 and until 2005, the feedstock for soda ash production came from dry ore produced from the onsite underground trona mine. Under this operating mode, the soda ash plant had a production capacity of 1.3 million tons of refined soda ash based on the alkaline liquor concentration achievable from dry ore processing. Dry ore mining was eventually discontinued (due to declining ore quality and associated higher production costs) and in 2005, the feedstock for the soda ash plant was switched to mine water (the alkaline brine extracted from the underground trona mine). With the less concentrated mine water as the feedstock, the production capacity of the plant was effectively reduced from 1.3 million tons of refined soda ash per year to 650,000 tons annually. After completion of the Granger Optimization Project, the soda ash production capacity of the plant will be restored to approximately 1.3 million tons per year using mine water as the feedstock.

1.3 Benefits

FMC operates two major production facilities in Southwest Wyoming. Our more than 900 employees operate a solution trona mine (the Granger facility) and a conventional trona mine (the Westvaco facility) from about 1,600 feet underground and then process the mineral into natural soda ash, sodium bicarbonate, and caustic soda using modern progressive technologies. Soda ash is essential to the production of all forms of glass, namely fiberglass insulation, window glass, light bulbs, windshields, solar panels, jars, bottles, tableware, mirrors, and furniture glass. Soda ash is also a key ingredient in detergents and many other common products like sodium bicarbonate, more commonly known as baking soda.

Natural soda ash is considerably less energy intensive and has a lower production cost than its primary competition, synthetic soda ash produced in China. More than 50 percent of FMC

production is exported, providing a significant positive trade balance for the United States. Our operations depend on the safe and efficient extraction of trona to maintain our worldwide competitiveness. Natural soda ash production from the Wyoming trona basin uses 40 percent less energy and produces about 40 percent less greenhouse gas (GHG) than the alternative synthetic soda ash. We can produce and deliver soda ash to customers around the world with fewer emissions than those from the synthetic soda ash production in the customers' region, or even within their home country. FMC's Wyoming facilities help to minimize the global emissions of GHG. Worldwide demand growth not met by U.S. natural soda ash will be replaced by the more costly and GHG-intensive synthetic soda ash.

1.3.1 Regional Benefits

A typical concern with the location of new industries is that demand for services such as schools, roads, water supply, and waste disposal associated with population increases will increase more than the tax base that the new industry brings. While providing positive benefits to the local economy, the Project will have minimal impacts on communities and their infrastructure. Local communities will be able to plan for and accommodate the incremental changes resulting from the in-migration of the temporary construction workforce. Development of the Project carries significant economic benefits, including creation of new jobs, increased *ad valorem* taxes, and new dollars supporting the local economy.

Because of the relatively short timeframe for construction and the limited operations workforce required, the Project will place minimal demands on water, sewer, roads, electrical lines, and other local infrastructure. In addition, there would be little measurable increase in non-basic employment. These jobs are generated from ongoing employment of the existing base of construction workers and would be maintained through the continued employment of both local and non-local construction and operation workers. Therefore, construction and operation of the Project will not significantly affect the various public and non-public facilities and services described above from the in-migration of workers for non-basic employment opportunities.

The Project will generate distinct and positive economic impacts during both construction and operation phases. Specifically, construction will result in a short-term surge in economic spending activity, while operation will produce long-term economic benefits to local communities. Both sources of regional economic stimuli will result in increased output, income, and employment in Sweetwater County.

The Project's economic benefits to both local communities and the state of Wyoming include the following:

- Additional *ad valorem* taxes
- Increased need for and expenditure on local goods and services
- Potential allocation and distribution of Impact Assistance Fund payments over the construction period
- Increased use of the local service industry
- Negligible impacts to local government and municipal services
- Creation of jobs and stable employment
 - Peak of approximately 338 temporary construction jobs in second quarter 2014
 - Addition of approximately 26 permanent full-time jobs

- Increased sales and use tax revenues from temporary and permanent employees purchasing goods and services during construction and operation of the Project
- Additional property taxes paid by new employees moving into the area

1.3.2 Regional Economy

The primary local economic impacts associated with the introduction of new business activity are increased employee compensation (wages and salaries exclusive of withholdings), purchases made by the new business, and taxes paid to local governments. The more local businesses are able to supply the needs of the employees and the new business, the greater will be the local economic impact of the new business.

Economic multipliers are often used to estimate the total economic impacts of a project or new business activity. The concept is that employee wages and business purchases have a “ripple effect” in an economy. The new business will purchase some of its required materials, supplies, and services in the local economy and those local businesses in turn will hire some new employees, creating indirect effects. Employees at the new business or project will likewise spend a portion of their wages at local stores and businesses, creating induced effects. In this way, the economic impact of the new business or project spreads in the local economy. In order to estimate the total economic impacts, economic multipliers are used in conjunction with the direct employment, wages, business purchases, and taxes paid. The direct impacts are multiplied by the economic multiplier to yield an estimate of the overall economic impact of the new business or project. Multipliers are generated by economic input-output models that account for linkages between sectors in an economy.

In addition to providing a stimulus to the local economy in the form of expenditures on materials and supplies (referred to as procurements), the Project would employ construction workers who are expected to spend a portion of their income (referred to as personal consumption expenditure [PCE]) in the study area, thus stimulating additional output in the various sectors that provide consumer goods and services. As a result of both Project procurements and PCE by both local and non-local construction workers, the Project is expected to result in a temporary increase in employment and income within the study area during the construction period.

1.3.3 Direct and Secondary (Indirect and Induced) Effects

Based on knowledge of the local economy and local sources, it is possible to identify the elements that have a direct effect on the local economy:

- A direct effect arises from the first round of buying and selling. In general, this is the purchase of some inputs, such as fuel, the spending of income earned by workers, and the income effects of tax changes. These direct effects can be used to identify additional rounds of buying and selling for other sectors and to identify the effect on rounds of spending by local households.
- An indirect effect is the increase in sales of other industry sectors in the county, which includes further round-by-round sales.
- An induced effect is the increased household income expenditures generated by the direct and indirect output effects.

The total economic effect is the sum of the direct, indirect, and induced effects.

During the construction phase of the Project, it is anticipated that 25 percent of the onsite workforce would be composed of persons already residing in the local area. During the construction period of 26 months, the Project would employ as many as 85 local workers, and the average

quarterly local employment would number 50 jobs. The Project would generate approximately 26 permanent, full-time jobs.

During construction, it is estimated that expenditures in the local economy for equipment, materials, and services would total \$56 million.

1.3.4 Secondary Benefits

Construction of the Project would result in secondary economic impacts (indirect and induced impacts) within the study area. These benefits would be temporary. Indirect and induced employment effects include the purchase of goods and services by firms involved with construction. Induced employment effects include construction workers spending their income within the study area. In addition to these secondary employment impacts, there are indirect and induced income effects arising from construction.

At the peak, the Project is expected to result in annual direct and total employment within the study area of Sweetwater, Lincoln and Uinta counties of 235 and 321 full-time equivalent (FTE) jobs, respectively, over the 26-month construction period. The additional secondary jobs result from Project-related procurements in the study area, as well as local and non-local construction worker PCE. PCE would consist mostly of accommodations, food services, recreation, entertainment, and transportation. **Table 1-1** provides a summary of employment effects as a result of the Project.

TABLE 1-1
Direct and Total Employment in the Local Economy

| Employment Type (FTE) | Construction Phase 2013 – 2015 | Operations Phase 2015 Onward |
|-----------------------|-----------------------------------|---------------------------------|
| Direct (onsite) | 235 | 26 |
| Secondary (offsite) | 86 | 16 |
| TOTAL | 321 | 42 |

Source: CH2M HILL, 2012.

Following completion of the Project, it is anticipated that operation of the newly installed equipment would require approximately 26 new permanent, full-time positions. Some of these positions would potentially be filled by local workers.

1.4 Local Benefits

The primary local benefits attributable to the Project as described below include the following:

- Potential distribution of Impact Assistance Fund payments
- Increased local spending
- Increased local professional job opportunities
- Tax effects

1.4.1 Distribution of Impact Assistance Funds

Pursuant to W.S. § 35-12-102(a)(vii), the proposed costs of the Project were reviewed by the Industrial Siting Division (ISD) and determined to exceed the 2012 statutory threshold construction cost amount of \$186.7 million. Therefore, the Project falls under the jurisdiction of the *Industrial Development Information and Siting Act* (ISA), whereby local governments are eligible to receive Impact Assistance Fund payments.

Impact Assistance Fund Calculations

The amount of Impact Assistance Fund payments is based on the growth of sales and use taxes during the previous 12-month period. The calculation uses an average of all the sales and use taxes in the Project county (in this case, Sweetwater County) for the preceding 12-month period and is based on the growth of sales and use taxes after construction is initiated. The Wyoming Department of Revenue (WDOR) is responsible for calculating the prior 12 months of sales and use taxes to establish a baseline total. The corresponding construction month's sales and use tax is then compared to the monthly baseline total to determine that month's Impact Assistance Fund payment. The difference, the growth in sales and use taxes during the construction month, is the amount to be distributed in the Impact Assistance Fund payment. It is important to note that only sales and use taxes are used for the calculation. Lastly, the actual Impact Assistance Fund payments are issued by the WDOR and come from Wyoming's General Fund, rather than directly from the Project proponent.

Impact Assistance Fund Distributions

Appendix C-1 provides an estimate of the amount of Impact Assistance Fund payments that could be expected as a result of the Project expenditures and increased sale and use taxes. A review of Appendix C-1 shows that the monthly average of Impact Assistance Fund payments from June 2012 through May 2013 is estimated to be \$10,550.

1.4.2 Increased Local Spending

Spending on construction and operation of the Project will positively affect the local economy directly, through the purchase of local goods and services, and indirectly as those purchases generate purchases of intermediate goods and services from other related sectors of the economy. In addition, direct and indirect increases in employment and income will enhance overall local purchasing power, thereby inducing further spending on goods and services. This cycle is expected to continue until the dollars spent eventually leak out of the local economy as a result of taxes, savings, or purchases of non-locally produced goods and services.

1.4.3 Increased Local Economic Activity

The Project will be a medium source of new local professional job opportunities in the region. Specifically, permanent positions within the processing facility will provide new local wage jobs (i.e., jobs above entry level and providing industry-scale income), some requiring specialized backgrounds in process control, electrical and mechanical maintenance, and engineering. These positions may also add to the local economy through the employee purchase of residential homes, thereby increasing the local tax base.

1.4.4 Tax Effects

Tax effects are an important consideration and a significant benefit of the Project. The biggest tax benefit and source of new tax revenue would be associated with the *ad valorem* taxes collected over the estimated 25-year life of the Project. In conjunction with associated ancillary activities, state and local tax revenues also would be generated during the construction and life of operation of the proposed facility. Although some of these tax revenues will be distributed on a local level, the state controls such distribution.

Ad Valorem Taxes

Over the period 2013 through 2016, the estimated cumulative ad valorem tax revenue related to project construction is \$4.81 million payable to Sweetwater County as shown in **Table 1-2**. Over the estimated 25-year life of the Project post construction, the net present value of total property taxes in the amount of \$21.53 million would be paid to Sweetwater County.

TABLE 1-2
Estimate of *Ad Valorem* Taxes Paid Per Year

| 2013 | 2014 | 2015 | 2016 | 25-Year Total (NPV) 2017-2041 (Operation) |
|-----------|-------------|-------------|-------------|---|
| \$170,000 | \$1,020,000 | \$1,660,000 | \$1,960,000 | \$21,530,000 |

Source: FMC, 2012

Sales, Use, and Lodging Taxes

Local tax revenues would also accrue from the sale of goods and services to non-local workers. These purchases would be mostly for meals, recreation, entertainment, gasoline and automotive service, and lodging. It is estimated that local tax revenues totaling almost \$2,183,000 would accrue to Sweetwater, Lincoln and Uinta counties combined over the construction period.

Lodging tax revenues could accrue to the counties in which Project-related construction workers temporarily reside, and estimates are included in the local tax revenues reported above. However, it should be noted that: 1) the actual distribution of construction workers is not known at this time, and 2) the durations of their stays are not known and lodging taxes are levied only on sleeping accommodations for guests staying less than 30 days.

1.4.5 Environmental Benefits

The Project will optimize extraction of the existing underground mine network with minimal surface disturbance. The existing Granger facility has been producing soda ash for many years and is in compliance with applicable federal and state environmental regulations. The Project will extend the useful life of the production facility without expanding the parcel size of the plant.

2.0 Applicant and Project Description

The following sections provide information relevant to W.S. 35-12-109 and detailed Project-specific information relating to the intention of FMC to optimize production of a soda ash facility near Granger, Wyoming.

2.1 Applicant Information

Rule I Section 7(a) (W.S. § 35-12-109(a)(i)) – Name and Address of Applicant. An application for a permit shall be filed with the division, in a form as prescribed by council rules and regulations, and shall contain the name and address of the applicant, and, if the applicant is a partnership, association or corporation, the names and addresses of the managers designated by the applicant responsible for permitting, construction or operation of the facility.

Applicant:

Fred von Ahrens
Manufacturing Director
FMC Wyoming Corporation
26 Miles West of Green River
P.O. Box 872
Green River, WY 82935
(307) 875-2580
fvonahre@fmc.com

The following manager has been designated by FMC to be responsible for permitting the Project:

John Lucas
Environmental Team Leader
FMC Wyoming Corporation
26 Miles West of Green River
P.O. Box 872
Green River, WY 82935
(307) 872-2195
john.lucas@fmc.com

The following manager has been designated by FMC to be responsible for constructing the Project:

Jim Pearce
FMC Wyoming Corporation
26 Miles West of Green River
P.O. Box 872
Green River, WY 82935
(307) 875-2580
jim.pearce@fmc.com

FMC Industrial Chemicals is a low-cost producer of inorganic chemicals with leading market positions in North American soda ash, hydrogen peroxide, and persulfates. The Alkali Chemicals Division is the world's largest producer of natural soda ash and the market leader in North America.

FMC is a mining and production leader, having developed and implemented multiple proprietary, low-cost mining technologies.

2.2 Point of Delivery – Goods and Services

The construction and operation of the Project will result in the purchase of goods and services, both for the Project itself and for the needs of the associated construction and operations workforce. Goods and services procured for construction activities will be obtained from various local, regional, and national vendors. FMC anticipates that all of the Project’s components will be trucked to the Project site. Sweetwater County will be the primary point of delivery for components associated with the Project.

2.3 Site Selection

The Project site, shown in **Figure 2-1**, was selected for the following reasons: 1) the existing soda ash processing facility provides the ideal location to install the optimization equipment; 2) the new facilities will be installed within an existing disturbed industrial area, thereby minimizing resource impacts; and 3) FMC is the property owner, so no additional landowners need to be involved with the Project.

2.4 Nature and Location of the Facility

The Project site is located in Sweetwater County, Wyoming, approximately 26 miles west of Green River (**Figure 2-1** and **Appendix A**). The Project site will be accessed using County Road 11 to reach the existing facility’s road network. The Project site is located near an unnamed tributary to Sevenmile Gulch, which is, in turn, a tributary to Blacks Fork of the Green River.

Local topography is level at the Project site with an elevation of 6,365 feet above mean sea level (amsl). The Project area itself is within an industrial complex. The area surrounding the facility contains Wyoming big sagebrush, greasewood saline flats, and short to mid-grass prairie communities (BLM, 2003). The Granger facility itself comprises numerous buildings of many configurations and purposes, and is surrounded by pipelines, access roads, and injection and extraction wells.

2.5 Preliminary Site Plan

FMC has completed a preliminary site plan layout for the Project that minimizes environmental impacts to the most detailed extent practical. See **Appendix A** for the preliminary site plan.

2.6 Land Ownership

The Project is located on private lands owned by FMC. **Table 2-1** provides the legal description of the Project’s location. A land ownership map is provided in **Appendix A**.

TABLE 2-1
Site Legal Description

| Section | Location | Township | Range |
|---------|----------|----------|-------|
| 36 | NW ¼ | 20N | 111W |

2.7 Project Phase Descriptions and Future Modifications

FMC Wyoming Corporation requests issuance of a Section 109 Permit, pursuant to the Wyoming ISA, for the Granger Optimization Project. The purpose of the Granger Optimization Project is to restore the production capacity of the FMC Granger facility to approximately 1.3 million tons per year of refined soda ash using mine water as the feedstock.

If and when the commercial opportunity presents itself, FMC Wyoming Corporation could expand the facility in future years. If any future expansions were to occur, they would likely involve the construction of additional mine water processing equipment, liquor concentration equipment, product drying and handling equipment, and related infrastructure. Since the need for future expansion is unknown and because the types of facilities that could be required are uncertain, this permit application only defines the details and impacts of the Granger Optimization Project.

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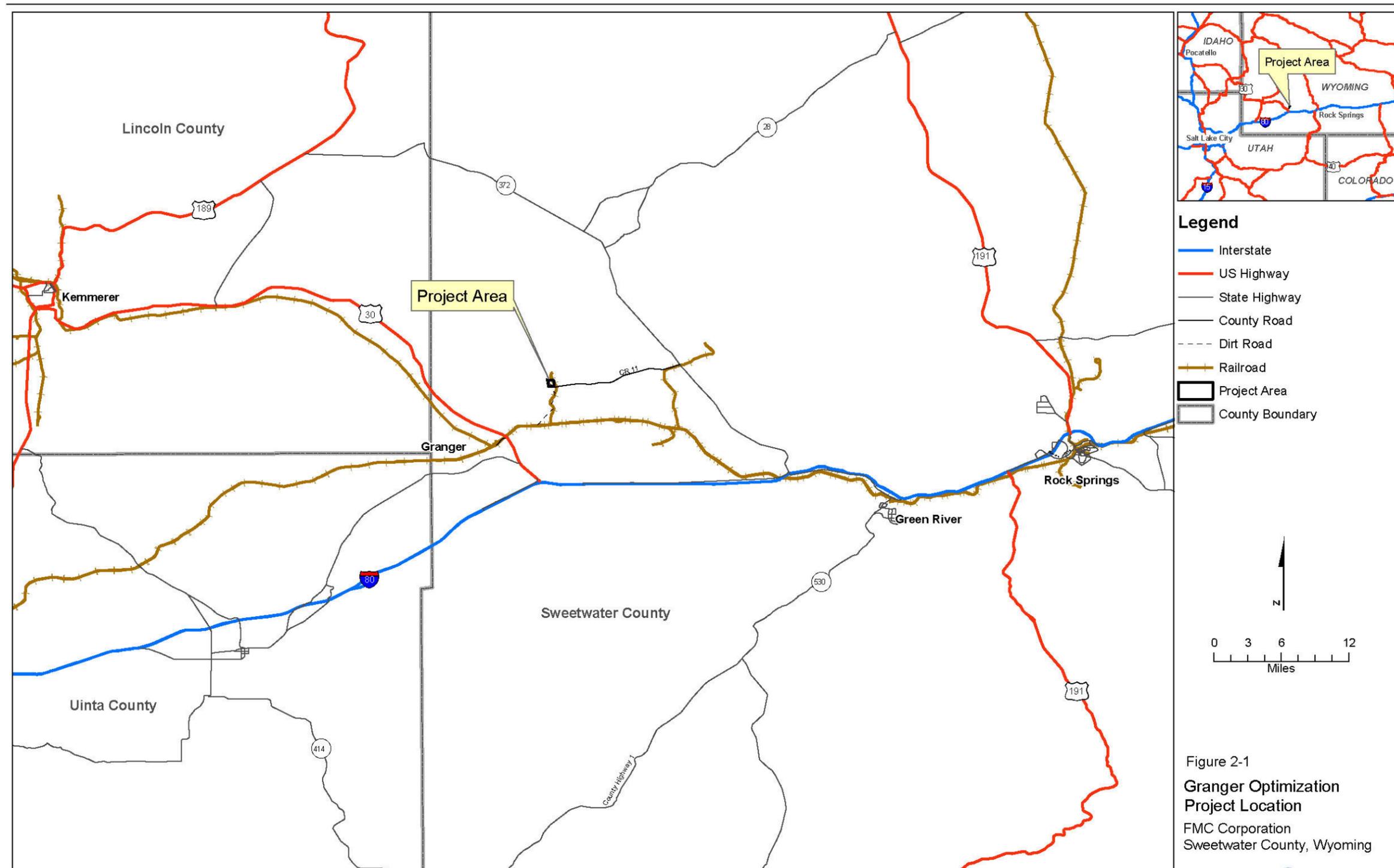


Figure 2-1
**Granger Optimization
 Project Location**
 FMC Corporation
 Sweetwater County, Wyoming



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FIGURE 2-1
 Project Location Map

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2.8 Facility Components

This description is intended to provide a general overview of the Project as it is currently conceived. Engineering design work for the project is ongoing so certain features could change as this work is completed. **Figure 2-2** is a block flow diagram of the process and the site plan in **Appendix A**, which shows the major equipment location relative to the existing plant facilities.

The project design is based on pumping a nominal flow of mine water to the new processing equipment. This equipment will be located in Sweetwater County and will be adjacent and integral to existing equipment at the FMC Granger facility. The new equipment for processing mine water consists of mine water concentrating vessels, sodium carbonate decahydrate crystallizers (and associated centrifuges) for impurity removal, and various ancillary fluid storage tanks.

Sodium hydroxide (caustic) is used during the production of soda ash from mine water and a component of the Project is the addition of a caustic clarifier and a lime mud washer to the FMC Granger facility's existing caustic production plant. These new vessels will enhance recovery of caustic material while improving caustic product quality. The preliminary site plan is included in **Appendix A**.

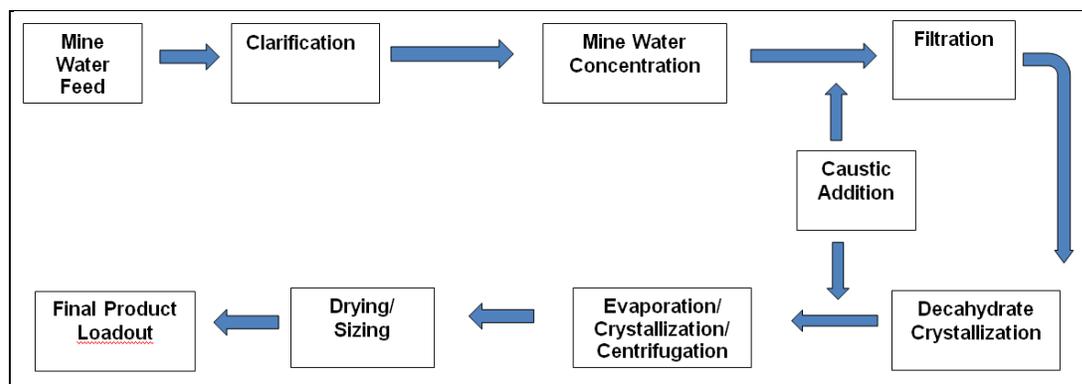


FIGURE 2-1
Process Block Flow Diagram

2.8.1 Mine Water Concentration

The alkali solution originating in the FMC Granger underground mine workings will be pumped to an existing clarifier on the surface where fine insoluble particles will be removed. The clarified mine water then goes to other processing vessels where the sodium bicarbonate fraction of the mine water alkalinity will be converted to sodium carbonate, using proprietary technology, and a concentrated solution formed through evaporation. The bicarbonate conversion process will result in emissions of carbon dioxide, water vapor, and a small quantity of hydrogen sulfide. The hydrogen sulfide, which is formed from sodium sulfide in the mine water feedstock, will be controlled with an alkaline absorber.

Because the bicarbonate decomposition process will not be completely efficient in converting sodium bicarbonate to sodium carbonate, a small amount of weak caustic solution will be added to the process liquor stream in order to further the conversion. Following the mine water concentration operation, the process liquor will proceed to existing pressure leaf filters for removal of any residual insoluble particles.

2.8.2 Decahydrate Crystallization

In the next step in the process, the filtered liquor will be cooled in crystallizer vessels where sodium carbonate decahydrate crystals will be formed. The decahydrate crystallization process rejects naturally occurring soluble impurities (e.g., sodium chlorides, sodium sulfates) and provides the principal means of purifying the liquor solution for the production of high purity anhydrous sodium carbonate. The precipitated crystals will be centrifuged, to separate them from the mother liquor, and then dissolved to provide the sodium carbonate solution that will be fed to the facility's existing monohydrate crystallizers.

2.8.3 Final Processing

Final production of soda ash product involves: 1) formation of sodium carbonate monohydrate crystals in monohydrate evaporators; 2) centrifuging the crystal slurry to separate the crystals from the mother liquor; 3) removal of the residual moisture and the crystal water of hydration in rotary steam-tube dryers; 4) screening of the anhydrous product to ensure proper sizing; and 5) loadout of the soda ash product for shipment to customers.

All of these final processing steps take place with existing equipment in the existing FMC Granger soda ash plant and are not part of the Project.

2.9 Additional Project Features

The Granger plant as a whole regularly undertakes minor facility projects as part of ongoing operations. Those include the installation of pipelines, wells, and access roads to supply the processing plant with mine water, and then return the processed water back to the mine for injection. Brief descriptions of ongoing projects are presented here.

2.9.1 Pipelines

The pipelines will transport a dilute water and trona solution to the injection well sites and are expected to transport, on average, approximately 2,500 gpm. Additionally, mine water extraction well pipelines will carry a trona minewater solution from the extraction wells to the plant facility for processing. The pipelines will be 12-inch-diameter steel and buried the entire distance.

2.9.2 Injection Wells

Surface casing will be installed to approximately 100 feet or to extend below any surface water bearing zones. Injection wells are constructed under the requirements of the Water Quality Division (WQD) Class 5B General Underground Injection Control Permit 5B1-98-1, which meets the requirements noted in WQD RR Chapter 16, Section 10(d). The general casing technique is as follows: A surface casing hole is drilled to a depth of 80 to 100 feet depending on where solid bedrock and/or near surface ground water is encountered. The surface casing is set in the hole and cemented in place via a tremie pipe and drill rig positive displacement pump. The main string hole is drilled to a depth usually between 20 and 40 feet, just above the target mine void. All wells will be cemented with the required bond logs. Injection wells will be pressure tested per the existing Underground Injection Control (UIC) permit. The injection wells are approved under and follow the requirements of the WQD Class 5B General UIC Permit 5B1-98-1, which includes provisions for testing on a 5-year interval from the date of first use.

2.9.3 Extraction Wells

Typically, extraction wells are constructed by using 13 3/8-inch steel casing or equivalent. The extraction well is drilled and the casing is cemented in place. Extraction wells are then completed by installing well screens to allow mine water to flow into the pump. Typical extraction pumps require 800 horsepower (hp) and can pump approximately 1,300 gpm.

2.9.4 Access Roads

Access to the project will be from existing county roads; however, access to the injection and extraction wells will be in the Granger Permit #454 and will be used as access roads as defined per the Wyoming Department of Environmental Quality (WDEQ), Land Quality Division (WDEQ-LQD), Noncoal Rules and Regulations, Chapter 1, Section 2(ax)(ii) and will meet the construction standards as required under WDEQ-LQD R&R Chapter 3, Section 2(i). Topsoil shall be properly salvaged and stockpiled during construction for future reclamation purposes and clearing will be a minimal width in order to maintain slope stability and to serve traffic needs. Culverts shall be installed as necessary to control runoff and minimize erosion, sedimentation, and potential flooding. The access roads will be constructed with a travel way of approximately 14 feet in width, with 2 feet of additional taper on each side for a total gravel surface of 18 feet. Allowing for slope, diversion ditches, and berms, the typical road width disturbance will be 50 feet. The road will be crowned with a 2 percent slope. Road turnouts, typically 10 feet wide, will be constructed in certain locations. Gravel shall be placed, as needed, in order to accommodate all-weather access. Access roads may be reclaimed to the extent possible following construction of the injection and extraction wells but will be maintained in order to provide adequate access to the pipelines and well sites. The intent of reclaiming the road ditches and road slopes is to minimize the long-term disturbance.

2.9.5 Decommissioning of Dry Ore Facilities

It is proposed that all dry ore equipment within the Granger mill building be removed along with the two exterior calciner stacks adjacent to the building's north end. All removed material will be sold as-is or for scrap, unless it has no saleable or recyclable value, or can be used as spare parts elsewhere in the facility. Seven pieces of equipment must be removed to accommodate new equipment associated with the Project. These pieces are relatively small and occupy roughly 1,250 square feet on the east side of the building. The northeast corner of the mill building houses the fine ore bin, screens and crusher in an area approximately 1,625 square feet. The entire northwest mill building quadrant contains 19,125 square feet and holds two symmetrical calciner equipment trains.

2.9.6 Tailings Pond Improvements

The existing, permitted tailings pond is located four miles northeast of the main Granger facility. The tailings pond is used to store solution from clean tailings streams. As part of planned and ongoing projects to support the complete conversion from dry ore processing to minewater processing, the tailings pond is being modified. A decant structure is being installed to facilitate the transfer of solution from the pond to the underground mine workings for secondary recovery. The dike used to impound the tailings pond is being raised to accommodate continued use.

3.0 Construction and Operations

This section provides information on the construction, operations, and decommissioning of the Project. In addition to presenting general construction and operations procedures, schedules, and workforce estimates, this section also provides details on the required permits, health and safety issues, and site decommissioning.

3.1 Commencement and Duration of Construction

Initial Project planning began in 2011, and limited permitting activities were initiated. Contingent upon obtaining approval from the Industrial Siting Council (ISC) and securing all other required permits, formal commencement of construction of the Project is planned for the second quarter (i.e., April, May, June) 2013, unless otherwise precluded by adverse weather conditions (e.g., late snow and frost). The construction schedule will last approximately 26 months.

3.2 Construction Schedule

Contingent upon approval from the ISC and obtaining all other required permits, FMC anticipates formal commencement of Project construction activities in the second quarter of 2013.

A general overview of the construction processes associated with the Project is provided below. Section 3.8 provides a detailed description of the planned construction activities.

Engineering and Final Design – February 2012 – Perform site geotechnical investigations, electrical/civil engineering design, site surveying, and complete final structural engineering.

Site Civil Construction – May 2013 – Begin contractor mobilization onsite; perform site grading; laydown additional base gravel where necessary; remove and grub vegetation from construction and laydown areas where appropriate; construct buildings.

Caustic Clarifier – July 2013-December 2014 – Perform soil excavation; place concrete foundation; erect structure, set pumps and piping, execute electrical terminations.

Cooling Tower Piperack – July 2013-December 2014 – Perform soils grading; place concrete foundation; erect tower piperack; install and connect process piping; install electrical wiring and instrumentation.

New Process Building – June 2013-April 2015 – Perform soils grading; place concrete foundation; install equipment; erect building; install electrical wiring and instrumentation.

South Tank Farm – October 2013-September 2014 – Perform soils grading; place concrete foundation; erect tanks; wrap tanks with insulation; set pumps and piping; install electrical wiring and instrumentation.

North Tank Farm – October 2013-September 2014 – Perform soils grading; place concrete foundation; erect tanks; wrap tanks with insulation; set pumps and install process piping; install electrical wiring and instrumentation.

Electrical Building – November 2013-September 2014 – Perform soils grading; place concrete foundation; erect pre-fabricated building; install electrical wiring and instrumentation.

East Area – November 2013-August 2014 – Repair and modify existing equipment; grade and place concrete foundation; set equipment; install electrical wiring and instrumentation.

Existing Mill Building and Water Treatment Area – March 2014-February 2015 – Remove / replace existing equipment as required; update concrete foundations for new equipment; install process piping and connect to existing systems; install structural access ways and equipment/pipe supports; install electrical wiring and instrumentation systems.

Steam Plant – July 2014-August 2014 – Install process piping and connect to existing systems; install electrical wiring and instrumentation.

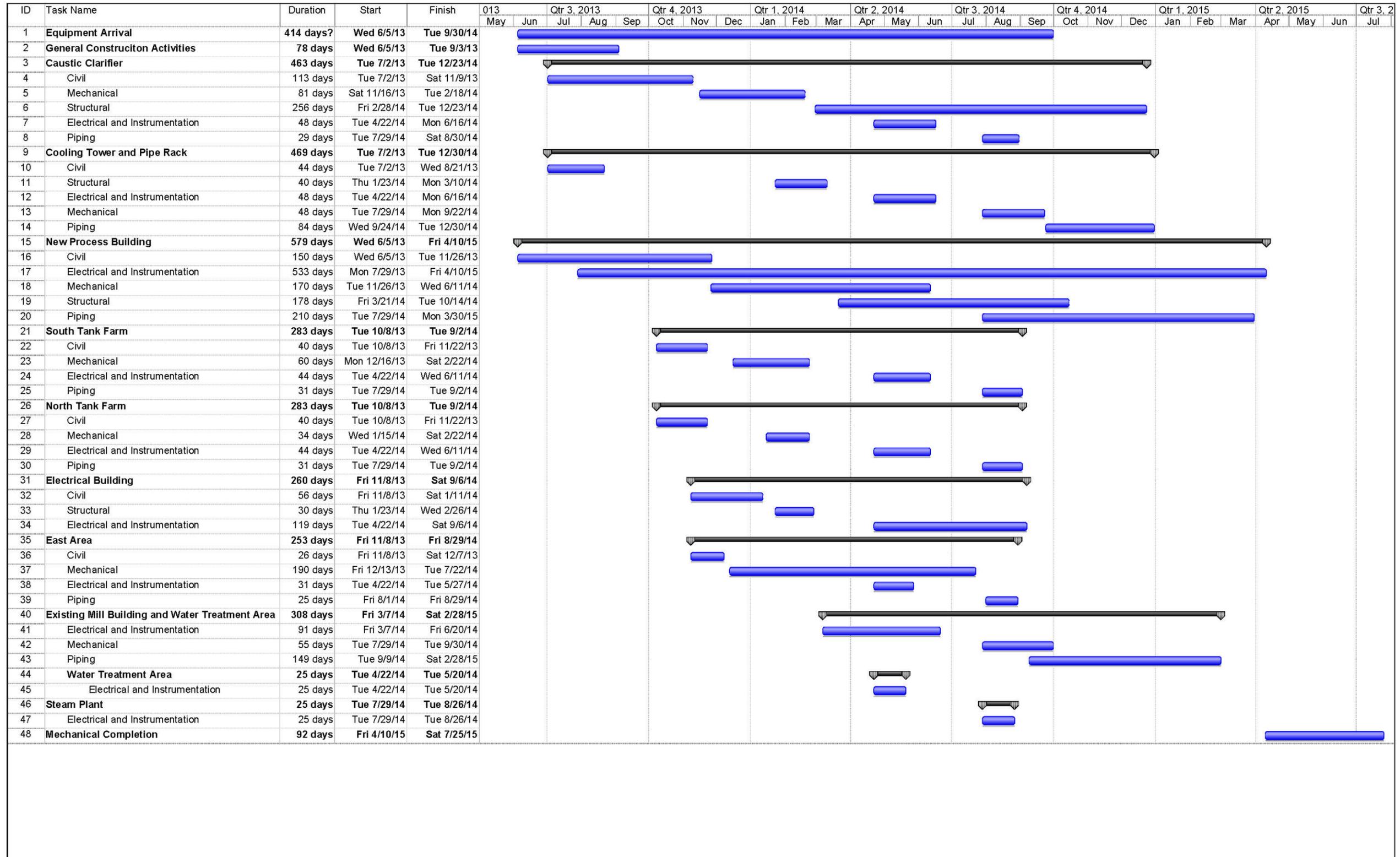
Site Cleanup and Restoration – Perform site restoration, cleanup, and contractor demobilization.

Additional temporary activities will include installation of onsite offices and sanitary facilities. Existing facilities will be used to serve temporary construction office needs, including sanitary facilities, as well. A current construction schedule for the Project is summarized in **Figure 3-1**.

3.3 Construction Completion Schedule

As detailed in **Figure 3-1**, completion of the construction is anticipated to be in third quarter of 2015. Therefore, the Project is anticipated to be 90 percent complete in the second quarter of 2015.

Figure 3-1
Construction Schedule



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3.4 Construction Workforce Estimate

The estimated number of construction workers by calendar quarter is shown in **Figure 3-2**. FMC anticipates that the onsite construction workforce will vary from a low of 47 in second quarter of 2013 during initial construction activities to a high of 338 construction trades people during the peak of construction activities in the second quarter of 2014. Over the 26-month construction period, there would be an average of approximately 200 FTE workers onsite. **Table 3-1** presents the workforce personnel breakdown.

3.4.1 Local In-State Contractor Hiring

FMC will solicit local contractors for screening and sourcing by the general contractor and requires its general contractor to use local workers to the extent practicable. Additionally, employment opportunities for local workforce during both construction and operations will be posted in the local Wyoming Department of Workforce Services, Employment Services offices in Green River and Rock Springs.

3.4.2 Local Workforce

Based on past project experience, it is assumed that the proportion of local workers filling job openings will vary by trade and skill level. Overall, FMC estimates 25 percent of local construction workforce may be employed by the Project for the following trades: painters, insulators, boilermakers, electricians, millwrights, pipefitters, ironworkers, carpenters, operators, laborers, and indirect labor staff to include, supervisors, laborers, trash collection, scaffold builders, engineers, and general office support staff.

Based on these workforce assumptions, during the construction period of 26 months, the Project would employ as many as 85 local workers and the average quarterly local employment over the construction period would number 50 jobs. **Figure 3-3** presents an estimate of the local construction workforce that may be potentially employed at the Project.

3.4.3 Non-Local Workforce

Based on the type of labor required to complete construction contracts on facility, the majority of the resulting construction workers are likely to be non-local and enter the region. **Figure 3-4** provides an estimate of the peak non-local construction workforce.

FIGURE 3-2
Construction Phase Workforce by Quarter and Trade Type

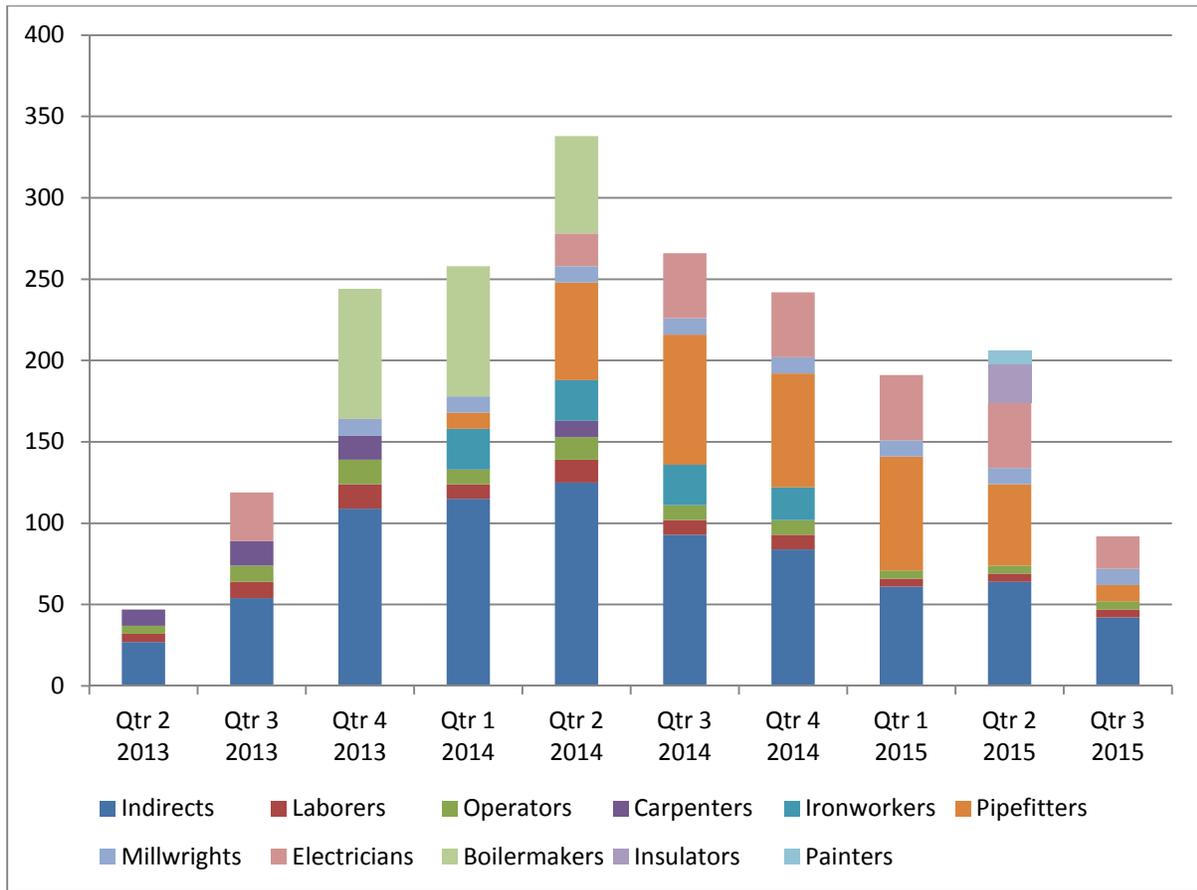


TABLE 3-1
Onsite Construction Workforce Schedule

| | Qtr 2 2013 | Qtr 3 2013 | Qtr 4 2013 | Qtr 1 2014 | Qtr 2 2014 | Qtr 3 2014 | Qtr 4 2014 | Qtr 1 2015 | Qtr 2 2015 | Qtr 3 2015 |
|-----------------------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|
| Civil/Concrete Craft | | | | | | | | | | |
| Indirects | 9 | 9 | 9 | | 6 | | | | | |
| Laborers | 5 | 10 | 10 | | 5 | | | | | |
| Operators | 5 | 10 | 10 | | 5 | | | | | |
| Carpenters | 10 | 15 | 15 | | 10 | | | | | |
| Structural Steel | | | | | | | | | | |
| Indirects | | | 8 | 12 | 12 | 10 | 10 | | | |
| Laborers | | | | 4 | 4 | 4 | 4 | | | |
| Operators | | | | 4 | 4 | 4 | 4 | | | |
| Ironworkers | | | | 25 | 25 | 25 | 20 | | | |
| Mechanical | | | | | | | | | | |
| Indirects | | | 8 | 12 | 12 | 12 | 12 | 12 | 12 | 8 |
| Laborers | | | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 |
| Operators | | | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 |
| Pipefitters | | | | 10 | 60 | 80 | 70 | 70 | 50 | 10 |
| Millwrights | | | 10 | 10 | 10 | 10 | 10 | 10 | 10 | 10 |
| E&I | | | | | | | | | | |
| Indirects | | 8 | | | 8 | 12 | 12 | 12 | 12 | 8 |
| Electricians | | 30 | | | 20 | 40 | 40 | 40 | 40 | 20 |
| Field Erected Tanks | | | | | | | | | | |
| Indirects | | | 6 | 6 | | | | | | |
| Boilermakers | | | 20 | 20 | | | | | | |
| HPD | | | | | | | | | | |
| Indirects | | | 15 | 15 | 15 | | | | | |
| Boilermakers | | | 60 | 60 | 60 | | | | | |
| Insulation | | | | | | | | | | |
| Indirects | | | | | | | | | 6 | |
| Insulators | | | | | | | | | 24 | |
| Painting | | | | | | | | | | |
| Indirects | | | | | | | | | 2 | |
| Painters | | | | | | | | | 8 | |
| Indirects | | | | | | | | | | |
| Construction Management | 5 | 15 | 20 | 21 | 18 | 16 | 16 | 17 | 12 | 12 |
| FMC Personnel | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 |
| Contract Personnel | 6 | 15 | 36 | 42 | 47 | 36 | 27 | 13 | 13 | 7 |
| TOTAL | 47 | 119 | 244 | 258 | 338 | 266 | 242 | 191 | 206 | 92 |

Source: FMC and CH2M HILL, 2012.

FIGURE 3-3
Local Construction Workforce (by Quarter and Trade Type)

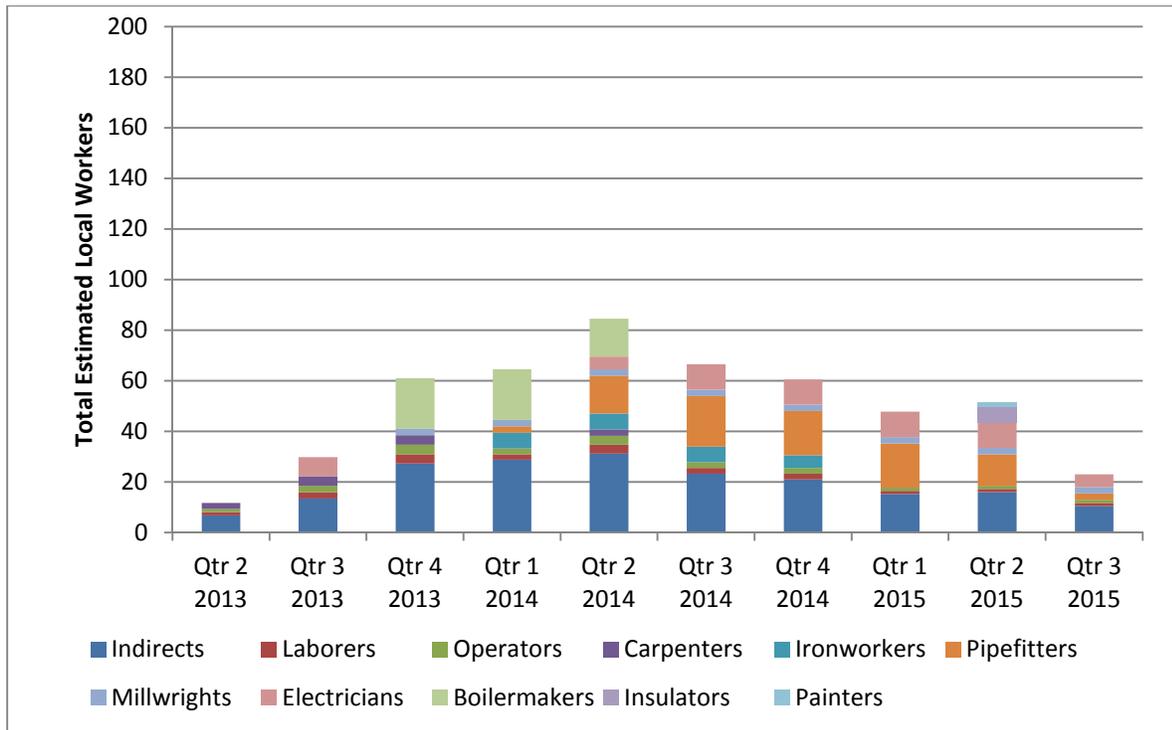
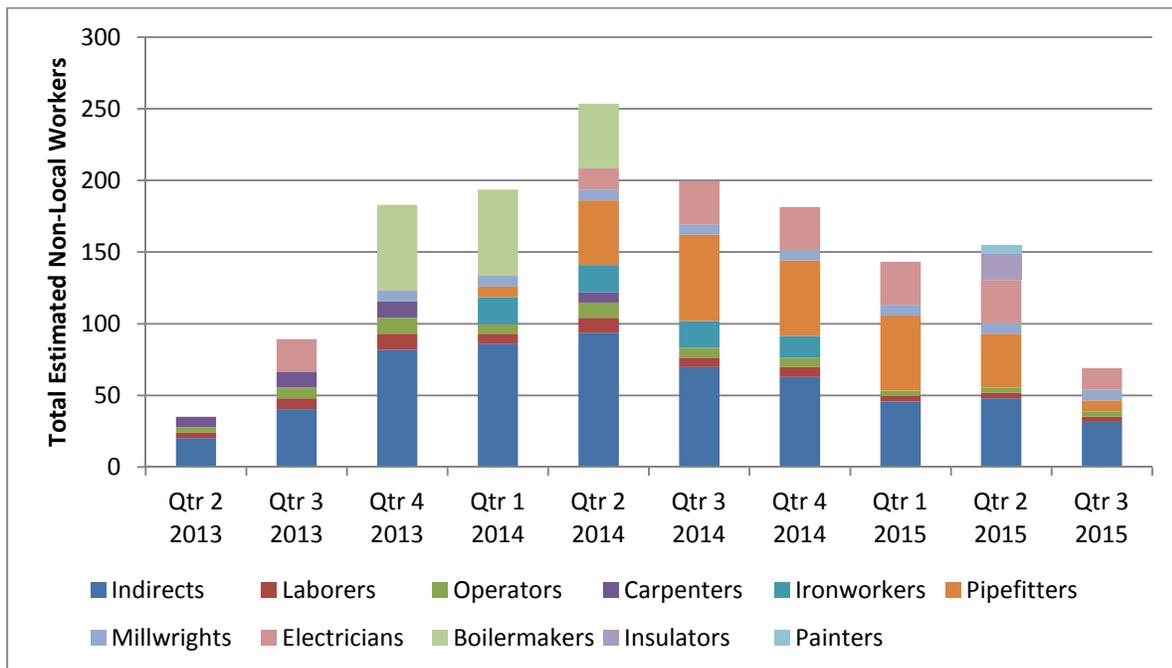


FIGURE 3-4
Non-Local Construction Workforce (by Quarter and Trade Type)



3.5 Operations Workforce Employment

A long-term benefit of the Project comes from the permanent employees who will operate and maintain the facility. Upon completion, operation of the Project will require approximately 26 full-time employees. The full-time job classifications and estimated number of personnel are displayed in **Table 3-2**.

It is anticipated that the Project will have an initial operations workforce in place in late 2015. Employees will be full-time over the calendar year for the life of the Project.

TABLE 3-2
Estimated Operations Workforce Summary by Job Classification

| Job Classification | Number of Personnel |
|--------------------------|---------------------|
| Supervisor | 4 |
| Engineering and Clerical | 4 |
| Operators | 9 |
| Maintenance Engineering | 2 |
| Mechanics | 5 |
| Electricians | 2 |
| Total | 26 |

Source: FMC, 2012.

3.6 Permits Required for Construction

It is expected that all permits required for construction will be obtained prior to the initiation of construction activities in 2nd quarter 2013. The anticipated permits required for construction are listed by regulatory agency in **Table 3-3**.

TABLE 3-3
List of Potential Permits for Construction and Operation of Project

| Agency | Permit/Decision | Status | Anticipated Permit Date |
|--|--|---|-------------------------|
| Federal | | | |
| U.S. Environmental Protection Agency (EPA) | Spill Prevention Control and Countermeasure (SPCC) Plan – for operations | Update existing plan for operating facility. Amendment necessary to address new facilities and processes. | |
| | Greenhouse Gas Permit | Application submitted May 10, 2012. | May 2013 |
| Federal Aviation Administration (FAA) | Form 7460-1 Obstruction Evaluation – clearance for temporary crane over 200 feet tall | Will be submitted online. | January 2013 |
| State of Wyoming | | | |
| Wyoming Department of Environmental Quality (WDEQ) | Wyoming Industrial Development Information and Siting Act / Industrial Siting Commission Order | Submitted August 13, 2012. | January 2013 |
| | Land Quality Permit | Submit by August 31, 2012. | October 2012 |

TABLE 3-3
List of Potential Permits for Construction and Operation of Project

| Agency | Permit/Decision | Status | Anticipated Permit Date |
|--|---|--|------------------------------|
| Wyoming State Engineers Office (WSEO) | Notification of Demolition and Renovation (Asbestos Abatement/Renovation) | Application scheduled to be submitted March 5, 2013. | May 2013 |
| | PSD Modification Air Construction Permit | Application scheduled to be submitted by August 31, 2012. | May 2013 |
| | Water Supply and Yield Analysis | Decision on water supply and yield received from the SEO on May 22, 2012. | |
| | Permit to Appropriate Groundwater – needed to appropriate groundwater that infiltrates the underground mine | Permit No. UW 197597. Expires on December 31, 2038. | Issued March 19, 2012 |
| Wyoming Department of Transportation (WYDOT) | Permit for Oversized / Overweight Loads | Permit will be obtained by the trucking contractors prior to delivery. | |
| Local | | | |
| Sweetwater County | Construction Permit | The applicant does not believe a county construction permit is required for this type of industrial project based on past precedence in the county. FMC is currently in discussions with the County Planning Department about applicability. | October 2012 (if applicable) |

Source: FMC and CH2M HILL, 2012.

3.7 Construction Procedures

The general construction contractor and subcontractors would prepare the construction site and complete site civil work, including site grading, excavations, foundations, tank and equipment installation, steel work, and building construction. **Table 3-4** details the general equipment that is likely to be used for the Project.

TABLE 3-4
List of General Construction Equipment

| Equipment | Construction Use |
|------------------------------------|--|
| Bulldozers | Road and pad construction |
| Motor Graders | Road and pad construction |
| Gravel Truck Haulers / Bottom Dump | Hauling and placement of road aggregate |
| Water Trucks | Compaction, erosion, and dust control |
| Roller/Compactors | Road and pad compaction |
| Backhoe/Trenching Machines | Excavating foundations; trenches for underground utilities |
| 18-Wheel Semi-Tractors | Component delivery |
| Truck-Mounted Drill Rigs | Drilling soil test bore holes |
| Concrete Trucks and Pumps | Pouring foundations |
| Conventional and Small Cranes | Offloading equipment onsite |

TABLE 3-4
List of General Construction Equipment

| Equipment | Construction Use |
|----------------------------------|--|
| Heavy and Intermediate Cranes | Off-loading equipment onsite |
| Cement Trucks | Hauling Cement Material |
| Pickup Trucks | General use by construction personnel |
| Small Hydraulic Cranes/Forklifts | Loading and unloading minor project equipment |
| All-Terrain Vehicles | Site access |
| Rough-terrain Forklift | Lifting equipment |
| Tank-Erection Scaffold | Tank placement and erection |
| Manlifts | Construction personnel access to elevated work areas |

Source: FMC, 2012.

3.7.1 Site Civil and Preparation Work

Prior to breaking ground, the construction work area will be surveyed and clearly demarcated with stakes and flagging. The Project area lies within an industrial complex, and does not contain native vegetation that would require clearing. Topsoil was largely removed prior to 1981 in order to support initial and overall facility development. Therefore, minimal site preparation work is anticipated to ready the area for construction.

Site preparation work will include grading, clearing, and grubbing the site, and, where necessary, stripping and stockpiling topsoil. Base material will be placed to accommodate the installation of construction parking and construction laydown areas and temporary construction facilities, to include a lunch area and an orientation training center. Construction activities will use existing facility onsite stormwater controls for erosion and sediment control.

Facility grading work will include shaping the natural grade as required to accommodate both construction facilities and permanent facility equipment. Grading will be carried out in a manner that will minimize earthwork while obtaining proper cross section, longitudinal slopes, and curvature at roads.

Temporary security fencing and security guard house will be installed at the south entrance of the plant to support construction activities and delivery of materials. Permanent security fencing currently exists around the perimeter of the site and will remain unchanged and intact.

3.7.2 Earthwork, Excavation, and Fill

A geotechnical investigation has been performed at the Project site. The investigation determined the suitability of site soils for use as compacted fill, and their ability to achieve the desired compaction requirements with the proper moisture treatment.

Fill materials will be suitable for the intended purpose and will not include materials hazardous to health, material susceptible to attack by ground or groundwater chemicals, material susceptible to swelling or shrinkage under changes in moisture content, highly organic or chemically contaminated materials, or any other unacceptable materials.

Compaction of fill materials will be carried out as soon as practicable after deposition of fill materials. Fill will be compacted to the densities appropriate to the design requirements, fill type, and depth of layers.

3.7.3 Foundations

Site geotechnical exploration and analysis has determined drilled piers to be the most suitable foundation system. Foundation analysis for major equipment will include the evaluation of total and differential settlement. Dynamic foundation analysis and design will be performed when recommended by the equipment manufacturer. Foundations will meet all manufacturer requirements.

Aboveground tanks, equipment skids, pumps, and supports will be installed on raised slabs or pads for corrosion protection.

3.7.4 Temporary Facilities

Temporary facilities will be erected to support construction activities and workforce and will include lunch tents, a construction orientation and training center, a warehouse, badging turnstile, and up to 12 construction contractor trailers. Erection and development of temporary facilities will occur once the site has been prepared and base materials are laid in place.

The temporary lunch facility area, comprised of two lunch tents, will be erected to accommodate the construction workforce at meal times; no prepared food services will be provided. The tents will be equipped with temporary lighting and power. Along with propane space heaters, two 1,000-gallon propane tanks will be installed at the lunch facility area.

A 4-wide trailer, to accommodate the orientation and training center, will be set in place and wired with power.

Approximately 12 contractor trailers will be placed making up the contractor trailer city. The trailers will serve as offices for the construction management staff. The trailers will not be equipped with running water. A temporary power distribution system will be installed.

Near the location of the Clarifiers, an approximately 20,000-square-foot, tent warehouse structure will be erected for the storage of procured items necessary for facilities construction. Temporary laydown areas will also be developed for the storage of items too large to be stored in the temporary warehouse facility. For security purposes, the perimeter of the laydown areas will be fenced and locked. In order to control delivery access, a pre-fabricated temporary guard shack, approximately 6 feet by 8 feet, will be placed south of the Caustic Area.

At the termination of construction activities, all temporary facilities will be removed and the area returned to use as needed for operations.

3.7.5 Parking

Two parking areas will be constructed to accommodate the construction craft workforce and FMC employees. The parking areas will be located north and east of the existing Mill Building.

The Craft Parking Area, comprised of base material, will be developed and lighting installed to accommodate approximately 360 parking spaces. The parking area will be fenced and an earthen/gravel walkway will be developed leading from the parking area to a temporary badging turnstile.

The FMC Employee Parking Area will be developed southeast of the Craft Parking Area to accommodate the additional FMC workforce, anticipated during and after the termination of construction activities. The parking area will be comprised of base material and will include up to 30 parking spaces.

3.7.6 Buildings

The existing Mill Building will be expanded to accommodate the new Process Building that will be located west of the Mill Building. It will house the new process equipment, to include large tanks and pumps. Prior to construction, and in order to accommodate facility expansion, the east wall of the Mill Building will be demolished, with approximately 17 cubic yards of Galbestos exterior siding removed. Once removed, construction of the expanded facility will commence.

The expanded facility will be an independently supported, steel-framed structure with metal siding and designed to support all loading in accordance with applicable Building Codes. This structure will also be designed for future expansion to the west as need arises.

The new Process Building will be constructed in such a manner as to ensure the erection sequence is coordinated with the equipment installation, to include process equipment, tanks, and pumps. The Process Tanks will be field erected and supported on a concrete foundation; process equipment will be anchored to the concrete foundation.

A new Electrical Building/ Substation will also be constructed. The building will be a pre-fabricated metal structure, approximately 40 feet by 120 feet, constructed near the Process Building. The building will house new electrical switchgear and medium-voltage motor control centers (MCCs) to support increase plant operations. The building will be designed and constructed to allow support on a shallow foundation system. Transformers will be located within the Electrical Area, outside the Electrical Building. The transformers will be placed and supported on concrete foundations with oil containment.

3.7.7 North and South Tank Farms

The North and South Tank Farms will consist of six exterior process tanks that will be field-erected and anchored on a concrete foundation. Installation and erection of the tanks will take place immediately prior to the completion of the Process Building. Based on the contents of the tanks, secondary spill containment is not required and will not be installed.

3.7.8 Cooling Tower and Pipe Racks

A new cooling tower, with a concrete water basin, will be erected to support new process loads. A 20-foot by 10-foot pre-fabricated electrical building constructed of sheet metal on top of steel frames will also be erected to provide power and controls to the cooling tower.

A 1,600-foot multi-level pipe rack will be erected and designed to accommodate cable trays and process piping and to provide utility pipe distribution between the process areas. The pipe rack, which will be steel-framed and supported with drilled pier foundations, will be located south of the new Process Building.

3.7.9 Caustic Area

Two caustic clarifiers will be installed with containment basins and an underground access way. The new clarifiers will be located near the existing caustic area on the south end of the plant.

3.7.10 East Area

Concrete reagent unloading truck pads will be installed to accommodate flocculent and other product unloading at the storage tanks. A pre-fabricated structure will be erected to house the Flocculent System.

3.7.11 Cleanup and Reclamation

After construction, temporarily disturbed areas (e.g., laydown areas) will be restored similar to pre-construction conditions. Disturbed areas will be contoured and seeded with a designated reclamation seed mixture, in consultation with the reclamation contractor, to meet the Wyoming Department of Environmental Quality (WDEQ)-Land Quality Division (LQD) Permit #454 reclamation requirements. The site revegetation plan is presented in Section 7.

3.8 Operation and Maintenance Procedures

3.8.1 Anticipated Operation Life

The economic life of the Project is anticipated to be 25 years, but may be extended depending on market conditions and overall condition of infrastructure.

3.8.2 Facility Operations

After construction is complete, onsite personnel will operate and maintain all components of the Project. The facility will process about 4,000 gpm of mine water and will produce approximately 1.3 million tons per year of refined sodium carbonate using the monohydrate soda ash process. The feedstock brine for the facility will come from the existing flooded FMC Granger trona mine that underlies the plant site. During normal operations, the facility will use about 16,800 million British thermal units per day (MMBtu/day) of coal, approximately 4,800 MMBtu/day of natural gas, and about 32 megawatts (MW) of electrical energy. The coal will be sourced from Westmoreland Coal Co., (Kemmerer, Wyoming). Questar Energy Resources and Chevron Natural Gas will supply the natural gas, and electrical power will be purchased from PacifiCorp (dba Rocky Mountain Power).

3.9 Worker, Environmental, and Facility Protection

Pursuant to ISD requirements, FMC will develop a Written Compliance Plan to effectively meet the Section 109 Permit Conditions and to ensure compliance with voluntary commitments made by FMC in the permit application, during testimony, and via agreements with local governments. The Plan will support the construction and operation of a safe, environmentally compliant Project that is constructed and operated in compliance with federal, state, and local regulations and in accordance with the ISA permit conditions. This Plan will provide a comprehensive framework for site-specific environmental procedures and requirements. Throughout the duration of the construction and operation of the Project, this Plan will be reviewed and revised for implementation, effectiveness, and applicability.

3.9.1 Environmental, Health, and Safety

FMC will prepare a site Environmental, Health, and Safety (EHS) Plan that outlines overall expectations for EHS performance on the Project site for all employees, contractors, and subcontractors.

3.9.1.1 Construction

The EHS Plan will require that the general construction contractor and subcontractors prepare specific plans and procedures to be approved by FMC and put in place prior to the start of construction. The EHS Plan will cover all work to be performed by the construction subcontractors, building and tank suppliers, and all additional site subcontractors during construction, operation, and decommissioning of the Project. In addition, all site personnel will comply with all safety requirements of the Occupational Safety and Health Administration (OSHA), State of Wyoming, and local ordinances, as applicable.

Each construction subcontractor will be required to maintain adequate first aid facilities throughout the construction period. Specifically, prior to construction, each subcontractor will provide and maintain, for the protection of their employees, such safety equipment, guarding, and personal protective apparel as prescribed for safety practices or as required by any law, ordinance, rule, or the exercise of ordinary prudence for the type of work being performed. Lastly, a FMC construction management representative will oversee the construction phase to monitor the health and safety performance of the general construction contractor

3.9.1.2 Operations

Upon reaching commercial operation, the Project will be subject to FMC's EHS requirements. These policies will be deployed and implemented to ensure that EHS Plan expectations, roles, and responsibilities are well documented and understood by site employees, contractors, and visitors. Components of the EHS Plan include emergency response, training, environmental requirements, contractor management, and comprehensive safety programs, severe weather, confined space entry, lockout tagout, electrical safety, and other site- and equipment-specific requirements. FMC EHS professional will provide comprehensive support for the site, including oversight of any post-construction avian and other biological monitoring programs. It is FMC's intent that all facilities implement the appropriate programs, procedures, and training that result in a sustained zero injury and illness culture.

The FMC EHS Plan will cover all work to be performed by all site contractors and FMC employees during operation of the Project. An FMC Site Manager will oversee the operations phase to monitor the health and safety performance of subcontractors and FMC employees.

3.9.2 Non-Hazardous Waste

3.9.2.1 Construction

A variety of non-hazardous, inert construction wastes are typically generated during construction. The major solid waste types are wood, concrete, plastics, metal, glass, insulation, and paper products. Concrete accumulating in the concrete washout area, or any other materials not suitable to be left in place, will be allowed to harden and then placed in FMC's onsite landfill. Additional wastes could include erosion control materials, such as straw bales and silt fencing, and electrical equipment. The waste is typically accumulated onsite in dumpsters and/or drop boxes until hauled away to the existing onsite landfill. Salvageable metals will be stored in appropriate bins and recycled. No impacts to local solid waste disposal sites or services are expected because the onsite landfill will be used.

3.9.2.2 Operations

Solid waste generation during Project operations will be minimal, on the order of one dumpster per week. Currently, approximately one dump truck load of garbage is transferred from the Granger facility to the Westvaco facility on a weekly basis. The solid waste is compacted, covered, and disposed of in the Westvaco permitted landfill. This amount of waste is not expected to change appreciably. The only other source of solid waste will be incidental waste from repair, maintenance, and replacement of equipment, as necessary. Disposal of materials onsite will be conducted in accordance with all applicable regulations.

The generation of lime mud (CaCO_3) from the new lime mud clarifiers will be consistent with the current lime mud generation rate. The mud will continue to be disposed in the existing plant tailings pond.

3.9.3 Hazardous Wastes and Materials

Hazardous substances and wastes are subject to strict handling, storage, disposal, and transportation laws at the federal, state, and local levels. It is the intention of FMC to properly manage all hazardous materials and waste streams associated with the Project in accordance with those laws and other FMC waste management and hazardous material requirements. The sections below describe hazardous materials and wastes anticipated at the site and best practices for properly managing those materials.

Construction, operation, and maintenance of the Project will result in the temporary use and storage of small amounts of hazardous materials such as paints and minor volumes of fuels, lubricants, and hydraulic fluids associated with construction equipment. A proprietary process additive, currently in use at FMC's Westvaco facility, will be used at the Granger facility following construction.

3.9.3.1 Construction

Small amounts of hazardous waste will be generated during Project construction. Demolition of building siding will generate asbestos-containing material (ACM). The existing process buildings were constructed in 1975 using Galbestos[®] exterior siding. This siding contains a layer of chrysotile asbestos imbedded in the siding material. Consequently, any disturbance to the siding is subject to regulation under OSHA 29 CFR 1926.1101, and under Wyoming Air Quality Standards and Regulations (WAQSR) Chapter 3, Section 8 for its disposal.

Prior to siding disturbance or removal, a notification of the activity is submitted to the Wyoming Air Quality Division (AQD) describing the project, the amount of ACM to be removed (estimated 16 cubic yards), the certified asbestos removal contractor assigned to the Project, the means by which the material will be removed to minimize asbestos exposure, and the location of final disposal of the removed material. Both FMC Granger and FMC Westvaco have permitted landfills for final disposition of ACM. The FMC Environmental Department is in charge of submitting the notifications and is the FMC contact with respect to any communication with the AQD.

Potential hazardous waste streams would be associated with spent aerosol cans and other construction-related solvent use. It is estimated that this generation will be small quantities of aerosol cans and solvent waste. Even with these hazardous waste streams, the Granger facility is anticipated to continue to be a small quantity hazardous waste generator. Since the Granger landfill is not permitted to accept hazardous waste, it will be transported for disposal at off-site permitted hazardous waste disposal facility.

No underground storage tanks are currently located onsite or proposed for the Project. The Project is subject to NPDES requirements for the protection of surface water quality. The Project would be contained within the existing zero-discharge confines of the overall plant area. Management practices regarding discharges are described within the existing Stormwater Pollution Prevention Plan (SWPPP).

3.9.3.2 Operation

Operation of the Project will not result in the generation of regulated quantities of hazardous wastes. The primary type of waste generated by operation of the Project will be solid waste generated at the facility consisting of typical office wastes (e.g., paper, cardboard, food waste, etc.). This waste will be stored in a dumpster until it is hauled to the onsite disposal facility. In addition, small amounts of waste associated with site maintenance will be generated, including wood pallets, oily debris, etc. These wastes will be managed according to regulatory and FMC requirements.

There are no suspected or known hazardous waste contamination sites within or adjacent to the proposed Project area. Given the history and current characteristics of the Project site, it is unlikely that any contamination would be encountered. Therefore, no significant impact from former activities at the property should occur.

3.9.4 Spill Prevention, Control, and Countermeasure Plans

The Applicant is required to establish and maintain a SPCC Plan for construction and operations under the recently revised regulations pertaining to 40 CFR 112. Under this Plan, a procedure and the required equipment would be provided and maintained by the owner or contractor to respond in the event of a spill. All use of hazardous materials, including storage and disposal, would be in compliance with site procedures. Therefore, impacts relative to the release of hazardous substances as a result of Project construction and operations should be insignificant.

Several petroleum products will be used in the construction and operation of the facility. During transport, handling, and use, there is a possibility of a spill. Potential sources for a spill are the fuel and lubricating oils from construction vehicles and equipment. The construction contractor will be responsible for training its personnel in spill prevention and control and, if an incident occurs, will be responsible for containment and cleanup subject to approval by FMC.

The types of products to be used, as well as the SPCC Plan that will be implemented, are described below.

3.9.4.1 Construction

During construction, fuel trucks will be used for refueling of vehicles, fuel storage tanks, and equipment onsite. The fuel trucks will be properly licensed and will incorporate features in equipment and operation, such as automatic shut-off devices, to prevent accidental spills. Fueling of large, heavy construction equipment such as cranes and earth-moving equipment will occur onsite where the equipment is located. The fuel truck will drive to the equipment. Some construction vehicles, such as pickup trucks, may be fueled in town at gas stations. Any spills will be addressed in accordance with the existing SPCC Plan covering operations at the Granger facility.

Fuel deliveries will be on existing paved roads. Potential risks will be further reduced by using dedicated fuel-delivery trucks driven by professional, appropriately licensed drivers and by ensuring adherence to the Project site speed limits. A fuel tanker accident would trigger activation of the SWPPP. This Plan will include a description of procedures that will be followed in the event of a fuel tanker spill and will contain a list of equipment that will be maintained onsite for spill response emergencies.

Lubricating oils used during construction will mostly be contained in the vehicles and equipment for which they are used. Small quantities of lubricating oils may also be stored in appropriate containers at the construction staging area located at the site of the facility. The details of storage and containment of lubricating oils and other materials at the construction staging area will be addressed in the SPCC Plan. Appropriate measures will be taken to ensure these materials are not spilled. If a spill does occur, it will be promptly cleaned up and reported as required to the proper agencies.

3.9.4.2 Operation

Operation of the Project will require the use of fuel that could cause a spill or other accidental release. Project operations will use existing permanent fuel storage tanks. These tanks supply fuel for vehicles, emergency fuel for generators, boiler startup, and other uses. The existing operational SPCC addresses potential spills from these tanks, and will be adequate following the Project.

3.9.5 Stormwater Pollution Prevention

3.9.5.1 Construction

There will be a certain amount of disturbance of surface soils and minor excavation into weak bedrock associated with construction of the facilities. The existing SWPPP will be employed during construction of the Project. The SWPPP renewal application was submitted to the Wyoming Department of Environmental Quality (WDEQ) in May 2012 and renewal is expected prior to September 2012. Therefore, best management practices (BMPs) will be implemented by the contractor during construction of the Project to ensure that erosion will be minimized and other adverse impacts on area soils will not occur. Other BMPs are presented in more detail under Section 7. Lastly, the Project will be designed with proper erosion protection and culverts in order to minimize or eliminate the potential for downstream sedimentation that could affect aquatic resources in the Blacks Fork or Green Rivers, or damage to Project facilities during construction and operation.

3.9.5.2 Operation

The Project will not cause the need for additional erosion protection or culverts; therefore, increased downstream sedimentation is not anticipated. During operation of the Project, regular compliance monitoring and maintenance activities will be implemented by a designated and qualified member of the environmental staff. Inspections and maintenance activities during operations will ensure that erosion, stream sedimentation, or impacts to or from soil resources or geologic hazards are prevented or addressed immediately if they occur.

3.9.6 Security

3.9.6.1 Construction

Security is primarily a function of controlled access to the Project area and lock-out provisions to major equipment and controls. Site access will be controlled, and all onsite construction staff and visitors will be required to carry an identification pass.

FMC will work with a security contractor to develop a plan to effectively monitor the overall site during construction, including an access gate, drive-around security, and specific checkpoints. Local emergency response organizations will be informed of security procedures to ensure that appropriate access is available.

3.9.6.2 Operation

The Project area will require security during the operations phase. Site visitors, including vendor equipment personnel, maintenance contractors, material suppliers, and all other third parties, will require permission for access from authorized Project staff prior to entrance. The Plant Operations Manager, or designee, will grant access to any critical areas of the site on an as-needed basis. Site access will be controlled and all visitors or contractors on the site will be required to carry an identification pass.

3.9.7 Emergency and Law Enforcement Services

Access to the Project will occur directly from County Road 11 or the Granger Road for the construction period and operational life of the Project. As the first responders, response times by the FMC Granger onsite response team are expected to be quick. Additionally, FMC Westvaco is equipped with a contract medical service, which includes a physician's assistance, ambulance service and other EMT trained personnel. In the event of an emergency, personnel can be transported from the Project to Westvaco's medical clinic or directly to the Sweetwater County Hospital. FMC also has an existing agreement for life flight services in the event that rapid advanced medical services are

required. Life flight (helicopter) landing areas are designated at the Project site. If necessary, fire and ambulance crews from Sweetwater County departing from Green River or Rock Springs will be activated. See Section 5.4.7 for more detail on emergency response capabilities.

FMC participates in the Southwest Wyoming Mutual Aid group which includes local emergency responders that can respond quickly to various types of incidents. FMC has specific emergency response capabilities, such as fire trucks, ambulance and other rescue equipment, that can be used at the Project. Each of the local trona mines participate in the mutual aid association. Emergency (911) calls will be handled in accordance with FMC's Emergency Response Plan and if required will include provisions to contact the County and other agencies in the event that additional medical, fire, or hazardous material response is required.

FMC participates in the Local Emergency Planning Commission with various stakeholders in Sweetwater County and has plans to share details with the Commission prior to Project construction in order to communicate the potential emergency needs. It has been the intent of FMC to understand the local capabilities to provide such services to the Project. FMC would consider bringing private Emergency Medical Services (EMS) on site if further investigation determines it may be appropriate to meet the requirements of the internal Emergency Response Plan.

3.9.7.1 Fire Protection and Rescue Services

Each building (existing or Project-related) is equipped with fire suppression systems (e.g., sprinklers, fire extinguishers, fire hydrants, and hoses) built to code and standards. In addition, industrial fire suppression systems are active on select equipment, e.g., a halon system in the Caustic Plant and a carbon dioxide system in the Hoist House. Should a fire occur, the first response to a fire emergency will be the onsite fire crews at the Granger facility. Each operating shift is staffed with fire brigade members that have access to firefighting equipment, including:

- 1,000-gallon pumper
- 500-gallon mini-pumper
- Emergency response vehicle

Placards containing the appropriate National Fire Protection Association (NFPA) ratings have been attached to bulk storage containers for petroleum products and hazardous materials. There are three categories of hazards: health, flammability, and reactivity. Within each category, there are numerical ratings from 0-4, with 0 indicating no hazard and 4 indicating severe hazard.

Onsite medical response capabilities include one ambulance at the Granger facility and a clinic at the Westvaco facility. There is also a team specifically trained to respond to hazardous material situations.

Should additional fire and rescue services be needed, there are nine fire departments or districts within Sweetwater County, with 11 fire stations, 50 full-time employees, and 129 volunteers (WSFM, 2011). The Town of Granger Volunteer Fire Department is the closest fire station to FMC, located 10.5 miles (24-minute drive) southwest of the Project at 12 W. 2nd Street. It is staffed by eight unpaid volunteers and provides no emergency medical services. The Rock Springs Fire Department (RSFD), located 42 miles (55-minute drive) to the east, is the closest all-hazard Fire Department with three stations, 35 full-time paid firefighters, and emergency medical services (EMS). RSFD is also the host agency for the Wyoming Regional Emergency Response Team (RERT) #4, which is responsible for responding to and assisting with mitigation of weapons of mass destruction and hazardous materials events in Sweetwater, Uinta, and Lincoln counties.

3.9.7.2 Law Enforcement

Law enforcement in the study area is provided primarily by the Sweetwater County Sheriff, which has offices in Green River and Rock Springs, as well as the County Detention Center located on 50140 Highway 191 South in Rock Springs (SCSO, 2012). The police departments of Green River and Rock Springs provide law enforcement within their jurisdictions while District #3 of the Wyoming Highway Patrol (WHP) patrols the highways in Sweetwater, Uinta, and Lincoln counties. District #3 is based in Rock Springs.

3.10 Decommissioning

Decommissioning is a step-by-step, methodical deconstruction process that involves removing and disposing of the infrastructure and appurtenant facilities associated with the Project. With some exceptions, site decommissioning would involve the reverse of site development. The Project is located within the WDEQ-LQD Mining Permit #454 boundary, which requires that the project meet the decommissioning and reclamation standards of the LQD Non-Coal Rules and Regulations as well as the State bonding requirements. Wyoming Statute (W.S.) 35-11-417 includes provisions for bonding, which is met by FMC Granger Facility as required by the LQD Non-Coal Rules and Regulations, Ch. 1 Sec. 2(i), where “Bond means a surety or self-bond instrument by which the permit applicant assures faithful performance of all requirements of the Act, all rules and regulations promulgated there under, and the provisions of the permit and license to mine.” FMC Wyoming Corporation holds a License to Mine for Permit #454, which includes a self-bonding mechanism in order to assure the entire facility and all disturbances will be properly decommissioned and reclaimed at the end of the facilities usefulness. LQD Permit #454 is currently self-bonded for a total of \$26,880,000 as approved by the LQD Division on June 3, 2011, which meets the LQD Non-Coal Rules and Regulations of Chapter 6, Self-Bonding Program. It is important to note that the LQD Self Bonding Program requires provisions for corporate financial assurance. (Note: the facility is currently over-bonded in the amount of \$4,217,800 as approved by the LQD in May 2012.)

The WDEQ-LQD Rules and Regulations and Granger LQD Permit #454 include requirements for decommissioning and reclamation of all facilities and disturbances to the pre-mine condition. The bond calculation meets the requirements of the LQD Rules and Regulations and follows the format of LQD Guideline #12, “Standardized Reclamation Performance Bond Cost Calculation Method.” The bond covers the cost to completely reclaim the entire site to the pre-mine condition, including the demolition of all buildings, structures, rail structures, monitoring systems, roads, and other disturbances. It also includes the cost of re-grading the area to match the native topography to appropriate and approved slopes, and includes covering the entire site with suitable topsoil and vegetation to match the pre-mining vegetation community. All of the facilities associated with the Project will be included in the reclamation bond which is updated by FMC and approved by the LQD on an annual basis.

The planned decommissioning sequence would begin with facilities and building decommissioning, followed by surface grading to the approximate original contour, relief of compaction, topsoil replacement, and re-vegetation by planting with an approved native seed mix. Reclamation procedures would be based on site-specific requirements and techniques commonly employed at the time the area is to be reclaimed and may include grading, adding topsoil, and vegetation of all disturbed areas. The LQD Rules and Regulations also require provisions for systematic bond release that includes State inspections, monitoring, assurance that the required reclamation steps have been completed, and subsequent, incremental release of the bond.

Decommissioning activities would be accompanied by inspection for the presence of industrial contamination from spills or leaks and decontaminated, as necessary. Lastly, demolition or removal of equipment and facilities will meet applicable environmental regulations, and every attempt will be made to salvage economically recoverable materials.

The potential fire risks during Project decommissioning and construction are similar in nature but lower than those described during construction and operation. Fire prevention measures during decommissioning would be substantially similar to those described for Project construction.

FMC is a corporation with an investment-grade credit rating. FMC is financially responsible enough to ensure the adequate decommissioning of all facilities. FMC is obligated to adhere to the decommissioning provisions set forth in the approved LQD Permit #454 and the approved reclamation bond.

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4.0 Public Involvement

As stated in the ISA rules and regulations, a local government primarily affected by the proposed industrial facility means any defined geographical area or unit of local government or special district in which the construction and operation of the industrial facility may significantly affect the environment, population, level of economic wellbeing, or level of social services, or may threaten the health, safety, or welfare of present or expected inhabitants. Any such local government body or special district is within the area of site influence.

Based on the statute definition of the area of site influence presented above, the Applicant recommends that local governments primarily affected by the proposed industrial facility would include the following:

- Sweetwater County and the incorporated cities and towns of Granger, Green River, and Rock Springs
- Lincoln County and the incorporated City of Kemmerer
- Uinta County and the incorporated City of Evanston

Large areas of Sweetwater and Lincoln counties would remain outside the area of site influence due to excessive commuting distance and lack of appropriate accommodations. Therefore, the applicant also recommends that a number of communities located within the recommended area of site influence would not experience Project-related impacts. Additionally, other urban areas that could contain industries potentially affected by the proposed Project are relatively distant. The closest large Wyoming cities are Rawlins, located about 150 miles to the east, and Jackson, located approximately 180 miles to the north. Cities or resources along the I-80 corridor in Utah may serve the Project or be affected in some fashion, but including it in this analysis is beyond the scope of the ISA. It is recommended that counties (and communities contained within them) other than Sweetwater, Uinta, and Lincoln counties be excluded from the area of site influence because of excessive commuting distance from the Project site.

FMC aims to maximize the benefits of the Project to the local communities in the area of site influence while minimizing adverse impacts as much as possible. Therefore, FMC conducted a series of meetings with state agencies and local officials. These activities are presented below, and additional details are provided in **Appendix D**.

4.1 Meeting Activities

Formal meetings were scheduled by FMC to present the Project and receive comments from state agencies and local government officials, and to provide the opportunity for involvement by local community members. **Table 4-1** lists these formal public and agency involvement activities by organization and date.

TABLE 4-1
Local Government, State Agency, and Community Meetings

| Organization | Date | General Discussion |
|---|------------------|--|
| Wyoming Department of Environmental Quality (WDEQ) – Industrial Siting Division (ISD) | January 10, 2012 | Jurisdictional Meeting – provided overview of Project and ISA process, Project workforce and operation requirements, construction schedule and costs, local agency consultation, and public involvement. |
| Wyoming State Engineers Office (WSEO) | January 9, 2012 | Meeting to review water use estimates, project water supply, and waste water stream. |
| Green River City Council | March 20, 2012 | At each meeting, presented Project details regarding workforce and operation requirements, construction schedule and costs, local agency consultation, and public/agency involvement. Provided two-page project handout to each commissioner/council member. FMC representatives responded to questions and addressed issues and concerns. Each local governmental agency provided verbal support and followed up with letters of support to ISD. |
| Uinta County Commissioners | March 20, 2012 | |
| Sweetwater County Commissioners | March 20, 2012 | |
| Rock Springs City Council | April 3, 2012 | |
| Lincoln County Commissioners | April 3, 2012 | |
| Community Open House – Chamber of Commerce Building Green River | May 8, 2012 | Held open houses in large meeting rooms with display posters on project location, site plan, project description, process flow diagram, project renderings, project schedule, business need and community benefits, environment, and construction and operations workforce. Provided two-page project handout. Displayed FMC mine literature including trona and soda ash samples. FMC representatives responded to questions and addressed issues and concerns. |
| Community Open House – White Mountain Library Rock Springs | May 9, 2012 | |
| Wyoming State Agency Leaders | May 29, 2012 | Information letter sent to 19 Wyoming state departments/divisions providing notice of the Project and inviting questions, comments, and input for topics to address in the permit application. The contact list and letter are shown in Appendices F-1 and F-2 . |
| Local Joint Powers Boards | May 29, 2012 | Information letter sent to four local Joint Powers Boards in Sweetwater County providing notice of the Project and inviting questions, comments, and input for topics to address in the permit application. The contact list and letter are shown in Appendices F-3 and F-4 . |
| Wyoming Department of Transportation (WYDOT) | May 29, 2012 | Information letter and FMC Granger Traffic Study sent to WYDOT (reference Appendix F-5). |
| Wyoming State Parks | May 29, 2012 | Information letter and Cultural Resources Studies Documentation (reference Appendix F-6). |
| Wyoming Game and Fish Department (WGFD) | May 29, 2012 | Information letter and TRC Federally Listed Species Assessment Report (TRC, 2012) sent to WGFD (reference Appendix F-7). |
| Wyoming State Engineers Office (WSEO) | May 22, 2012 | Response letter from Wyoming SEO with approval of water supply and yield analysis (reference Appendix F-8). |
| Wyoming State Parks | June 4, 2012 | Response letter from Wyoming State Parks (reference Appendix F-9). |
| Wyoming Department of Transportation (WYDOT) | June 5, 2012 | Response letter from WYDOT (reference Appendix F-10). |

TABLE 4-1
Local Government, State Agency, and Community Meetings

| Organization | Date | General Discussion |
|---|----------------|--|
| Wyoming State Historic Preservation Office (SHPO) | June 14, 2012 | Response letter from SHPO (reference Appendix F-11). |
| School Districts, Joint Powers Boards and Local Agencies | July 6, 2012 | Information letter sent to 39 additional school districts, joint powers boards and local governmental agencies in Sweetwater, Lincoln and Uinta counties providing notice of the Project and inviting questions, comments, and input for topics to address in the permit application. The contact list and letter are shown in Appendices F-12 and F-13 . |
| Wyoming Department of Environmental Quality (WDEQ) – Industrial Siting Division (ISD) | July 31, 2012 | Pre-Application Filing Meeting |
| Wyoming Game and Fish Department (WGFD) | August 1, 2012 | Letter from WGFD to FMC regarding 2012 Density Disturbance Calculation Tool (DDCT) analysis. (Reference Appendix F-14) |
| Wyoming Department of Transportation (WYDOT) | August 6, 2012 | Letter on revised FMC Granger Traffic Study sent to WYDOT. (Reference Appendix F-15) |

Source: CH2M HILL and FMC, 2012.

4.1.1 Meeting Format and Information Provided

As presented in **Table 4-1**, the information provided at the agency and community meetings were generally the same. The format and information consisted of the following:

- Large display boards were prepared for the community open houses held in Green River and Rock Springs. The boards were also put on display for FMC employees at the Westvaco and Granger plants. Displays included:
 - Welcome and Sign-In Board
 - Project Location Map
 - Facility Site Plan
 - Project Description
 - Process Block Diagram
 - Project Renderings
 - Project Schedule
 - Business Need and Community Benefits
 - Environment
 - Construction and Operation Workforce
- A two-page factsheet describing the Project was provided at the local commissioner/council meetings as well as to attendees at the public open houses.
- FMC made a formal presentation at each of the local commissioner/council meetings and answered questions after each presentation.

4.1.2 Meeting Notices and Public Notification

The state agencies specified by statute in the ISA permit regulations were each notified of the Project via letters and asked for input. Meetings were held with local governmental agencies concerning the Project.

Newspaper advertisements announcing the open houses were placed in the *Rocket Miner* and the *Green River Star* on May 2 and in the *Sweetwater County Guide* on May 5. These are the primary local news sources serving residents of surrounding communities. The advertisements invited the public to attend the public meetings to learn more about the Project and ask questions of FMC representatives. **Appendix D** contains a copy of the advertisement, list of attendees at each open house, and the poster displays and handouts.

4.2 Community Response

Overall, the Project has been well received, and numerous letters have been submitted in support of the Project. The letters of support are presented in **Appendix B**, and state the positions of:

- Sweetwater Board of County Commissioners
- Uinta County Commissioners
- City of Green River
- Board of Lincoln County Commissioners
- City of Rock Springs
- Wyoming Business Council
- Town of Granger

5 Socioeconomic Baseline and Impacts

5.1 Introduction

Section 5 is organized into six major subsections that address the following topics:

- Regulatory jurisdiction, which describes the statutory background germane to treatment of socioeconomic resources
- Methodology, which addresses the following topics:
 - Recommended area of site influence, study area, and local governments primarily affected by the proposed industrial facility
 - Construction and operations workforce estimates
 - Impact analysis methodology
- Inventory and evaluation of social and economic conditions and impact assessment, which addresses existing conditions and Project-induced impacts occurring during both the construction and operations phases. This subsection is further divided on a resource-specific basis as follows:
 - Population
 - Economic and fiscal conditions
 - Housing
 - Public education
 - Public safety
 - Fire protection services
 - Law enforcement services
 - Crime
 - Health care
 - Municipal services
 - Wastewater treatment facilities
 - Water distribution and treatment facilities
 - Non-hazardous waste collection and disposal
 - Electricity service
 - Natural gas service
- Cumulative impacts
- Tradeoff analysis
- Mitigation measures

5.2 Regulatory Jurisdiction

Title 35 – Public Health and Safety, Chapter 12 – Industrial Development and Siting of the Statutes of the State of Wyoming provides guidance relative to the socioeconomic topics of concern that will be addressed during the permit application process. A number of aspects of the socioeconomic environment could experience benefits or adverse impacts associated with construction and

operation of the proposed facility. These aspects are addressed in this report and include economic base, housing, transportation, sewer and water facilities, solid waste facilities, police and fire facilities, educational facilities, and health and hospital facilities.

According to the statute, the Wyoming Industrial Siting Council (ISC) will grant a permit, either as proposed or as modified by the Council, if it finds and determines that the facility will not pose a threat of serious injury to the environment, the social and economic condition, or inhabitants or expected inhabitants in the affected areas and will not substantially impair the health, safety, or welfare of the inhabitants. For the purposes of the permit application, the definitions of “health,” “safety,” and “welfare” provided in the statutes are as follows:

- *Health will mean the state of being sound in body or mind and includes psychological as well as physical well-being.*
- *Safety will mean freedom from fear of injury or threat of injury. Such injury or threat of injury may be premised on crime rates, traffic accident rates, dangers of industrial accidents or mishaps, or other similar considerations.*
- *Welfare will mean considerations of public convenience, public well-being, and general prosperity. The term also properly covers those subjects encompassed under health and safety.*

Guidance is provided in the Wyoming statutes regarding information that should be included in the permit application and includes area of site influence and local governments primarily affected by the proposed industrial facility, construction and operations workforce estimates, and inventory and evaluation of the social and economic conditions in the area of site influence.

5.3 Methodology

The following four geometries, established by the Rule above and defined by either the ISD or FMC, are used for the *Industrial Development Information and Siting Act (ISA)* socioeconomic analysis:

- A **study area** of Sweetwater, Uinta, and Lincoln counties is the boundary for study of socioeconomic impacts; it was established by the ISD at the Jurisdictional Meeting held January 10, 2012;
- The **areas of site influence** are defined by FMC to mean the areas that may be affected environmentally, socially, or economically, in any significant degree, by the location of the industrial facility at the proposed site. A separate “area of influence” may be considered for each of the resource areas discussed in Section 5.4;
- The **area primarily affected** is recommended by FMC and determined by the Wyoming Department of Environmental Quality (WDEQ)/ISD after examination of the application and other data. Identifies persons eligible to become parties to the permit, identifies those local governments eligible for impact assistance payments, and identifies those who will receive certain statutory notice and copies of the application; and
- The **area substantially affected** is also determined by WDEQ/ISD and includes those local governments in the Area Primarily Affected who did not become parties; such receive certain statutory notice.

5.3.1 Area of Site Influence, Local Governments Primarily Affected, and Study Area

5.3.1.1 Area of Site Influence

An area of site influence contains locations that may be affected environmentally, socially, or economically, in any significant degree, by the proposed location of the industrial facility. A local government primarily affected by the proposed industrial facility means any defined geographical area or unit of local government or special district in which the construction and operation of the industrial facility may significantly affect the environment, population, level of economic wellbeing, or level of social services, or may threaten the health, safety, or welfare of present or expected inhabitants. Any such local government body or special district is within the area of site influence.

Pursuant to statute, FMC evaluated the potential area of site influence and local governments primarily affected by the proposed Project. Primary criteria that factored into the area of site influence recommendation are as follows:

1. Within a commuting distance of approximately 100 miles or less from the work site
2. Within a daily one-way commute time of approximately 90 minutes or less from the work site
3. Supply of temporary housing units versus peak construction workforce
4. Distribution of the existing FMC Granger area workforce
5. Size of population (i.e., as an indicator for labor supply and urban amenities)

These five criteria were used in identifying communities likely to capture 1 percent or more of allocated workers.

1. Commuting Distance of 100 Miles or Less from the Project

Commuting distance can come into play in defining the area of site influence in two ways. First, members of the local workforce residing in communities within commuting distance may choose to commute to the Project site to take advantage of the employment opportunity offered by the Project. Second, non-local workers may decide to relocate to communities within driving distance of the Project. The Project, named the FMC Granger Optimization Project, will be constructed within the existing plant boundaries, which are located approximately 6.5 miles northeast of the Town of Granger in Sweetwater County. It is also readily accessible from communities in Lincoln and Uinta counties via Interstate 80 (I-80) and US Highway 30 (US 30). The existing FMC Granger site is accessed by taking exit 66, US 30 north, from I-80 and driving approximately 6 miles before turning right towards County Road 11/ Texasgulf Road for 4 miles, and then left on to Texasgulf Road, which dead ends at the FMC Granger site. The driving distances were computed from the origins to just beyond the guard shack at the existing perimeter fence (41° 40' 30.71", -109° 54' 15.30). The City of Green River, the County seat, is located approximately 45 minutes away, while the largest community in Sweetwater County in terms of population, the City of Rock Springs, is located about 70 minutes east of the Project site.

Table 5-1 illustrates the driving distance in miles and minutes (Columns C and D) from communities (Column B) in Sweetwater County (Column A) as well as the western adjacent counties of Uinta and Lincoln in Wyoming and Daggett County in Utah. Three other counties, Carbon, Fremont, and Sublette, are located contiguous (north and east) to Sweetwater County; however, none of the communities within these adjacent counties meets the distance criterion. Although not included in the study area, Utah communities within commuting distance are also shown because they are realistically within driving distance from the Project. The following communities meet the commuting distance criterion of 100 miles or less from the Project site:

- Sweetwater County – Granger, Little America, Green River, Rock Springs, Farson, Arrowhead Springs, and Superior;
- Uinta County - Lyman, Fort Bridger, Mountain View, and Evanston;
- Lincoln County - Diamondville, Kemmerer, La Barge, and Cokeville; and
- Daggett County, Utah – Dutch John and Manila (Flaming Gorge Area).

2. Daily One-Way Commute of Approximately 90 Minutes or Less

It is reasonable to assume that non-local workers will not spend any more of their workday commuting than is necessary, especially when suitable accommodations can be found relatively close to the Project site. Column D of **Table 5-1** shows the one-way commuting times for the communities in the study area. The list of communities with a daily one-way commute of approximately 90 minutes or less from the Project site excludes the Daggett County, Utah, communities as well as Cokeville in Lincoln County and Evanston in Uinta County. No new communities that meet this criterion were identified.

3. Supply of Temporary Housing Units versus Peak Construction Workforce

The supply of temporary housing units, such as rental units, hotels, and recreational vehicle (RV) sites, relative to the anticipated size of the construction workforce is another factor that can constrain worker location choices. It is reasonable to assume that any workers who temporarily relocate in order to work on the Project will prefer suitable accommodations that are close to the Project site with relatively urban amenities. This will minimize their daily commute and provide access to shopping, restaurants, leisure activities, and other entertainment. Construction at the site is expected to start in second quarter 2013. The average construction workforce is estimated at 200 for the 26-month construction duration, and the peak construction workforce is estimated at 338 during the second quarter of 2014.

Table 5-1 summarizes three potential sources of temporary housing for the study area: hotel / motel rooms, (**Column F**), RV sites (**Column G**), and available rental housing units (**Column H**). There are approximately 729 temporary housing units and 172 rental units in three of the four communities within a 60-minute drive from the Project site. Little America, the closest community offering temporary housing, has approximately 140 rooms and 14 available rental units within a 30-minute drive. A larger supply of temporary housing, which includes 141 rental units, 402 rooms, and 89 RV sites, is available in the City of Green River, located about 50 minutes to the southeast. The Town of Lyman, located approximately 60 minutes to the southwest in Uinta County, has 28 hotel rooms and 70 RV sites. However, the largest supply of temporary housing of any community within a 90-minute drive of the Project site is in the City of Rock Springs, located slightly more than 60 minutes to the east, with a total of 1,488 hotel / motel rooms, 617 rental units, and 226 RV sites. The City of Kemmerer in Lincoln County, an approximate 65- to 70-minute drive northwest of the Project site, offers 99 rental units, 140 hotels, and 107 RV sites.

Although other communities within a 90-minute drive, such as Arrowhead Springs, Cokeville, Granger, Fort Bridger, Diamondville, and Farson, offer limited temporary housing options, it is unlikely the number of workers would represent 1 percent of the workforce given adequate opportunities closer to the site. Finally, it is noted that the nearby Utah communities may also have a supply of temporary housing, but those housing alternatives are not pertinent for the purpose of determining the area of site influence for Wyoming.

4. Size of Population

The size of the resident population of each of the communities (**Table 5-1, Column E**) is also shown to indicate the potential availability of local workers as well as to approximate the level of local services and amenities offered for the non-local portion of the construction workforce. In 2010, approximately 15,000 people resided in the four communities located within a 60-minute drive from the Project site and 44,160 in the 13 communities within a 90-minute drive. Rock Springs is the largest population center with about 23,000 residents in 2010, followed by Green River with 12,515. Kemmerer, Lyman, and Mountain View each also had more than 1,000 residents in 2010. This suggests that the local communities do not have sizeable permanent workforces or urban amenities to contribute to the Project. Rock Springs is likely to have local support services and materials to meet the unspecialized needs of the Project as well as transportation facilities to accept shipments from outside the region. In contrast, Diamondville in Lincoln County and Fort Bridger in Uinta County are both within commuting distance of the Project, but due to their very small population sizes, neither community is likely to supply a sizeable number of workers nor be a provider of temporary housing.

5. Distribution of the Existing FMC Granger Area Workforce

The distribution of the FMC's existing Granger area workforce is also a valuable indicator of communities able to contribute local workers or to support a non-local portion of the workforce. FMC operates two major production facilities in southwest Wyoming, with more than 900 employees that solution mine (at the Granger facility) and dry mine (at the Westvaco facility) trona. As of November 2011, FMC estimated that 98 percent of its operations employees live in Sweetwater (68 percent) or Uinta County (30 percent). The remaining 2 percent commuted from Lincoln County to the Sweetwater County FMC facilities, with a limited number of people living in Sublette and Fremont counties as well as in Utah.

6. Recommended Area of Site Influence and Area Primarily Affected

The data presented in **Table 5-1** suggest recommending the area of primary influence to include portions of Sweetwater, Lincoln, and Uinta counties, particularly the cities of Green River and Rock Springs, and, to a lesser extent, the communities along I-80 in Uinta County and US 30 in Lincoln County. All of these Wyoming communities are within commuting distance and have a sufficient population size to contribute at least 1 percent toward the supply of the construction workforce and/or supply of temporary housing to accommodate at least 1 percent of the construction workforce. Commuter behavior takes place under time and distance constraints, and applying the criteria previously outlined would exclude many of the listed communities.

Factoring in all five criteria, it is estimated that the temporary residence choices made by the FMC Granger non-local workforce would be as follows:

- Town of Granger – 1 percent
- City of Green River – 45 percent
- City of Rock Springs – 40 percent
- Little America CDP – 5 percent
- Town of Lyman – 3 percent
- Fort Bridger CDP – 2 percent
- Town of Diamondville – 1 percent
- City of Kemmerer – 3 percent

The area of site influence, as recommended by the Applicant, is detailed in **Table 5-1** and illustrated in **Figure 5-1**.

TABLE 5-1
Communities Identified as Within Recommended Area of Site Influence and Relevant Housing Statistics

| County | Community | Distance (miles) from Work Site Used in Model | Distance (minutes) from Work Site Used in Model | Population (2010 Census) | Number of Rooms | Number of RV sites | Number of Available Rental Units (2010 Census) | % of Non-local Workers |
|---------------------------|-------------------------|---|---|--------------------------|-----------------|--------------------|--|------------------------|
| A | B | C | D | E | F | G | H | |
| Sweetwater County | | | | | | | | |
| | Arrowhead Springs CDP | 52.8 | 81 | 63 | | | 1 | |
| | Bairoil, Town of | 190 | 207 | 106 | | | 2 | |
| | Farson CDP | 52 | 71 | 313 | 10 | | 6 | |
| | Granger, Town of | 9.1 | 25 | 139 | | | 2 | 1 |
| | Green River, City of | 30 | 48 | 12,515 | 402 | 89 | 141 | 45 |
| | Little America, CDP | 15 | 29 | 68 | 140 | | 14 | 5 |
| | Rock Springs, City of | 49 | 67 | 23,036 | 1488 | 226 | 617 | 40 |
| | Superior, Town of | 69 | 88 | 336 | | | 5 | |
| | Wamsutter, Town of | 113 | 126 | 451 | 8 | | 24 | |
| | <i>Sweetwater Total</i> | | | 37,072 | 2048 | 315 | 812 | |
| Lincoln County | | | | | | | | |
| | Afton, Town of | 143 | 158 | 1,911 | 78 | 56 | 31 | |
| | Alpine, Town of | 192 | 214 | 828 | 124 | 38 | 28 | |
| | Cokeville, Town of | 91 | 103 | 535 | 40 | 13 | 1 | |
| | Diamondville, Town of | 48 | 67 | 737 | 43 | | 9 | 1 |
| | Kemmerer, City of | 49 | 68 | 2,656 | 140 | 107 | 99 | 3 |
| | La Barge, Town of | 69 | 83 | 551 | 39 | | 23 | |
| | Thayne, Town of | 181 | 199 | 366 | 63 | 339 | 12 | |
| | <i>Lincoln Total</i> | | | 7,584 | 527 | 553 | 203 | |
| Uinta County | | | | | | | | |
| | Evanston, City of | 85 | 100 | 12,359 | 961 | 128 | 252 | |
| | Fort Bridger, CDP | 49 | 66 | 345 | 38 | 38 | 5 | 2 |
| | Lyman, Town of | 43 | 60 | 2,115 | 28 | 70 | 15 | 3 |
| | Mountain View, Town of | 57 | 81 | 1,286 | 6 | | 8 | |
| | <i>Uinta Total</i> | | | 16,105 | 1,033 | 236 | 280 | |
| Study Area | | | | 61,171 | 3,669 | 1,378 | 1,296 | |
| Daggett County, CO | | | | | | | | |
| | Dutch John CDP | 100 | 125 | 145 | 48 | 60 | 2 | |
| | Flaming Gorge / Manila | 77 | 99 | 310 | 13 | 214 | 6 | |
| | <i>Daggett Total</i> | | | 455 | 51 | 274 | 8 | |

Notes:

NA – Not Available

100 miles or less one-way commuting distance; 90 minute or less one-way commuting time.

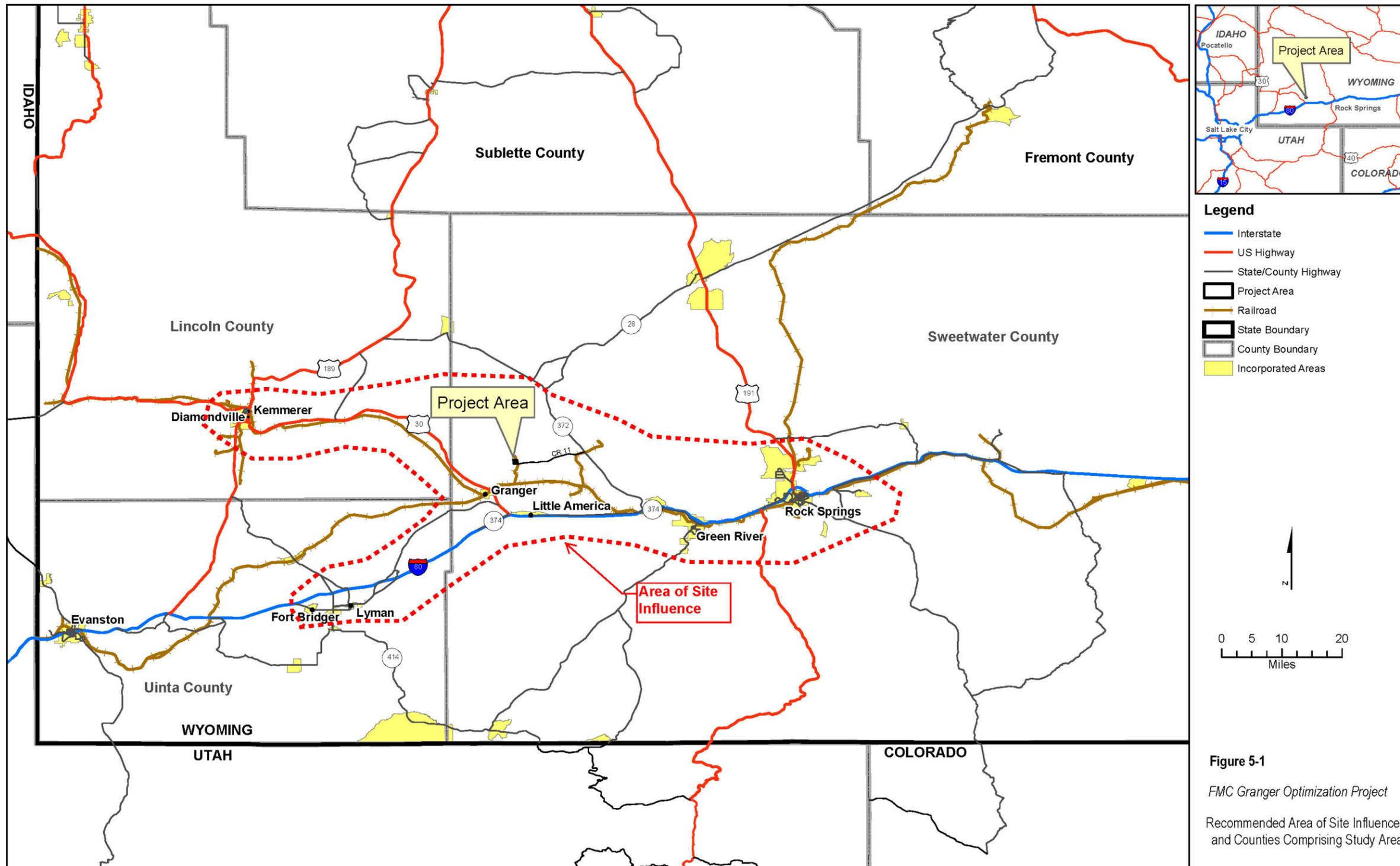
Distances measured to the FMC Granger guard shack, coordinates: +41° 40' 30.71", -109° 54' 15.30.

Source: CH2M HILL, 2012.

The recommended area of site influence is displayed in **Figure 5-1**. Given the availability of housing alternatives and common amenities accessible to the Project site via I-80 and US 30 at the apex of Sweetwater, Lincoln, and Uinta counties, the neighboring communities outside of this horizontal wishbone-shaped site of influence have been eliminated from the list of likely residence communities. Communities were excluded based the distribution of FMC's current workforce residence location, a lack of temporary housing, or excessive driving distances from the Project site. Communities with a daily one-way commute of approximately 90 minutes or less excludes the communities in Daggett County, Utah, both Wamsutter and Bairoil in Sweetwater County, Afton, Alpine, Cokeville, and Thayne in Lincoln County, and Evanston in Uinta County. Of those communities within a 90-minute drive from the Project site, Arrowhead Springs, Farson, and Superior in Sweetwater County were eliminated due to their relative lack of temporary housing stock, as was LaBarge in Lincoln County and Mountain View in Uinta County.

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FIGURE 5-1
Recommended Area of Site Influence and Counties Comprising Study Area



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The majority of construction and operations workers are expected to reside within this recommended area of site influence and its communities; therefore, FMC has concentrated its efforts at securing housing commitments for non-local workers in these communities.

5.3.1.2 Local Governments Primarily Affected by the Project

A local government primarily affected by the proposed industrial facility includes any defined geographical area, unit of local government, or special district in which the construction and operation of the industrial facility may significantly affect the environment, population, level of economic wellbeing, or level of social services, or may threaten the health, safety, or welfare of present or expected inhabitants. Any such local government body or special district is within the area of site influence. It is generally accepted that the biggest concern is the drain temporary workers can place on local public services and quality of life.

Local Governments Primarily Affected by the Proposed Industrial Facility. Based on the recommended delineation of the area of site influence presented previously, the Applicant deems that local governments primarily affected by a temporary workforce associated with the proposed industrial facility would include the following:

- Sweetwater County and the cities of Green River and Rock Springs, the Town of Granger, and the Little America Community.
- Lincoln County and the City of Kemmerer and Town of Diamondville.
- Uinta County and the Town of Lyman and the Fort Bridger Community.

Local Governments Primarily Unaffected by the Proposed Industrial Facility. From **Table 5-1**, it is recommended that those communities within Sweetwater, Lincoln, and Uinta counties not listed above be excluded from the area of site influence. This recommendation for excluding other communities is based on their relatively lengthy commuting times and/or lack of appropriate accommodations and urban amenities when compared to availability within 60 minutes of the Project site. The following local governments are in the study area but are expected to be unaffected by the Project:

- Communities in Daggett County, Utah
- Arrowhead Springs, Bairoil, Farson, Superior, and Wamsutter in Sweetwater County
- Afton, Alpine, Cokeville, LaBarge, and Thayne in Lincoln County
- Evanston and Mountain View in Uinta County

5.3.1.3 Study Area

The socioeconomic impact analysis methodology involves a description of existing (i.e., baseline) conditions for a geographical area that is expected to be broader than the area ultimately recommended for the area of site influence. This conservatively large area is referred to as the study area. The data gathered on existing conditions for the study area are intended to support a determination of which areas and governments within the broader area to include or omit from the area of site influence. The counties comprising the study area were identified early in the analysis and in consultation with the ISD as the county where the proposed Project will be located – Sweetwater County – and each of the neighboring counties to the west (i.e., Uinta and Lincoln).

It is anticipated that most of the direct and secondary economic impacts associated with construction and operation of the proposed Project would occur within the study area, and that any remaining economic impacts would be dispersed and not significant. It is also expected that the

study area will provide the workforce for the Project, including the provision of temporary housing for workers that relocate to the area to fill gaps in the specialized skills of the local workforce, if any. Finally, it is anticipated that any stress on existing community services that may be caused by an influx of temporary workers or on local infrastructure to accommodate constructing and operating the Project would be contained within the study area.

Analysis of the data obtained for the broader study area is to examine potential relationships between the proposed Project and the various types of socioeconomic resources, identify the area and jurisdictions that are primarily affected, and provide the rationale for excluding areas from the area primarily affected. For example, economic impacts are mainly associated with the purchase of equipment, materials, goods, and services required for construction and operation of the Project, and expenditures made by workers for personal items. It is likely that economic impacts will be centered in Green River and Rock Springs in Sweetwater County due to their proximity to the Project, their relative size, and their historical association with the mining industry, i.e. the economies of these communities have historically focused on supporting mining activities. Rock Springs offers purveyors of goods and services likely to be purchased in support of construction activities as well as by individuals for personal items. The nearby communities of Lyman and Fort Bridger in Uinta County as well as Kemmerer and Diamondville in Lincoln County could contribute to the Project workforce and provide some materials and services to the Project and its employees. All other urban areas that could contain industries potentially affected by the proposed Project are relatively distant and located outside the study area.

Another factor contributing to the inclusion or exclusion of areas to or from the area primarily affected is commuting patterns. Typically, the large majority of persons working in any county reside in the same county. Commuter flows relate directly to the number of job opportunities at specific destinations and the driving time required to access those destinations from a place of residence. **Table 5-2** summarizes the distribution of incoming (inflow) and departing (outflow) commuters by county as well as the State of Colorado for the study area for the third quarter of 2011. Of the 7,462 commuters entering Sweetwater County, 54 percent were from an unknown origin, 17 percent traveled from Uinta County, and approximately 8 percent were from Carbon County. More than 56 percent of those residing in Uinta County and 12 percent of those in Lincoln County commuted in to Sweetwater County for employment.

TABLE 5-2
Inter-County Commuter Flows for Sweetwater, Uinta, and Lincoln Counties (3rd Quarter 2011)

| County of Origin or Destination | Sweetwater Inflow | Share of Inflow to Sweetwater County | Sweetwater Outflow | Share of Outflow from Sweetwater County | Uinta Inflow | Share of Inflow to Uinta County | Uinta Outflow | Share of Outflow from Uinta County | Lincoln Inflow | Share of Inflow to Lincoln County | Lincoln Outflow | Share of Outflow from Lincoln County |
|---------------------------------|-------------------|--------------------------------------|--------------------|---|--------------|---------------------------------|---------------|------------------------------------|----------------|-----------------------------------|-----------------|--------------------------------------|
| Albany | 112 | 1.5% | (113) | 4% | 20 | 0.7% | (57) | 2.9% | 28 | 1.6% | (65) | 2.9% |
| Big Horn | 10 | 0.1% | (50) | 2% | 6 | 0.2% | (10) | 0.5% | 3 | 0.2% | (21) | 0.9% |
| Campbell | 87 | 1.2% | (157) | 6% | 8 | 0.3% | (29) | 1.5% | 24 | 1.4% | (17) | 0.7% |
| Carbon | 582 | 7.8% | (140) | 6% | 39 | 1.4% | (13) | 0.7% | 5 | 0.3% | (12) | 0.5% |
| Converse | 26 | 0.3% | (24) | 1% | 5 | 0.2% | (8) | 0.4% | 2 | 0.1% | (4) | 0.2% |
| Crook | 12 | 0.2% | (6) | 0% | 1 | 0.0% | (2) | 0.1% | 4 | 0.2% | (2) | 0.1% |
| Fremont | 227 | 3.0% | (122) | 5% | 30 | 1.1% | (55) | 2.8% | 26 | 1.5% | (38) | 1.7% |
| Goshen | 10 | 0.1% | (3) | 0% | 5 | 0.2% | (5) | 0.3% | 0 | 0.0% | - | 0.0% |
| Hot Springs | 9 | 0.1% | (3) | 0% | 8 | 0.3% | (1) | 0.1% | 1 | 0.1% | (4) | 0.2% |
| Johnson | 8 | 0.1% | (11) | 0% | 2 | 0.1% | - | 0.0% | 2 | 0.1% | (5) | 0.2% |
| Laramie | 116 | 1.6% | (170) | 7% | 33 | 1.2% | (100) | 5.0% | 18 | 1.1% | (54) | 2.4% |
| Lincoln | 280 | 3.8% | (91) | 4% | 202 | 7.2% | (195) | 9.8% | | | | |
| Natrona | 183 | 2.5% | (385) | 15% | 32 | 1.1% | (83) | 4.2% | 32 | 1.9% | (71) | 3.1% |
| Niobrara | 2 | 0.0% | (3) | 0% | 1 | 0.0% | - | 0.0% | 1 | 0.1% | - | 0.0% |
| Park | 29 | 0.4% | (41) | 2% | 11 | 0.4% | (18) | 0.9% | 13 | 0.8% | (18) | 0.8% |
| Platte | 33 | 0.4% | (1) | 0% | 6 | 0.2% | (18) | 0.9% | 2 | 0.1% | - | 0.0% |
| Sheridan | 32 | 0.4% | (45) | 2% | 8 | 0.3% | (8) | 0.4% | 3 | 0.2% | (11) | 0.5% |
| Sublette | 278 | 3.7% | (199) | 8% | 41 | 1.5% | (45) | 2.3% | 116 | 6.8% | (243) | 10.7% |
| Sweetwater | | | | | 243 | 8.6% | (1,121) | 56.2% | 91 | 5.4% | (280) | 12.3% |
| Teton | 77 | 1.0% | (117) | 5% | 2 | 0.1% | (18) | 0.9% | 121 | 7.1% | (990) | 43.5% |
| Uinta | 1279 | 17.1% | (243) | 10% | | | | | 258 | 15.2% | (202) | 8.9% |
| Washakie | 22 | 0.3% | (6) | 0% | 193 | 6.8% | (8) | 0.4% | 6 | 0.4% | (6) | 0.3% |
| Weston | 5 | 0.1% | (18) | 1% | 1 | 0.0% | - | 0.0% | 0 | 0.0% | (6) | 0.3% |

TABLE 5-2
Inter-County Commuter Flows for Sweetwater, Uinta, and Lincoln Counties (3rd Quarter 2011)

| County of Origin or Destination | Sweetwater Inflow | Share of Inflow to Sweetwater County | Sweetwater Outflow | Share of Outflow from Sweetwater County | Uinta Inflow | Share of Inflow to Uinta County | Uinta Outflow | Share of Outflow from Uinta County | Lincoln Inflow | Share of Inflow to Lincoln County | Lincoln Outflow | Share of Outflow from Lincoln County |
|--|-------------------|--------------------------------------|--------------------|---|--------------|---------------------------------|----------------|------------------------------------|----------------|-----------------------------------|-----------------|--------------------------------------|
| State of Colorado | 4 | 0.1% | | 0% | 1 | 0.0% | | 0.0% | 0 | 0.0% | | 0.0% |
| Unknown | 4,039 | 54.1% | (584) | 23% | 1,920 | 68.1% | (202) | 10.1% | 942 | 55.5% | (229) | 10.1% |
| Total Commuters | 7462 | | (2,532) | | 2818 | | (1,996) | | 1698 | | (2,278) | |
| To / From Other 2 Study Area Counties | 1559 | 21% | (334) | 13% | 445 | 16% | (1,316) | 66% | 349 | 21% | (482) | 21% |

Source: Wyoming Department of Employment (DOE), 2012.

Information published by the U.S. Census Bureau regarding commuting patterns for residents of Sweetwater County and persons who work in Sweetwater County in 2010 is shown in **Table 5-3**. Approximately 73 percent of the people, or nearly 16,000 residents, who work in Sweetwater County, also reside there. There is little evidence of a strong linkage to any other county with the possible exception of Uinta County, where about 6 percent of Sweetwater County's workforce resides. Between 2 and 4 percent are residents of Lincoln, Carbon, Fremont, or Natrona counties. These commuting patterns show that few residents of counties outside the recommended area of site influence choose to commute to Sweetwater County.

TABLE 5-3
Workplaces of Sweetwater County Residents and Places of Residence of Persons Working in Sweetwater County, 2010

| | Places of Work of Persons Residing in Sweetwater County | | Places of Residence of Persons Working in Sweetwater County | |
|--------------------------------|---|--------------|---|--------------|
| | Count | Share | Count | Share |
| Total Primary Jobs | 19,786 | | 21,820 | |
| Sweetwater County | 15,899 | 80% | 15,899 | 73% |
| Rock Springs, City of | 9,437 | 48% | 8,287 | 38% |
| Green River, City of | 4,095 | 21% | 4,668 | 21% |
| North Rock Springs CDP | 739 | 4% | 1,210 | 6% |
| Arrowhead Springs CDP | 212 | 1% | N/D | N/D |
| James Town CDP | 81 | Less than 1% | 194 | 1% |
| Wamsutter, Town of | 240 | 1% | 43 | Less than 1% |
| Clearview Acres CDP | 184 | 1% | 520 | 2% |
| Reliance CDP | 125 | Less than 1% | 230 | 1% |
| Lincoln County | 259 | 1% | 372 | 2% |
| Uinta County | 640 | 3% | 1,217 | 6% |
| Evanston, City of | 498 | 3% | 445 | 2% |
| Lyman, Town of | 31 | Less than 1% | 223 | 1% |
| Other Locations > 1% | | | | |
| Carbon County | 205 | 1% | 540 | 3% |
| Fremont County | 281 | 1% | 419 | 2% |
| Natrona County | 721 | 4% | 840 | 4% |
| Sublette County | 292 | 2% | 248 | 1% |
| Laramie County | 226 | 1% | 230 | 1% |
| All Other Locations | 3,767 | 19% | 2,055 | 9% |

Notes:

Entities representing greater than 1 percent of the total workforce.

Source: U.S. Census Bureau, 2012.

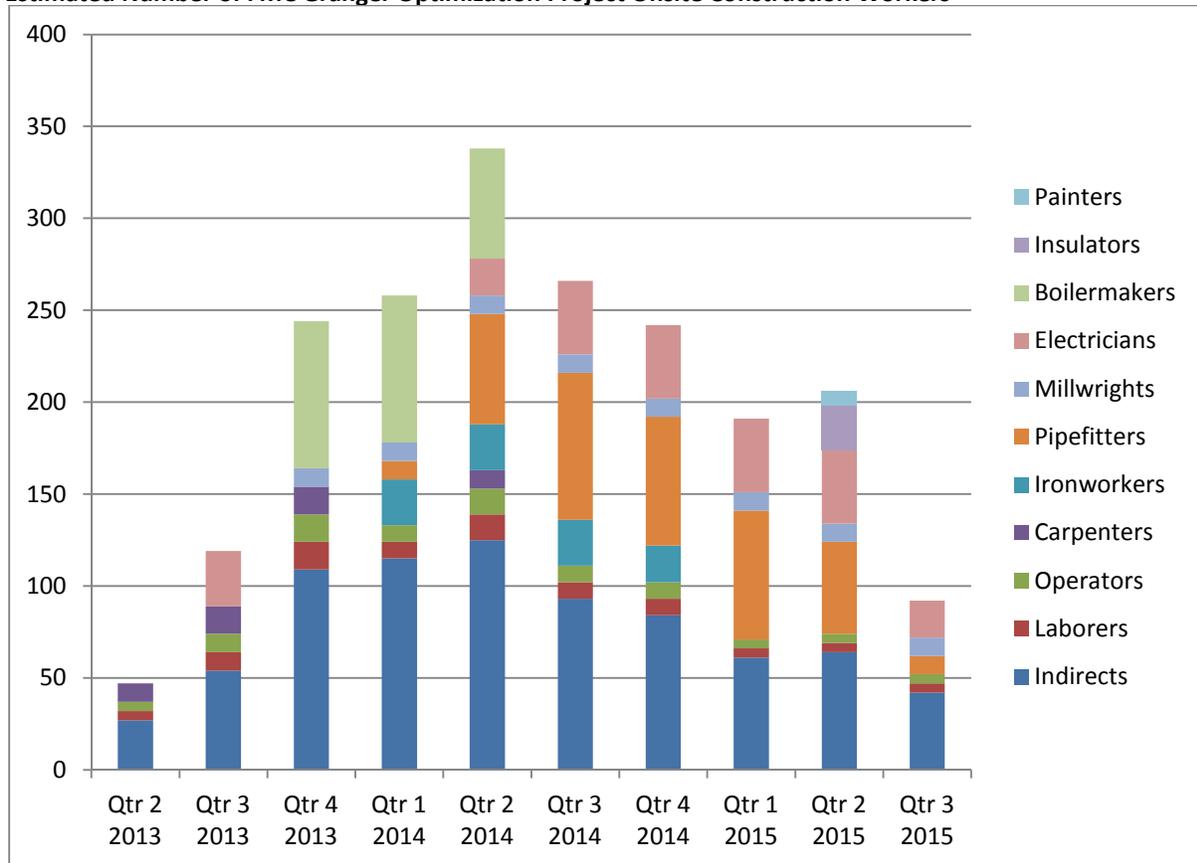
5.3.2 Construction and Operations Workforce Estimates

5.3.2.1 Construction Workforce Estimate

Potential impacts to socioeconomic resources are directly and indirectly attributable the influx of non-local workers, and expenditures made in the local economy for equipment, materials, and services required to construct and operate the Project.

The estimated number of onsite construction workers is illustrated in **Figure 5-2**, the federal occupational codes are identified in **Table 5-4**, and the data showing the number of workers by month and craft are shown in **Table 5-5**. FMC anticipates that the onsite construction workforce (both local and non-local) will ramp up quickly from 47 workers in the second quarter of 2013 to 244 workers by the end of that year, with the workforce peaking at 338 workers in the second quarter of 2014. The onsite workforce will then decline gradually during the following four quarters before returning to the low levels of the initial quarter.

FIGURE 5-2
Estimated Number of FMC Granger Optimization Project Onsite Construction Workers



Source: CH2M HILL, 2012.

TABLE 5-4
Federal Occupational Codes

| Construction Workforce Occupations | Federal Occupational Codes |
|---------------------------------------|----------------------------|
| Indirects (supervisors and engineers) | 47-1011; 17-2000 |
| Laborers | 47-2061 |
| Operators | 47-2073 |
| Carpenters | 47-2031 |
| Ironworkers | 47-2221 |
| Pipefitters | 47-2152 |
| Millwrights | 49-9044 |
| Electricians | 47-2111 |
| Boilermakers | 47-2011 |
| Insulators | 47-2130 |
| Painters | 47-2140 |

Source: http://www.bls.gov/soc/major_groups.htm.

TABLE 5-5
FMC Granger Optimization Project Construction Workforce Estimate

| TOTAL | Qtr 2 2013 | Qtr 3 2013 | Qtr 4 2013 | Qtr 1 2014 | Qtr 2 2014 | Qtr 3 2014 | Qtr 4 2014 | Qtr 1 2015 | Qtr 2 2015 | Qtr 3 2015 |
|------------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|
| Indirects | 27 | 54 | 109 | 115 | 125 | 93 | 84 | 61 | 64 | 42 |
| Laborers | 5 | 10 | 15 | 9 | 14 | 9 | 9 | 5 | 5 | 5 |
| Operators | 5 | 10 | 15 | 9 | 14 | 9 | 9 | 5 | 5 | 5 |
| Carpenters | 10 | 15 | 15 | 0 | 10 | 0 | 0 | 0 | 0 | 0 |
| Ironworkers | 0 | 0 | 0 | 25 | 25 | 25 | 20 | 0 | 0 | 0 |
| Pipefitters | 0 | 0 | 0 | 10 | 60 | 80 | 70 | 70 | 50 | 10 |
| Millwrights | 0 | 0 | 10 | 10 | 10 | 10 | 10 | 10 | 10 | 10 |
| Electricians | 0 | 30 | 0 | 0 | 20 | 40 | 40 | 40 | 40 | 20 |
| Boilermakers | 0 | 0 | 80 | 80 | 60 | 0 | 0 | 0 | 0 | 0 |
| Insulators | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 24 | 0 |
| Painters | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 8 | 0 |
| Total | 47 | 119 | 244 | 258 | 338 | 266 | 242 | 191 | 206 | 92 |
| Local | 12 | 30 | 61 | 65 | 85 | 67 | 61 | 48 | 52 | 23 |
| Non-local | 35 | 89 | 183 | 194 | 254 | 200 | 182 | 143 | 155 | 69 |
| FMC Personnel | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 |

Source: CH2M HILL, July 2012.

FMC estimates that a total of 1,167,021 man-hours will be expended over the duration of FMC's 26-month construction period. The peak construction workforce of 338 workers will occur in just one quarter and the average workforce will be 200 workers per quarter. These summary statistics are presented below in **Table 5-6**.

TABLE 5-6
Summary FMC Granger Optimization Project Construction Workforce Statistics

| | |
|--------------------------------|-----------|
| Total Project Man-Hours | 1,167,021 |
| Peak Workforce | 338 |
| Average Workforce | 200 |
| Construction Duration (months) | 26 |

Source: CH2M HILL, 2012.

Single Worker. Based on the type of labor required to complete construction on the facility, the majority of the workforce is expected to be single or will likely be unaccompanied by their spouse and children during the duration of construction. FMC has sought to ensure the availability of accommodations, including hotel and motel rooms as well as RV sites and other forms of temporary lodging.

Local to Non-Local Workforce Ratio. The proportion of non-local workers filling job openings will vary by construction activity. On a month-to-month basis, the number of onsite jobs held by workers from outside the local area would vary. Overall, approximately 75 percent of the workforce would be composed of non-local workers, with the non-local workforce peaking at 254 workers in the second quarter of 2014. This estimated distribution of local and non-local workers is reported in **Table 5-5** and follows the same pattern as the overall construction workforce. The local construction workforce payroll is estimated to exceed \$32 million, including pre-construction site preparation activities.

5.3.2.2 Operations Workforce Estimate

The total workforce associated with the Project during the operations phase would number about 26 workers. As shown in **Table 5-7**, the operations workforce would be comprised of supervisors, engineers, operators, maintenance staff, mechanics, and electricians. These workers will likely originate as non-local and permanently relocate to the local area. The annual payroll is estimated at approximately \$3.4 million a year.

TABLE 5-7
Estimated Operations Workforce Summary by Job Classification and Federal Occupational Codes

| Job Classification | Number of Personnel |
|------------------------------------|---------------------|
| Supervisor (51-1011) | 4 |
| Engineering and Clerical (17-2112) | 4 |
| Operators (51-8091) | 9 |
| Maintenance Engineering (17-2199) | 2 |
| Mechanics (49-9071) | 5 |
| Electricians (49-2094) | 2 |
| Total | 26 |

Source: FMC, 2012.

5.3.3 Impact Analysis Methodology

Potential impacts associated with the proposed facility are driven by a number of factors, including direct construction and operations workers currently residing in the area; direct workers newly entering the region for a limited time; additional service workers required to support these direct

workers; and the local purchase of equipment, supplies, materials, and services necessary for construction and operation of the facility.

Where appropriate, level of service (LOS) ratios are calculated for resources and comparisons are made with statewide, national, and local ratios to provide a perspective for impact assessment. LOS ratios express the quantity of a service (e.g., the number of firefighters or law enforcement officers in a service area) in relation to the population in the respective service area (e.g., per 10,000 residents). These ratios provide a means of comparing service levels across service areas and over time or against target or standard levels. LOS ratios are used to estimate the number of additional service personnel required to meet the demands of new residents while maintaining existing service levels. If it appears that the resources are unlikely to be able to accommodate the new demands of the Project, then mitigation measures are proposed.

5.3.3.1 Regional Economic Analysis

The economic impacts occurring in a local economy associated with the introduction of new business activity are based primarily on employee compensation, purchases made by the new business, and taxes paid to local governments. Thus, the positive economic impact on local businesses is expected to be consistent with the degree to which local businesses are able to supply the needs of new businesses and their employees. Conversely, if local businesses cannot meet the needs of new businesses or their employees, or cannot do so in a cost-competitive manner, then purchases may occur outside of the local economy. Purchases made outside of the local area represent leakages of money out of the local economy. Profits of the new business also leak out of the local economy if the owners or stockholders reside outside the local area. To measure local economic impacts, this report focuses on projected wages and salaries, business purchases, and taxes collected by local municipal and county governments.

To estimate the total economic impacts of a project or new business activity, the analysis takes into account the concept that employee wages and business purchases have a “ripple effect” in an economy. The new business will purchase some of its required materials, supplies, and services in the local economy, and local businesses will hire some new employees and purchase materials and services from other businesses to meet demand, creating what are known as indirect effects. Likewise, employees at the new business or project will spend a portion of their wages at local stores and businesses, creating “induced effects.” In this way, the economic impact of the new business or project spreads in the local economy. The portions of employee wages and business purchases that are made outside of the local economy result in leakages out of the local economy. Collectively, indirect and induced effects are referred to as “secondary impacts.” In their entirety, all of the previously discussed changes (direct and secondary) are referred to as “total economic impacts.” By their nature, total impacts are greater than initial changes because of secondary effects. The magnitude of the increase is what is popularly termed a “multiplier effect.” To estimate the total economic impacts due to this ripple effect, economic multipliers are used in conjunction with the direct employment, wages, business purchases, and taxes paid. The direct impacts are multiplied by the economic multiplier to yield an estimate of the overall economic impact of the new business or project. Multipliers are generated by economic input-output (I-O) models that account for linkages between sectors in an economy.

An I-O analysis estimates the dollar value of change in regional economic activity associated with economic linkages and leakages. The economic system, consisting of producers and consumers, is divided into various sectors that are defined in terms of the resources they require as inputs and what they produce as outputs. The quantities of inputs and outputs for a given period, usually

expressed in monetary terms, are entered into an I-O matrix to enable the analysis of impacts within and across various sectors of an economy where growth and decline take place, as well as what effects various policies may have.

A number of regional economic analysis modeling systems (consisting of data and analytical software) are available for use in regional economic analysis. An I-O approach is used here for estimating the secondary effects of the Project. A number of I-O models exist, including Impact Analysis for Planning (IMPLAN); Regional Economic Models, Inc. (REMI); and Regional Industrial Multiplier System II (RIMS). These modeling systems all contain computer databases used to create I-O models for any combination of U.S. counties. For this Project, IMPLAN was used to estimate the indirect and induced impacts associated with implementation of the Project.

5.3.3.2 Impact Analysis for Planning Model

IMPLAN was originally developed by the U.S. Forest Service (USFS) in cooperation with the Federal Emergency Management Agency (FEMA) and the Bureau of Land Management (BLM) to assist in land and resource management planning. The IMPLAN package includes 1) estimates of final demands and final payments for counties developed from government data; 2) a national average matrix of technical coefficients; 3) mathematical tools that help the user build the I O model; and 4) tools that allow the user to change data, conduct impact analysis, and generate reports.

5.4 Inventory, Evaluation, and Impact Assessment by Social and Economic Resource Areas

Social and economic conditions in the geographical area likely to experience impacts associated with the construction and operation of the industrial facility are inventoried and evaluated as they currently exist, projected as they would exist in the future without the proposed facility, and as they would exist with the facility. Following this evaluation, an assessment is presented of the potential Project-induced impacts during both construction and operation phases.

The resources addressed are as follow:

- **Population** – Historical trends, density and distribution, age, race and ethnicity, poverty status, migration, and projections
- **Economic and Fiscal Conditions** – Employment and unemployment, employment by industrial sector, earnings and income, commuting and housing-jobs balance, construction industry, government revenues and finances (property values, sales taxes, use taxes, lodging taxes, impact assistance funds), finances (revenues and expenditures), and future conditions by sector
- **Housing** – Permanent housing (housing stock characteristics, construction activity, home values and rental housing costs, rental housing vacancies, housing needs), and temporary housing (hotel, motels, and RV spaces)
- **Public Education** – Educational facilities, student enrollment, and student-teacher ratios
- **Public Safety** – Fire protection services, law enforcement services, and crime
- **Health Care** – Location and characteristics of personnel and facilities, and health needs of existing population
- **Municipal Services** – Wastewater treatment, water treatment and distribution, non-hazardous waste collection and disposal, electricity service, and natural gas service.

5.4.1 Population

This subsection describes past, present, and future characteristics of the population in the study area. These characteristics include historical trends for the study area, counties, and incorporated places; age composition of the county populations; racial and ethnic composition; and migration patterns.

Population characteristics that are important in determining the location and availability of the local labor force include the location of population centers and the age distribution of the population (i.e., the identification of areas where persons of working age reside).

5.4.1.1 Existing Conditions

Historical Population Trends. Historical population data for the study area are summarized in **Table 5-8**, while **Table 5-9** presents the decade-to-decade population change. With approximately 83,000 residents in 2010, the study area has consistently represented 10 to 15 percent of Wyoming's overall population since the 1940s. The individual cities as well as the overall three-county study area have seen the boom-and-bust cycle common in Wyoming in the 20th century, with tremendous growth seen in the 1970s followed by a rapid slowdown, if not a loss in population, in the 1980s. The population of the study area, Sweetwater County, and the state each grew by approximately 15 percent from 2000 to 2010 (WY EAD, 2011a). **Table 5-8** also provides estimates of population in the study area and state as of July 1, 2011. While the study area population increased by 201 persons overall between 2010 and 2011, growth of approximately 0.8 percent in Sweetwater County offset minor population losses in Lincoln and Uinta counties of -0.2 percent and -0.8 percent, respectively. Similarly, it was estimated that Wyoming's population had grown by 0.8 percent as well since the 2010 census (WY EAD, 2012).

TABLE 5-8
Population Trends in the Study Area

| Area | 1940 | 1950 | 1960 | 1970 | 1980 | 1990 | 2000 | 2010 | 2011 Estimate |
|-------------------------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|
| Sweetwater | 19,407 | 22,017 | 17,920 | 18,391 | 41,723 | 38,823 | 37,613 | 43,806 | 44,175 |
| Bairoil, Town of | | | | | | 228 | 97 | 106 | |
| Granger, Town of | 163 | 122 | 159 | 137 | 177 | 126 | 146 | 139 | |
| Green River, City of | 2,640 | 3,187 | 3,497 | 4,196 | 12,807 | 12,711 | 11,808 | 12,515 | |
| Rock Springs, City of | 9,827 | 10,857 | 10,371 | 11,657 | 19,458 | 19,050 | 18,708 | 23,036 | |
| Superior, Town of | 1,240 | 1,580 | 241 | 197 | 586 | 273 | 244 | 336 | |
| Wamsutter, Town of | 169 | 103 | 110 | 139 | 681 | 240 | 261 | 451 | |
| Lincoln | 10,286 | 9,023 | 9,018 | 8,640 | 12,177 | 12,625 | 14,573 | 18,106 | 18,071 |
| Afton, Town of | 1,211 | 1,319 | 1,337 | 1,290 | 1,481 | 1,394 | 1,818 | 1,911 | |
| Alpine, Town of | | | | | | 200 | 550 | 828 | |
| Cokeville, Town of | 452 | 440 | 545 | 440 | 515 | 493 | 506 | 535 | |
| Diamondville, Town of | 586 | 415 | 398 | 485 | 1,000 | 864 | 716 | 737 | |
| Kemmerer, City of | 2,026 | 1,667 | 2,028 | 2,292 | 3,273 | 3,020 | 2,651 | 2,656 | |
| La Barge, Town of | | | | | 302 | 493 | 431 | 551 | |
| Opal, Town of | | | 78 | 67 | 55 | 95 | 102 | 96 | |
| Thayne, Town of | | 229 | 214 | 195 | 256 | 267 | 341 | 366 | |
| Star Valley Ranch, Town of | | | | | | | | 1,503 | |
| Uinta | 7,223 | 7,331 | 7,484 | 7,100 | 13,021 | 18,705 | 19,742 | 21,118 | 20,985 |
| Evanston, City of | 3,605 | 3,863 | 4,901 | 4,462 | 6,265 | 10,903 | 11,507 | 12,359 | |
| Lyman, Town of | 378 | 483 | 425 | 643 | 2,284 | 1,896 | 1,938 | 2,115 | |
| Mountain View, Town of | | | | | 628 | 1,189 | 1,153 | 1,286 | |
| Bear River, Town of | | | | | | | | 518 | |

TABLE 5-8
Population Trends in the Study Area

| Area | 1940 | 1950 | 1960 | 1970 | 1980 | 1990 | 2000 | 2010 | 2011 Estimate |
|---------------------|---------|---------|---------|---------|---------|---------|---------|---------|------------------|
| Study Area | 36,916 | 38,371 | 34,422 | 34,131 | 66,921 | 70,153 | 71,928 | 83,030 | 83,231 |
| Wyoming | 250,742 | 290,529 | 330,066 | 332,416 | 469,557 | 453,588 | 493,782 | 563,626 | 564,460 |
| As Percent of State | 15% | 13% | 10% | 10% | 14% | 15% | 15% | 15% | 15% |

Source: Wyoming Department of Administration and Information, Economic Analysis Division (WY EAD), 2011a and WY EAD, 2012.

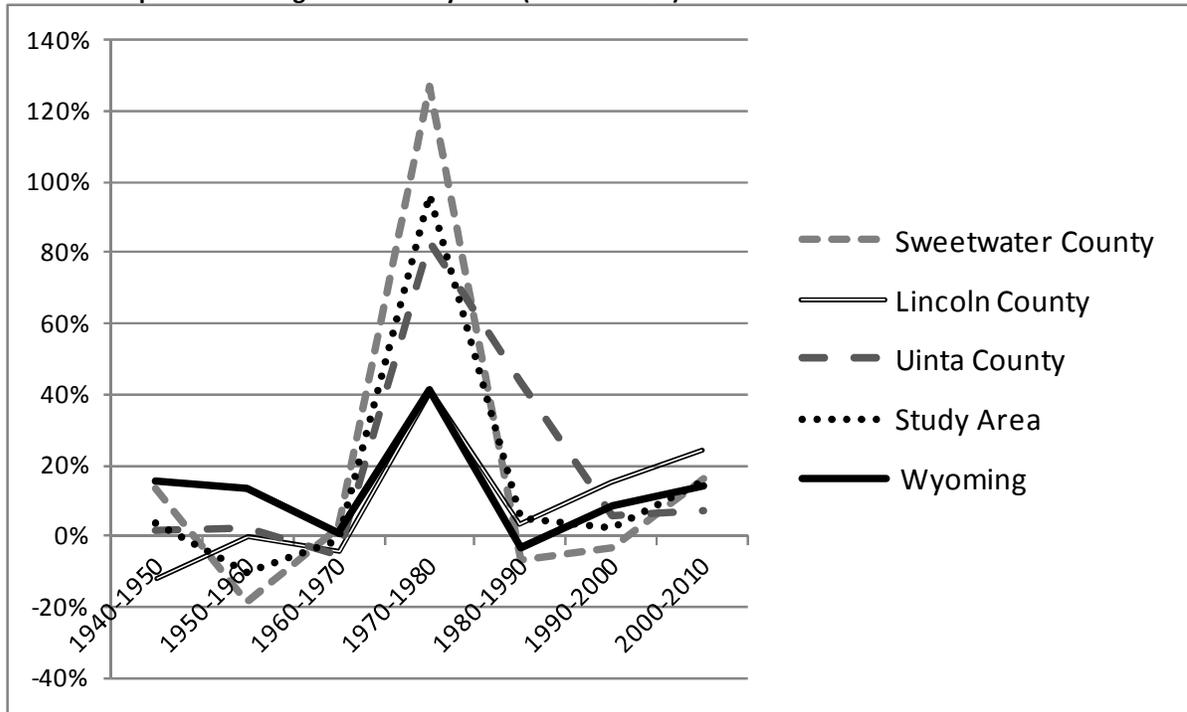
TABLE 5-9
Decade-to-Decade Percent Population Change in the Study Area

| Area | 1940-1950 | 1950-1960 | 1960-1970 | 1970-1980 | 1980-1990 | 1990-2000 | 2000-2010 |
|----------------------------|-------------|-------------|------------|-------------|------------|------------|------------|
| Sweetwater | 13% | -19% | 3% | 127% | -7% | -3% | 16% |
| Bairoil, Town of | | | | | | -57% | 9% |
| Granger, Town of | -25% | 30% | -14% | 29% | -29% | 16% | -5% |
| Green River, City of | 21% | 10% | 20% | 205% | -1% | -7% | 6% |
| Rock Springs, City of | 10% | -4% | 12% | 67% | -2% | -2% | 23% |
| Superior, Town of | 27% | -85% | -18% | 197% | -53% | -11% | 38% |
| Wamsutter, Town of | -39% | 7% | 26% | 390% | -65% | 9% | 73% |
| Lincoln | -12% | 0% | -4% | 41% | 4% | 15% | 24% |
| Afton, Town of | 9% | 1% | -4% | 15% | -6% | 30% | 5% |
| Alpine, Town of | | | | | | 175% | 51% |
| Cokeville, Town of | -3% | 24% | -19% | 17% | -4% | 3% | 6% |
| Diamondville, Town of | -29% | -4% | 22% | 106% | -14% | -17% | 3% |
| Kemmerer, City of | -18% | 22% | 13% | 43% | -8% | -12% | 0% |
| La Barge, Town of | | | | | 63% | -13% | 28% |
| Opal, Town of | | | -14% | -18% | 73% | 7% | -6% |
| Thayne, Town of | | -7% | -9% | 31% | 4% | 28% | 7% |
| Star Valley Ranch, Town of | | | | | | | |
| Uinta | 1% | 2% | -5% | 83% | 44% | 6% | 7% |
| Evanston, City of | 7% | 27% | -9% | 40% | 74% | 6% | 7% |
| Lyman, Town of | 28% | -12% | 51% | 255% | -17% | 2% | 9% |
| Mountain View, Town of | | | | | 89% | -3% | 12% |
| Bear River, Town of | | | | | | | |
| Study Area | 4% | -10% | -1% | 96% | 5% | 3% | 15% |
| Wyoming | 16% | 14% | 1% | 41% | -3% | 9% | 14% |

Source: Wyoming Department of Administration and Information, Economic Analysis Division (WY EAD), 2011a.

Figure 5-3, below, and **Table 5-9** illustrate the population trends of the study area, the counties within the study area, and in the state as a whole between 1940 and 2010. It illustrates the overall “boom-bust” cycle experienced historically in the state, and demonstrates that each individual county can be impacted by swings in population. Sweetwater County, in particular, grew by more than 125 percent in the 1970s, from 18,391 to 41,723 residents, only slightly less than its current population of 43,806.

FIGURE 5-3
Historical Population Change in the Study Area (1940 to 2010)



Source: Wyoming Department of Administration and Information, Economic Analysis Division (WY EAD) and CH2M HILL, 2012.

Population Density and Distribution. **Table 5-10** summarizes the land area, the study area’s 2010 population and population density, and each entity’s percentage of the overall study area population. Sweetwater County, the location of the Project, covers 10,426 square miles, of which the majority, 73 percent, is either federally or state-owned. Of the 83,030 persons living in the study area in 2010, 53 percent resided in Sweetwater County, 25 percent lived in Uinta County, and 22 percent were Lincoln County residents. The population of the study area represented 15 percent of Wyoming’s total population in 2010.

The majority of the population of each county, as well as the study area overall, resides in incorporated communities. While the land area of these communities represents less than 1 percent of the total three-county study area, 76 percent of the study area population resides in an incorporated town, city, or CDP. As presented in **Table 5-10**, the three largest population centers in the study area in 2010 were the cities of Rock Springs and Green River in Sweetwater County, accounting for about 28 percent and 15 percent of the study area population, respectively, and the City of Evanston in Uinta County, with a 15 percent share. The towns of Lyman (1,410 residents per square mile) and Mountain View (1,608 residents per square mile) in Uinta County have the highest population densities in the study area, but only account for 4 percent of the total population.

Population densities in the cities of Evanston, Rock Springs, and Green River were also relatively high with 1,203, 1,191, and 912 persons per square mile, respectively. In contrast, the population density of Wyoming is six persons per square mile, while in the study area overall, the population density is five persons per square mile.

TABLE 5-10
Population Density and Distribution in the Study Area

| | Area (square mile) | 2010 Population | Population Density | % of Study Area Population |
|--------------------------|-----------------------|--------------------|--------------------|----------------------------------|
| Sweetwater County | 10,426.7 | 43,806 | 4.2 | 52.8% |
| Arrowhead Springs CDP | 1.2 | 63 | 52.5 | 0.1% |
| Bairoil town | 0.9 | 106 | 117.8 | 0.1% |
| Farson CDP | 75.4 | 313 | 4.2 | 0.4% |
| Granger town | 2.5 | 139 | 55.6 | 0.2% |
| Green River city | 13.7 | 12,515 | 911.5 | 15.1% |
| Little America CDP | 7.8 | 68 | 8.7 | 0.1% |
| Rock Springs city | 19.3 | 23,036 | 1,191.1 | 27.7% |
| Superior town | 1.1 | 336 | 305.5 | 0.4% |
| Wamsutter town | 1.3 | 451 | 346.9 | 0.5% |
| Lincoln County | 4,076.1 | 18,106 | 4.4 | 21.8% |
| Afton town | 3.4 | 1,911 | 562.1 | 2.3% |
| Alpine town | 0.7 | 828 | 1,182.9 | 1.0% |
| Cokeville town | 0.7 | 535 | 764.3 | 0.6% |
| Diamondville town | 1.3 | 737 | 566.9 | 0.9% |
| Kemmerer city | 7.4 | 2,656 | 358.9 | 3.2% |
| La Barge town | 0.9 | 551 | 612.2 | 0.7% |
| Opal town | 0.4 | 96 | 240.0 | 0.1% |
| Thayne town | 0.7 | 366 | 522.9 | 0.4% |
| Star Valley Ranch town | 12.7 | 1,503 | 118.3 | 1.8% |
| Uinta County | 2,081.3 | 21,118 | 10.1 | 25.4% |
| Evanston city | 10.3 | 12,359 | 1,203.4 | 14.9% |
| Fort Bridger CDP | 2.0 | 345 | 172.5 | 0.4% |
| Lyman town | 1.5 | 2,115 | 1,410.0 | 2.5% |
| Mountain View town | 0.8 | 1,286 | 1,607.5 | 1.5% |
| Bear River town | 1.9 | 518 | 272.6 | 0.6% |
| Study Area | 16,584.0 | 83,030 | 5.0 | |
| Wyoming | 97,093.1 | 563,626 | 5.8 | |

Source: U.S. Census Bureau, 2012.

Age of the Population. The age distribution of the population is an important factor in assessing the size of the local labor force. **Table 5-11** compares the existing population, by age, in the study area counties and the State of Wyoming. The age cohorts from 25 to 44 and from 45 to 64 offer the greatest possible contribution of the expected labor force. These two cohorts contain 54 percent of the population of the State of Wyoming as a whole. The age distribution in the study area counties was similar with the limited exception of Uinta County, where slightly less than half (48 percent) of its population is between the ages of 25 – 64. In 2010, there were just over 46,000 persons in the study area in this age range, of which over half (55 percent or 25,745 people) reside in Sweetwater County.

TABLE 5-11
Year 2010 Population in Wyoming and Study Area Counties by Age and Age Cohort Percent of the Total

| Geographic Area | Age | | | | | | Total |
|--------------------------|----------|---------|----------|----------|----------|--------|---------|
| | Under 18 | 5 to 17 | 18 to 24 | 25 to 44 | 45 to 64 | 65+ | |
| Wyoming | | | | | | | |
| Number | 135,402 | 95,199 | 56,429 | 144,615 | 157,090 | 70,090 | 563,626 |
| Percent | 24% | 17% | 10% | 26% | 28% | 12% | |
| Sweetwater County | | | | | | | |
| Number | 12,806 | 9,598 | 4,194 | 14,208 | 11,537 | 7,525 | 50,270 |
| Percent | 25% | 19% | 8% | 28% | 23% | 15% | |
| Lincoln County | | | | | | | |
| Number | 5,104 | 3,655 | 1,133 | 4,513 | 5,115 | 2,241 | 18,106 |
| Percent | 28% | 20% | 6% | 25% | 28% | 12% | |
| Uinta County | | | | | | | |
| Number | 6,070 | 4,433 | 1,879 | 5,669 | 5,355 | 3,777 | 22,750 |
| Percent | 27% | 19% | 8% | 25% | 24% | 17% | |

Source: Wyoming Department of Administration and Information, Economic Analysis Division (WY EAD), 2010.

Population Migration. Population change in an area is attributable to births, deaths, and net migration. Population migration in Wyoming is tracked by the U.S. Census Bureau as well as the Wyoming Department of Transportation (WYDOT), which tracks drivers who exchange licenses from other areas when they move to Wyoming as well as those who surrender their licenses to other states when they move from Wyoming (WCDA, 2011). **Table 5-12** summarizes the net change between incoming and outgoing persons with licenses for each of the three counties in the study area, for the study area as a whole, and for the entire state based on the WYDOT data. It illustrates that the net migration to the study area has been increasing since 2004 as well as its proportion of Wyoming's overall net migration. Approximately 5,500 new residents moved to the study area between 2005 and June 2011, representing 15 percent of the state's net migration during this period, an increase from a low of 7 percent in 2009. However, based on the numbers reported in June 2011, Lincoln and Uinta counties were the only Wyoming counties to experience net departures, while Sweetwater County saw modest migration similar to that experienced by the county historically (WCDA, 2011).

TABLE 5-12
Net Migration Trends in the Study Area

| Area | 2005 | 2006 | 2007 | 2008 | 2009 | 2010 | 6/2011 | (2005 – 2010) |
|--------------------------|-------|-------|-------|-------|-------|-------|--------|---------------|
| Sweetwater | 243 | 711 | 631 | 735 | 294 | 567 | 241 | 3,422 |
| Lincoln | 151 | 341 | 290 | 216 | 62 | 153 | -43 | 1,170 |
| Uinta | 87 | 286 | 149 | 154 | 96 | 210 | -23 | 959 |
| Study Area | 481 | 1,338 | 1,070 | 1,105 | 452 | 930 | 175 | 5,551 |
| Wyoming | 3,387 | 5,810 | 6,002 | 7,112 | 6,431 | 7,495 | 1,619 | 37,856 |
| Study Area as % of State | 14% | 23% | 18% | 16% | 7% | 12% | 11% | 15% |

Source: Wyoming Community Development Authority (WCDA), 2011.

Population Projections without Proposed Project. As shown in **Table 5-13**, forecasts by the State of Wyoming estimate that the population of the study area will increase by 8,000 residents by 2020 and by an additional 5,230 by 2030 (WY EAD, 2011). The bulk of this growth is projected to occur in the cities of Green River and Rock Springs in Sweetwater County as well as the City of Evanston in Uinta County. **Table 5-13** summarizes the forecasted population change by county in 5-year increments out to 2030.

TABLE 5-13
Population Forecasts in the Study Area

| | 2010 Census | 2015 Forecast | 2020 Forecast | 2025 Forecast | 2030 Forecast |
|--------------------------|----------------|----------------|----------------|----------------|----------------|
| WYOMING | 563,626 | 594,710 | 622,360 | 644,050 | 668,830 |
| Sweetwater County | 43,806 | 46,430 | 49,280 | 50,820 | 51,960 |
| Bairoil | 106 | 112 | 119 | 123 | 126 |
| Granger | 139 | 147 | 156 | 161 | 165 |
| Green River | 12,515 | 13,265 | 14,079 | 14,519 | 14,845 |
| Rock Springs | 23,036 | 24,416 | 25,915 | 26,724 | 27,324 |
| Superior | 336 | 356 | 378 | 390 | 399 |
| Wamsutter | 451 | 478 | 507 | 523 | 535 |
| Lincoln County | 18,106 | 18,340 | 19,170 | 19,920 | 20,860 |
| Afton | 1,911 | 1,936 | 2,023 | 2,102 | 2,202 |
| Alpine | 828 | 839 | 877 | 911 | 954 |
| Cokeville | 535 | 542 | 566 | 589 | 616 |
| Diamondville | 737 | 747 | 780 | 811 | 849 |
| Kemmerer | 2,656 | 2,690 | 2,812 | 2,922 | 3,060 |
| La Barge | 551 | 558 | 583 | 606 | 635 |
| Opal | 96 | 97 | 102 | 106 | 111 |
| Star Valley Ranch | 1,503 | 1,522 | 1,591 | 1,654 | 1,732 |
| Thayne | 366 | 371 | 388 | 403 | 422 |
| Uinta County | 21,118 | 21,930 | 22,580 | 22,970 | 23,440 |
| Bear River | 518 | 538 | 554 | 563 | 575 |
| Evanston | 12,359 | 12,834 | 13,215 | 13,443 | 13,718 |
| Lyman | 2,115 | 2,196 | 2,261 | 2,300 | 2,348 |
| Mountain View | 1,286 | 1,335 | 1,375 | 1,399 | 1,427 |

TABLE 5-13
Population Forecasts in the Study Area

| | 2010 Census | 2015 Forecast | 2020 Forecast | 2025 Forecast | 2030 Forecast |
|--------------|-------------|---------------|---------------|---------------|---------------|
| Study Area | 83,030 | 86,700 | 91,030 | 93,710 | 96,260 |
| % of Wyoming | 15% | 15% | 15% | 15% | 14% |

Notes:

2010 state, county, and municipality populations are 2010 Census data; 2011 to 2030 state and county population forecasts were developed based on trends of demographic and economic variables; municipality population forecasts were simply calculated by applying the place/county ratios to the appropriate county population forecasts.

Source: Wyoming Department of Administration and Information, Economic Analysis Division (WY EAD), (<http://eadiv.state.wy.us>), October 2011.

As shown in **Table 5-14**, Sweetwater County is expected to experience the highest 5-year rates of growth (6 percent) within the study area through 2020. Beyond 2020, Lincoln County is projected to grow at higher rates (4 to 5 percent) than either Uinta or Sweetwater County. The three-county study area is projected to grow between 3 and 5 percent, slightly below that of Wyoming as a whole.

TABLE 5-14
Percent Population Change Forecasted for Counties in the Study Area

| | % Change 2010 - 2015 | % Change 2015 - 2020 | % Change 2020 - 2025 | % Change 2025 - 2030 |
|-------------------|-------------------------|-------------------------|-------------------------|-------------------------|
| Wyoming | 6% | 5% | 3% | 4% |
| Study Area | 4% | 5% | 3% | 3% |
| Sweetwater County | 6% | 6% | 3% | 2% |
| Lincoln County | 1% | 5% | 4% | 5% |
| Uinta County | 4% | 3% | 2% | 2% |

Population Race and Ethnicity. Overall, the results of the 2010 Census in Wyoming indicate that there has been significant change in the racial and ethnic composition. The white population increased at the slowest rate, 12.5 percent, over the 2000 through 2010 period, while the Asian population grew more quickly than any other race at 59.7 percent (WY EAD, 2011). **Table 5-15** summarizes the racial and ethnic composition of each of the three counties as compared to the state based on the 2010 Census. Similar to the state, the counties in the study area are predominantly white, representing between 89 and 95 percent of the total population. Those identifying themselves as Hispanic or Latino ethnically ranged from 4 percent of the population in Uinta County to 15 percent in Sweetwater County, as compared to nearly 9 percent for the state overall.

TABLE 5-15
Population Composition by Race and Ethnicity (2010 Census)

| Geographic Area | Percent of Population by Race | | | | | | | |
|-------------------|-------------------------------|---------------------------------|---|-------------|--|-------------------|---------------------------|---------------------|
| | White | Black or African American Alone | American Indian and Alaska Native Alone | Asian Alone | Native Hawaiian and Other Pacific Islander alone | Two or More Races | Hispanic or Latino Origin | Minority Population |
| Wyoming | 90.7% | 0.8% | 2.4% | 0.8% | 0.1% | 2.2% | 8.9% | 14.1% |
| Sweetwater County | 88.5% | 1.0% | 1.0% | 0.8% | Z | 2.3% | 15.3% | 19.1% |
| Lincoln County | 95.4% | 0.2% | 0.8% | 0.3% | Z | 1.2% | 4.3% | 6.5% |
| Uinta County | 92.4% | 0.3% | 0.8% | 0.3% | 0.2% | 2.0% | 8.8% | 11.5% |

Notes:

* Value greater than zero but less than half unit of measure shown.

Source: U.S. Census Bureau, Census 2010 Quickfacts, accessed April 2012.

Population Poverty Status. According to U. S. Census Bureau, the American Community Survey estimated the following proportions of the population living below the poverty level in the study area in 2010: 9.8 percent for the state, 8.2 percent for Sweetwater County, 8.1 percent for Lincoln County, and 12.1 percent for Uinta County.

5.4.1.2 Construction Impacts

The number of non-local temporary workers likely to enter the area of site influence during the peak construction month could total 254 and average about 150 per quarter over the 26-month construction period. It is not expected that spouses or children will accompany these temporary workers and, therefore, impacts to population would be minor, consisting of only 0.3 percent of the existing three-county population of approximately 83,030 and just 0.6 percent of Sweetwater County's population of 43,806.

5.4.1.3 Operations Impacts

During operations, it is expected that 26 permanent workers would be hired and relocate to the local region. This is expected to have a negligible impact to the population of the local area.

5.4.2 Economic and Fiscal Conditions

This section addresses past, present, and future economic conditions (labor force, employment, and unemployment); income and earnings by industrial sector; commuting patterns and work centers; existing labor characteristics and availability; and government revenues (property, sales, use, and lodging taxes and residential property values).

5.4.2.1 Existing Conditions

Employment and Unemployment. Recent labor force trends are tabulated in **Table 5-16**. During the period 2000 through 2010, total employment in the study area increased by over 2,900 jobs or nearly 8 percent, which is greater than the statewide increase of more than 6 percent during the same period. Meanwhile, the size of the study area labor force rose by 11.7 percent and, thus, the rate of unemployment also increased. In 2010, the unemployment rate was lowest in Sweetwater County at 6.7 percent and highest in Lincoln County at 9.2 percent. By comparison, the statewide unemployment rate was 7 percent. As illustrated in **Figure 5-4**, counties within the study area experienced different changes in employment. Lincoln County added 299 jobs, or a growth rate of about 4 percent, while Uinta County posted a comparable 3.8 percent rate of growth with the addition of 389 new jobs. However, Sweetwater County, with 2,222 new jobs, experienced nearly three times as great an increase (11.2 percent) in employment.

TABLE 5-16
2000 - 2010 Benchmark Labor Force Estimates - Annual Averages for Wyoming and Study Area Counties

| | Wyoming | | | | | | | | | | |
|-------------------|--------------------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
| | 2000 | 2001 | 2002 | 2003 | 2004 | 2005 | 2006 | 2007 | 2008 | 2009 | 2010 |
| Labor Force | 266,882 | 269,985 | 269,654 | 271,607 | 273,091 | 278,183 | 285,958 | 291,604 | 295,592 | 296,880 | 293,769 |
| Employment | 256,685 | 259,508 | 258,462 | 259,489 | 262,358 | 267,927 | 276,882 | 283,543 | 286,394 | 277,669 | 273,313 |
| Unemployment | 10,197 | 10,477 | 11,192 | 12,118 | 10,733 | 10,256 | 9,076 | 8,061 | 9,198 | 19,211 | 20,456 |
| Unemployment Rate | 3.8 | 3.9 | 4.2 | 4.5 | 3.9 | 3.7 | 3.2 | 2.8 | 3.1 | 6.5 | 7 |
| | Lincoln County | | | | | | | | | | |
| | 2000 | 2001 | 2002 | 2003 | 2004 | 2005 | 2006 | 2007 | 2008 | 2009 | 2010 |
| Labor Force | 7,357 | 7,563 | 7,493 | 8,307 | 7,971 | 7,856 | 8,282 | 9,050 | 8,445 | 8,325 | 8,121 |
| Employment | 7,072 | 7,260 | 7,142 | 7,927 | 7,649 | 7,528 | 7,992 | 8,825 | 8,142 | 7,661 | 7,371 |
| Unemployment | 285 | 303 | 351 | 380 | 322 | 328 | 290 | 225 | 303 | 664 | 750 |
| Unemployment Rate | 3.9 | 4 | 4.7 | 4.6 | 4 | 4.2 | 3.5 | 2.5 | 3.6 | 8 | 9.2 |
| | Sweetwater County | | | | | | | | | | |
| | 2000 | 2001 | 2002 | 2003 | 2004 | 2005 | 2006 | 2007 | 2008 | 2009 | 2010 |
| Labor Force | 20,716 | 20,892 | 20,184 | 20,791 | 21,190 | 22,128 | 23,690 | 24,132 | 24,462 | 24,066 | 23,703 |
| Employment | 19,897 | 20,064 | 19,336 | 19,933 | 20,480 | 21,464 | 23,099 | 23,605 | 23,870 | 22,485 | 22,119 |
| Unemployment | 819 | 828 | 848 | 858 | 710 | 664 | 591 | 527 | 592 | 1,581 | 1,584 |
| Unemployment Rate | 4 | 4 | 4.2 | 4.1 | 3.4 | 3 | 2.5 | 2.2 | 2.4 | 6.6 | 6.7 |
| | Uinta County | | | | | | | | | | |
| | 2000 | 2001 | 2002 | 2003 | 2004 | 2005 | 2006 | 2007 | 2008 | 2009 | 2010 |
| Labor Force | 10,461 | 10,802 | 11,092 | 10,896 | 10,576 | 10,711 | 11,135 | 11,309 | 11,603 | 11,447 | 11,213 |
| Employment | 10,042 | 10,392 | 10,610 | 10,388 | 10,163 | 10,336 | 10,798 | 11,014 | 11,261 | 10,655 | 10,431 |
| Unemployment | 419 | 410 | 482 | 508 | 413 | 375 | 337 | 295 | 342 | 792 | 782 |
| Unemployment Rate | 4 | 3.8 | 4.3 | 4.7 | 3.9 | 3.5 | 3 | 2.6 | 2.9 | 6.9 | 7 |

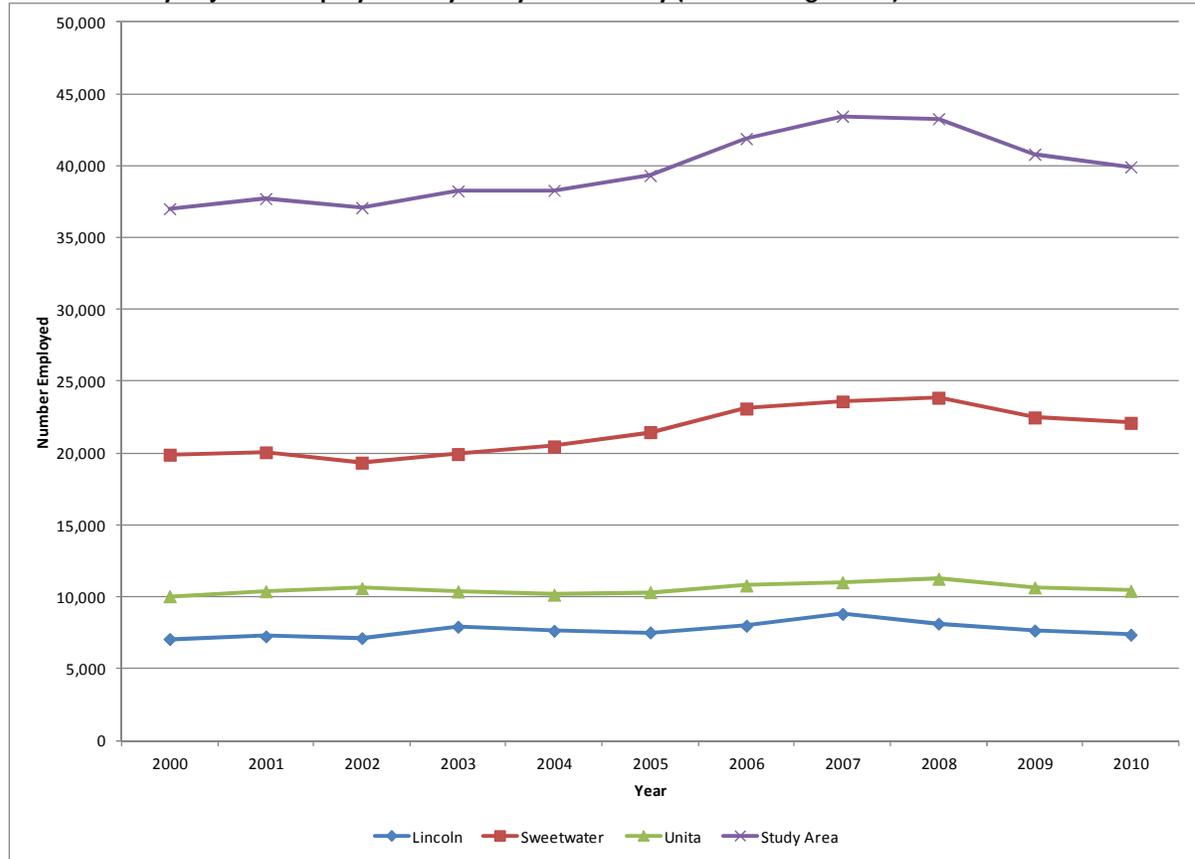
TABLE 5-16
 2000 - 2010 Benchmark Labor Force Estimates - Annual Averages for Wyoming and Study Area Counties

| | Study Area | | | | | | | | | | |
|--------------|------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| | 2000 | 2001 | 2002 | 2003 | 2004 | 2005 | 2006 | 2007 | 2008 | 2009 | 2010 |
| Labor Force | 38,534 | 39,257 | 38,769 | 39,994 | 39,737 | 40,695 | 43,107 | 44,491 | 44,510 | 43,838 | 43,037 |
| Employment | 37,011 | 37,716 | 37,088 | 38,248 | 38,292 | 39,328 | 41,889 | 43,444 | 43,273 | 40,801 | 39,921 |
| Unemployment | 1,523 | 1,541 | 1,681 | 1,746 | 1,445 | 1,367 | 1,218 | 1,047 | 1,237 | 3,037 | 3,116 |

Benchmark Run April 2011

Source: Wyoming Department of Employment (<http://doe.state.wy.us/lmi/LAUS/0004aa.htm>), accessed February 2012.

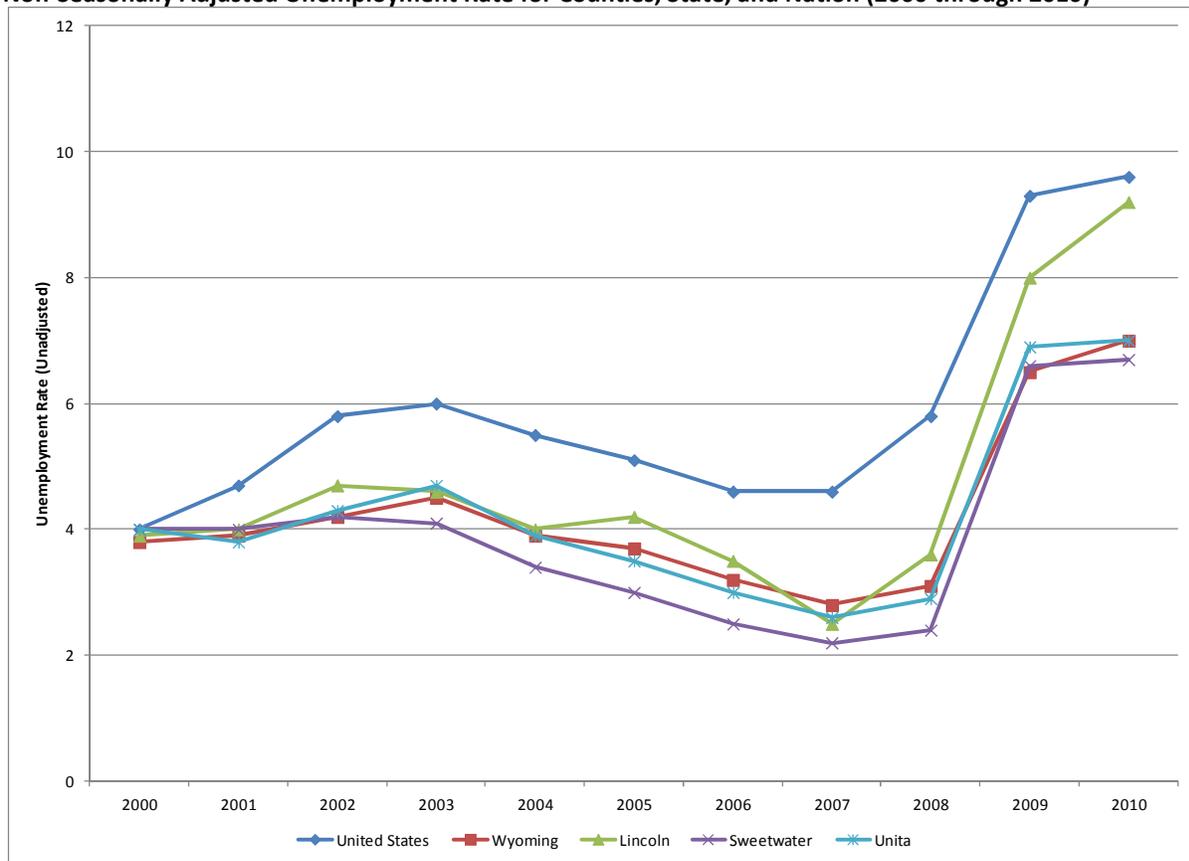
FIGURE 5-4
Non-Seasonally Adjusted Employment by Study Area County (2000 through 2010)



Source: Wyoming Department of Employment (<http://doe.state.wy.us/lmi/LAUS/0004aa.htm>), accessed February 2012.

Unemployment rates among the three study area counties started low (approximately 4 percent) in 2000 and generally declined until 2007, followed by a moderate increase in 2008 and a sharp jump in 2009, after which the rates stabilized in all study area counties except Lincoln. Throughout the entire period, unemployment rates in the study area counties were closely aligned with the state and lower than the national rate. **Figure 5-5** shows the trend in unemployment rates in the study area counties, the state, and the nation during the period 2000 through 2010.

FIGURE 5-5
Non-Seasonally Adjusted Unemployment Rate for Counties, State, and Nation (2000 through 2010)



Source: Wyoming Department of Employment (<http://doe.state.wy.us/lmi/LAUS/0004aa.htm>) and (<http://doe.state.wy.us/lmi/laus/lausrate.htm>), accessed February 2012.

Recent information regarding initial monthly claims for unemployment benefits suggests that unemployment is on the rise. **Figure 5-6** shows a comparison of unemployment rates for the study area counties, the state, and the nation for 2000 relative to 2010. In 2000, the unemployment rates for the counties in the study area hovered at approximately 4 percent. In contrast, 2010 unemployment rates for the study area counties ranged from a low of 6.7 percent in Sweetwater County to a high of 9 percent in Lincoln County. It is clear from **Figure 5-6** that the current unemployment rates are high by historical standards, but with the exception of Lincoln County, are well below the nation's 9.6 percent unemployment rate. In all cases, however, unemployment has risen substantially, with joblessness in Lincoln County climbing 163 percent, Uinta County 87 percent, and Sweetwater County 93 percent.

Between 2000 and 2010, the unemployment rate for the State of Wyoming rose by 3.2 percentage points from 3.8 to 7 percent, while the U.S. rate of unemployment during the same period increased from about 4 percent to nearly 10 percent. For the duration of economic slowdown, both the local and non-local labor force is likely to have greater availability for staffing projects than has been the case historically.

FIGURE 5-6
Comparison of Unemployment Rates (not Seasonally Adjusted) for the Years 2000 and 2010

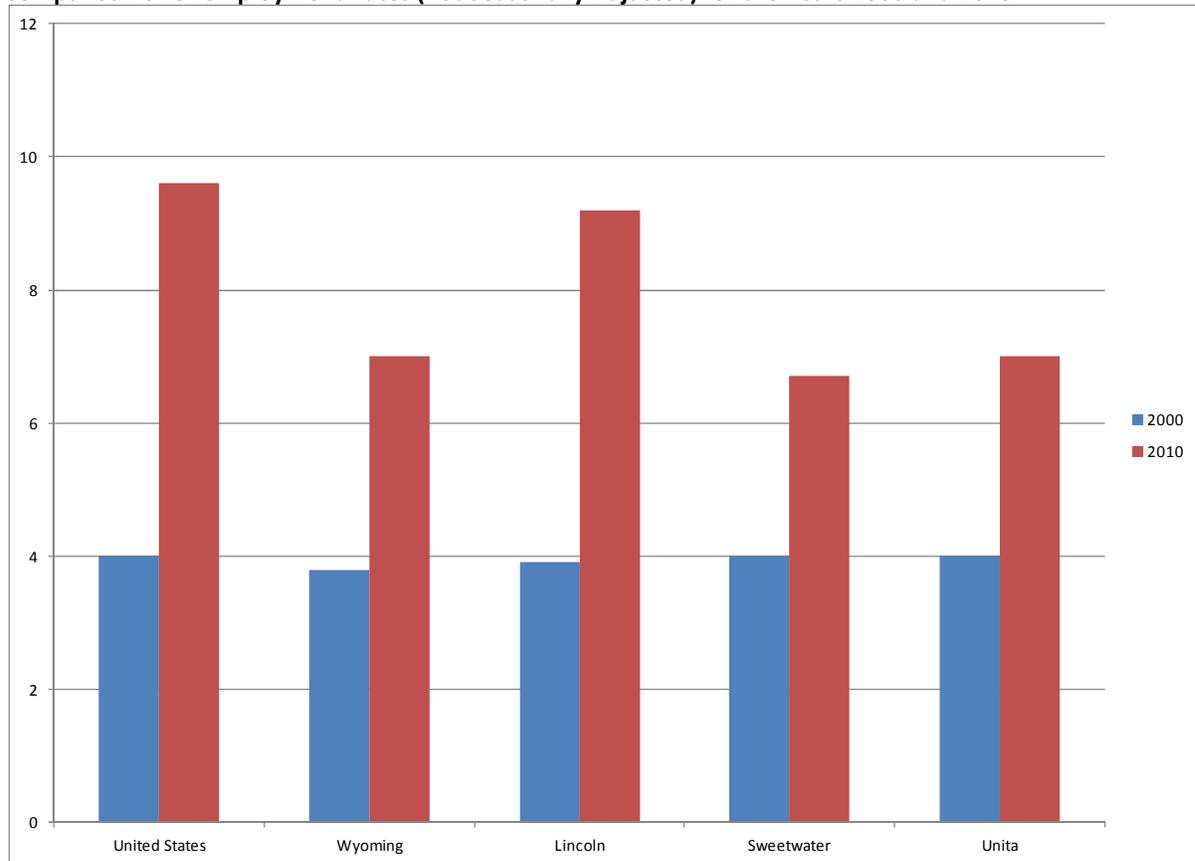
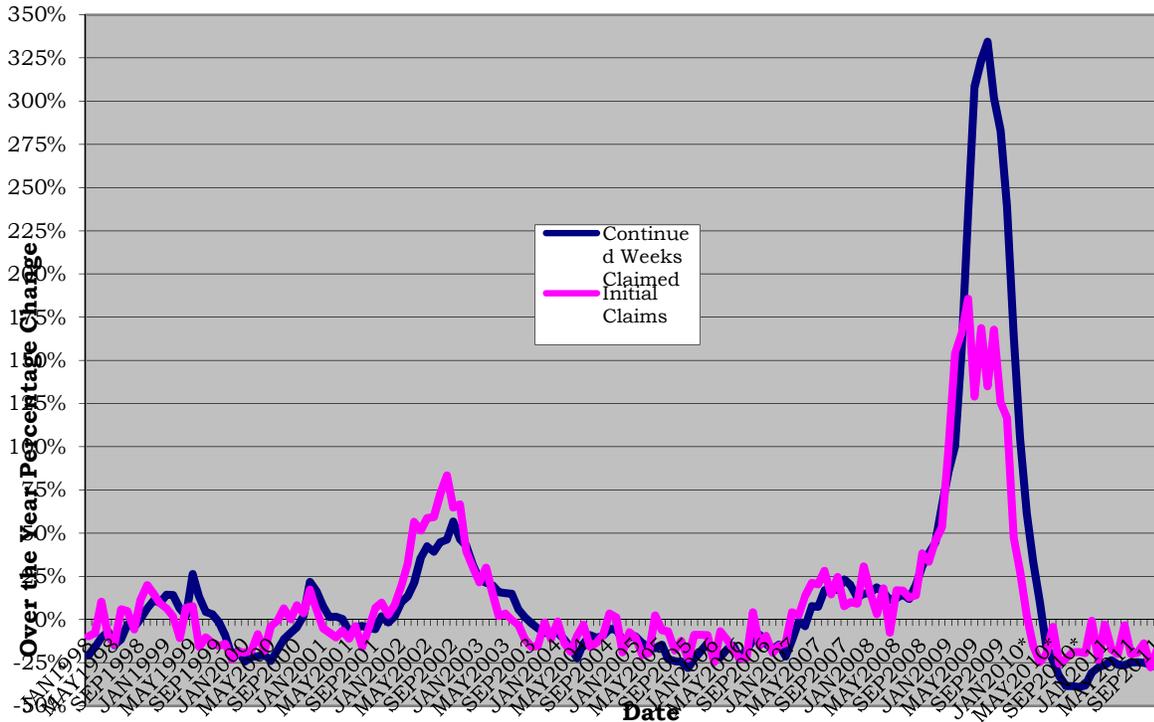


Figure 5-7 illustrates how statewide monthly claims for unemployment benefits compare to the same month in the preceding year over the period from January 1998 to September 2011. The period between September 2001 and May 2003 was one of increasingly deteriorating employment. Prior to this time, from mid-year 1999, was a period characterized by steady and sustained improvement in employment. Another period of stable and continued growth occurred between June 2003 and December 2007. However, 2007 saw the start of a trend of increasing claims for unemployment benefits, with the number increasing rapidly in the fourth quarter of 2008 and reaching a historical high during the first half of 2009. In March 2009, the number of claims was more than 150 percent higher than in the corresponding month in 2008. In 2011, however, the monthly claims decreased relative to the preceding year.

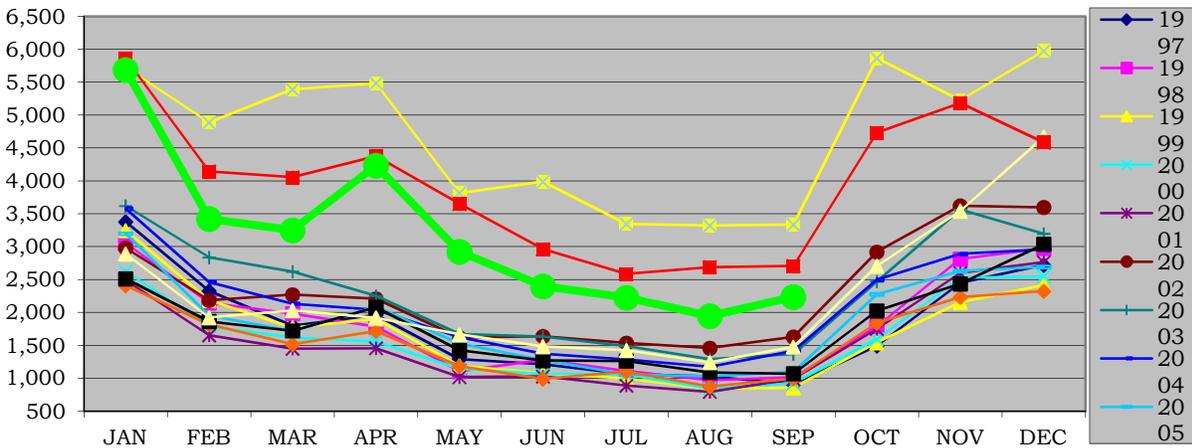
The information presented in **Figure 5-8** illustrates how the number of claims for unemployment benefits, at the state level, varies through the year and between years. Year 2009 began with a historical high in monthly claims relative to preceding years and remained high for the duration of the year. Year 2010, however, showed improvement, and economic gains continued in 2011, but had not yet returned to the pre-2009 levels. These numbers suggest the state's economy is in recovery. However, as of the second quarter of 2011, both initial and continued claims levels were still much higher than during non-downturn years (see **Figure 5-8**).

FIGURE 5-7
Monthly Initial Claims for Unemployment in the State, Year to Previous Year (January 1998 through September 2011)



Source: Wyoming Department of Employment, Research and Planning, 2012, *Statewide Normalized Initial Claims by Industry in NAICS—Updated September 2011* (http://doe.state.wy.us/lmi/ui/NAICS_Statewide_Initial.htm).

FIGURE 5-8
Initial Claims for Unemployment by Month and Year in Wyoming (1997 through 2011) Showing Seasonality of Workforce Requirements throughout the Year



Source: Wyoming Department of Employment, Research and Planning, 2012, *UI-Tables – Initial Claims Chart* (http://doe.state.wy.us/lmi/ui/NAICS_Statewide_Initial.htm).

Employment by Industrial Sector. Over the period from 2000 to 2009, total employment in the study area increased by 8,827 jobs, as shown in **Table 5-17**. During this period, farm employment was stable, government employment rose 12 percent, and nonfarm employment climbed by 20

percent. Within the nonfarm employment category, the largest growth in percentage terms was in the finance and insurance sector at 72 percent, followed by the real estate sector at 52 percent, transportation and warehousing at 40 percent and construction at 20 percent. In raw numbers, the mining sector picked up the most jobs. Employment in this sector was too small to be recorded in 2000 and by 2009, it showed nearly 8,000 jobs. The professional and technical sector also went from unrecorded status to 1,732 jobs. Only two private sectors showed negative growth. Manufacturing lost 12 percent of its jobs and retail trade employment fell by 5 percent. As shown in **Table 5-18**, of the three study area counties, Sweetwater County contributes the most toward total state employment (7.6 percent), followed by Uinta County at 3.4 percent and Lincoln County at 2.6 percent. Sweetwater County also contributes nearly 7 percent of the state's construction jobs.

TABLE 5-17
FMC Study Area Full-Time and Part-Time Employment by Type and By Industry (NAICS): 2001 and 2009

| FMC Granger Study Area | Year 2000 | Year 2009 | Change (number) 2000-2009 | Change (percent) |
|--|---------------|---------------|------------------------------|---------------------|
| Total employment | 44,540 | 53,367 | 8,827 | 20 |
| <i>Employment by Type:</i> | | 0 | 0 | |
| Wage and salary employment | 35,842 | 42,587 | 6,745 | 19 |
| Proprietors employment | 8,698 | 10,780 | 2,082 | 24 |
| Farm proprietors employment | 989 | 1,022 | 33 | 3 |
| Nonfarm proprietors employment ¹ | 7,709 | 9,758 | 2,049 | 27 |
| Employment by industry: | 0 | 0 | 0 | |
| Farm employment | 1,202 | 1,248 | 46 | 4 |
| Nonfarm employment | 43,338 | 52,119 | 8,781 | 20 |
| Private employment | 35,373 | 43,206 | 7,833 | 22 |
| Forestry, fishing, and related activities | 0 | 0 | 0 | NA |
| Mining | 0 | 7,977 | 7,977 | NA |
| Utilities | 0 | 0 | 0 | NA |
| Construction | 4,331 | 5,243 | 912 | 21 |
| Manufacturing | 2,242 | 1,963 | -279 | -12 |
| Wholesale trade | 0 | 0 | 0 | NA |
| Retail Trade | 5,564 | 5,303 | -261 | -5 |
| Transportation and warehousing | 1,785 | 2,503 | 718 | 40 |
| Information | 601 | 663 | 62 | 10 |
| Finance and insurance | 984 | 1,689 | 705 | 72 |
| Real estate and rental and leasing | 1,457 | 2,211 | 754 | 52 |
| Professional and technical services | 0 | 1,732 | 1,732 | NA |
| Management of companies and enterprises | 0 | 0 | 0 | NA |
| Administrative and waste services | 0 | 0 | 0 | NA |
| Educational services | 0 | 0 | 0 | NA |
| Health care and social assistance | 0 | 0 | 0 | NA |
| Arts, entertainment, and recreation | 487 | 565 | 78 | 16 |
| Accommodation and food services | 3,451 | 3,947 | 496 | 14 |
| Other services, except public administration | 1,956 | 2,181 | 225 | 12 |

TABLE 5-17
FMC Study Area Full-Time and Part-Time Employment by Type and By Industry (NAICS): 2001 and 2009

| FMC Granger Study Area | Year | Year | Change (number) | Change |
|---------------------------------------|-------|-------|-----------------|-----------|
| | 2000 | 2009 | 2000-2009 | (percent) |
| Government and government enterprises | 7,965 | 8,913 | 948 | 12 |
| Federal, civilian | 457 | 448 | -9 | -2 |
| Military | 405 | 481 | 76 | 19 |
| State and local | 7,103 | 7,984 | 881 | 12 |
| State government | 974 | 948 | -26 | -3 |
| Local government | 6,129 | 7,036 | 907 | 15 |

Notes:

¹ Excludes limited partners.

The estimates of employment for 2009 are based on the 2007 North American Industry Classification System (NAICS).

Last updated: April 21, 2011 - new estimates for 2009; revised estimates for 2001-2008.

Source: *Regional Economic Information System, Bureau of Economic Analysis, U.S. Department of Commerce*,
<http://www.bea.gov/regional/index.htm>.

TABLE 5-18
Total Full-Time and Part-Time Jobs in Wyoming (2009) by Type and by Industry (NAICS) and Share by FMC Study Area County

| Description | Number of Jobs | | Share | |
|---|----------------|--------------|--------------|--------------|
| | Wyoming | Lincoln | Sweetwater | Uinta |
| Total employment | 392,431 | 0.026 | 0.076 | 0.034 |
| <i>Employment by Type:</i> | | | | |
| Wage and salary employment | 295,461 | 0.023 | 0.086 | 0.035 |
| Proprietors employment | 96,970 | 0.035 | 0.046 | 0.030 |
| Farm proprietors employment | 9,639 | 0.050 | 0.023 | 0.034 |
| Nonfarm proprietors employment ¹ | 87,331 | 0.033 | 0.049 | 0.030 |
| <i>Employment by Industry:</i> | | | | |
| Farm employment | 12,502 | 0.048 | 0.021 | 0.031 |
| Nonfarm employment | 379,929 | 0.025 | 0.078 | 0.034 |
| Private employment | 306,013 | 0.025 | 0.082 | 0.034 |
| Forestry, fishing, and related activities | 2,822 | 0.046 | (D) | (D) |
| Mining | 33,273 | 0.025 | 0.183 | 0.032 |
| Utilities | 2,566 | (D) | (D) | 0.039 |
| Construction | 33,273 | 0.043 | 0.068 | 0.047 |
| Manufacturing | 10,788 | 0.023 | 0.125 | 0.034 |
| Wholesale trade | 9,663 | (D) | (D) | 0.034 |
| Retail Trade | 39,111 | 0.024 | 0.073 | 0.039 |
| Transportation and warehousing | 14,231 | 0.021 | 0.125 | 0.031 |
| Information | 4,744 | 0.031 | 0.054 | 0.055 |
| Finance and insurance | 16,625 | 0.027 | 0.052 | 0.023 |
| Real estate and rental and leasing | 19,047 | 0.026 | 0.060 | 0.030 |
| Professional and technical services | 16,810 | 0.021 | 0.050 | 0.032 |
| Management of companies and enterprises | 929 | (D) | 0.091 | 0.026 |

TABLE 5-18
Total Full-Time and Part-Time Jobs in Wyoming (2009) by Type and by Industry (NAICS) and Share by FMC Study Area County

| Description | Number of Jobs | | Share | |
|--|----------------|---------|------------|-------|
| | Wyoming | Lincoln | Sweetwater | Uinta |
| Administrative and waste services | 12,191 | (D) | 0.060 | 0.027 |
| Educational services | 3,323 | 0.013 | 0.046 | (D) |
| Health care and social assistance | 28,900 | 0.016 | 0.048 | (D) |
| Arts, entertainment, and recreation | 6,707 | 0.022 | 0.040 | 0.022 |
| Accommodation and food services | 32,646 | 0.018 | 0.075 | 0.028 |
| Other services, except public administration | 18,364 | 0.026 | 0.066 | 0.027 |
| Government and government enterprises | 73,916 | 0.026 | 0.063 | 0.031 |
| Federal, civilian | 7,794 | 0.017 | 0.031 | 0.010 |
| Military | 6,252 | 0.016 | 0.040 | 0.020 |
| State and local | 59,870 | 0.029 | 0.070 | 0.035 |
| State government | 15,545 | 0.009 | 0.018 | 0.034 |
| Local government | 44,325 | 0.035 | 0.088 | 0.035 |

Notes:

¹ Excludes limited partners.

The estimates of employment for 2009 are based on the 2007 North American Industry Classification System (NAICS).

Last updated: April 21, 2011 - new estimates for 2009; revised estimates for 2001-2008.

Source: *Regional Economic Information System, Bureau of Economic Analysis, U.S. Department of Commerce*, <http://www.bea.gov/regional/index.htm>.

As can be seen from the list of major employers presented in **Table 5-19**, government enterprises associated with education and health care are important employers in the study area. The leading employers in the private sector are FMC with 888 workers, Halliburton with 720 employees, and Tata (Soda Ash Partners), which employs 520 workers. All but two of the top 10 employers in the study area are located in Sweetwater County, with Uinta County hosting the remaining two.

TABLE 5-19
Top 10 Major Employers in the Study Area

| Enterprise | Number of Employees | County |
|---|---------------------|------------|
| Government | | |
| Uinta County School Districts Nos. 1,4, and 6 | 890 | Uinta |
| Sweetwater County School District No. 1 | 578 | Sweetwater |
| Wyoming State Hospital | 400 | Uinta |
| Non-Government | | |
| FMC | 888 | Sweetwater |
| Halliburton | 720 | Sweetwater |
| Tata (Soda Ash Partners) | 520 | Sweetwater |
| Bridger Coal | 443 | Sweetwater |
| OCI | 430 | Sweetwater |
| Solvay Minerals | 426 | Sweetwater |
| PacifiCorp | 426 | Sweetwater |

Source: *Livability, America's Best Places to Live & Visit* (<http://livability.com/sweetwater-county-top-employers>; <http://livability.com/uinta-county-top-employers>), accessed March 30, 2012.

Perhaps of greatest interest is the economy in Sweetwater County, especially the Green River Area where the Project will be located. The economy of this area in Sweetwater County is heavily dependent upon the trona industry and the area is known as the “Trona Capital of the World” (<http://www.cityofgreenriver.org/index.aspx?NID=246>). Trona is a raw mineral that is refined into soda ash and then used to produce a wide range of products from laundry detergents to glass and paper products, or refined into other chemicals to produce yet other products. Several mines and processing plants along with a baking soda plant have been operating in the area for a number of years, and many of the major employers identified in **Table 5-19** are tied to the industry, including FMC Corporation, OCI Wyoming LP, Tata, and Solvay Minerals, Inc.

Construction Labor Characteristics. From 2000 to 2009, study area employment in the construction industry increased by 912 jobs (21 percent), as shown in **Table 5-17**. Within the study area, Sweetwater County contributed the largest share (nearly 7 percent) to Wyoming’s construction employment in 2009, while Lincoln and Uinta counties each contributed more than 4 percent to construction employment in the state (**Table 5-18**). As a whole, study area construction employment accounted for nearly 16 percent of all construction jobs in Wyoming.

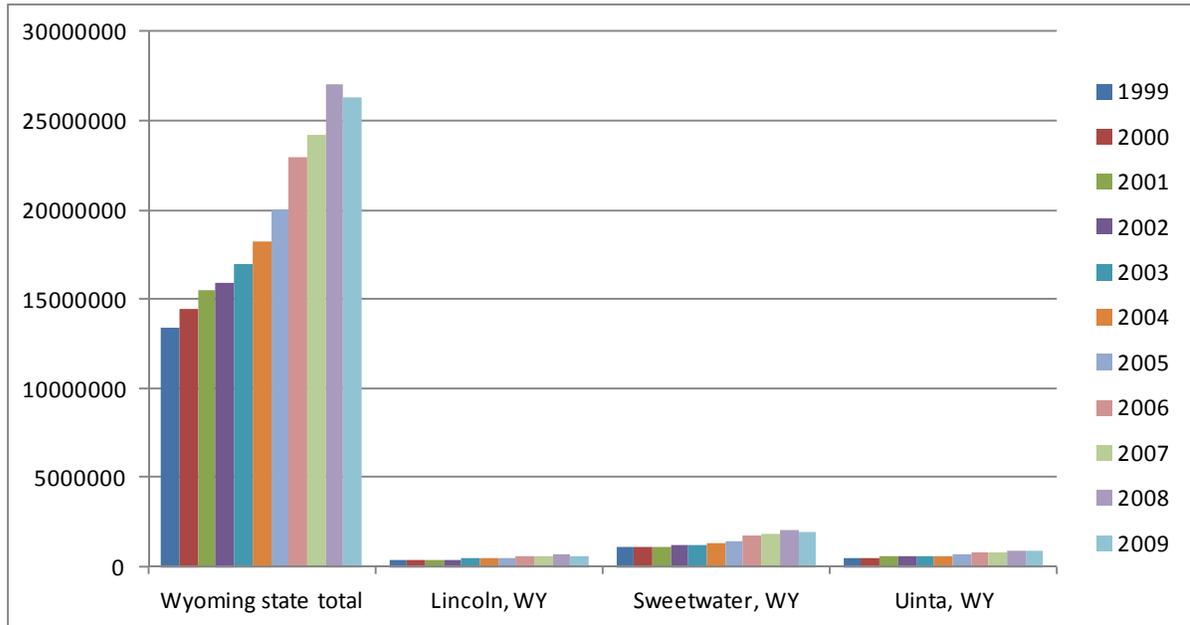
For persons employed in construction in Sweetwater County, the average weekly wage as of second quarter 2011 was \$992.00. For perspective, chemical manufacturing wages averaged \$1,697 per week and mining and extraction occupations earned an average of \$1,615 weekly. At the lower end of the pay scale, accommodations and food service occupations earned \$295 per week on average (http://doe.state.wy.us/lmi/11Q2_QCEW/11q2t89.htm).

Inquiries were made with the ISD and Sweetwater County Planning & Zoning Department to identify other sizable construction projects in the area of influence that, in combination with the proposed Project, could cumulatively cause local labor and / or temporary housing shortages during FMC’s projected construction period from 2nd quarter 2013 to 3rd quarter 2015. Section 5.6 provides a cumulative analysis of the potential impacts of the six industrial projects identified as well as the National High School Finals Rodeo (NHSFR) Championships, which are scheduled to be held in Rock Springs for 1 week in July for the duration of FMC’s construction schedule.

Earnings and Income. Total aggregate personal income increased in each of the counties in the study area over the period 1999 through 2009 (unadjusted for inflation), as shown in **Figure 5-9**. At the state level, aggregate personal income grew all years except from 2008 to 2009. Aggregate income, presented in **Table 5-20**, shows Lincoln County, at \$630 million in 2009, has the lowest income of the study area counties. Sweetwater County’s personal income was the highest in the study area, reaching \$1.9 billion in 2009, while in Uinta County, aggregate personal income exceeded \$876 million. In 2009, the study area accounted for approximately 9 percent of the statewide aggregate personal income of \$26.29 billion.

Per capita personal income also increased over the period 2000 through 2008 before declining slightly in 2009, as shown in **Table 5-21**. Sweetwater County has consistently tracked with the statewide average over this period. However, in 2009, per capita income in Sweetwater County was \$46,096, which lagged behind the state average of \$48,302. Lincoln County’s per capita personal income was \$37,062, the lowest in the study area, while Uinta County recorded a per capita income of \$41,880 in 2009.

FIGURE 5-9
Aggregate Personal Income by County (1999 to 2009)



Source: Bureau of Economic Analysis, 2012; CH2M HILL, 2012.

TABLE 5-20

Aggregate Personal Income (thousands of dollars) 1999 through 2009

| YEAR | 1999 | 2000 | 2001 | 2002 | 2003 | 2004 | 2005 | 2006 | 2007 | 2008 | 2009 |
|-------------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|
| Wyoming State | | | | | | | | | | | |
| Total | 13,372,433 | 14,463,473 | 15,441,258 | 15,945,633 | 16,933,024 | 18,238,847 | 19,969,216 | 22,911,824 | 24,219,501 | 27,016,369 | 26,289,062 |
| Lincoln County | 331,554 | 350,449 | 379,835 | 386,792 | 433,131 | 447,498 | 489,117 | 555,029 | 636,613 | 659,967 | 629,863 |
| Sweetwater County | 1,079,466 | 1,141,414 | 1,156,395 | 1,167,436 | 1,250,197 | 1,322,024 | 1,432,263 | 1,691,797 | 1,823,105 | 2,034,970 | 1,900,370 |
| Uinta County | 443,640 | 469,217 | 539,261 | 568,825 | 590,664 | 615,522 | 685,393 | 794,412 | 844,678 | 9219,62 | 876,428 |

Notes:

All state and local area dollar estimates are in current dollars (not adjusted for inflation).

Last updated: April 21, 2011 - new estimates for 2009; revised estimates for 2001-2008.

Source: Bureau of Economic Analysis, 2012; CH2M HILL, 2012.

TABLE 5-21

Per Capita Personal Income (dollars) for the State and Study Area Counties 1999 - 2009

| Area | 1999 | 2000 | 2001 | 2002 | 2003 | 2004 | 2005 | 2006 | 2007 | 2008 | 2009 |
|---------------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| Wyoming State Total | 27,192 | 29,281 | 31,322 | 32,079 | 33,921 | 36,261 | 39,446 | 44,676 | 46,272 | 50,689 | 48,302 |
| Lincoln County | 23,124 | 23,980 | 26,037 | 26,413 | 29,291 | 29,655 | 31,875 | 35,291 | 39,351 | 39,564 | 37,062 |
| Sweetwater County | 28,301 | 30,451 | 31,625 | 31,697 | 34,197 | 35,872 | 38,434 | 44,582 | 46,366 | 50,948 | 46,096 |
| Uinta County | 22,292 | 23,864 | 27,788 | 29,071 | 30,384 | 31,697 | 35,273 | 40,467 | 42,085 | 44,893 | 41,880 |

Notes:

Per capita personal income was computed by BEA using mid-year population estimates. Estimates for 2000-2009 reflect county population estimates available as of April 2011.

All state and local area dollar estimates are in current dollars (not adjusted for inflation).

Last updated: April 21, 2011 - new estimates for 2009; revised estimates for 2001-2008.

Source: Bureau of Economic Analysis, 2012; CH2M HILL, 2012.

5.4.2.2 Governmental Revenues and Finances

Ad Valorem Taxes. The assessed value of real property is the major source of *ad valorem* taxes. Properties are assessed at both the state and local (county) levels: the state assesses the value of utility and mineral properties and the counties assess residential, agricultural, commercial, and industrial land and improvements.

The total assessed value of real property in 2011 for the three-county study area was \$3.68 billion, as shown in **Table 5-22**. Sweetwater County accounted for more than half of this total, contributing about \$2.54 billion. Uinta County contributed approximately \$580 million and Lincoln County nearly \$555 million. Industrial property in the study area was assessed at \$584 million and most of this type of property was in Sweetwater County, where industrial property was assessed at about \$341 million. Commercial Land and Improvements contributed the next highest assessed value in the study area at about \$467 million and agricultural land contributed the smallest amount at \$19 million. Together, the counties in the study area accounted for about 24 percent of the assessed value of all real property in Wyoming.

TABLE 5-22
State and Local Assessed Valuation (2011)

| County | Locally Assessed Valuation | | | | State Assessed | |
|--------------------|----------------------------|--|---|------------------------|--|-------------------------|
| | Agricultural Land | Commercial Land, Improvements, and Personal Property | Residential Land, Improvements, and Personal Property | Industrial Property | Minerals and Non-Minerals (Utilities, Railroads, and Airlines) | Total |
| Lincoln | \$8,020,305 | \$163,460,069 | \$22,900,686 | \$196,411,180 | \$163,812,917 | \$554,605,157 |
| Sweetwater | \$5,032,276 | \$202,460,974 | \$79,481,579 | \$341,019,930 | \$1,915,225,872 | \$2,543,220,631 |
| Uinta | \$6,376,851 | \$102,894,644 | \$27,784,468 | \$47,520,662 | \$395,544,828 | \$580,121,453 |
| Study Area | \$19,429,432 | \$468,815,687 | \$130,166,733 | \$584,951,772 | \$395,544,828 | \$3,677,947,241 |
| State Total | \$235,824,632 | \$4,224,415,570 | \$1,125,249,571 | \$1,959,128,827 | \$7,544,618,600 | \$15,089,237,200 |

Source: Wyoming Department of Revenue (WDOR), 2010.

Ad valorem taxes (calculated by applying county- and use-specific mill rates to the assessed value of property) support a number of county and municipal operations including airports, fire protection, hospitals, libraries, museums, public health, recreational systems, special districts, and education.

Table 5-23 presents the major beneficiaries of *ad valorem* taxes at the state level.

TABLE 5-23
Beneficiaries of Ad Valorem Taxes in Wyoming (2010)

| Beneficiary | Percent of Total |
|--------------------|------------------|
| Schools | 53.86 |
| Counties | 18.06 |
| Foundation Program | 18.78 |
| Special Districts | 7.66 |
| Municipalities | 1.64 |

Source: Wyoming Department of Revenue (WDOR), 2010.

For certain minerals, including trona, severance and *ad valorem* taxes are paid on the value of gross production, which is based on several factors including the fair market cash value of soda ash, an industry factor, and the individual producer's ratio of trona to soda ash production less any royalties (Wyoming Department of Revenue [WDOR], Chapter 6, *Ad Valorem* and Severance Taxes on Mineral

Production, December 2010, downloaded from <http://soswy.state.wy.us/Rules/RULES/6139.pdf>. Sweetwater County collected nearly \$113 million in ad valorem taxes on mineral production in 2011 (WDOR 2010 – 2011 Annual Report). In addition to the ad valorem taxes, trona production is subject to the state’s mineral severance tax, which is set at 4 percent of the value of gross production and is paid to the state.

Sales, Use, and Lodging Taxes. Sales and use tax collections are two principal sources of revenue for state and local governments. Local governments can also impose a lodging tax. The rates for each of these taxes for all the counties in the study area are shown in **Table 5-24**.

TABLE 5-24
Wyoming Sales, Use, and Lodging Tax Rates by County
(Effective January 1, 2011)

| County | State Tax Rate | General Purpose Option | Specific Purpose Option | Economic Development Option | Total S & U Tax Rate | Local Government | Lodging Tax Rate | Total Tax Rate |
|------------|----------------|------------------------|-------------------------|-----------------------------|----------------------|-------------------|------------------|----------------|
| Lincoln | 4% | 1% | | | 5% | Cokeville only | 2% | 7% |
| | | | | | | Afton only | 2% | 7% |
| | | | | | | Diamondville only | 2% | 7% |
| | | | | | | Kemmerer only | 4% | 9% |
| Sweetwater | 4% | 1% | | | 5% | Sweetwater | 2% | 7% |
| Uinta | 4% | 1% | | | 5% | Evanston only | 3% | 8% |

Notes:

In Lincoln and Uinta counties, the lodging tax is imposed only in these cities, i.e., not on a countywide basis.

Source: *Wyoming Sales, Use, and Lodging Tax Revenue Report, 2011, page 9*
(http://eadiv.state.wy.us/s&utax/Report_FY11.pdf).

Sales Tax. The state-imposed sales tax rate is 4 percent and revenues collected are divided 69 percent to the state and 31 percent to the counties. Each of the counties in the study area imposes a 1 percent general purpose optional sales tax, as is shown in **Table 5-24**. Revenue derived from the optional sales tax, less administrative costs, is returned by the state to the county of origin. Total sales tax collections for the years 2009 through 2011 for each county in the study area are presented in **Table 5-25**. Sales tax revenue can vary from year to year and is tied to the level of economic activity. In fiscal year (FY) 2010, sales tax collections were down from 2009 levels for all of the counties in the study area and for the state as a whole. By FY 2011, sales tax revenues had rebounded somewhat for all of the counties except for Sweetwater County, where they fell 4 percent from FY 2010. In FY 2011, Sweetwater County collected more than \$76 million in total sales taxes compared with \$16.6 million in Uinta County and about \$14.4 million in Lincoln County.

TABLE 5-25
Sales and Use Tax Collections by County (2009-2011)

| County | Total Sales Tax Collections by County | | |
|------------------|---------------------------------------|---------------|---------------|
| | FY 2009 | FY 2010 | FY 2011 |
| | Total Taxes | Total Taxes | Total Taxes |
| Lincoln | \$20,108,588 | \$12,781,453 | \$14,358,487 |
| Sweetwater | \$113,216,838 | \$79,585,752 | \$76,423,984 |
| Uinta | \$19,252,782 | \$15,220,572 | \$16,628,201 |
| State of Wyoming | \$863,512,486 | \$694,855,847 | \$748,364,960 |

TABLE 5-25
Sales and Use Tax Collections by County (2009-2011)

| County | Total Use Tax Collections by County | | |
|------------------|-------------------------------------|--------------|---------------|
| | FY 2009 | FY 2010 | FY 2011 |
| | Total Taxes | Total Taxes | Total Taxes |
| Lincoln | \$6,587,061 | \$3,532,987 | \$7,209,880 |
| Sweetwater | \$21,413,517 | \$16,155,621 | \$15,623,091 |
| Uinta | \$3,006,868 | \$2,169,269 | \$4,316,725 |
| State of Wyoming | \$118,196,963 | \$87,147,717 | \$105,223,085 |

Source: Wyoming Sales, Use and Lodging Tax Revenue Report, 2011, pages 17 and 50 (http://eadiv.state.wy.us/s&utax/Report_FY11.pdf).

Use Tax. A state use tax is imposed on purchases made outside a taxing jurisdiction for first time, storage, or other consumption within that jurisdiction, thus preventing sales tax avoidance. Use tax is a complement to sales tax. Effective January 1, 1981, the adoption of an optional sales tax required a change in the use tax rate of equal amount. The state-imposed tax rate is 4 percent. State use tax collections are shared between state government and the county of origin on the same distribution basis as sales tax. Use tax collections for the state totaled less than 14 percent of the sales tax revenues in 2011. Use tax collections by year and county are shown in **Table 5-25**. The use tax collections showed a similar pattern to the sales tax collections over the period from 2009 to 2011. In FY 2011 Sweetwater County led the study area with about \$15.6 million in use tax collections. This represents a significant decline relative to 2009, when it collected \$21.4 million in use taxes. The changes in the other counties were not as dramatic. In fact, Lincoln and Uinta counties' collections in FY 2011 of \$7.2 million and \$4.3 million were slightly higher than in FY 2009.

Lodging Tax. Cities, towns, and counties may impose an excise tax of up to 4 percent on all sleeping accommodations for guests staying less than 30 days. All tax collections, less state administrative costs, are distributed to the taxing jurisdiction. At least 90 percent of the tax distributions must be used to promote travel and tourism. The tax collections for each of the counties, cities, and towns comprising the study area are shown in **Table 5-26**.

TABLE 5-26
Lodging Tax Collections by County and Local Entity

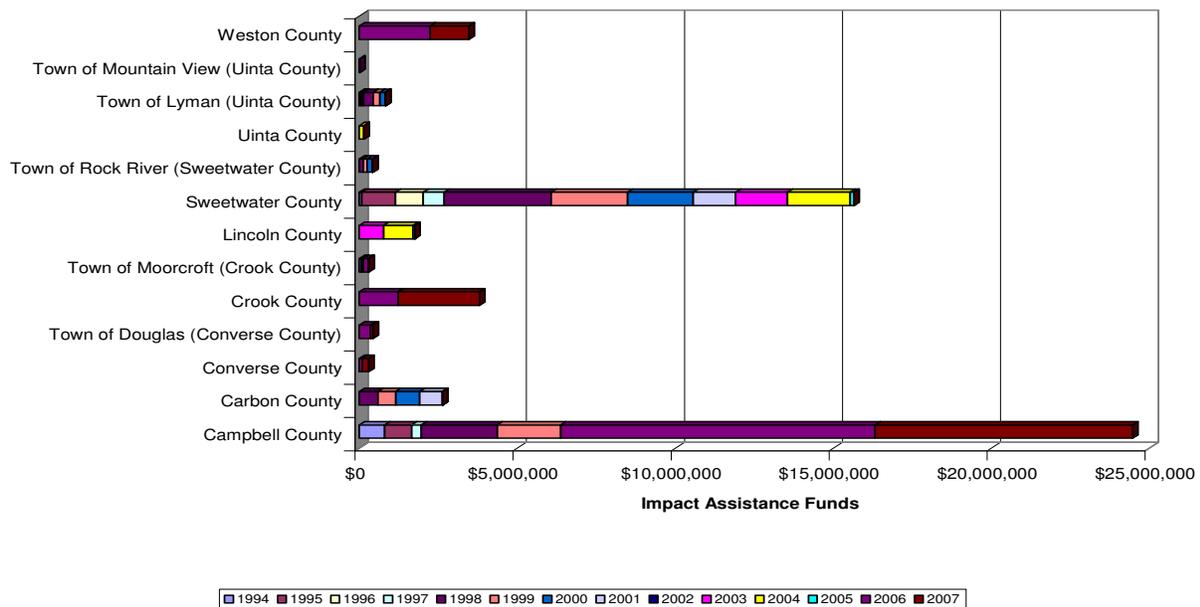
| Area | FY 2000 | FY 2001 | FY 2002 | FY 2003 | FY 2004 | FY 2005 | FY 2006 | FY 2007 | FY 2008 | FY 2009 | FY 2010 | FY 2011 |
|-------------------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
| Lincoln County | NA |
| Afton | \$9,948 | \$9,149 | \$9,858 | \$12,067 | \$14,649 | \$12,301 | \$11,338 | \$13,385 | \$13,648 | \$12,556 | \$10,653 | \$10,460 |
| Cokeville | \$2,725 | \$2,109 | \$2,196 | \$3,062 | \$2,893 | \$1,858 | \$1,641 | \$2,770 | \$4,204 | \$3,433 | \$2,719 | \$3,126 |
| Diamondville | NA | \$2,246 | \$12,070 | \$13,392 | \$16,402 | \$11,962 | \$15,232 | \$18,390 | \$15,296 | \$18,038 | \$10,697 | \$11,237 |
| Kemmerer | NA | \$284 | \$6,460 | \$9,267 | \$12,036 | \$6,734 | \$8,845 | \$11,358 | \$23,881 | \$27,370 | \$69,524 | \$96,476 |
| Total | \$12,673 | \$13,788 | \$30,583 | \$37,787 | \$45,981 | \$32,855 | \$37,058 | \$45,902 | \$57,029 | \$61,397 | \$93,593 | \$121,299 |
| Sweetwater County | \$39,936 | \$42,219 | \$44,229 | \$42,437 | \$46,443 | \$39,528 | \$44,028 | \$58,535 | \$66,381 | \$59,926 | \$29,751 | \$33,503 |
| Green River | \$20,509 | \$22,986 | \$24,215 | \$26,669 | \$33,193 | \$34,590 | \$38,299 | \$46,786 | \$57,052 | \$68,126 | \$60,608 | \$65,484 |
| Rock Springs | \$210,528 | \$242,455 | \$253,932 | \$253,385 | \$310,402 | \$362,543 | \$465,365 | \$581,963 | \$615,355 | \$572,909 | \$422,411 | \$419,386 |
| Wamsutter | \$2,126 | \$2,553 | \$1,438 | \$2,334 | \$3,526 | \$3,947 | \$3,517 | \$3,853 | \$3,414 | \$3,270 | \$3,281 | \$2,213 |
| Total | \$273,099 | \$310,213 | \$323,814 | \$324,825 | \$393,564 | \$440,609 | \$551,210 | \$691,137 | \$742,202 | \$704,231 | \$516,051 | \$520,586 |
| Uinta County | NA |
| Evanston | \$106,184 | \$117,286 | \$135,146 | \$126,473 | \$194,029 | \$174,290 | \$224,118 | \$282,145 | \$336,814 | \$292,917 | \$231,595 | \$232,240 |
| Total | \$106,184 | \$117,286 | \$135,146 | \$126,473 | \$194,029 | \$174,290 | \$224,118 | \$282,145 | \$336,814 | \$292,917 | \$231,595 | \$232,240 |

Source: Wyoming Sales, Use and Lodging tax Revenue Report, 2011 (http://eadiv.state.wy.us/s&utax/Report_FY11.pdf).

Industrial Siting Impact Assistance Funds. Under the Industrial Development and Siting Statutes (W.S. 35-12-101 through 35-12-109), the criteria that potential industrial facilities must meet to be awarded a construction permit (found at W.S. 35-12-102[a][vii]) also qualify a county or town to receive industrial impact assistance tax payments. The impact assistance payments are distributed to the county treasurer, and the county treasurer distributes the payments to the county and to the cities and towns therein based on a ratio established by the ISC during a public hearing held in accordance with W.S. 35-12-110. The ISC reviews the distribution ratio for construction projects on a regular basis and makes appropriate adjustments. A governing body that is primarily affected by the facility, or any person issued a permit pursuant to W.S. 35-12-106, may petition the ISC for review and adjustment of the distribution ratio upon a showing of good cause. The impact assistance payment is in addition to all other distributions under this section, but no impact assistance payment is made for any period in which the county or counties are not imposing at least a 1 percent tax authorized by W.S. 39-15-204(a)(i) and 39-16-204(a)(i) or at least a total of a 2 percent sales tax authorized under W.S. 39-15-204(a)(i), (iii) and (vi) and at least a total of a 2 percent use tax authorized under W.S. 39-16-204(a)(i), (ii) and (v). The project is deemed to be located in the county in which a majority of the construction costs will be expended, provided that upon a request from the county commissioners of any adjoining county to the ISC, the council may determine that the social and economic impacts from construction of the industrial facility or federal or state government project upon the adjoining county are significant and establish the ratio of impacts between the counties and certify that ratio to the state treasurer who will thereafter distribute the impact assistance payment to the counties pursuant to that ratio.

This program of industrial impact assistance tax payments is designed to assist cities, towns, or counties in deflecting the impact a major industrial project may have on community resources. This program measures the increase in tax revenue caused by the industrial project and matches that increase with additional monies from the state General Fund to help communities respond to project-related impacts. This tax distribution is transferred from the state General Fund, via the office of the State Treasurer, directly to County Treasurers' offices. **Figure 5-10** illustrates the impact assistance tax payments received from FY 1994 through FY 2007 by counties and cities or towns. These totals represent the amount of extra revenue counties, cities, and towns receive in direct proportion to any increase in their tax collection to mitigate project-related impacts. Over the period 1994 through 2007, Sweetwater County was second behind Campbell County in cumulative impact assistance funds. By comparison, Lincoln County and Uinta County have each received modest impact assistance funds.

FIGURE 5-10
Impact Assistance Tax Payments (1994 through 2007)



Source: Wyoming Department of Revenue (WDOR), 2007.

Table 5-27 presents the impact assistance funds in tabular form covering the period from FY 2009 to FY 2011. Sweetwater County was the only study area county to receive impact assistance in any of the past 3 years. In 2010, Sweetwater County received more than \$65,000 in impact assistance funds. No impact assistance funds were paid to Sweetwater County in FY 2009 or FY 2011.

TABLE 5-27
Distribution of Impact Assistance Funds FY 2009 – FY 2011

| Entity | Sales Tax | Use Tax | Total |
|-----------------|------------------------|-----------------------|------------------------|
| FY-2009 | | | |
| Albany County | \$150,558.51 | 0.00 | \$150,558.51 |
| Campbell County | \$9,502,831.94 | \$1,564,746.31 | \$11,067,578.25 |
| Carbon County | \$1,087,114.34 | 0.00 | \$1,087,114.34 |
| Converse County | \$1,252,801.51 | \$116,384.88 | \$1,369,186.39 |
| Crook County | \$1,621,844.45 | \$256,516.41 | \$1,878,360.86 |
| Johnson County | \$123,849.01 | \$22,124.39 | \$145,973.40 |
| Natrona County | \$192,575.18 | \$15,445.96 | \$208,021.14 |
| Sheridan County | \$134,618.47 | \$24,048.26 | \$158,666.73 |
| Weston County | \$199,235.37 | \$35,591.41 | \$234,826.78 |
| Totals | \$14,265,428.78 | \$2,034,857.62 | \$16,300,286.40 |
| FY-2010 | | | |
| Albany County | \$24,033.47 | \$7,836.16 | \$31,869.63 |
| Campbell County | \$124,406.07 | \$1,527,377.69 | \$1,651,783.76 |
| Carbon County | \$8,011.16 | \$80,905.74 | \$88,916.90 |
| Converse County | \$170.84 | \$30,013.12 | \$30,183.96 |
| Crook County | \$29,934.12 | \$241,783.92 | \$271,718.04 |

TABLE 5-27
Distribution of Impact Assistance Funds FY 2009 – FY 2011

| Entity | Sales Tax | Use Tax | Total |
|-------------------|---------------------|-----------------------|-----------------------|
| Johnson County | \$130.98 | \$23,010.06 | \$23,141.04 |
| Sheridan County | \$142.36 | \$25,010.92 | \$25,153.28 |
| Sweetwater County | - | \$65,364.45 | \$65,364.45 |
| Weston County | \$210.69 | \$37,016.19 | \$37,226.88 |
| Totals | \$187,039.69 | \$2,038,318.25 | \$2,225,357.94 |
| FY-2011 | | | |
| Albany County | \$7,586.84 | \$1,663.87 | \$9,250.71 |
| Campbell County | 0.00 | \$574,600.04 | \$574,600.04 |
| Carbon County | \$22,760.52 | \$4,991.61 | \$27,752.13 |
| Converse County | \$28,263.34 | \$21,021.95 | \$49,285.29 |
| Crook County | 0.00 | \$45,547.56 | \$45,547.56 |
| Johnson County | 0.00 | \$16,116.83 | \$16,116.83 |
| Natrona County | \$14,559.90 | 0.00 | \$14,559.90 |
| Sheridan County | | \$17,518.29 | \$17,518.29 |
| Weston County | | \$25,927.07 | \$25,927.07 |
| Totals | \$73,170.60 | \$707,387.22 | \$780,557.82 |

Source: Wyoming Department of Revenue (WDOR), 2010 - 2011 Annual Report, page 24.

5.4.2.3 Future Economic Conditions

Economic Projections. The following description of potential future economic conditions in Wyoming is derived from the report entitled *Wyoming Occupational Projections 2011 to 2021*, prepared by the Wyoming Department of Workforce Services (Wyoming Department of Workforce Services Research and Planning, 2012). Forecasts such as these are intended to capture the long-term trends, at best, rather than year-to-year variations in employment, which are particularly susceptible to anticipated events. The projections are based upon recent trends (i.e., the last 120 months), but with giving more weight to the last 36 months (Glover, 2011). As such, these projections do not attempt to predict the effects of structural changes such as could result from a recession, major national investments in energy efficiency, or health care.

Wyoming's economy is largely driven by natural resources, and in 2005, the mining industry contributed approximately one-third of both the state's total earnings growth and job growth. In addition, the multiplier effect associated with the mining industry results in stimuli in many other industries, such as wholesale trade, transportation, and professional and business services. The total job growth rate of 4.9 percent in 2006 was the second highest in the nation, and the personal income growth rate of 10.4 percent in 2006 was virtually the highest. The mining industry provides high-paying jobs and, as such, its strong presence in Wyoming means that income growth in the state is always closely associated with mining activity.

Wyoming's population is aging rapidly and this trend is expected to continue. In 2000, the median age of 36.2 in the state passed the national average of 35.3. The expected median age for Wyoming was 39.3 years by 2010, but the actual median was 36.7 years according to the U.S. Census. The size of the older population (age 65 and over) is projected to exceed 81,000 by 2014, compared to 61,000 currently, nearly a 33 percent increase.

Although mining jobs are expected to slow to more sustainable levels, the increased demand for the natural resources in the state from national markets will help provide a steady source of mining jobs and revenues for the state. Outside of the mining industry, however, the state's future prospects will be somewhat limited by a job market that fails to attract high-growth job opportunities. Although migration has recently reversed to a positive trend, many younger workers will move to other states with more versatile job opportunities. Wyoming is the least diversified state in the nation in terms of employment distribution across industries.

Mining Industry. The mining sector has been the greatest contributor of economic and revenue activity in Wyoming's recent history. After experiencing a boom in the late 1970s, a bust in the mid-1980s, and a slow and steady decline in the 1990s, the mining sector demonstrated strong growth from 2000 to 2007. The 33,000 mining jobs in 1981 were the highest number on record, and accounted for 14.7 percent of Wyoming's total non-agricultural wage and salary employment. However, by 1999, the number dwindled to only 15,500. Mining sector employment increased 5.6 percent in 2000 and another 13 percent in 2001, and held up well in 2003 as commodity prices rebounded. The number of mining jobs rose again in 2004, climbing by more than 10 percent. The energy-driven growth continued through 2007, as low industrial diversity tied the state's fortunes to mining extraction, most recently dominated by natural gas production. In 2009, mining jobs returned to their historical high of over 33,000, but were back down to 26,400 by 2011. The forecast employment is shown in **Table 5-28**. Mining sector jobs are projected to grow to over 28,100 jobs by 2013 and 34,881 by 2021, which would be a historical high for this industry.

The state benefits from increases in mining activity in many ways. First, increased demand for oil, natural gas, and coal means increased mineral production revenue as well as sales and use tax collections for both state and local governments. In addition, because mining job salaries are more than twice as high as the average for all other industries, increased demand for mining employment trickles down into the economy through increased per capita income and increased levels of consumer spending. On the other hand, the state's economy and revenue also fluctuate significantly along with the rise and fall of commodity prices.

Construction. Nationally, real estate and housing industries were strong until 2007, when Wyoming along with much of the rest of the nation experienced a slowdown in this sector. The housing boom's economic contribution mid-decade had been enormous, accounting for approximately one-fourth of real gross domestic product (GDP) growth over the period 2002 through 2007. The direct effects from housing are through construction activity, real estate transactions, and mortgage finance. The multiplier benefits are substantial, such as demand in numerous supplying industries, and the income earned from construction-related industries drives spending elsewhere in the economy. As the fastest-growing sector in the 1990s, the construction industry in Wyoming added 7,100 jobs in that decade at an annual average rate of 5.2 percent. Again, in 2002, the construction sector remained the strongest industry in the state, expanding by 1.9 percent due to historically low interest rates.

The substantial job growth in the general building and specialty trades subsectors is directly caused by the residential construction boom. From 1992 to 2002, total residential home permits averaged nearly 1,800 units per year, compared to an annual range of 500 to 800 units from 1987 to 1991. However, the number of permits expanded dramatically to 2,877 in 2003 and 3,318 in 2004. Permits for single-family homes nearly doubled from 1,485 houses in 2001 to 2,815 in 2004, and the 2,328 permits issued in 2003 broke the record set in 1980. Housing units authorized for the first 6 months of 2005 showed another 14 percent increase over the same period the previous year. Consistent with the national downturn in housing starts, the state saw the number of annual housing units fall

to 2,669 in 2008, the lowest level since 2002. Statewide, housing units increased by 17 percent between 2000 and 2010 compared to an increase of 10 percent between 1990 and 2000. Long term, it is anticipated that residential construction will once again be tied more closely to population growth and that speculative housing demand will be diminished.

Construction industry employment in 2011 was recorded at more than 21,600 jobs and it is projected to increase by more than 9 percent over the decade. The projected increase of over 2,000 jobs would bring the total to 23,700 by 2021 for this industry.

Retail Trade. As the third-largest sector in Wyoming's economy, the retail trade industry (North American Industry Classification System [NAICS]) experienced fast job growth in the first half of the 1990s, averaging nearly 2 percent each year. However, it slowed to only about 1 percent annually up until 2007, largely due to out-migration from the state. While the average rate of increase from FY 1991 to FY 2000 was 7.3 percent, annual non-auto taxable retail sales were up only 3.1 percent from FY 2001 to FY 2003. However, mostly driven by strong natural gas exploration, expanding housing market, and net migration, retail sales were robust again. For FY 2004, both the taxable non-auto and auto retail sales recorded significant expansions, at 15.1 and 12.9 percent, respectively. Non-auto retail sales continued the strong pace in FY 2005 and increased another 7.2 percent from the previous year's level. However, seemingly dragged down by the high gasoline prices, automobile sales in the state came to a virtual standstill in 2006, edging up by only 1.4 percent from the previous fiscal year. Much like the nation, the real concern for many retailers in the state is how to continue competing with remote sellers who do not have to charge sales tax. In 2011 jobs in the retail trade sector totaled over 29,100. The projected future trend in this industry is flat with Jobs expected to remain steady at about this level over both the short term and long term.

Services. The economy is continuing its long-term trend of shifting more toward a service orientation than one that is goods-driven. Much like the rest of the country, the service industries grew continually in Wyoming, even during the 1980s recession. The upward pace accelerated in the 1990s, at an annual rate of 3.3 percent. Despite the slowdown of the economy, total employment for various service industries still increased 2.5 and 2.2 percent in 2001 and 2002, respectively. Mainly caused by the decrease in food services and administrative services, overall employment increased only 1.6 percent in 2003 and 2.1 percent in 2004. Over the next 10 years (2011 to 2012) the services sectors are forecasted to be the fastest-growing industry—both in terms of growth rate and total number of new jobs. Finance (11 percent), professional, science, and technical (19.2 percent), educational services (26.9 percent), and health services (29.1 percent) will be the main drivers. Despite the structural difference between the Wyoming and national economies, the growing pace in services sector is similar for both. The service sector industry was and will be the fastest-growing sector in the Wyoming economy as it continues to undergo a structural shift from a goods-producing economy to a service-producing economy.

Tourism. With more than \$1 billion in direct expenditures and 28,000 jobs, Wyoming's travel and tourism industry is an important part of the overall economy, particularly for the northwest region of the state. The primary attractions for tourists are Yellowstone National Park and the Grand Teton National Park, which are visited annually by millions of people from all over the world. However, tourism itself is not classified as an independent or separate economic sector, but is mainly included in the accommodation and food services sector. Its economic effect crosses many retail trade- and services-related sectors such as gasoline stations, general merchandise stores, arts, entertainment, and recreation services. Unfortunately, most jobs directly connected with tourism tend to be lower skilled and lower paying by nature. Long term, it is likely that Wyoming's travel and tourism industry may not deviate substantially from the past trend (i.e., an extremely slow increase). Specifically, the

accommodations and food services industry is projected to grow a modest 5 percent in the decade 2011 to 2021.

Government. As the largest employment sector for Wyoming, the government jobs sector is one of the mainstays of the state's economy, particularly in the southeast region. It also serves as a significant stabilizer to the overall economy. During Wyoming's economic bust period of the 1980s, government employment only experienced a 1-year decline (in 1986), in sharp contrast to an 18 percent reduction in the state's total employment from 1981 to 1987.

Because of the nature of a sparsely distributed population, state and local governments have needed to hire a relatively large number of employees to serve the residents, from public schools and fire districts, to road maintenance. The proportion of full-time state and local government employees in Wyoming was the highest in the country in 2003, at 869 per 10,000 people, compared to the national average of 542 employees. Other states with higher state/local government employee rates were also states with large land areas and low population, such as Alaska, New Mexico, and Nebraska. The lower proportions of government employment are states with high population density such as Pennsylvania and Florida. Wyoming also ranked the third highest state in terms of per capita state and local government expenditures in 2002.

In 2004, the government sector contributed 64,590 jobs, or one-fourth of the total, to Wyoming's economy. However, it was one of the slowest-growing industries in the 1990s, but has performed well since 2000, and will remain a consistent and steady source of new jobs in the future. From 1990 to 2000, government in Wyoming created 5,500 jobs for an annual growth rate of 1 percent, compared with an overall growth rate of 1.9 percent for the state as a whole. Nearly all of the new jobs added were in local government, which includes K-12 education and hospitals. The state government experienced only a slight increase, while the federal government recorded a minor decline during the same period. Since 2000, state government jobs increased 3.1 percent annually due to the accelerating revenues from mineral production. Over the forecast period, jobs in public administration are projected to grow from just under 31,000 in 2011 to more than 33,800 by 2021, an increase of over 9 percent.

Future Employment Growth. Over the period 2011 through 2021, non-agricultural employment in the state is forecast to increase on average by 7.5 percent or 0.75 percent annually, as shown in **Table 5-28**. Several industrial sectors are expected to exceed this rate of growth, including the following: agriculture, forestry, fishing and hunting (10.5 percent), mining (32 percent), utilities (17 percent), wholesale trade (20.9 percent), transportation and warehousing (29.9 percent), finance and insurance (11 percent), real estate, rental and leasing (20.1 percent), professional, scientific, and technical services (19.2 percent), management of companies and enterprises (27.8 percent), educational services (26.9 percent), and health care and social assistance (29.1 percent). Sectors with the largest negative growth rates include manufacturing (-6.4 percent), information (-7.7 percent), and administrative support and waste management and remediation services (-9.2 percent).

TABLE 5-28
Wyoming Occupational Projections 2011 – 2021

| Standard Occupational Classification Code & Title | Base Year 2011 | Projected Year 2013 | Net Growth 2011 to 2013 | Percent Growth 2011 to 2013 | Projected Year 2021 | Net Growth 2011 to 2021 | Percent Growth 2011 to 2021 | Annual Openings Growth | Annual Openings Permanent Exits |
|--|----------------|---------------------|-------------------------|-----------------------------|---------------------|-------------------------|-----------------------------|------------------------|---------------------------------|
| Agriculture, Forestry, Fishing, and Hunting | | | | | | | | | |
| 00- Total All Occupations 0 | 2,408 | 2,458 | 50 | 2.1 | 2,660 | 252 | 10.5 | 25 | 259 |
| Mining | | | | | | | | | |
| 00- Total All Occupations 0 | 26,423 | 28,115 | 1,692 | 6.4 | 34,881 | 8,458 | 32.0 | 846 | 2,455 |
| Utilities | | | | | | | | | |
| 00- Total All Occupations 0 | 2,501 | 2,590 | 89 | 3.5 | 2,945 | 443 | 17.7 | 44 | 157 |
| Construction | | | | | | | | | |
| 00- Total All Occupations 0 | 21,665 | 22,073 | 408 | 1.9 | 23,704 | 2,039 | 9.4 | 204 | 2,480 |
| Manufacturing | | | | | | | | | |
| 00- Total All Occupations 0 | 9,061 | 8,945 | -117 | -1.3 | 8,478 | -583 | -6.4 | -58 | 750 |
| Wholesale Trade | | | | | | | | | |
| 00- Total All Occupations 0 | 8,684 | 9,047 | 363 | 4.2 | 10,498 | 1,814 | 20.9 | 181 | 796 |
| Retail Trade | | | | | | | | | |
| 00- Total All Occupations 0 | 26,161 | 29,150 | -11 | 0.0 | 29,105 | -56 | -0.2 | -6 | 3,254 |
| Transportation and Warehousing | | | | | | | | | |
| 00- Total All Occupations 0 | 9,167 | 9,714 | 547 | 6.0 | 11,904 | 2,737 | 29.9 | 274 | 1,153 |
| Information | | | | | | | | | |
| 00- Total All Occupations 0 | 3,844 | 3,785 | -59 | -1.5 | 3,549 | -295 | -7.7 | -30 | 355 |
| Finance and Insurance | | | | | | | | | |
| 00- Total All Occupations 0 | 6,736 | 6,884 | 148 | 2.2 | 7,476 | 740 | 11.0 | 74 | 648 |
| Real Estate and Rental and Leasing | | | | | | | | | |
| 00- Total All Occupations 0 | 3,951 | 4,110 | 159 | 4.0 | 4,747 | 796 | 20.1 | 80 | 502 |

TABLE 5-28
Wyoming Occupational Projections 2011 – 2021

| Standard Occupational Classification Code & Title | Base Year 2011 | Projected Year 2013 | Net Growth 2011 to 2013 | Percent Growth 2011 to 2013 | Projected Year 2021 | Net Growth 2011 to 2021 | Percent Growth 2011 to 2021 | Annual Openings Growth | Annual Openings Permanent Exits | |
|---|----------------|---------------------|-------------------------|-----------------------------|---------------------|-------------------------|-----------------------------|------------------------|---------------------------------|--|
| Professional, Scientific, and Technical Services | | | | | | | | | | |
| 00-00-00 Total All Occupations | 8,955 | 9,299 | 344 | 3.8 | 10,673 | 1,718 | 19.2 | 172 | 1,034 | |
| Management of Companies and Enterprises | | | | | | | | | | |
| 00-00-00 Total All Occupations | 856 | 904 | 48 | 5.6 | 1,095 | 239 | 27.8 | 24 | 117 | |
| Administrative and Support and Waste Management and Remediation Services | | | | | | | | | | |
| 00-00-00 Total All Occupations | 7,565 | 7,425 | -140 | -1.8 | 6,866 | -699 | -9.2 | -70 | 908 | |
| Educational Services | | | | | | | | | | |
| 00-00-00 Total All Occupations | 30,106 | 31,727 | 1,622 | 5.4 | 38,215 | 8,109 | 26.9 | 811 | 2,556 | |
| Health Care and Social Assistance | | | | | | | | | | |
| 00-00-00 Total All Occupations | 31,779 | 33,630 | 1,852 | 5.8 | 41,036 | 9,258 | 29.1 | 926 | 3,591 | |
| Arts, Entertainment, and Recreation | | | | | | | | | | |
| 00-00-00 Total All Occupations | 2,304 | 2,348 | 44 | 1.9 | 2,525 | 222 | 9.6 | 22 | 242 | |
| Accommodation and Food Services | | | | | | | | | | |
| 00-00-00 Total All Occupations | 28,004 | 28,319 | 315 | 1.1 | 29,581 | 1,578 | 5.6 | 158 | 3,303 | |
| Other Services (Except Public Administration) | | | | | | | | | | |
| 00-00-00 Total All Occupations | 8,090 | 8,335 | 245 | 3.0 | 9,316 | 1,226 | 15.2 | 123 | 967 | |
| Public Administration | | | | | | | | | | |
| 00-00-00 Total All Occupations | 30,951 | 31,527 | 576 | 1.9 | 33,829 | 2,878 | 9.3 | 288 | 2,220 | |
| Total | 269,211 | 280,385 | 8,175 | 54.2 | 289,403 | 40,874 | 7.5 | 4,088 | 27,747 | |

Between 2002 and 2006, real personal income in Wyoming increased by nearly \$3.5 million, or an average annual rate of 5.4 percent. During the period 2006 to 2016, real personal income in the state was projected in the 2007 Wyoming Economic Analysis Division (WY EAD) report to increase at an annual rate of 6.4 percent, as seen in **Table 5-29**. The projected 1.3 percent rate of growth in the civilian labor force between 2006 and 2016 would be slightly lower than the 1.4 percent rate experienced between 2002 and 2006.

TABLE 5-29
Wyoming Personal Income, Wage and Salary Earnings, Labor Force, Employment, and Unemployment (2002, 2006, 2016)

| | 2002 | 2006 | 2016 |
|---|--------------|--------------|--------------|
| Total Personal Income (Then-year \$) | \$15,463,330 | \$20,948,050 | \$34,481,470 |
| Real Personal Income (2000-year \$) | \$14,995,590 | \$18,472,030 | \$34,481,470 |
| Per Capita Personal Income (Then-year \$) | \$30,991 | \$40,676 | \$61,236 |
| Per Capita Personal Income (2000-year \$) | \$30,053 | \$35,868 | \$44,372 |
| Median Household Income (Then-year \$) | \$39,963 | \$48,351 | \$65,626 |
| Wages and Salaries | \$7,568,720 | \$10,497,020 | \$17,237,250 |
| Civilian Labor Force | 269,650 | 284,690 | 324,630 |
| Number Employed | 258,460 | 275,620 | 315,210 |
| Number Unemployed | 11,190 | 9,070 | 9,430 |
| Unemployment Rate (Percent) | 4.2 | 3.2 | 2.9 |

Source: Wyoming Department of Administration and Information, Economic Analysis Division (WY EAD), 2007a.

Growth in the construction sector is highly sensitive to both population growth and governmental spending on infrastructure. Between 2002 and 2006, employment in the construction sector increased at an average annual percentage rate of 4.4 percent. Between 2006 and 2016, that rate is projected to decline to 2.7 percent. On an average annual basis, growth in total construction employment is expected to slow from 8.97 percent between 1990 and 2008 to 0.79 percent between 2008 and 2018, as illustrated by the information presented in **Table 5-30**. Growth in construction of buildings was 7.7 percent on an average annual basis compared with 8.33 percent in heavy and civil engineering employment, and 10.04 percent in special trade construction. Employment in each of these sectors is projected to grow much slower over the coming decade. Any new project that would increase construction employment beginning in 2012 would help put the state's construction industry back on the path toward economic recovery.

TABLE 5-30
Construction Employment in Wyoming 1990, 2000, 2008, and 2018

| | 1990 | 2000 | 2008 | 2018 Projected | Change | | Average Annual Change | |
|---|---------------|---------------|---------------|-------------------|-----------------|-----------------|-----------------------|--------------|
| | | | | | 1990 to 2008 | 2008 to 2018 | 1990 to 2008 | 2008 to 2018 |
| Construction of Buildings | 2,099 | 4,285 | 5,007 | 5,300 | 2,908 | 293 | 7.7% | 0.59% |
| Heavy and Civil Engineering Construction | 3,866 | 5,301 | 9,660 | 10,450 | 5,794 | 790 | 8.33% | 0.82% |
| Special Trade Contractors | 4,815 | 8,085 | 13,518 | 14,658 | 8,703 | 1,140 | 10.04% | 0.84% |
| Total Construction | 10,780 | 17,671 | 28,185 | 30,408 | 17,405 | 2,223 | 8.97% | 0.79% |

Source: Wyoming Statewide Long-Term Employment Projections by Industry: 2008-2018, Wyoming Department of Employment, April 2010 http://doe.state.wy.us/LMI/projections08_18/LTI_08_18.pdf

5.4.3 Construction Impacts

A variety of tools are available to estimate regional economic impacts, but by far the most widely used today are I-O models combined with social accounting matrices (SAMs). Referred to as I-O/SAM models, these tools form the basis for estimating economic impacts for industry (manufacturing, mining, construction) commercial business activity (restaurants, hotels), and agriculture (irrigation and livestock water uses).

The I-O/SAM model is an accounting framework that traces spending and consumption among various economic sectors, including businesses, households, government, and “foreign” economies in the form of exports and imports. “Direct effects” represent the response (e.g., change in value-added or employment) for a given industry’s expenditures of final demand for that same industry. Value-added refers to the additional value of a commodity produced by that industry over the cost of commodities used to produce it from the previous stage of production. It is the *net* measure of the economic contribution of an industry to the regional economy less the intermediate goods and services used. “Indirect effects” represent the response by all local industries caused by the iteration of purchasing for a given industry. “Induced effects” represent the response by all local industries caused by the expenditures of new household income generated by the direct and indirect spending.

Collectively, indirect and induced effects are referred to as “secondary impacts.” In their entirety, all of the previously discussed changes (direct and secondary) are referred to as “total economic impacts.” By their nature, total impacts are greater than initial changes because of secondary effects. The magnitude of the increase is what is popularly termed a “multiplier effect.” I-O models generate numerical multipliers that estimate indirect and induced effects. The I-O/SAM models are run using propriety software known as IMPLAN PRO (Input Output Model for Planning Analysis). IMPLAN is a modeling system originally developed by the USFS in the late 1970s. Today, the Minnesota IMPLAN Group (MIG, Inc.) owns the copyright and distributes data and software. It is probably the most widely used economic impact model in existence. IMPLAN comes with databases containing the most recently available economic data from a variety of sources.

Using IMPLAN software and data, transaction tables were estimated for the three potentially affected counties (Sweetwater, Lincoln, and Uinta) in Wyoming. Although most of the local economic impacts are anticipated to be in Sweetwater County, both Lincoln County and Uinta County are expected to contribute direct and/or indirect labor, materials, and services to the Project. Thus, for the purpose of the construction economic impact analysis, these two counties comprise the local regional economy. This region contains more than 78,500 people and has over 29,400 households.

Each transaction table in IMPLAN contains 509 economic sectors and allows users to estimate a variety of economic statistics. The most relevant measures for the purpose of understanding the economic impacts to the region due to the FWC Granger Optimization Project construction are value-added and employment. For perspective, current economic conditions for the three-county region of influence in terms of employment, output, value-added, and labor income are derived from data compiled by the IMPLAN, which uses the information provided by the U.S. Bureau of Economic Analysis (BEA), BEA’s Regional Economic Information System (REIS), the U.S. Bureau of Labor Statistics, the Census of Agriculture, the U.S. Census Bureau, the U.S. Census Bureau’s Economic Census, the U.S. Census Bureau’s Annual Survey of Manufacturers, and the Internal Revenue Service Quarterly Payroll File (FICA). The latest available data are for 2010 and appear in **Table 5-31**.

The top 10 industries in terms of their employment contribution to the region-wide economy are shown. The region produces over \$4.5 billion in annual value added per year and employs nearly 53,000 people. Output (Column 5 in **Table 5-31** below) is a measure of the total goods and services used and produced by a given industry and is closely related to sales. The top industry for employment is state and local government, excluding education. Support for oil and gas operations shows the highest income and output for the region. Oil and gas extraction, construction, food

service, mining, real estate, transport by truck, and wholesale trade businesses all have a heavy presence in the local economy.

TABLE 5-31

Top 10 Industries by Employment in the Three-County Region Comprised of Sweetwater, Lincoln, and Uinta Counties

| Sector | Description | Employment | Labor Income | Output |
|--------|---|------------|---------------|---------------|
| 437 | * Employment and payroll only (state and local government, non-education) | 4,475 | \$215,290,500 | \$245,507,300 |
| 438 | * Employment and payroll only (state and local government, education) | 3,310 | \$171,168,700 | \$193,790,400 |
| 29 | Support activities for oil and gas operations | 3,066 | \$279,400,800 | \$646,972,200 |
| 36 | Construction of other new nonresidential structures | 3,064 | \$184,066,700 | \$429,212,300 |
| 413 | Food services and drinking places | 2,726 | \$43,299,660 | \$132,422,300 |
| 20 | Extraction of oil and natural gas | 1,684 | \$207,201,900 | \$462,251,200 |
| 360 | Real estate establishments | 1,552 | \$14,905,840 | \$125,398,400 |
| 27 | Mining and quarrying other nonmetallic minerals | 1,433 | \$185,735,400 | \$495,866,100 |
| 335 | Transport by truck | 1,338 | \$98,137,240 | \$194,410,000 |
| 319 | Wholesale trade businesses | 1,274 | \$82,799,380 | \$194,154,800 |

Source: IMPLAN Data for 2010.

5.4.3.1 Construction Impacts on Employment and Value Added

The estimate of economic impacts from FMC Granger construction activities on the three-county economic region is measured in terms of value added and employment. These figures depend upon the local share of direct costs to construct the Project. The estimate for the local percentage of the construction workforce and the associated direct impacts of the construction were based upon the Applicant's local knowledge, the size of the local construction labor market, and the Applicant's knowledge about the specialized skills necessary to construct the Project. This knowledge was gained at the existing FMC facility in Granger as well as other FMC facilities elsewhere. Similarly, the overall construction costs, labor force requirements, and costs of operations were based upon the Applicant's experience with developing such cost estimates. Local construction costs were based upon the availability of local purveyors to support the relevant procurements and services. The local payroll comprises about \$34.6 million of this total. Local construction costs for the Project are estimated to be approximately \$74 million primarily within the non-residential construction, architectural and engineering, wholesale trade, accommodations, and food service industries. Expenditures by industry sector are used as direct inputs into IMPLAN. First, however, the expenditures are allocated on an annual basis because IMPLAN is based on annual economic activity. Additionally, as the IMPLAN model was built using economic data for 2010, the local construction costs were first converted to 2010 dollars using the GDP deflator to run the model and then converted back to 2011 dollars for reporting results. Regional price coefficients were set to 1 for each model run because only local expenditures were included as inputs.

This includes local direct costs for temporary housing and for food and incidentals to accommodate the non-local workforce. Thus, while it is assumed that the outside labor force would send their payroll remittances to their home origins, they do contribute to the local economy through their expenditures on food and housing. The local labor force would spend their payroll within the local economy similar to other local households.

Table 5-32 through Table 5-35 show the summary results of the analysis for years 2012 through 2015, respectively. The IMPLAN model uses the Bureau of Labor Statistics (BLS) Growth Model to convert nominal dollars into 2011 dollars. Local pre-construction costs are estimated at \$2.71 million in 2012. This creates 19 jobs directly involved with the Project with a total of 26 jobs in the three-county region. Total value added is estimated at \$1.7 million. Total sales volume as measured by total output is \$3.01 million.

TABLE 5-32
Local Construction Costs (\$2011) and Economic Impacts in 2012

| Costs Total | Total Value Added | Total Output | Direct Jobs Created | Total Jobs Created |
|----------------|-------------------|----------------|---------------------|--------------------|
| \$2.71 million | \$1.7 million | \$3.01 million | 19 | 26 |

Source: CH2M HILL, 2012.

The largest local economic impacts from construction occur in 2013 and 2014. As shown in **Table 5-33**, local construction costs for 2013 are estimated to be \$28.1 million. The direct jobs due to the Project are 97 and total job creation in the three-county region is 186. Value added comes to \$24.4 million and total output is \$30.0 million.

TABLE 5-33
Local Construction Costs (\$2011) and Economic Impacts in 2013

| Local Construction Costs | Total Value Added | Total Output | Direct Jobs Created | Total Jobs Created |
|--------------------------|-------------------|----------------|---------------------|--------------------|
| \$28.1 million | \$24.4 million | \$30.0 million | 97 | 186 |

Source: CH2M HILL, 2012.

In 2014, Project construction is estimated to contribute \$29.5 million in direct local spending, as shown in **Table 5-34**. This spending creates 235 direct jobs and 321 jobs overall in the three-county region. Total value added is \$23.1 million and output is \$31.7 million.

TABLE 5-34
Local Construction Costs (\$2011) and Economic Impacts in 2014

| Local Construction Costs | Total Value Added | Total Output | Direct Jobs Created | Total Jobs Created |
|--------------------------|-------------------|----------------|---------------------|--------------------|
| \$29.5 million | \$23.1 million | \$31.7 million | 235 | 321 |

Source: CH2M HILL, 2012.

In the final year of construction, the Project would contribute about \$13.6 million in local spending and 106 direct jobs, as shown in **Table 5-35**. Total local job creation is estimated at 144 full-time equivalents (FTE), with a corresponding increase in value added of \$10.3 million and output of \$14.2 million.

TABLE 5-35
Local Construction Costs (\$2011) and Economic Impacts in 2015

| Local Construction Costs | Total Value Added | Total Output | Direct Jobs Created | Total Jobs Created |
|--------------------------|-------------------|----------------|---------------------|--------------------|
| \$13.6 million | \$10.3 million | \$14.2 million | 106 | 144 |

Source: CH2M HILL, 2012.

Wage and Benefits for Construction and Operations. The Research and Planning section of the Wyoming Department of Employment, in cooperation with the BLS, conducts an Occupational Employment Statistics (OES) Wage Survey. The OES program estimates occupational employment and wages. Data obtained from polled establishments are used to estimate occupational employment and wage rates for unemployment insurance (UI) covered wage and salary jobs in non-farm establishments. Wages for the OES Wage Survey include base pay rates, cost-of-living allowances, guaranteed pay, hazard pay, incentive pay, commissions, piece rates and production bonuses, length-of-service allowances, on-call pay, and portal-to-portal pay. For most occupations, the hourly wage estimates are calculated using a year-round, full-time figure of 2,080 hours per year (52 weeks times 40 hours). Some occupations, such as teachers and entertainment industry positions, are only reported on an annual basis.

Employee Wage Estimates. Information compiled by the Department of Employment on annual and hourly wages is presented in **Table 5-36** for skilled labor categories that are expected to be present throughout the construction phase. Similar data for the operations phase are presented in **Table 5-37**.

TABLE 5-36
Average Wages Per Construction and Extraction Occupations Southwest Region, Wyoming, 2011

| Occupation | Occ. Code | Est. Empl. | Mean Wage | 10th Pct | 25th Pct | Median Wage | 75th Pct | 90th Pct |
|---|-----------|------------|-----------|----------|----------|-------------|----------|----------|
| Construction and Extraction Occupations | 47-0000 | 8,710 | 48,704 | 29,521 | 35,739 | 45,972 | 58,257 | 72,222 |
| | | | 23.42 | 14.19 | 17.18 | 22.10 | 28.01 | 34.72 |
| First-Line Supervisors/Managers of Construction Trades and Extraction Workers | 47-1011 | 890 | 66,378 | 37,847 | 45,930 | 64,708 | 83,645 | 99,324 |
| | | | 31.91 | 18.19 | 22.08 | 31.11 | 40.21 | 47.75 |
| Brickmasons and Blockmasons | 47-2021 | 80 | 45,974 | 33,858 | 37,544 | 45,141 | 54,229 | 60,167 |
| | | | 22.10 | 16.28 | 18.05 | 21.70 | 26.07 | 28.93 |
| Carpenters | 47-2031 | 700 | 50,118 | 35,310 | 41,424 | 50,025 | 57,495 | 65,508 |
| | | | 24.10 | 16.98 | 19.91 | 24.05 | 27.64 | 31.49 |
| Cement Masons and Concrete Finishers | 47-2051 | | 35,257 | 25,865 | 29,109 | 35,510 | 40,878 | 47,041 |
| | | | 16.95 | 12.44 | 13.99 | 17.07 | 19.66 | 22.61 |
| Construction Laborers | 47-2061 | 590 | 34,123 | 25,028 | 28,465 | 32,708 | 37,785 | 48,031 |
| | | | 16.41 | 12.03 | 13.69 | 15.73 | 18.17 | 23.09 |
| Paving, Surfacing, and Tamping Equipment | 47-2071 | 60 | 50,791 | 43,387 | 45,874 | 49,914 | 54,316 | 61,708 |
| | | | 24.41 | 20.86 | 22.05 | 24.00 | 26.12 | 29.67 |

TABLE 5-36
Average Wages Per Construction and Extraction Occupations Southwest Region, Wyoming, 2011

| Occupation | Occ. Code | Est. Empl. | Mean Wage | 10th Pct | 25th Pct | Median Wage | 75th Pct | 90th Pct |
|---|-----------|------------|-----------|----------|----------|-------------|----------|----------|
| Operators | | | | | | | | |
| Operating Engineers and Other | 47-2073 | 890 | 47,302 | 35,386 | 39,743 | 45,345 | 53,152 | 63,491 |
| Construction Equipment Operators | | | 22.74 | 17.01 | 19.11 | 21.80 | 25.56 | 30.53 |
| Drywall and Ceiling Tile Installers | 47-2081 | | 37,244 | 30,495 | 32,822 | 35,867 | 38,922 | 48,400 |
| | | | 17.91 | 14.66 | 15.78 | 17.24 | 18.71 | 23.27 |
| Electricians | 47-2111 | 650 | 58,873 | 36,005 | 47,340 | 59,796 | 71,551 | 81,959 |
| | | | 28.31 | 17.32 | 22.76 | 28.74 | 34.40 | 39.41 |
| Insulation Workers, Floor, Ceiling, and Wall | 47-2131 | 50 | 34,612 | 27,881 | 30,073 | 32,737 | 36,807 | 41,741 |
| | | | 16.64 | 13.40 | 14.46 | 15.74 | 17.69 | 20.07 |
| Painters, Construction and Maintenance | 47-2141 | 210 | 37,033 | 28,223 | 32,391 | 35,833 | 40,726 | 50,496 |
| | | | 17.80 | 13.57 | 15.57 | 17.22 | 19.58 | 24.27 |
| Plumbers, Pipefitters, and Steamfitters | 47-2152 | 390 | 42,972 | 27,031 | 32,164 | 42,605 | 51,861 | 59,769 |
| | | | 20.66 | 13.00 | 15.46 | 20.48 | 24.93 | 28.73 |
| Sheet Metal Workers | 47-2211 | | 42,057 | 25,897 | 29,488 | 41,251 | 54,396 | 59,283 |
| | | | 20.22 | 12.45 | 14.18 | 19.83 | 26.16 | 28.50 |
| Structural Iron and Steel Workers | 47-2221 | 90 | 44,400 | 32,752 | 35,059 | 38,903 | 54,781 | 59,056 |
| | | | 21.35 | 15.75 | 16.86 | 18.70 | 26.34 | 28.40 |
| Helpers--Brickmasons, Blockmasons, Stonemasons, and Tile and Marble Setters | 47-3011 | 80 | 30,672 | 22,243 | 25,490 | 29,729 | 35,623 | 41,479 |
| | | | 14.75 | 10.69 | 12.25 | 14.29 | 17.12 | 19.94 |
| Helpers--Carpenters | 47-3012 | 120 | 33,680 | 21,879 | 28,062 | 33,047 | 40,284 | 46,735 |
| | | | 16.19 | 10.52 | 13.50 | 15.89 | 19.36 | 22.47 |
| Helpers--Electricians | 47-3013 | | 30,893 | 27,062 | 28,414 | 30,666 | 32,700 | 36,658 |
| | | | 14.85 | 13.01 | 13.66 | 14.74 | 15.73 | 17.62 |
| Construction and Building Inspectors | 47-4011 | 60 | 47,221 | 27,349 | 42,094 | 48,060 | 53,052 | 68,257 |
| | | | 22.70 | 13.15 | 20.24 | 23.11 | 25.50 | 32.82 |
| Highway Maintenance Workers | 47-4051 | 170 | 42,618 | 32,930 | 36,206 | 40,821 | 48,447 | 56,585 |
| | | | 20.49 | 15.83 | 17.41 | 19.63 | 23.29 | 27.21 |
| Septic Tank Servicers and Sewer Pipe Cleaners | 47-4071 | 50 | 36,930 | 31,500 | 33,469 | 36,752 | 40,813 | 45,342 |
| | | | 17.75 | 15.15 | 16.09 | 17.67 | 19.62 | 21.80 |
| Derrick | 47-5011 | 360 | 50,206 | 36,480 | 43,151 | 50,266 | 57,509 | 65,407 |

TABLE 5-36
Average Wages Per Construction and Extraction Occupations Southwest Region, Wyoming, 2011

| Occupation | Occ. Code | Est. Empl. | Mean Wage | 10th Pct | 25th Pct | Median Wage | 75th Pct | 90th Pct |
|---|-----------|------------|-----------|----------|----------|-------------|----------|----------|
| Operators, Oil and Gas | | | | 24.14 | 17.54 | 20.75 | 24.17 | 27.65 |
| Rotary Drill Operators, Oil and Gas | 47-5012 | 430 | | | | | | |
| Service Unit Operators, Oil, Gas, and Mining | 47-5013 | 670 | 47,927 | 26,443 | 34,762 | 46,174 | 63,088 | 71,261 |
| | | | 23.04 | 12.71 | 16.71 | 22.20 | 30.33 | 34.26 |
| Earth Drillers, Except Oil and Gas | 47-5021 | 20 | 60,992 | 50,919 | 54,615 | 60,776 | 68,656 | 73,467 |
| | | | 29.32 | 24.48 | 26.26 | 29.22 | 33.01 | 35.32 |
| Explosives Workers, Ordnance Handling Experts, and Blasters | 47-5031 | 10 | 58,951 | 50,371 | 53,246 | 58,038 | 65,093 | 72,042 |
| | | | 28.35 | 24.22 | 25.60 | 27.91 | 31.30 | 34.64 |
| Continuous Mining Machine Operators | 47-5041 | 110 | 60,266 | 47,600 | 54,594 | 61,298 | 68,164 | 73,928 |
| | | | 28.98 | 22.89 | 26.25 | 29.47 | 32.78 | 35.55 |
| Mine Cutting and Channeling Machine Operators | 47-5042 | 80 | 56,498 | 33,262 | 50,389 | 58,144 | 68,818 | 74,868 |
| | | | 27.16 | 15.99 | 24.22 | 27.96 | 33.08 | 36.00 |
| Roof Bolters, Mining | 47-5061 | 50 | 67,923 | 52,773 | 60,421 | 70,742 | 77,314 | 83,235 |
| | | | 32.65 | 25.37 | 29.05 | 34.01 | 37.17 | 40.02 |
| Roustabouts, Oil and Gas | 47-5071 | 610 | 43,757 | 27,458 | 34,297 | 45,381 | 52,479 | 58,049 |
| | | | 21.03 | 13.20 | 16.49 | 21.82 | 25.23 | 27.91 |
| Helpers--Extraction Workers | 47-5081 | | 45,615 | 33,101 | 35,347 | 39,031 | 55,219 | 65,485 |
| | | | 21.93 | 15.91 | 16.99 | 18.76 | 26.54 | 31.48 |
| Extraction Workers, All Other | 47-5099 | | 38,260 | 28,151 | 31,896 | 36,639 | 41,936 | 52,056 |
| | | | 18.39 | 13.54 | 15.34 | 17.61 | 20.16 | 25.03 |

Source: Wyoming Department of Employment (<http://doe.state.wy.us/LMI/EDS2011SeptECI/PAGE0150.HTM>).

TABLE 5-37
Average Wages per Installation, Maintenance, and Repair Occupations Southwest Region, Wyoming 2011

| Occupation | Occ. Code | Est. Empl. | Mean Wage | 10th Pct | 25th Pct | Median Wage | 75th Pct | 90th Pct |
|---|-----------|------------|-----------|----------|----------|-------------|----------|----------|
| Installation, Maintenance, and Repair Occupations | 49-0000 | 4,170 | 53,984 | 28,440 | 37,242 | 52,111 | 69,299 | 83,486 |
| | | | 25.95 | 13.67 | 17.90 | 25.05 | 33.32 | 40.14 |
| First-Line Supervisors/Managers of Mechanics, Installers, and Repairers | 49-1011 | 470 | 75,422 | 43,069 | 56,222 | 74,912 | 98,326 | 110,513 |
| | | | 36.26 | 20.70 | 27.03 | 36.02 | 47.27 | 53.13 |
| Computer, Automated Teller, and Office Machine Repairers | 49-2011 | 20 | 41,863 | 16,115 | 16,896 | 44,152 | 48,512 | 69,617 |
| | | | 20.13 | 7.75 | 8.12 | 21.23 | 23.33 | 33.47 |
| Telecommunications Equipment Installers and Repairers, Except Line Installers | 49-2022 | 70 | | | | | | |
| Electrical and Electronics Repairers, Commercial and Industrial Equipment | 49-2094 | | 66,238 | 49,223 | 55,760 | 67,838 | 76,406 | 86,210 |
| | | | 31.84 | 23.67 | 26.81 | 32.61 | 36.74 | 41.45 |
| Electrical and Electronics Repairers, Powerhouse, Substation, and Relay | 49-2095 | 80 | 77,421 | 64,045 | 69,412 | 78,175 | 87,756 | 93,504 |
| | | | 37.22 | 30.79 | 33.37 | 37.59 | 42.19 | 44.95 |
| Automotive Body and Related Repairers | 49-3021 | 40 | 47,081 | 35,714 | 39,689 | 45,418 | 53,337 | 59,798 |
| | | | 22.63 | 17.17 | 19.08 | 21.83 | 25.65 | 28.74 |
| Automotive Glass Installers and Repairers | 49-3022 | | 36,494 | 26,489 | 28,924 | 33,137 | 38,276 | 56,659 |
| | | | 17.54 | 12.73 | 13.91 | 15.93 | 18.40 | 27.24 |
| Automotive Service Technicians and Mechanics | 49-3023 | 240 | 43,731 | 26,468 | 32,340 | 42,778 | 53,437 | 60,997 |
| | | | 21.02 | 12.72 | 15.55 | 20.57 | 25.69 | 29.33 |
| Bus and Truck Mechanics and Diesel Engine Specialists | 49-3031 | 210 | 50,795 | 35,694 | 42,388 | 49,445 | 58,412 | 69,038 |
| | | | 24.42 | 17.16 | 20.38 | 23.77 | 28.08 | 33.19 |
| Mobile Heavy Equipment Mechanics, Except Engines | 49-3042 | 180 | 50,154 | 35,555 | 42,189 | 49,032 | 58,076 | 66,581 |
| | | | 24.11 | 17.09 | 20.28 | 23.57 | 27.92 | 32.01 |
| Rail Car Repairers | 49-3043 | 130 | 37,686 | 28,335 | 31,444 | 35,695 | 42,934 | 51,716 |
| | | | 18.12 | 13.62 | 15.12 | 17.16 | 20.64 | 24.87 |
| Motorcycle Mechanics | 49-3052 | 20 | 33,656 | 24,756 | 26,978 | 31,136 | 39,203 | 48,316 |
| | | | 16.18 | 11.90 | 12.97 | 14.97 | 18.85 | 23.23 |
| Tire Repairers and Changers | 49-3093 | 120 | 25,306 | 17,366 | 19,518 | 27,359 | 30,248 | 32,309 |
| | | | 12.17 | 8.35 | 9.39 | 13.15 | 14.55 | 15.53 |
| Control and Valve Installers and Repairers, Except Mechanical Door | 49-9012 | 70 | 68,280 | 45,294 | 55,742 | 69,908 | 82,746 | 91,186 |
| | | | 32.83 | 21.78 | 26.80 | 33.61 | 39.78 | 43.84 |
| Industrial Machinery Mechanics | 49-9041 | 720 | 62,487 | 35,178 | 48,957 | 64,386 | 73,404 | 83,272 |
| | | | 30.04 | 16.92 | 23.53 | 30.95 | 35.29 | 40.03 |
| Maintenance Workers, Machinery | 49-9043 | 70 | 51,141 | 35,779 | 45,583 | 52,448 | 58,880 | 67,165 |
| | | | 24.59 | 17.20 | 21.91 | 25.22 | 28.30 | 32.29 |
| Electrical Power-Line Installers and Repairers | 49-9051 | 100 | 64,453 | 36,430 | 48,654 | 62,430 | 84,584 | 92,628 |
| | | | 30.99 | 17.51 | 23.39 | 30.02 | 40.67 | 44.53 |
| Telecommunications Line Installers and Repairers | 49-9052 | 50 | 46,804 | 32,764 | 41,170 | 47,608 | 55,065 | 59,342 |
| | | | 22.50 | 15.76 | 19.79 | 22.89 | 26.48 | 28.53 |

TABLE 5-37
Average Wages per Installation, Maintenance, and Repair Occupations Southwest Region, Wyoming 2011

| Occupation | Occ. Code | Est. Empl. | Mean Wage | 10th Pct | 25th Pct | Median Wage | 75th Pct | 90th Pct |
|--|-----------|------------|-----------|----------|----------|-------------|----------|----------|
| Precision Instrument and Equipment Repairers, All Other | 49-9069 | 10 | 55,319 | 41,915 | 46,374 | 57,947 | 63,329 | 67,265 |
| | | | 26.59 | 20.15 | 22.29 | 27.86 | 30.45 | 32.34 |
| Maintenance and Repair Workers, General | 49-9071 | 1,170 | 49,618 | 22,680 | 34,392 | 47,791 | 68,641 | 77,324 |
| | | | 23.85 | 10.91 | 16.54 | 22.98 | 33.00 | 37.18 |
| Coin, Vending, and Amusement Machine Servicers and Repairers | 49-9091 | 20 | 30,147 | 21,885 | 24,594 | 30,884 | 34,667 | 38,454 |
| | | | 14.50 | 10.53 | 11.83 | 14.84 | 16.67 | 18.49 |
| Helpers--Installation, Maintenance, and Repair Workers | 49-9098 | 60 | 38,442 | 23,998 | 32,337 | 41,075 | 45,708 | 48,431 |
| | | | 18.49 | 11.54 | 15.54 | 19.75 | 21.97 | 23.29 |
| Installation, Maintenance, and Repair Workers, All Other* | 49-9799 | 60 | 43,242 | 35,641 | 37,202 | 43,429 | 47,395 | 53,885 |
| | | | 20.79 | 17.13 | 17.88 | 20.88 | 22.78 | 25.90 |

Source: Wyoming Department of Employment (<http://doe.state.wy.us/LMI/EDS2011SeptECI/PAGE0150.HTM>).

A review of **Table 5-36** shows that mean wages for the construction and extraction occupations for the southwest region of Wyoming in 2011 were \$48,704 on an annual basis, or \$23.42 per hour. First-line supervisors were at the high end of the pay scale, earning \$66,378 per year. Helpers, earning about \$30,000 annually, were at the low end of the occupational pay scale. Representative occupations for the operations phase of the Project are captured within the Installation, Maintenance, and Repair Occupations, which shows a larger range in pay scales. First-line supervisors take home \$75,422 on average and electronic repairers are the top earners with average salaries of \$77,421 annually. Tire repairers make just over \$25,300 per year.

Project Employee Benefits Estimates. Total employee compensation includes wages and salaries as well as benefits such as health insurance and retirement plans. In 2010, wages and salaries comprised 84.6 percent of Wyoming compensation costs, while insurance contributions came to 10.5 percent and health insurance made up the remainder.

5.4.3.2 Taxes

The benefits related to the Project from a tax revenue perspective would occur based mostly on the *ad valorem* taxes that would be collected over the life of the Project. Additionally, in conjunction with associated ancillary activities, as discussed later, state and local sales and use tax revenues would be generated during construction and operation of the proposed facility. Although some of these tax revenues will be distributed on a local level, the State of Wyoming controls such distribution.

Ad Valorem Taxes

Ad valorem taxes support a variety of county and municipal operations including airports, fire protection, hospitals, libraries, museums, public health, recreational systems, special districts, and education. Assessed property values are the basis for *ad valorem* taxes. Property values related to the Project are determined annually on a centralized basis by the WDOR.

It is the WDOR's role to estimate the fair market value (FMV) of the industrial facility, including the value of the land and improvements. It is the owner's responsibility to provide WDOR with all necessary information to enable the department to make this determination. The owner provides WDOR with all property located in the state on the lien date, which is January 1 of each calendar

year. Developments or Construction Work in Progress (CWIP) are taxable prior to their completion and operation, especially in the case of multi-year construction schedules. Under such circumstances, the owner provides WDOR with cumulative construction costs that are then incorporated into its appraisal.

After WDOR determines the FMV of the industrial facility, the assessed value is stated as 11.5 percent of this value. The assessed value is then allocated to the county within which the Project is located. This county then applies the property tax levy (for the tax district within which each Project is located) to calculate the annual property taxes due. The proposed site is located in Granger in Sweetwater County, where the 2011 tax levy is 75.17 mills. Thus, for every \$1,000 of assessed value of real property (land and improvements), Sweetwater County will levy property taxes of \$75.17 annually. The property tax revenues received by the county are distributed across a number of taxing entities as shown in **Table 5-38**, with the majority supporting public education. FMC projected future property tax payments based upon the anticipated non-exempt construction costs and schedule. Property taxes of approximately \$170,000 would be payable to Sweetwater County in 2013 because pre-construction activities would commence in 2012. By tax year 2014, property taxes would increase by another \$850,000 to reach \$1,020,000. The increment in 2015 would be about \$640,000, for an annual total of \$1,660,000 and in 2016, \$300,000 would be added to the annual property tax bill giving a grand total of \$1,960,000. Thus, at Project completion, the additional *ad valorem* taxes due to the FMC Granger Optimization Project would be almost \$2 million per year. An assessment of the tax revenues in subsequent years is presented in the section addressing operational impacts.

TABLE 5-38
Millage by Taxing Entity, Granger, Sweetwater County (2011)

| Taxing Entity | Millage |
|-------------------------|---------|
| General County Levy | 12 |
| Fair Operation | 0.771 |
| Other General Fund | 8.845 |
| Hospital | 0.512 |
| Library Operation | 1.22 |
| Museum Operation | 0.128 |
| Public Health Purposes | 0.327 |
| Recreation System | 0.197 |
| Hospital, Weed and Pest | 3.351 |
| Schools | 51.816 |
| Municipal | 8 |
| Total | 75.17 |

Source: Wyoming Department of Revenue (WDOR), 2011.

Sales, Use, and Lodging Taxes

The State of Wyoming levies a state sales tax of 4 percent on a wide array of goods and services purchased within the state. The use tax is a companion to the sales tax and is imposed upon goods purchased tax-free outside Wyoming for use in Wyoming. Collected taxes are shared between the state (69 percent) and counties (31 percent). Counties can levy the following additional sales and use taxes: general-purpose option tax of 1 percent, specific-purpose option tax of 1 percent, and lodging tax of up to 4 percent on hotel and motel room charges for stays under 30 days.

In 2011, Sweetwater, Lincoln, and Uinta counties each had a 5 percent sales and use tax (statewide base of 4 percent plus 1 percent general purpose optional county tax). It is anticipated that most of the Wyoming sales and use taxes will be paid in Sweetwater County where the Project is located and due to size of its economy relative to the other two counties in the study area.

In addition to expenditures to construct the Project, local tax revenues would accrue from the sale of goods and services to non-local workers. The estimated quarterly tax revenues over the construction period are shown in **Table 5-39**. In all, it is likely that local tax revenues totaling over \$2 million would accrue to the three-county study area due to the Project over the 26-month construction period.

TABLE 5-39

Estimates of Tax Revenues Accruing to Local Jurisdictions within Sweetwater, Lincoln, and Uinta Counties to Construct the FMC Granger Optimization Facility and for local purchases by Non-Local Workforce

| Type of Tax | Tax Rate | Quarter | | | | | | | | | | | | Total |
|------------------------|----------|---------|-----------|-----------|-----------|----------|-----------|-----------|-----------|-----------|------------|-----------|-----------|-------------|
| | | 2012 | | 2013 | | 2014 | | | | 2015 | | | 2012-2015 | |
| | | Q4 | Q1 | Q2 | Q3 | Q4 | Q1 | Q2 | Q3 | Q4 | Q1 | Q2 | | |
| State | 4% | 44,000 | 95,650 | 141,420.8 | 141,420.8 | 141,421 | 207,114 | 207,114 | 207,114 | 207,114 | 118,009 | 118,009 | 118,009 | 1,746,395.4 |
| General Purpose Option | 1% | 11,000 | 23,912.5 | 35,355.2 | 33,852.66 | 33,852.7 | 33,852.66 | 33,852.66 | 33,852.66 | 33,852.66 | 33,852.66 | 33,852.66 | 33,852.66 | 374,941.64 |
| Total | 5% | 55,000 | 119,562.5 | 176,776 | 176,776 | 176,776 | 258,892.5 | 258,892.5 | 258,892.5 | 258,892.5 | 147,511.25 | 147,511.3 | 147,511.3 | 2,182,994.3 |

Source: FMC, 2012; CH2M HILL, 2012.

Lodging tax revenues could accrue to the counties in which Project-related construction workers temporarily reside. Estimates of these potential tax revenues are not presented in **Table 5-39**. This is because lodging taxes are levied only on sleeping accommodations for guests staying less than 30 days. In general, the non-local workers are expected to stay longer than 30 days.

5.4.4 Operation Impacts

5.4.4.1 Operations Impacts on Employment and Value Added

In this analysis, the economic impact to the region resulting from operation and maintenance (O&M) costs are estimated. Following completion of the Project, it is anticipated that annual O&M of the newly installed equipment would require up to 26 new positions, which would all be filled by non-local workers at a total annual compensation of \$3.4 million per year. Local annual procurements for materials for the operations phase are estimated at \$ 1.1 million. The combined total for annual local O&M is \$4.5 million. These direct local expenditures generate \$6.1 million in total value added and a total of 42 new jobs, including the 26 new employees working at the FMC Ganger Optimization Facility.

The results of the analysis the total economic impacts for the three-county region are shown in **Table 5-40**.

TABLE 5-40
Annual Economic Impacts of FMC Granger O&M (\$2011)

| IMPLAN Sector | Local O&M Costs Per Year | Total Value Added | Total Output | Direct Jobs Created | Total Jobs Created |
|---------------|--------------------------|-------------------|---------------|---------------------|--------------------|
| 27 | \$4.5 million | \$6.1 million | \$6.1 million | 26 | 42 |

Source: Minnesota IMPLAN Group, 2012; CH2M HILL, 2012.

The top 10 industries in the region affected in terms of employment are shown in **Table 5-41**. The direct employment is in the non-metallic mining sector. The food services sector is expected to add two new jobs. Health practitioners, real estate establishments, retail sales, and trucking industries would each gain one job. Other sectors will experience a modest increase in sales that will not require hiring additional workers.

TABLE 5-41
Top 10 Industries Experiencing Job Creation Due to the O&M Phase of the FMC Granger Project

| Sector | Description | Total Employment | Total Labor Income | Total Value Added | Total Output |
|--------|--|------------------|--------------------|-------------------|--------------|
| 27 | Mining and quarrying other nonmetallic minerals | 26 | \$3,591,514 | \$4,890,450 | \$4,207,871 |
| 413 | Food services and drinking places | 2 | \$33,453 | \$52,029 | \$102,600 |
| 360 | Real estate establishments | 1 | \$9,410 | \$70,369 | \$80,146 |
| 394 | Offices of physicians, dentists, and other health practitioners | 1 | \$52,376 | \$54,717 | \$94,065 |
| 335 | Transport by truck | 1 | \$57,083 | \$67,751 | \$113,480 |
| 329 | Retail Stores - General merchandise | 1 | \$18,194 | \$28,347 | \$36,585 |
| 356 | Securities, commodity contracts, investments, and related activities | 1 | -\$133 | -\$26 | \$66,262 |
| 324 | Retail Stores - Food and beverage | 1 | \$19,015 | \$27,250 | \$36,583 |

TABLE 5-41
Top 10 Industries Experiencing Job Creation Due to the O&M Phase of the FMC Granger Project

| Sector | Description | Total Employment | Total Labor Income | Total Value Added | Total Output |
|--------|--|------------------|--------------------|-------------------|--------------|
| 320 | Retail Stores - Motor vehicle and parts | 0 | \$22,075 | \$24,553 | \$42,748 |
| 355 | Nondepository credit intermediation and related activities | 0 | \$25,438 | \$26,531 | \$52,556 |

Source: Minnesota IMPLAN Group, 2012; CH2M HILL, 2012.

5.4.4.2 *Ad Valorem* Taxes during Project Operations

As described above, *ad valorem* tax revenues would accrue to Granger and Sweetwater County each year until the value of the property has been fully depreciated. The property tax revenues received by the county and Granger are distributed across a number of taxing entities, as shown in **Table 5-38** and **Table 5-42**, with the majority supporting public education. The majority of the general county levy is paid to the Sweetwater County, whereas the other levies are paid to the Granger, the local jurisdiction.

Over the period 2013 through 2016, the estimated cumulative *ad valorem* tax revenue generated would be approximately \$4.81 million in nominal terms, as shown in **Table 5-43**. As noted in Section 5.4.3.2, by 2016 the annual property taxes due to the project would be about \$1.96 million. Then, using straight-line depreciation over the subsequent 25 years, the annual property taxes would decline as the assets depreciate. The net present value of property tax payment is computed at a 2 percent discount rate because this corresponds to the current yield on 10-year U.S. Treasury Bond. Over the 25-year life of the Project post construction, the net present value of total property taxes in the amount of \$21.53 million would be paid to Granger, Sweetwater County. This figure is additive to the \$4.81 million paid during construction.

TABLE 5-42
Millage and Revenue by Taxing Entity, Granger, Sweetwater County (2011)

| Taxing Entity | Millage | Revenue |
|--|--------------|--------------|
| General County Levy | 12 mills | \$30,518,648 |
| Special District (weed and pest, hospital) | 3.51 mills | \$1,9323 |
| Schools | 51.816 mills | \$65,199 |
| Municipal | 8.0 mills | \$10,066 |
| Total | 75.326mills | \$30,595,836 |

Source: Wyoming Department of Revenue (WDOR), 2011.

TABLE 5-43
Estimate of *Ad Valorem* Taxes Paid in Millions

| 2013 - 2016 | 25- Year Total (NPV) 2017 - 2041 |
|-------------|-------------------------------------|
| \$4.81 | \$21.53 |

Source: FMC, 2012; CH2M HILL, 2012.

5.4.5 Housing and Housing Availability Analysis

This section addresses the following six major topics: 1) composition of the existing housing, 2) housing inventory and residential construction trends, 3) home value and rental housing costs, 4) rental housing vacancies, 5) housing needs, and 6) temporary accommodations.

5.4.5.1 Existing Conditions

Housing Stock. Statewide, housing units in Wyoming rose by 17 percent between 2000 and 2010 compared to a 10 percent increase between 1990 and 2000. While Wyoming's housing markets have historically experienced severe shortages and a lack of affordable housing, many of these conditions are beginning to ease (WCDA, 2011). The total number of housing units in the study area increased 18 percent between 2000 and 2010, similar to the 17 percent increase for the state as a whole, as shown in **Table 5-44**. Of the 5,631 housing units added in the study area in the past decade, half were added in Sweetwater County and 38 percent were in Lincoln County, which posted the largest percentage increase in housing stock during this period, at 31 percent.

TABLE 5-44
2000 – 2010 Changes in Housing Units for Wyoming and Study Area Counties

| Area | Number of Units | | % change |
|-------------------------|-----------------|---------------|------------|
| | 2000 | 2010 | |
| Wyoming | 223,854 | 261,868 | 17% |
| Sweetwater County | 15,921 | 18,735 | 18% |
| Lincoln County | 6,831 | 8,946 | 31% |
| Uinta County | 8,011 | 8,713 | 9% |
| Study Area Total | 30,763 | 36,394 | 18% |

Source: U.S. Census Bureau, 2010 Census.

Table 5-45 summarizes the occupied versus vacant housing units in the study area as well as those that are renter occupied. In 2010, there were a total of 29,167 occupied housing units and 5,390 vacant units in the three-county study area. Of these vacant housing units, 42 percent, or 2,260 units, were in Sweetwater County and 39 percent, or 2,085 units, were in Lincoln County. Approximately 16-25 percent of the housing stock in the study area was renter occupied, with Rock Springs and Green River in Sweetwater County and Evanston in Uinta County having the largest numbers of renter-occupied units (5,413 total). Five other communities in the study area, Bairoil, Granger, Superior, Cokeville, and Lyman, had less than 20 percent of their housing used for rental purposes in 2010, for a total of 209 renter-occupied units.

TABLE 5-45
2010 Housing Unit Characteristics (Occupied, Vacant, and Renter Occupied) for Wyoming and the Study Area

| Area Name | Total Housing Units | Occupied Housing Units | | Vacant Housing Units | | Renter-Occupied Units ¹ | |
|--------------------------|---------------------|------------------------|-------------------------------------|----------------------|-------------------------------------|------------------------------------|-------------------------------------|
| | Number | Number | Percent of Total Area Housing Units | Number | Percent of Total Area Housing Units | Number | Percent of Total Area Housing Units |
| Wyoming | 261,868 | 226,879 | 87 | 34,989 | 13 | 69,802 | 27 |
| Sweetwater County | 18,735 | 16,475 | 88 | 2,260 | 12 | 4,603 | 25 |
| Bairoil | 68 | 49 | 72 | 19 | 28 | 11 | 16 |
| Granger | 72 | 57 | 79 | 15 | 21 | 14 | 19 |
| Green River | 5,002 | 4,642 | 93 | 360 | 7 | 1,188 | 24 |
| Rock Springs | 10,070 | 8,762 | 87 | 1,308 | 13 | 2,810 | 28 |
| Superior | 181 | 131 | 72 | 50 | 28 | 11 | 6 |
| Wamsutter | 286 | 189 | 66 | 97 | 34 | 91 | 32 |
| Lincoln County | 8,946 | 6,861 | 77 | 2,085 | 23 | 1,451 | 16 |
| Afton | 855 | 703 | 82 | 152 | 18 | 209 | 24 |
| Alpine | 449 | 346 | 77 | 103 | 23 | 120 | 27 |
| Cokeville | 200 | 166 | 83 | 34 | 17 | 33 | 17 |
| Diamondville | 363 | 320 | 88 | 43 | 12 | 71 | 20 |
| Kemmerer | 1,265 | 1,078 | 85 | 187 | 15 | 286 | 23 |
| La Barge | 290 | 233 | 80 | 57 | 20 | 61 | 21 |
| Thayne | 171 | 144 | 84 | 27 | 16 | 51 | 30 |
| Uinta County | 8,713 | 5,759 | 66 | 1,045 | 12 | 1,909 | 22 |
| Evanston | 5,111 | 4,540 | 89 | 571 | 11 | 1,415 | 28 |
| Lyman | 802 | 744 | 93 | 58 | 7 | 140 | 17 |
| Mountain View | 506 | 468 | 92 | 38 | 8 | 116 | 23 |
| Study Area | 36,394 | 29,167 | 80 | 5,390 | 15 | 7,963 | 22 |

Notes:

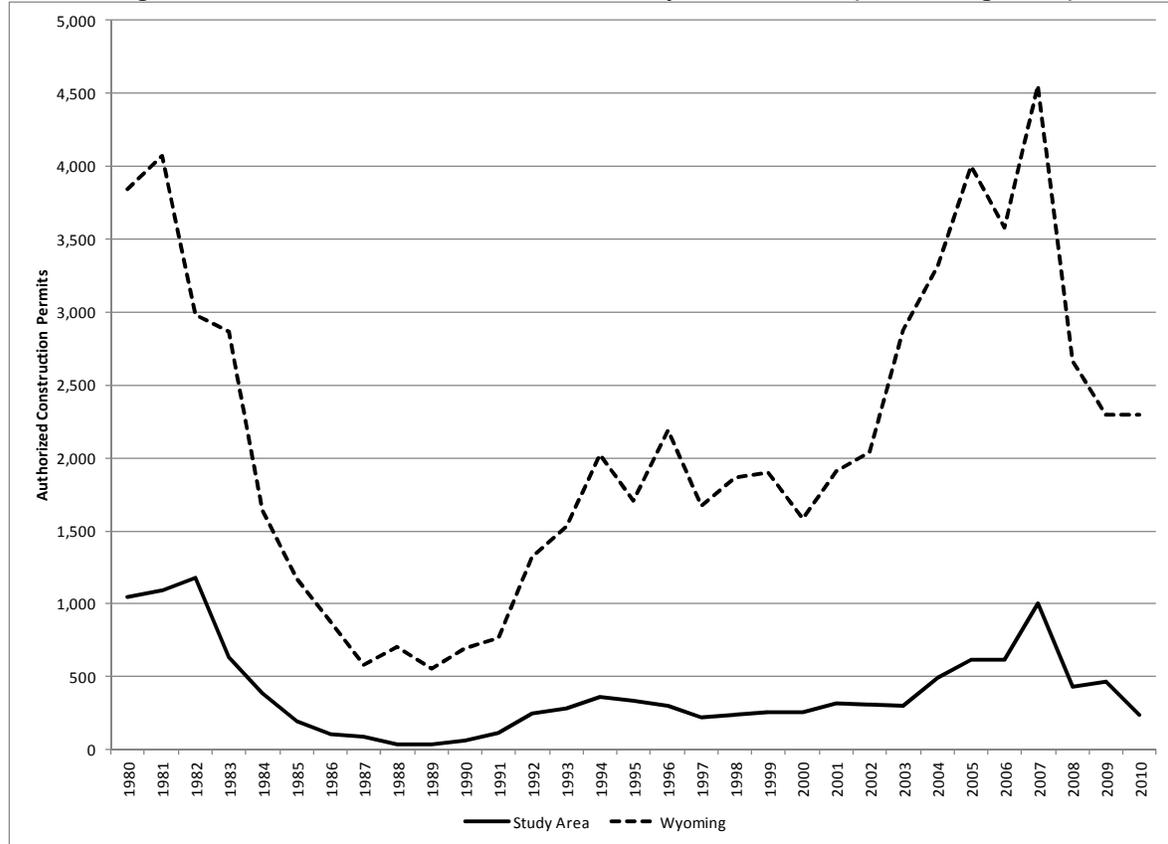
¹ Total Housing Units = Occupied Housing Units + Vacant Housing Units; Renter Occupied Units are a subset of the Occupied Housing Units however the percents are proportion of Total Housing Units.

Source: U.S. Census Bureau, 2010 Census; prepared by Wyoming Department of Administration and Information, Economic Analysis Division (WY EAD), 2011.

Housing Construction Activity. As demonstrated nationally during the past 5 years, the residential construction industry is highly cyclical and sensitive to economic and financial conditions. While Wyoming saw moderating sales prices due to the economic downturn, new housing unit production, which is indicated by residential permits, still exceeded 2,000 new units annually between 2002 and 2010. Construction peaked in 2007, with 4,584 units permitted, fell sharply by 42.0 percent between 2007 and 2008, and then dropped by another 14.0 percent between 2008 and 2009 (WCDA, 2011). **Figure 5-11** illustrates the number of housing units authorized annually for construction in Wyoming and the study area. While the growth and contraction of the new housing market in the study area has generally reflected that of the state historically, the study area experienced an even greater jump in construction activity in 2007. After witnessing generally steady growth in construction authorizations between 2000 (258 permits) and 2007 (1,007 permits), the study area saw only 241 new units permitted in 2010. The contribution that residential construction activity in the study area

has made to that of the state has varied substantially from lows of 5 to 9 percent from 1988 to 1990 and 10 percent in 2003 and 2010, to a high of 40 percent in 1982. On average, the study area has contributed 17 percent of the state's residential construction annually over the past three decades.

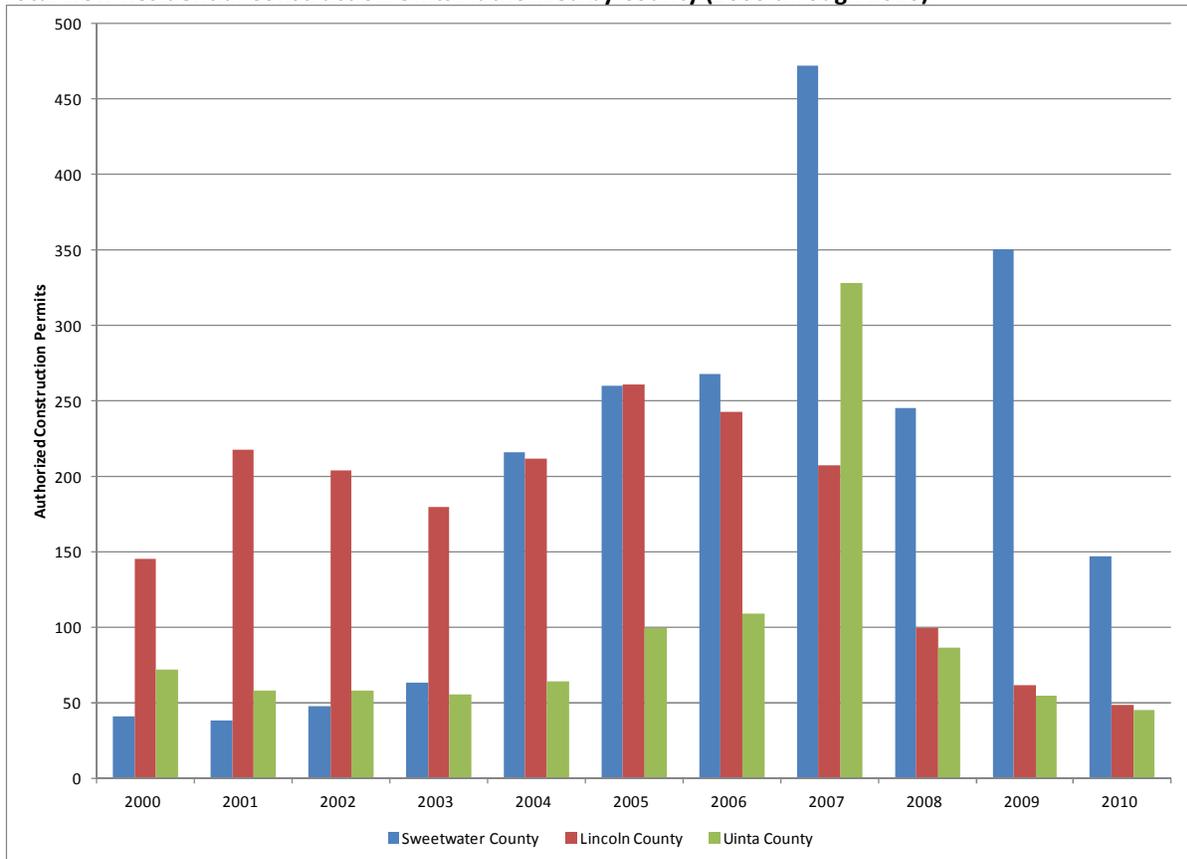
FIGURE 5-11
New Housing Units Authorized for Construction for the Study Area and State (1980 through 2010)



Source: Wyoming Housing Database Partnership, 2011.

On average, approximately 80 percent of the new housing authorized for construction over the past decade in the study area has been in either Sweetwater County or Lincoln County, as shown in **Figure 5-12**. Sweetwater County has contributed an average of 39 percent of the new construction in the study area since 2000, while Lincoln County has contributed 41 percent. **Figure 5-12** illustrates that growth in Sweetwater County increased significantly between 2003 (63 permits) and 2004 (216 permits), resulting in Sweetwater County exchanging places with Lincoln County in terms of new residential construction growth mid-decade. In contrast, growth in Lincoln County peaked in 2005 with 261 permits with new construction authorizations declining to 49 permits in 2010. With the exception of a spike in authorized units between 2005 and 2007, Uinta County experienced modest residential construction, with approximately 60 new permits a year.

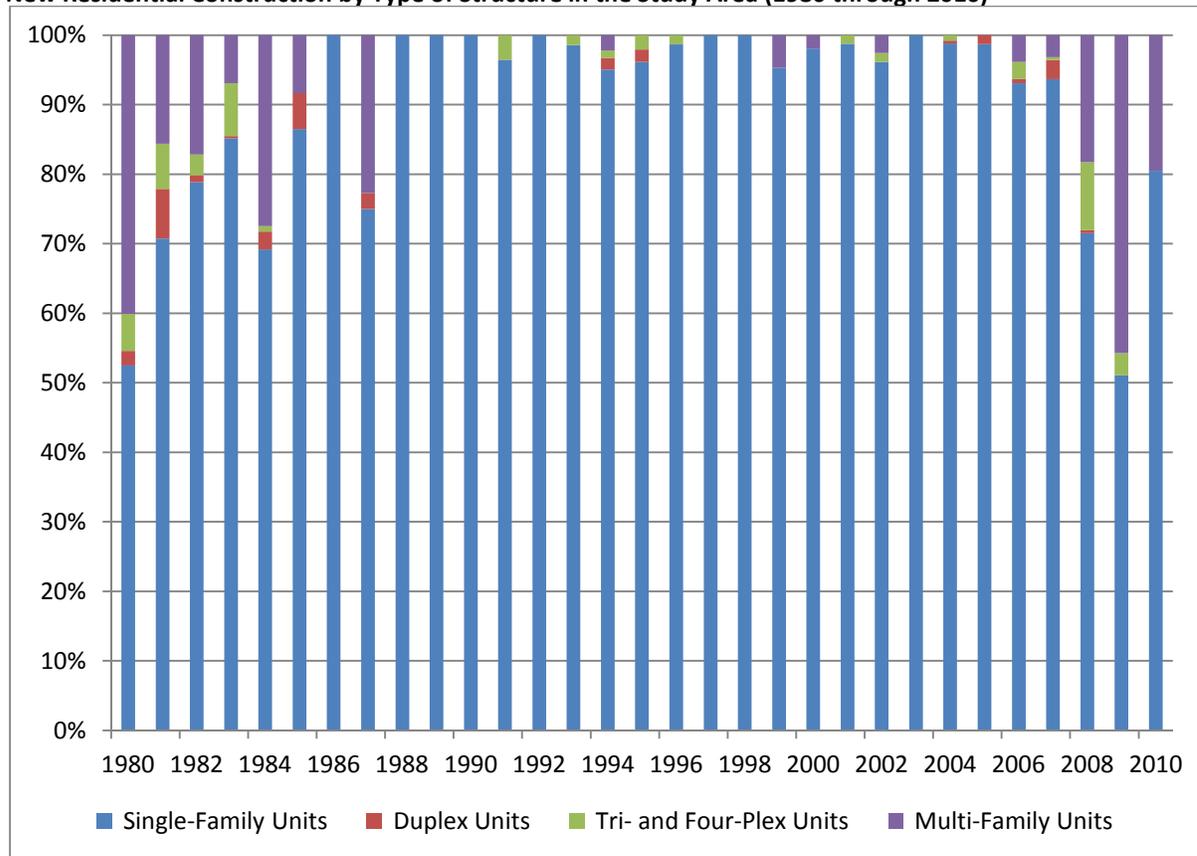
FIGURE 5-12
Total New Residential Construction Units Authorized by County (2000 through 2010)



Source: Wyoming Housing Database Partnership, 2011.

Single-family units comprised nearly 90 percent of the total housing units constructed in the study area over the past three decades, as shown in **Figure 5-13**. The figure illustrates that a limited number of multi-unit structures were constructed between 1988 and 2005. New multi-unit construction increased between 2006 and 2010, with the study area adding more than 500 new units in 4 years.

FIGURE 5-13
New Residential Construction by Type of Structure in the Study Area (1980 through 2010)

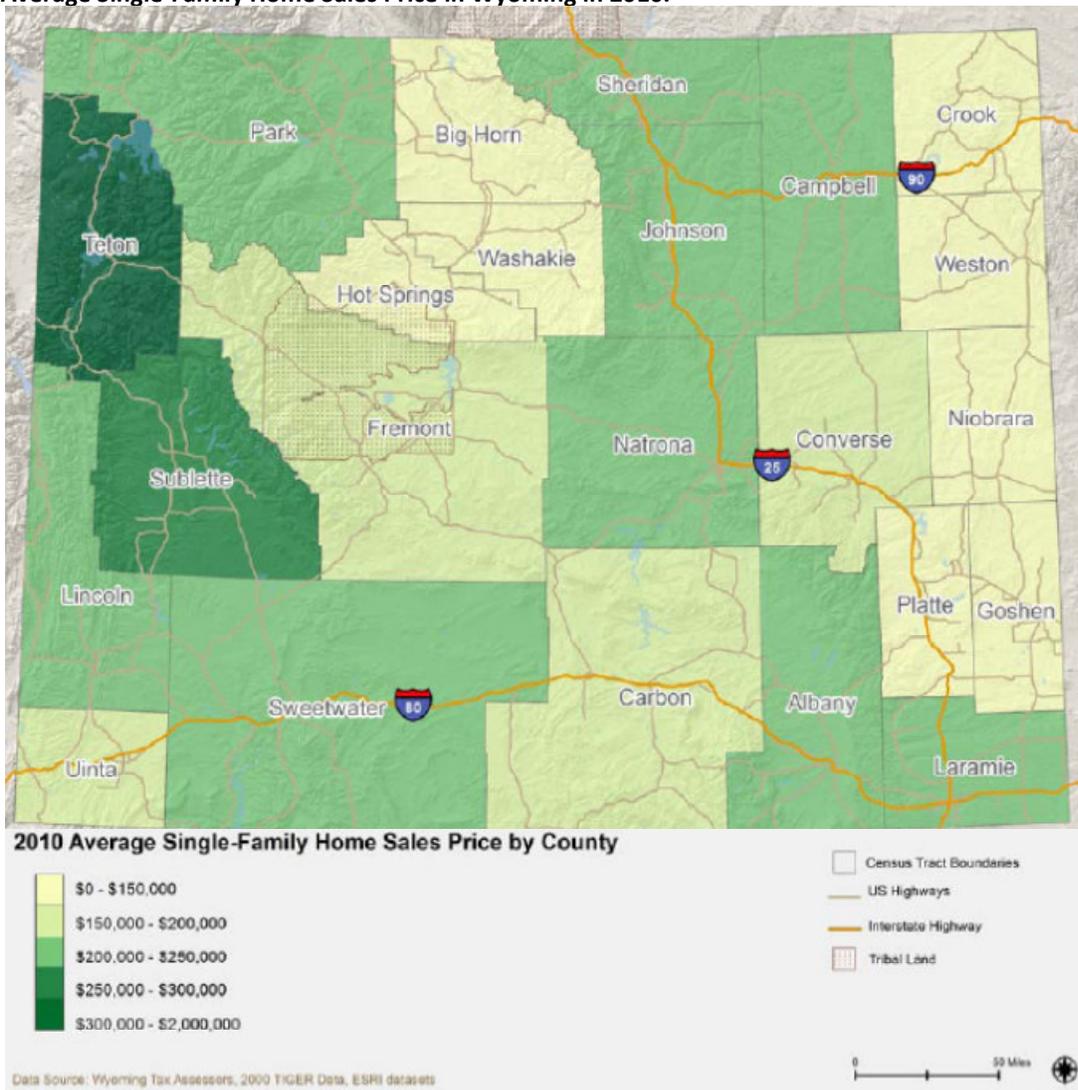


Source: Wyoming Housing Database Partnership, 2011.

5.4.5.2 Home Value and Rental Housing Costs

Home Values. The Wyoming Housing Database Partnership annually compiles the average sales price of existing, detached, single-family homes on 10 acres or less sold from each County's Tax Assessor. Home values across the state have varied only modestly since the 1980s when Wyoming experienced an average annual percentage decrease of 2.6 percent. Average annual growth of 4 to 5 percent was observed in the 1990s. In contrast, between 2004 and 2010, sales prices more than doubled from a statewide simple average of \$142,501 to \$261,532, an average increase of 10.7 percent per year (WCDA, 2011). **Figure 5-14** illustrates that the average single-family home sales price in 2010 varied greatly by county across the state. Teton County, located northwest of the study area and home to multiple ski resorts, had the highest average sales price in the state and experienced a substantial 36 percent hike in average sales price, from \$1.4 million to \$1.9 million.

FIGURE 5-14
Average Single-Family Home Sales Price in Wyoming in 2010.



Source: Wyoming Community Development Authority, 2011.

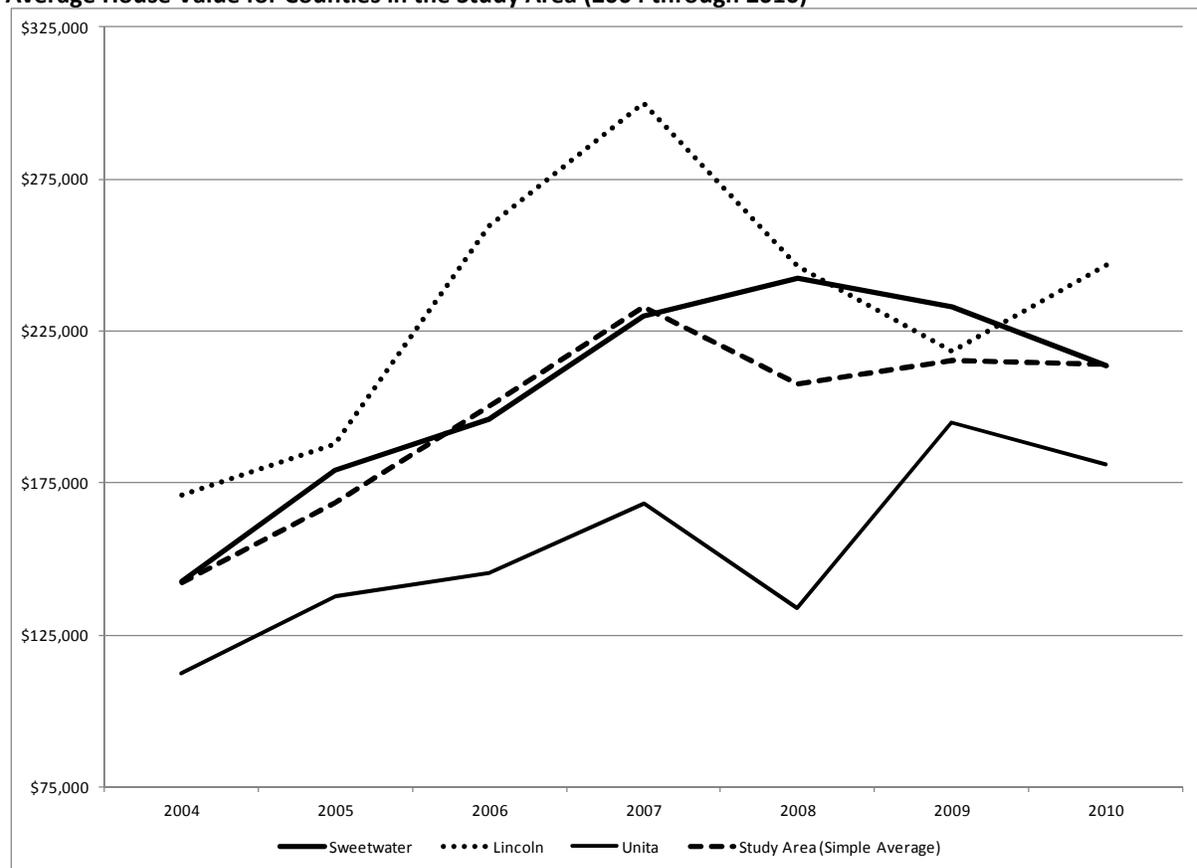
Recent home sales for the three study area counties are summarized in **Table 5-46**, while **Figure 5-15** illustrates the change in average home values. Of the 539 homes sold in the study area in 2010, 58 percent were located in Sweetwater County and a quarter of the homes were in Lincoln County. Lincoln and Uinta counties each experienced increasing sales prices from 2004 through 2007 followed by noticeable declines in 2008. Sale prices in Sweetwater County rose through 2008 and declined more moderately (7 to 8 percent) in 2009 and 2010 than the balance of the study area. Lincoln was the only county in the study area in which sale prices were starting to rebound in 2010, increasing by 13 percent. The simple average home sale price in the study area in 2010 was \$213,941, while the weighted average, integrating the number of home sales, was \$210,927. Home sale prices were highest in Lincoln County at \$246,864, followed by Sweetwater County (\$213,689) and Uinta County (\$181,269). The ranges in median prices in 2010 extend from a low of \$170,000 in Uinta County to a high of \$211,500 in Sweetwater County.

TABLE 5-46
Home Sales in the Study Area from 2004 through 2010 (Assessor data: Nominal Dollars and Annual Percent Change)

| County | 2004 | 2005 | 2006 | 2007 | 2008 | 2009 | 2010 | #2010 Sales | 2009-10 % Change | 2010 Median |
|-------------------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|-------------|------------------|-------------|
| Sweetwater | 142,688 | 179,000 | 195,981 | 230,063 | 242,470 | 232,959 | 213,689 | 313 | -8% | 211,500 |
| Lincoln | 170,814 | 187,924 | 259,458 | 300,092 | 246,253 | 218,350 | 246,864 | 89 | 13% | 208,000 |
| Uinta | 112,540 | 137,911 | 145,243 | 168,204 | 133,754 | 194,928 | 181,269 | 137 | -7% | 170,000 |
| Simple Average | 142,014 | 168,278 | 200,227 | 232,786 | 207,492 | 215,412 | 213,941 | 539 | | |
| Weighted Average | | | | | | | 210,927 | | | |

Source: Wyoming Community Development Authority, *The 2011 Wyoming Profile of Demographics, Economics, and Housing, Vol. 1, September 2011.*

FIGURE 5-15
Average House Value for Counties in the Study Area (2004 through 2010)



Source: Wyoming Community Development Authority, 2011.

Rental Housing Costs. For workers seeking temporary relocation to an area, housing rental rates for apartments, houses, and mobile home lots are generally more relevant than home sale prices. The number of renter-occupied housing units and the percentage they represent of the total number of housing units in each county are summarized in **Table 5-45**. The most recent rental rate data for the study area cover the annual period from the fourth quarter of 2010 to the fourth quarter of 2011, as

presented in **Table 5-47**. Rental rates in the study area generally changed little overall between 2010 and 2011, with apartment rental rates decreasing 1 percent, mobile home lots increasing by 3 percent, and home rental rates staying the same. The average monthly apartment rental rates in 2011 ranged from a low of \$602 in Uinta County to a high of \$673 in Sweetwater County. Rental rates for mobile home lots averaged \$302 per month, higher than the statewide monthly rental rate of \$275. Rental rates for single-family homes showed the greatest variation across the study area from a low of \$712 a month in Uinta County to a high of \$998 per month for homes in Sweetwater County, as shown in **Table 5-47**. For all housing types, average rents were highest in Sweetwater County, higher than rents statewide, and lowest in Uinta County, with Lincoln County falling in between. While renters can do somewhat better in Lincoln or Uinta County, any savings in rent would need to be balanced against the time and out-of-pocket costs associated with a longer commute (WY EAD, 2012).

TABLE 5-47
Average Apartment, Mobile Home Lot, and House Rental Rates for Counties in the Study Area

| County | Apartment ¹ | | | Mobile Home Lot ² | | | House ³ | | |
|---------------------------|------------------------|--------------|----------------|------------------------------|--------------|----------------|--------------------|--------------|----------------|
| | 4Q10 | 4Q11 | Percent Change | 4Q10 | 4Q11 | Percent Change | 4Q10 | 4Q11 | Percent Change |
| Wyoming | \$649 | \$656 | 1% | \$284 | \$275 | -3% | \$902 | \$934 | 4% |
| Sweetwater | \$691 | \$673 | -3% | \$325 | \$319 | -2% | \$935 | \$998 | 7% |
| Lincoln | \$624 | \$653 | 5% | | | | \$818 | \$770 | -6% |
| Uinta | \$627 | \$602 | -4% | \$267 | \$292 | 9% | \$724 | \$712 | -2% |
| Study Area Average | \$647 | \$643 | -1% | \$296 | \$306 | 3% | \$826 | \$827 | 0% |

Notes:

¹Two-bedroom units, unfurnished, excluding gas and electric.

²Single-wide, including water.

³Two or three bedroom, single-family, excluding gas and electric.

Source: Wyoming Department of Administration and Information, Economic Analysis Division (WY EAD), 2012.

5.4.5.3 Rental Housing Vacancies

The State of Wyoming Housing Database Partnership estimates rental housing vacancy rates based on semiannual surveys, the most recent of which was conducted in December 2011. **Table 5-48** compares the survey sample size, total number of units, and vacancy rates for the study area and the state in the second half of 2010 as compared to the second half of 2011. The overall vacancy rate for the state was 5.5 percent in 2011. While Lincoln County has a relatively high vacancy rate of 13.9 percent, it also has the lowest number of rental units, 581, such that approximately 80 units were vacant in 2011. In contrast, Sweetwater County had 2,417 units and a 4.8 percent vacancy rate. Of the 3,983 units surveyed in the study area in 2011, 262 were vacant, resulting in a vacancy rate of 8.4 percent, down from 12.3 percent in 2010 (WY EAD, 2012).

TABLE 5-48
Rental Vacancy Rates in the Study Area

| County | 2010 | | | | 2011 | | | |
|-------------------|------------|-------------|--------------|--------------|------------|-------------|--------------|--------------|
| | Sample | Total Units | Vacant Units | Vacancy Rate | Sample | Total Units | Vacant Units | Vacancy Rate |
| Wyoming | 1,239 | 28,221 | 1,739 | 6.2 | 1,400 | 29,990 | 1,646 | 5.5 |
| Sweetwater | 93 | 2,687 | 156 | 5.8 | 94 | 2,417 | 116 | 4.8 |
| Lincoln | 71 | 508 | 104 | 20.5 | 79 | 581 | 81 | 13.9 |
| Uinta | 42 | 782 | 84 | 10.7 | 43 | 985 | 65 | 6.6 |
| Study Area | 206 | 3977 | 344 | 12.3 | 216 | 3983 | 262 | 8.4 |

Source: Wyoming Department of Administration and Information, Economic Analysis Division (WY EAD), 2012.

A recent survey of property managers (June 2011) included 94 completed surveys for Sweetwater County. Of the 2,417 rental units surveyed, 116 (4.8 percent) were vacant. This compares to a statewide average vacancy rate of 5.5 percent for the first half of 2011. **Table 5-49** summarizes the distribution of the vacant housing stock for rent by type in 2011 as well as the low vacancy rates, pointing to a tight rental market. Property managers indicated a waiting list of approximately 348 persons and a desire to see 472 units added to the rental market (WY EAD, 2012).

TABLE 5-49
Rental Vacancy Rates by Type of Unit in the Sweetwater County in 2011

| | Number of Vacant Units | Vacancy Rate |
|--|------------------------|--------------|
| Single-Family Units | 8 | 5.4 |
| Apartments | 59 | 3.6 |
| Duplexes | 4 | 10.0 |
| Mobile Homes | 0 | 0.0 |
| Other | 45 | 8.3 |
| Total Vacant Units | 116 | |
| Size of Waiting List | 348 | |
| Total Number of Additional Units Desired | 472 | |

5.4.5.4 Temporary Accommodations

Temporary accommodations, for purposes of this report, are defined as hotel and motel rooms and sites for RVs. These data were collected to assist with identifying the area primarily affected by non-local workers and to obtain housing commitments for the temporary non-local workforce. In years when facilities close to a project site have low vacancy rates, for example due to multiple projects, alternatives more distant from the project become more viable. However, it is reasonable to assume that workers will tend to choose housing opportunities that are more convenient to their work in Granger when such opportunities are available, affordable, and suitable. Recognizing this, the Town of Grangers Municipal Plan identifies areas that are suitable to support the installation of mobile homes and manufactured homes on temporary foundations, recreational vehicles, as well as man camp facilities (Pendersen Planning Consultants, 2009). It notes that the Trails West Subdivision has approximately 65 vacant lots available for manufactured or mobile homes while an undeveloped subdivision near old Little America Road could serve as a man camp facility. The Town of Granger

favors these locations as it attempts to concentrate temporary housing facilities south of the Blacks Fork River and permanent housing on the north side of the River.

Availability of temporary accommodations in the study area can be affected by events such as the National High School Finals Rodeo (NHSFR) held in Rock Springs at the Sweetwater Events Complex for 1 week each summer from 2012 to 2015 (July 15 – 21, 2012, July 14 – 20, 2013, July 13 – 19, 2014, and July 12 – 18, 2015), as discussed in detail in Section 5.6. **Table 5-50** compiles a listing of hotels, motels, and RV parks within a 90-minute drive of the Project location as well as their corresponding number of rooms. There are at least 2,973 temporary lodging units located at 34 motel / hotels and nine RV parks across the Granger – Rock Springs area.

TABLE 5-50
Hotel and Motel Rooms and RV Sites by County and Community (2012)

| County | Community | Hotel/Motel | Number of Rooms | |
|--------------------------|---|---|--------------------------------|-----|
| Sweetwater County | | | | |
| Sweetwater | Little America | Little America Little America | 140 | |
| | | | | |
| | Green River | Buckboard Marina at Flaming Gorge | 40 | |
| | | Ashley National Forest - Buckboard Crossing | 66 | |
| | | Tex's Travel Camp | 78 | |
| | | Hampton Inn Suites Green River | 106 | |
| | | Super 8 Green River | 33 | |
| | | Sweet Dreams Inn | 30 | |
| | | Western Motel | 31 | |
| | | Oak Tree Inn Green River | 46 | |
| | | Mustang Motel | 23 | |
| | | Coachman Inn Motel | 18 | |
| | | Rock Springs | Rock Springs / Green River KOA | 181 |
| | | | High Desert Storage & RV Park | 26 |
| | | | Motel 8 | 92 |
| | | | Super 8 Rock Springs | 49 |
| | | | Cody Motel | 39 |
| | | | Econo Lodge Rock Springs | 98 |
| | Quality Inn Rock Springs | | 103 | |
| | Econo Guest Village | | 70 | |
| | Homewood Suites Rock Springs | | 84 | |
| | Holiday Inn Express & Suites Rock Springs Green River | | 79 | |
| | Springhill Suites Rock Springs | | 109 | |
| | Hampton Inn Rock Springs | | 70 | |
| | Elk Motel | | 18 | |
| | Comfort Inn & Suites Rock Springs | 57 | | |
| | La Quinta Inns & Suites Rock Springs | 130 | | |
| | Springs Motel | 23 | | |

TABLE 5-50
Hotel and Motel Rooms and RV Sites by County and Community (2012)

| County | Community | Hotel/Motel | Number of Rooms |
|-------------------------|--------------|---|-----------------|
| | | Americas Best Value Inn Rock Springs | 140 |
| | | Days Inn Rock Springs | 105 |
| | | Best Western Outlaw Inn | 100 |
| | | Budget Host Rock Springs | 32 |
| | | Holiday Inn Rock Springs | 170 |
| | | Motel 6 Rock Springs | 99 |
| | | Sweetwater County Total | 2,485 |
| Lincoln County | | | |
| Lincoln | Diamondville | | |
| | | Energy Inn | 41 |
| | Kemmerer | | |
| | | Foothills RV Park | 60 |
| | | Riverside RV Park | 34 |
| | | Best Western Plus Fossil Country Inn & Suites | 80 |
| | | Antler Motel | 56 |
| | | Fairview Motel | 60 |
| | | Lincoln County Total | 331 |
| Uinta County | | | |
| Uinta | Fort Bridger | | |
| | | Fort Bridger RV Park | 25 |
| | | Wagon Wheel Motel | 24 |
| | Lyman | | |
| | | Lyman KOA | 60 |
| | | Gateway Inn | 48 |
| | | Uinta County Total | 157 |
| Study Area Total | | | 2,973 |

Sources: Wyoming Official State Travel Website, City Data Website, Smith Travel Research, and CH2M HILL, 2012.

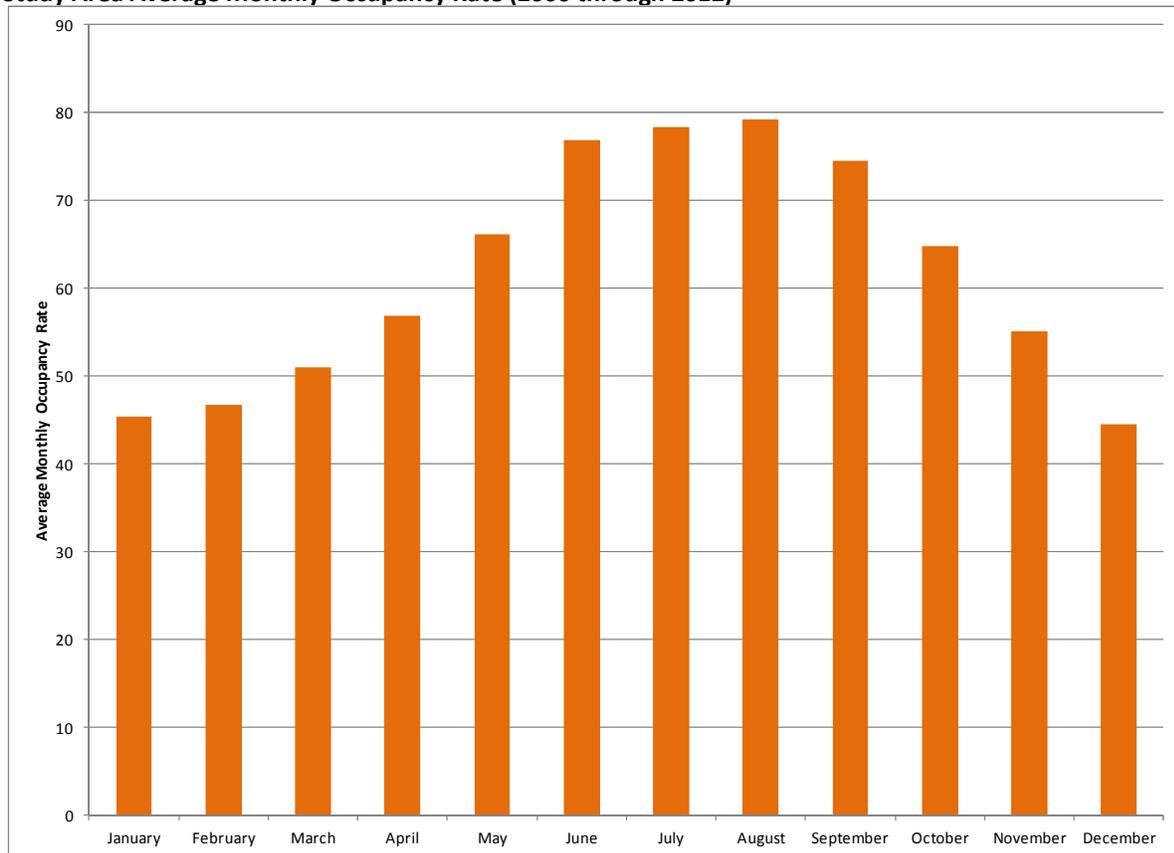
Hotels and Motels. The Granger - Rock Springs area has approximately 2,403 rooms at 34 hotels and motels, including nine facilities with more than 100 rooms each (**Table 5-50**). Hotel and motel occupancy rates for the period from January 2006 to March 2012 are presented in **Table 5-51** and **Figure 5-16** based on information from Smith Travel Research. The sample includes the closest hotel to the Project site, the 140-room Little America Little America as well as the seven hotels and motels in Green River, approximately a 45-minute drive from the Project site. The average monthly occupancy rate between 2006 and 2012 was lowest in December at 44.6 percent and highest in August at 79.3 percent. The corresponding vacancy rate is also highly seasonal, ranging from highs of 54-55 percent in December through February to lows of approximately 20-21 percent in July and August.

TABLE 5-51
Average Monthly Hotel and Motel Occupancy Rates for the Granger - Rock Springs Area, Wyoming, January 2006 to March 2012

| | Jan | Feb | Mar | Apr | May | June | July | Aug | Sept | Oct | Nov | Dec |
|----------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Average | 45.4 | 46.7 | 50.9 | 56.9 | 66.1 | 76.9 | 78.3 | 79.3 | 74.6 | 64.8 | 55.1 | 44.6 |

Source: Smith Travel Research, 2012.

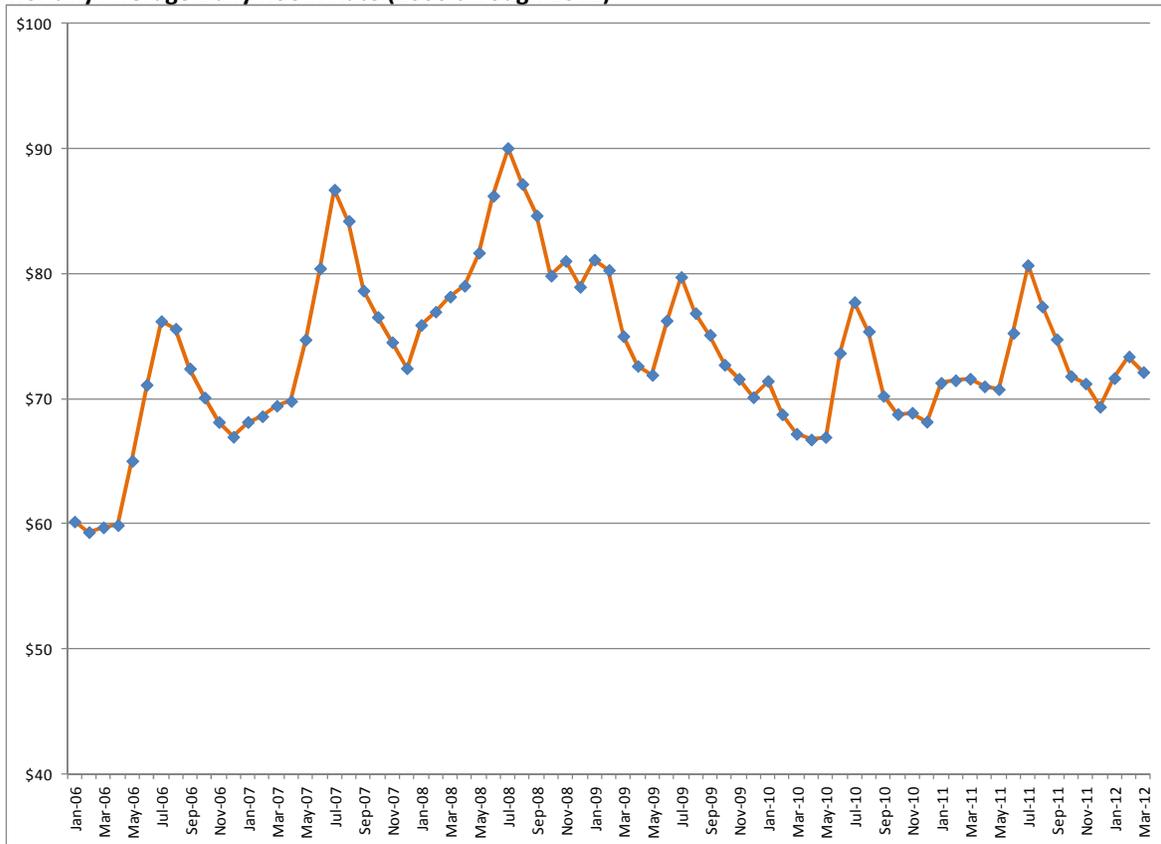
FIGURE 5-16
Study Area Average Monthly Occupancy Rate (2006 through 2012)



Source: Smith Travel Research, 2012.

The average daily room rate fluctuates depending on the month, as can be seen from the information presented in **Figure 5-17**. Room rates are generally highest in the summer from June until August and peak each year in July. Average annual rates for a hotel or motel near the Project site grew steadily from 2006 through the summer of 2008, from \$68 in 2006 to \$82 in 2008; since then, however, rates have moderated with an average annual rate of \$73.67 in 2011. The 7-year average of room rates during the peak month of July was \$81.76 compared to a daily room rate in July 2011 of \$80.68.

FIGURE 5-17
Monthly Average Daily Room Rate (2006 through 2012)



Source: Smith Travel Research, 2012.

Recreational Vehicle Sites. There are nine RV parks or campgrounds with 570 sites in the Granger – Rock Springs area that can provide accommodations for visits with durations of weeks or months, as shown in **Table 5-50**. Tex’s Travel Camp, located off I-80 east in Green River, has 78 sites and is the nearest RV Park to Project site. Located further east on the western edge of Rock Springs, the Rock Springs / Green River KOA is the largest RV campground, with a total of 181 sites.

5.4.5.5 Construction Impacts

Employment during the construction phase of the Project would range from a low of 34 non-local workers in the first month of construction to a peak of 254 workers in the second quarter of 2014. The average number of non-local workers over the 26-month construction period is approximately 150. The non-local temporary workforce is projected to number 90 in July 2013, 199 in July 2014, and 68 in July 2015, the months that coincides with the NHSFR being held in Rock Springs. Additional discussion of the NHSFR and its potential impact on temporary housing is found in Section 5.6.2.1. Impacts to temporary housing are expected to be minor, with the Project workforce representing 5 percent of the typical number of competitors participating (NHSRA, 2012).

5.4.5.6 Number of Units Required

Estimates of selected characteristics of the peak-quarter, April to June of 2014, workforce is shown in **Table 5-52**. It is estimated that a total of 249 single non-local construction workers would relocate to the area of site influence. Up to five non-local workers could be accompanied by family members

and it is assumed that all workers would secure temporary accommodations for the duration of their involvement in the Project.

TABLE 5-52
Estimate of Local and Non-local Construction Worker Breakdown During Peak Quarter

| Peak Monthly Workforce | Number of Workers |
|---|-------------------|
| Total Peak Workforce | 338 |
| Local Workers | 84 |
| Non-Local Workers | 254 |
| Non-Local Workers Bringing Families | 5 |
| Non-Local Single Workers | 249 |
| Housing Requirement | Number of Rooms |
| Permanent Housing Units | 0 |
| Temporary Accommodation Units by Type | |
| Recreational Vehicle Spaces | 37 |
| Houses, Apartments, and Rental Mobile Homes | 5 |
| Hotel and Motel Rooms | 185 |
| Temporary Accommodation Units by Occupancy | Number of Type |
| Single-Occupancy | 159 |
| Double-Occupancy | 26 |

Source: CH2M HILL, 2012.

The estimated housing requirements shown in **Table 5-52** are based on the assumption that one-quarter of the single, non-local workers (26 workers) will share temporary accommodation units, such as hotel/motel rooms (i.e., double-occupancy). The remaining three-quarters would occupy units singly. It was also assumed, based on similarly sized construction projects, that approximately 15 percent of the non-local workers would choose to stay in an RV. The aggregate demand for accommodations created by the non-local workers could total 228 units. The Project assumed that hotel / motel rooms and RV sites in close proximity to the Project would generally be the primary accommodation type due to their relative abundance, even in the peak month of July. However, it is anticipated that a maximum of five non-local families would consider renting a house, apartment, or mobile home during the peak quarter of construction.

5.4.5.7 Construction Workforce Housing Plan

FMC has engaged in a preliminary assessment of housing options to ensure that housing is available to temporary construction workers employed during the construction period from the second quarter of 2013 until the third quarter of 2015. Due to the variety of the housing options and locations within commuting distance of the site, the housing market analysis suggests that there will not be a housing shortage for the non-local workforce.

To accomplish a successful and implementable housing plan, FMC conducted an extensive temporary housing market survey in the area of site influence. Housing availability was determined by compiling a listing of temporary housing purveyors in the Green River – Rock Springs area.

Table 5-53 provides a breakdown of the housing vacancies by type of housing.

TABLE 5-53

Potentially Available Temporary Accommodations

| Type of Rental Housing | Number of Accommodation Units Required by Project During Peak Month (Demand) | Number of Accommodation Units | Vacancy Rate ² | Number of Available Accommodation Units (Supply) | Housing Gap (Supply minus Demand) |
|---|--|-------------------------------|---------------------------|--|-----------------------------------|
| Houses, Apartments, and Rental Mobile Home ¹ | 5 | 262 | 8.4% | 22 | +17 |
| RV Sites | 37 | 570 | 33% | 188 | +151 |
| Hotel/Motel Rooms ² | 185 | 2,973 | 33% | 981 | +796 |
| TOTAL | 227 | 3,805 | | 1,191 | +964 |

Notes:

¹ See **Table 5-48**, based on total vacant rental units (Single family units, Apartments, Duplexes and Mobile Homes) across the three-county study area.

² The vacancy rate for the rental housing market is an average of the three-county study area; the vacancy rate for hotel/motel rooms is based on the average occupancy for the peak quarters of April to June over the past 5 years (January 2006 to December 2011) while the vacancy rate for RV sites was assumed to be comparable to that of the Hotel / Motel market.

+ indicates a surplus of housing units.

Source: *Smith Travel Research, 2012; CH2M HILL, 2012.*

There are approximately 1,191 temporary accommodations available to meet the peak demand of 227 units by members of the construction workforce during the peak quarter of construction, April through June of 2014. This results in total housing surplus of 964 units, as reflected in **Table 5-53**. The nonlocal workforce is projected to be approximately 199 during July of 2014, the month of the lowest seasonal vacancies each year, 23 percent, as well as the month that the NHSFR will be occurring. Due to lower vacancies, 837 units would likely be available; however, this would still meet the demands of the workforce and result in a surplus of 707 temporary housing units.

5.4.5.8 Effects on Vacancies of Local Motel/Hotels, Recreational Vehicles, and Apartments

The supply of temporary accommodations in the study area includes hotel and motel rooms, apartments, single-family rental housing units, rental mobile homes, and RV spaces located in RV parks. Estimates of the available supply of each type of accommodation are shown in **Table 5-53**, along with the demand generated by the non-local workers associated with the Project. The number of potentially available units is derived by applying the vacancy rates shown to the total number of each type of unit in the study area. More than adequate housing is available to meet the needs of the non-local workers.

Table 5-53 shows estimates of vacancy rates, by type of accommodation unit, prior to the period of peak construction activity of the Project. Implementation of the Project would reduce temporary housing vacancy rates as the demand absorbs approximately 20 percent of the supply of available vacant units during peak workforce conditions and by 24 percent in July, the month of NHSFR and the lowest vacancies each year. FMC received responses from 21 of the hotels (1,578 total rooms) it contacted in the study area to obtain housing commitment letters, which resulted in an average of 902 rooms per month for the construction period, 16 of which are located just over an hour from the Project in Green River, Rock Springs, or Kemmerer. **Appendix E** includes **Table 1** summarizing the number of rooms committed by quarter and provides copies of these housing commitment

responses, which result in 851 to 923 rooms during the peak tourism months of July through September and up to 958 rooms in the offseason. **Table 2** in **Appendix E** identifies an additional 400 to 832 units that could potentially be available to FMCs non-local workforce. The 25 hotels or RV sites in **Table 2** indicated their willingness to work with FMC to accommodate its temporary housing needs but did not provide a firm commitment of rooms / sites. As a result, their available units were calculated by multiplying the total number of rooms at the facility by the average quarterly vacancy rate from the past 5 years (2006 through 2012) from the Smith Reports. Given the number of hotel/motel rooms secured by FMC via commitment letter and the surpluses identified in cumulative temporary housing analysis in Section 5.6.2, the likely demand for 227 accommodation units would be satisfied with the limited exception of 1 week in July of each year that coincides with the NHSFR. Due to the short-term duration this peak demand will place on temporary housing, the Applicant anticipates the need for special arrangements such as additional confirmed housing commitments, and / or coordinated transportation to and from more distant communities.

5.4.5.9 Operations Impacts

During operation of the proposed Project, it is estimated that there would be 26 full-time, permanent employees. No impacts to housing resources are expected.

5.4.6 Public Education

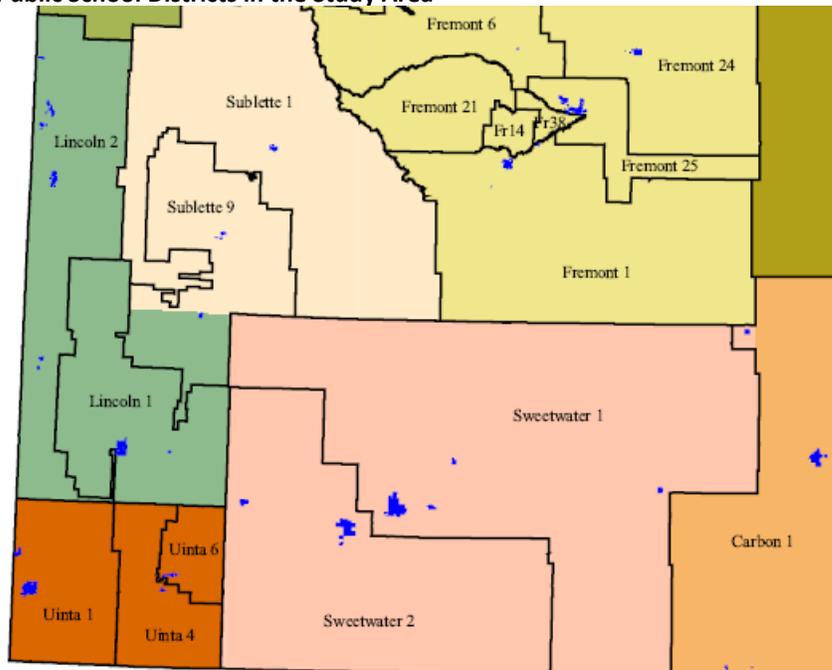
The major topics addressed in this section are location and characteristics of educational facilities, current and historical school enrollment, and student-teacher ratios for Sweetwater County. As discussed in Section 5.3.1, it is anticipated that the majority of the non-local workers will relocate to the Rock Springs – Green River area of Sweetwater County versus the communities in Uinta and Lincoln counties.

5.4.6.1 Location and Characteristics of Educational Facilities

Portions of seven school districts serve the three-county study area as illustrated in **Figure 5-18**, and **Table 5-54** shows the type and number of schools by district and selected district-wide characteristics for each of these districts. The following paragraphs, meanwhile, discuss the five districts most likely to be affected by the Project since each coincides with a portion of the area of influence: Sweetwater County's two districts, Lincoln County School District 1 (LCSD1), Uinta County School District 4 (UCSD4), and Uinta County School District 6 (UCSD6).

Sweetwater County contains two school districts. Sweetwater County School District 1 (SCSD1) is the larger of the two districts in geographic size and enrollment, with a total of 5,296 students enrolled in 2011 at 16 schools located in Rock Springs, Farson-Eden, and Wamsutter. Sweetwater County School District 2 (SCSD2), meanwhile, serves the southwestern third of the county, including the communities of Granger (Project location) and Green River, and has a total of 11 schools with a 2011 enrollment of 2,641 students (KCDC, 2012). SCSD1 includes 10 elementary schools, one junior high, two middle schools, and three high schools, while SCSD2 operates Green River High School (grades 9-12), Expedition Academy Alternative High School (grades 10-12), Lincoln Middle School (grades 7-8), and Monroe Intermediate School (grades 5-6). SCSD2 also maintains four elementary schools within the city limits (Harrison, Jackson, Truman, and Washington) and three rural schools (Granger, McKinnon, and Thoman Ranch) (WDE, 2012).

FIGURE 5-18
Public School Districts in the Study Area



Source: Wyoming Department of Administration and Information, Economic Analysis Division Wyoming (WY EAD), 2010.

TABLE 5-54
Selected Characteristics of Study Area School Districts (2011)

| | Sweetwater County School District No. 1 | Sweetwater County School District No. 2 | Lincoln County School District No. 1 | Lincoln County School District No. 2 | Uinta County School District No. 1 | Uinta County School District No. 4 | Uinta County School District No. 6 |
|--|---|---|---|---|--|--|--|
| Coincides with Area of Influence | Yes | Yes | Yes | | | Yes | Yes |
| Elementary Schools | 10 | 7 | 1 | 5 | 4 | 2 | 1 |
| Secondary Schools | 6 | 4 | 3 | 4 | 4 | 2 | 2 |
| Enrollment (As of October 3, 2011) | | | | | | | |
| Kindergarten enrollment | 499 | 196 | 62 | 214 | 244 | 74 | 64 |
| Grade 1 | 474 | 234 | 55 | 196 | 220 | 60 | 68 |
| Grade 2 | 444 | 175 | 44 | 192 | 218 | 82 | 53 |
| Grade 3 | 434 | 212 | 49 | 204 | 238 | 59 | 64 |
| Grade 4 | 456 | 204 | 52 | 209 | 209 | 45 | 63 |
| Grade 5 | 394 | 226 | 37 | 173 | 196 | 65 | 56 |
| Grade 6 | 398 | 209 | 42 | 209 | 229 | 58 | 52 |
| Grade 7 | 418 | 201 | 46 | 211 | 238 | 53 | 51 |
| Grade 8 | 410 | 195 | 52 | 213 | 224 | 48 | 58 |
| Grade 9 | 369 | 221 | 44 | 207 | 260 | 61 | 63 |
| Grade 10 | 331 | 202 | 55 | 182 | 189 | 68 | 62 |
| Grade 11 | 335 | 176 | 39 | 173 | 191 | 58 | 56 |

TABLE 5-54

Selected Characteristics of Study Area School Districts (2011)

| | Sweetwater County School District No. 1 | Sweetwater County School District No. 2 | Lincoln County School District No. 1 | Lincoln County School District No. 2 | Uinta County School District No. 1 | Uinta County School District No. 4 | Uinta County School District No. 6 |
|---|---|---|---|---|--|--|--|
| Grade 12 | 334 | 190 | 35 | 218 | 207 | 57 | 40 |
| Total | 5,296 | 2,641 | 612 | 2,601 | 2,863 | 788 | 750 |
| Staff (Full-Time Equivalent [FTE]) (2010 – 2011) | | | | | | | |
| Total | 914 | 495 | 116 | 442 | 520 | 149 | 140 |
| Teachers | 389 | 220 | 48 | 191 | 232 | 71 | 59 |
| Student Instructional Aids, Support Staff, Counselors | 274 | 123 | 30 | 135 | 139 | 37 | 39 |
| Administration Other General Support (O&M, Bus Drivers, Mechanics, Food Service) | 96 | 59 | 17 | 42 | 55 | 19 | 18 |
| Student-to- Teacher Ratio, Grades K – 3 | 19.8 | 14.6 | 17.8 | 17.8 | 16.9 | 15.2 | 16.2 |
| Revenue Source (Percent) (2010 – 2011) | | | | | | | |
| Local | 37% | 56% | 71% | 16% | 21% | 18% | 33% |
| County | 10% | 12% | 10% | 11% | 6% | 5% | 5% |
| State | 45% | 26% | 14% | 67% | 64% | 71% | 56% |
| Federal | 9% | 6% | 6% | 6% | 9% | 6% | 6% |
| Total | \$98,968,531 | \$44,813,396 | \$12,852,764 | \$50,782,790 | \$45,887,249 | \$13,356,704 | \$13,190,631 |
| Revenue per Student | \$18,687 | \$16,968 | \$21,001 | \$19,524 | \$16,028 | \$16,950 | \$17,588 |

Sources: Wyoming Department of Education (WDE), 2012.

While the overall revenue to each school district in Sweetwater County varies due to size, the revenues per student for 2010 - 2011 were comparable, with SCSD1 reporting revenues per student at \$18,687 and SCSD2 reporting per-student revenues of \$16,968. The distribution of revenue sources varied between the two districts with local sources (county and municipal governments) representing approximately 47 percent of SCSD1's overall revenue and 68 percent of the SCSD2 revenue, as shown in **Table 5-54**. The State of Wyoming provided approximately 45 percent of SCSD1's revenue and 26 percent of the revenues of SCSD2. The federal government, meanwhile, contributed 6 percent to the revenues of each school district in Sweetwater County during the 2010 – 2011 school year, with the exception of SCSD1 and Uinta County School District 1 (UCSD1), where federal contributions accounted for 9 percent of each of those district's revenues.

The other three districts that include portions of the area of influence, LCSD1, UCSD4, and UCSD6, are smaller districts, relative to those of Sweetwater County, with three to four schools each, enrollment of 600 to 800 students, and annual revenues of approximately \$13 million in 2010-2011, as shown in **Table 5-54**. However, the revenue sources between these districts vary substantially,

with LCSD1 receiving 81 percent of its total revenue from local or county sources, while UCSD4 and UCSD6 each receives 23 percent and 38 percent, respectively, from the same sources.

5.4.6.2 Student Enrollment

Student enrollment as of October 3, 2011, totaled 5,296 in SCSD1 and 2,641 in SCSD2. LCSD1, UCSD4, and UCSD6 had enrollments ranging from 612 to 788 during this same time. Between 2002 and 2011, SCSD1 enrollment increased by 1,032 students (24 percent), while enrollment in SCSD2 fell by 47 pupils (-2 percent), as shown in **Table 5-55**. Enrollment in SCSD1 has steadily increased by a 2 percent annual average since 2006, and experienced a 7 percent jump between the 2006 and 2007 school years. UCSD4 experienced an increase of 16 percent, or 110 students between 2002 and 2011, with an average annual growth of 2 percent.

TABLE 5-55
School District Enrollment (2002 to 2011)

| | SCSD1 | SCSD2 | LCSD1 | LCSD2 | UCSD1 | UCSD4 | UCSD6 |
|-----------------------|-------|-------|-------|-------|-------|-------|-------|
| 10/1/2002 | 4,264 | 2,688 | 668 | 2,403 | 3,137 | 678 | 714 |
| 10/1/2003 | 4,193 | 2,650 | 669 | 2,449 | 2,902 | 659 | 686 |
| 10/1/2004 | 4,197 | 2,620 | 622 | 2,482 | 2,894 | 626 | 665 |
| 10/1/2005 | 4,240 | 2,582 | 629 | 2,542 | 2,799 | 694 | 665 |
| 10/1/2006 | 4,413 | 2,552 | 627 | 2,533 | 2,940 | 689 | 669 |
| 10/1/2007 | 4,742 | 2,599 | 656 | 2,579 | 2,944 | 723 | 648 |
| 10/1/2008 | 4,957 | 2,671 | 629 | 2,650 | 2,973 | 730 | 672 |
| 10/1/2009 | 5,033 | 2,601 | 602 | 2,640 | 2,962 | 742 | 690 |
| 10/1/2010 | 5,159 | 2,635 | 583 | 2,609 | 2,925 | 742 | 737 |
| 10/3/2011 | 5,296 | 2,641 | 612 | 2,601 | 2,863 | 788 | 750 |
| Numeric Change '02-11 | 1,032 | (47) | (56) | 198 | (274) | 110 | 36 |
| Percent Change '02-11 | 24% | -2% | -8% | 8% | -9% | 16% | 5% |
| Annual Average | 2% | 0% | -1% | 1% | -1% | 2% | 1% |

Source: Wyoming Department of Education (WDE), 2012.

5.4.6.3 Student-Teacher Ratios

A commonly used measure of overall school quality is the student-teacher ratio (i.e., the ratio of total student enrollment in a school, school district, or other unit to the number FTE certified teachers). This ratio provides a means of comparing different educational units, such as school districts, to a state or national parameter. As a whole, the pupil-teacher ratios, which can be used as an indicator of school quality, within the study area tend to be better than the state and national standards. Wyoming recently passed House Enrolled Act 98 of 2011, specifically W.S. § 21-13-307(a)(iv), which requires Wyoming school districts to average 16 students for every teacher beginning in the 2010-2011 school year in order to be considered for funding from the State of Wyoming. Waivers may be submitted to the state due to “Insufficient school facility capacity, positive school performance, positive student achievement, or for other reasons related to the delivery of the education program to students.” **Table 5-54** illustrates that five of the seven school districts in the study area met the targeted average of 16:1 for grades K-3, with only SCSD2 and UCSD4, with ratios of 14.6 and 15.2, respectively, not meeting the targeted average. Nonetheless, SCSD1, LCSD1, LCSD2, and UCSD1 have each applied for and received a K-3 waiver (WDE, 2012). The Wyoming student-to-teacher ratio in kindergarten through third grade was 17.53 in 2011(WDE, 2012).

5.4.6.4 Capital Improvement and Expansion Plans

The Capital Improvement (or Facility) Plans (CIPs) for school districts are designed to address the requirements of anticipated baseline growth and changing demographic conditions in the school districts as well as periodic maintenance and repair of existing facilities and infrastructure. SCSD1 has multiple ongoing capital projects to upgrade existing facilities and to expand capacity at the primary school level (SCSD1, 2010). The District is currently planning for:

- The construction of new facilities for grades 5-6 at East Junior High School
- Conduct Secondary Studies:
 - Independence High School (alternative high school)
 - Farson K-12
 - Rock Springs High School and number of classrooms
- Long-term need for an additional elementary school.

SCSD2's Facility Plan notes that its operations are not currently impacted significantly by facility limitations or capacity issues. However, the District noted that it would like to see Granger Elementary, which it intends to continue to operate in the future, replaced within the next decade with a modular-type school (SCSD2, 2010). As illustrated in **Table 5-55**, UCSD4 has also experienced relative growth in enrollment since 2002. UCSD4 is in the process of building a new K-8 school in Mountain View that is scheduled to open for the 2014 – 2015 school year (UCSD4, 2011).

5.4.6.5 Construction Impacts

The number of non-local workers likely to enter the study area during the peak onsite employment month would total 254. Based on the historical data, it is expected that less than 2 percent of these non-local workers (five persons) would be accompanied by family members. Thus, negligible to no impacts to public education in Sweetwater, Lincoln, and Uinta counties are anticipated.

5.4.6.6 Operations Impacts

The 26-member permanent workforce associated with the operation of the proposed facility is not expected to impact public education.

5.4.7 Public Safety

This section addresses the availability of fire protection, law enforcement services, and crime levels in Sweetwater County, because it is anticipated that the majority of the non-local workers will relocate to the Rock Springs – Green River area.

5.4.7.1 Fire Protection and Rescue Services

Each building (existing or Project-related) is equipped with fire suppression systems (e.g., sprinklers, fire extinguishers, fire hydrants, and hoses) built to code and standards. In addition, industrial fire suppression systems are active on select equipment, e.g., a halon system in the caustic plant and a carbon dioxide system in the hoist house. Should a fire occur, the first response to a fire emergency will be the onsite fire crews at the Granger facility. Each operating shift is staffed with fire brigade members that have access to firefighting equipment, including:

- 1,000-gallon pumper
- 500-gallon mini-pumper
- Emergency response vehicle

Placards containing the appropriate National Fire Protection Association (NFPA) ratings have been attached to bulk storage containers for petroleum products and hazardous materials. There are three categories of hazards: health, flammability, and reactivity. Within each category, there are numerical ratings from 0-4, with 0 indicating no hazard and 4 indicating severe hazard.

Onsite medical response capabilities include one ambulance at the Granger facility and a clinic at the Westvaco facility. There is also a team specifically trained to respond to hazardous material situations. Additionally, FMC Westvaco is equipped with a contract medical service, which includes a physician's assistance, ambulance service and other EMT trained personnel. In the event of an emergency, personnel can be transported from the Project to Westvaco's medical clinic or directly to the Sweetwater County Hospital. FMC also has an existing agreement for life flight services in the event that rapid advanced medical services are required. Life flight (helicopter) landing areas are designated at the Project site. If necessary, fire and ambulance crews from Sweetwater County departing from Green River or Rock Springs will be activated.

FMC participates in the Southwest Wyoming Mutual Aid group which includes local emergency responders that can respond quickly to various types of incidents. FMC has specific emergency response capabilities, such as fire trucks, ambulance and other rescue equipment, that can be used at the Project. Each of the local trona mines participate in the mutual aid association. Emergency (911) calls will be handled in accordance with FMC's Emergency Response Plan and if required will include provisions to contact the County and other agencies in the event that additional medical, fire, or hazardous material response is required.

Should additional fire and rescue services be needed, there are nine fire departments or districts within Sweetwater County, with 11 fire stations, 50 full-time employees, and 129 volunteers, as presented in **Table 5-56** (WSFM, 2011). The Town of Granger Volunteer Fire Department is the closest fire station to FMC, located 10.5 miles (24-minute drive) southwest of the Project at 12 W. 2nd Street. It is staffed by eight unpaid volunteers and provides no emergency medical services. The Rock Springs Fire Department (RSFD), located 42 miles (55-minute drive) to the east, is the closest all-hazard Fire Department with three stations, 35 full-time paid firefighters, and emergency medical services (EMS). RSFD is also the host agency for the Wyoming Regional Emergency Response Team (RERT) #4, which is responsible for responding to and assisting with mitigation of weapons of mass destruction and hazardous materials events in Sweetwater, Uinta, and Lincoln counties.

TABLE 5-56
Fire Departments in Sweetwater County

| Fire Districts | No. of Stations | No. of Firefighters | | Emergency Medical Services (EMS) | Basic Emergency Medical Technicians (EMTs) | Advanced EMTs |
|--|-----------------|---------------------|-----------|----------------------------------|--|---------------|
| | | Full-Time Paid | Volunteer | | | |
| Rock Springs Fire Department | 3 | 35 | 0 | 5 | 11 | 19 |
| Rock Springs - Sweetwater County Airport CFR | 1 | 8 | 0 | 0 | 1 | 0 |
| Bairoil Fire Department | 1 | 0 | 10 | 0 | 0 | 0 |
| Eden -Farson Fire Control District | 1 | 0 | 20 | 0 | 1 | 3 |
| Town of Granger Volunteer Fire Department | 1 | 0 | 8 | 0 | 0 | 0 |
| City of Green River Fire Department | 1 | 3 | 32 | 0 | 0 | 0 |
| Superior Volunteer Fire & EMS | 1 | 0 | 15 | 0 | 3 | 0 |

TABLE 5-56
Fire Departments in Sweetwater County

| Fire Districts | No. of Stations | No. of Firefighters | | Emergency Medical Services (EMS) | Basic Emergency Medical Technicians (EMTs) | Advanced EMTs |
|---|-----------------|---------------------|------------|----------------------------------|--|---------------|
| | | Full-Time Paid | Volunteer | | | |
| Department | | | | | | |
| Wamsutter Fire Department | 1 | 0 | 10 | 0 | 0 | 2 |
| Sweetwater County Fire Department / District #1 | 1 | 4 | 34 | 0 | 12 | 2 |
| Sweetwater County Total | 11 | 50 | 129 | 5 | 28 | 26 |

Notes:

NA = No data available

Source: Wyoming State Fire Marshal, 2011.

In addition to the fire departments closest to the Project site, Sweetwater County Fire District #1 (SCFD1) was formed in 1995 as an all-hazards agency and a mutual aid agency for the Rock Springs, Green River, and Superior Fire Departments as well as the Eden-Farson Fire District (Wamsley, 2010). Thus, while the Project is not within SCFD1's service area, it would likely participate in any major fire event associated with the Project. SCFD1 is staffed by four full-time and 34 volunteer firefighters, as shown in **Table 5-56**. **Table 5-57** summarizes the call volume experienced in 2011 by RSFD, the closest all-hazard fire department, and illustrates that nearly 70 percent, or 1,329, of the 1,938 total calls, were for rescue and EMS (RSFD, 2012).

TABLE 5-57
Rock Springs Fire Department Call Volume (2011)

| Call Type | Number of Calls | % of Total Calls |
|-------------------------------------|-----------------|------------------|
| Total Calls | 1,938 | |
| Rescue and Emergency Medical | 1,329 | 69% |
| Fires (All Types) | 48 | 2% |
| False Alarm and False Calls | 177 | 9% |
| Good Intent Calls | 80 | 4% |
| Service Calls | 205 | 11% |
| Hazardous Conditions | 94 | 5% |
| Special Incident Types | 4 | <1% |
| Ruptures, Explosions, Overheats | 1 | <1% |
| Severe Weather and Natural Disaster | 0 | 0 |

Source: RSFD, 2012.

Table 5-58 summarizes the fire response and rescue incidents for the departments within Sweetwater County for 2010. Overall, the county recorded a total of 2,549 incidents in 2010, of which 9 percent were fire-related and 60 percent were EMS rescue-related calls, as shown in **Table 5-58** (WSFM, 2011). RSFD recorded the largest number of total incidents in the county in 2010 with 1,873, followed by SCFD1 with 278 and the Green River Fire Department (GRFD) with 241.

TABLE 5-58
Sweetwater County Fire Department / District Fire Incidents (2010)

| Department | Total Incidents | Fire Calls | % of Total Incidents | EMS Rescue Calls | % of Total Incidents |
|--|-----------------|------------|----------------------|------------------|----------------------|
| Rock Springs Fire Department | 1,873 | 55 | 3% | 1,231 | 66% |
| Rock Springs - Sweetwater County Airport CFR | No | Records | N/A | For 2010 | N/A |
| Bairoil Fire Department | No | Records | N/A | For 2010 | N/A |
| Eden/Farson Fire Control District | 39 | 11 | 28% | 25 | 64% |
| Town of Granger Volunteer Fire Department | No | Records | N/A | For 2010 | N/A |
| Green River Fire Department | 241 | 37 | 15% | 105 | 44% |
| Superior Volunteer Fire & EMS | No | Records | N/A | For 2010 | N/A |
| Wamsutter Fire Department | 68 | 21 | 31% | 34 | 50% |
| Sweetwater Co. Fire Department | 50 | 42 | 84% | 0 | 0% |
| Sweetwater Co. Fire District #1 | 278 | 59 | 21% | 144 | 52% |
| Sweetwater Total | 2,549 | 225 | 9% | 1,539 | 60% |

Source: Wyoming State Fire Marshal (WSFM), 2011.

For other types of incidents, the Wyoming Emergency Response Act (35-9-151) established seven RERTs under the authority of the director, Wyoming Office of Homeland Security. Members of these teams are specially trained and available to respond to incidents involving hazardous materials and weapons of mass destruction. Each county in Wyoming has a coordinator responsible for mitigation and preparedness activities to protect against and prepare for disasters. This involves planning, training, exercising, procuring/maintaining equipment, and designating facilities for shelter and other purposes.

5.4.7.2 Law Enforcement Services

Law enforcement in the study area is provided primarily by the Sweetwater County Sherriff, which has offices in Green River and Rock Springs, as well as the County Detention Center located on 50140 Highway 191 South in Rock Springs (SCSO, 2012). The police departments of Green River and Rock Springs provide law enforcement within their jurisdictions while District #3 of the Wyoming Highway Patrol (WHP) patrols the highways in Sweetwater, Uinta, and Lincoln counties, as shown in **Table 5-59**. District #3 is based in Rock Springs. The WHP Port of Entry program, with nearby locations in Cheyenne, Kemmerer, and Evanston, ensures highway safety by monitoring commercial vehicle and driver compliance with state and federal laws, by issuing permits for allowable variances in statutes, and by writing warnings and citations when necessary (WHP, 2012).

TABLE 5-59
Law Enforcement in Sweetwater County

| Name | Address | Phone | City |
|-------------------------------------|---|----------------|--------------|
| Wyoming Highway Patrol District #3 | P.O. Box 1260 3200 Elk Street Rock Springs, Wyoming 82902 | (307) 352-3108 | Rock Springs |
| Sweetwater County Sherriff's Office | 80 W Flaming Gorge Way Green River, Wyoming 82935 | (307) 872-6350 | Green River |
| Green River Police Department | 50 E 2nd N Street Green River, Wyoming 82935 | (307) 872-0555 | Green River |

TABLE 5-59
Law Enforcement in Sweetwater County

| Name | Address | Phone | City |
|--------------------------------|---|----------------|--------------|
| Rock Springs Police Department | 221 C Street Rock Springs, Wyoming 82901 | (307) 352-1575 | Rock Springs |

Source: Wyoming Office of Attorney General, 2012; USA Cops, 2012.

Local law enforcement agencies in Sweetwater County had 150 officers in 2011, of which 31 percent, or 46 officers, were employed by the Sherriff's Office and 44 percent, or 66 officers, were employed by the Rock Springs Police Department (**Table 5-60**). The number of officers per 1,000 residents (2.7) in the study area is slightly above the state average of 2.2, and the index of crimes per officer (150) is substantially above the state average of 12.3. This is primarily due the predominantly rural nature of Sweetwater County relative to that of the balance of Wyoming.

TABLE 5-60
Law Enforcement Personnel in Sweetwater County

| Location | Total Employees | Officers | | Civilians | | Officers per 1,000 Population | Index Crimes per Officer |
|--------------------------|-----------------|------------|-----------|-----------|-----------|-------------------------------|--------------------------|
| | | Male | Female | Male | Female | | |
| Sweetwater County | 150 | 102 | 12 | 5 | 31 | 2.7 | 150 |
| Sheriff | 46 | 38 | 3 | 0 | 5 | 5.0 | 46 |
| Green River | 38 | 24 | 4 | 0 | 10 | 8.0 | 38 |
| Rock Springs | 66 | 40 | 5 | 0 | 16 | 2.1 | 66 |

Source: Wyoming Office of Attorney General, 2012.

5.4.7.3 Crime

Reported crimes (i.e., crimes known to law enforcement) are categorized into the more serious Part 1 crimes and less serious Part 2 crimes. Part 1 crimes (also referred to as index crimes) are further subdivided into violent crimes against persons (murder, forcible rape, robbery, and aggravated assault) and crimes against property (burglary, larceny, and motor vehicle theft).

The number of reported crimes is directly related to the number of residents and, thus, most crimes occur in the largest community—the City of Rock Springs. This is evident from the information presented in **Table 5-61**. However, for comparative purposes, the most relevant statistic is the crime rate per 10,000 inhabitants because this statistic adjusts for the size of the population. In 2011, this crime rate index ranged from a low of 220.9 per 10,000 inhabitants served by the Sweetwater County Sheriff's Office to a high of 335.2 for those residents served by the Rock Springs Police Department. A rate of 287.8 was observed overall for Sweetwater County, which is higher than the state average of 247.5 in 2011. The majority, 1,067 events or 87 percent, of the crimes in Sweetwater County in 2011 were classified as crimes against property (burglary, larceny-theft, and motor vehicle theft), while the remaining 13 percent were crimes involving the element of personal confrontation between the perpetrator and the victim, and entail the use or threat of force or violence.

TABLE 5-61
Number of Reported Index Crime Events (2011)

| Location | Murder | Rape | Robbery | Aggravated Assault | Burglary | Larceny | MVT | 2011 Total | 2010 Total | % Change | 2011 Population Coverage | Crime Rate per 10,000 Inhabitants |
|-------------------|--------|------|---------|--------------------|----------|---------|-----|------------|------------|----------|--------------------------|-----------------------------------|
| Sweetwater County | 0 | 18 | 5 | 138 | 144 | 868 | 55 | 1,228 | 1,204 | 2.0% | 42,675 | 287.8 |
| Sheriff | 0 | 0 | 1 | 13 | 34 | 118 | 15 | 181 | 179 | 1.1% | 8,193 | 220.9 |
| Green River | 0 | 3 | 0 | 68 | 41 | 194 | 14 | 320 | 335 | -4.5% | 12,793 | 250.1 |
| Rock Springs | 0 | 15 | 4 | 57 | 69 | 556 | 26 | 727 | 690 | 5.4% | 21,689 | 335.2 |

Source: Wyoming Office of Attorney General, 2012.

Part 2 crimes are considered less serious in nature than Part 1 crimes, but they are significantly more numerous and often of an anti-social nature, with the majority related to alcohol and drug abuse. Part 2 crimes are classified into the following groups: manslaughter by negligence; arson; other assault; forgery and counterfeiting; fraud; embezzlement; buying, receiving, or possessing stolen property; vandalism; carrying or possessing weapons; prostitution and commercial vice; sex offenses (except rape and prostitution); drug abuse – sale and manufacture; drug abuse – possession; gambling; offenses against family and children; driving under the influence; liquor laws; drunkenness; disorderly conduct; vagrancy; and all other (except traffic). Information regarding Part 2 crimes is available only in the form of arrest data, as shown in **Table 5-62**. As the numbers reflect, drug- and alcohol-related arrests and other assaults top the list of offenses that result in arrests.

TABLE 5-62
2011 Part 2 Crime Arrests by Type of Crime and Entity

| Classification of Offenses | Sex | Total | | Sheriff | | Green River | | Rock Springs | |
|--------------------------------------|-----|-------|----------|---------|----------|-------------|----------|--------------|----------|
| | | Adult | Juvenile | Adult | Juvenile | Adult | Juvenile | Adult | Juvenile |
| Manslaughter by Negligence | M | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | F | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Arson | M | 1 | 0 | 0 | 0 | 0 | 0 | 1 | 0 |
| | F | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Other Assaults | M | 101 | 28 | 23 | 0 | 22 | 17 | 56 | 11 |
| | F | 25 | 24 | 5 | 0 | 7 | 10 | 13 | 14 |
| Forgery and Counterfeiting | M | 5 | 1 | 0 | 0 | 3 | 1 | 2 | 0 |
| | F | 1 | 0 | 0 | 0 | 1 | 0 | 0 | 0 |
| Fraud | M | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 1 |
| | F | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Embezzlement | M | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | F | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Stolen Property: Buy Receive Possess | M | 4 | 0 | 0 | 0 | 1 | 0 | 3 | 0 |
| | F | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Vandalism | M | 18 | 15 | 0 | 0 | 5 | 7 | 13 | 8 |

TABLE 5-62
2011 Part 2 Crime Arrests by Type of Crime and Entity

| Classification of Offenses | Sex | Total | | Sheriff | | Green River | | Rock Springs | |
|---|-----|-------|----------|---------|----------|-------------|----------|--------------|----------|
| | | Adult | Juvenile | Adult | Juvenile | Adult | Juvenile | Adult | Juvenile |
| | F | 4 | 4 | 0 | 0 | 0 | 1 | 4 | 3 |
| Weapons: Carry, Possess, etc. | M | 9 | 4 | 1 | 0 | 2 | 0 | 6 | 4 |
| | F | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Prostitution and Commercialized Vice | M | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | F | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Sex Offenses (Except Rape and Prostitution) | M | 17 | 2 | 0 | 0 | 7 | 2 | 10 | 0 |
| | F | 1 | 0 | 0 | 0 | 0 | 0 | 1 | 0 |
| Drug Abuse Violations Total | M | 159 | 32 | 4 | 1 | 35 | 13 | 120 | 18 |
| | F | 68 | 5 | 0 | 0 | 18 | 1 | 50 | 4 |
| 1) Sale Manufacture Subtotal | M | 29 | 1 | 0 | 0 | 3 | 0 | 26 | 1 |
| | F | 14 | 0 | 0 | 0 | 1 | 0 | 13 | 0 |
| 2) Possession Subtotal | M | 130 | 31 | 4 | 1 | 32 | 13 | 94 | 17 |
| | F | 54 | 5 | 0 | 0 | 17 | 1 | 37 | 4 |
| Gambling Offenses | M | 2 | 0 | 0 | 0 | 2 | 0 | 0 | 0 |
| | F | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Offenses Against Family and Children | M | 6 | 0 | 0 | 0 | 1 | 0 | 5 | 0 |
| | F | 3 | 0 | 0 | 0 | 1 | 0 | 2 | 0 |
| Driving Under the Influence | M | 311 | 6 | 120 | 1 | 54 | 2 | 137 | 3 |
| | F | 97 | 0 | 33 | 0 | 22 | 0 | 42 | 0 |
| Liquor Laws | M | 99 | 26 | 0 | 0 | 29 | 6 | 70 | 20 |
| | F | 37 | 29 | 0 | 0 | 8 | 12 | 29 | 16 |
| Drunkenness | M | 246 | 0 | 0 | 0 | 28 | 0 | 218 | 0 |
| | F | 70 | 0 | 0 | 0 | 10 | 0 | 60 | 0 |
| Disorderly Conduct | M | 25 | 9 | 0 | 0 | 2 | 1 | 23 | 8 |
| | F | 16 | 6 | 0 | 0 | 6 | 0 | 10 | 6 |
| Vagrancy | M | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | F | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| All Other Offenses (Except Traffic) | M | 422 | 87 | 1 | 0 | 12 | 12 | 409 | 75 |
| | F | 145 | 26 | 0 | 0 | 5 | 8 | 140 | 18 |
| Suspicion | M | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | F | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Curfew and Loitering Law Violations | M | N/A | 44 | N/A | 0 | N/A | 15 | N/A | 29 |

TABLE 5-62
2011 Part 2 Crime Arrests by Type of Crime and Entity

| Classification of Offenses | Sex | Total | | Sheriff | | Green River | | Rock Springs | |
|----------------------------|-----|-------|----------|---------|----------|-------------|----------|--------------|----------|
| | | Adult | Juvenile | Adult | Juvenile | Adult | Juvenile | Adult | Juvenile |
| | F | N/A | 42 | N/A | 0 | N/A | 12 | N/A | 30 |
| Runaways | M | N/A | 14 | N/A | 0 | N/A | 7 | N/A | 7 |
| | F | N/A | 6 | N/A | 0 | N/A | 0 | N/A | 6 |
| Total Male | M | 1,592 | 345 | 158 | 2 | 255 | 133 | 1,179 | 210 |
| Total Female | F | 545 | 168 | 39 | 0 | 93 | 54 | 413 | 114 |
| Total | | 2,137 | 513 | 197 | 2 | 348 | 187 | 1,592 | 324 |

Source: Wyoming Office of Attorney General, 2012.

5.4.8 Construction Impacts

5.4.8.1 Fire Protection

The temporary influx of a peak number of 254 residents associated with the construction phase of the Project would have negligible effect on the quality of service provided by fire protection agencies. Due to its location, the Project can be served by either RSFD or SCFD1. Fire emergencies would generally be initiated through 911 calls, alerting the appropriate fire/ambulance crews for dispatch. It is anticipated that RSFD would be the first responder in the event of a fire. FMC will proactively coordinate with the appropriate fire departments to minimize fire safety hazards, coordinate response efforts, and effectively train all personnel in fire safety issues. FMC's general contractor will also maintain a safety officer onsite for the duration of construction activities that will coordinate emergency management and response, provide onsite training and certification to new site personnel, and enable additional training opportunities, such as CPR and first aid, to enable qualified administration of basic first-responder care should an emergency arise.

5.4.8.2 Law Enforcement

Law enforcement services would be provided to the Project site by the Sweetwater County Sheriff. As shown in **Table 5-60**, the current level of service ranges from about 2.1 (Rock Springs) to 8.0 officers (Green River) per 1,000 in population. Thus, the temporary increase in persons attributable to construction of the Project would equate to an increase in demand addressed by one-half of an additional law enforcement officer. However, this increase in demand would last for a short period and would not justify the hiring of additional personnel.

With an index crime rate of about 287 per 10,000 residents in Sweetwater County, the additional construction workers could account for an increase of between seven and eight crimes annually, assuming the average of the crime rate index would hold for the population of construction workers. However, unlike the general population, the construction population has additional incentives to reduce criminal incidences.

It is stressed that FMC and its contractors will take a hard line on criminal activity. Any personnel found to have committed a Part 1 or Part 2 crime while employed for the FMC Granger Project will be disciplined to the fullest extent, including termination of employment. Additionally, to the extent possible, FMC Granger will facilitate prosecution for any such criminal activity.

5.4.8.3 Operations Impacts

The local workforce of 26 associated with the O&M of the proposed facility would represent a negligible increase in the demand for fire protection and law enforcement personnel.

5.4.9 Health Care

This section discusses the location and characteristics of the health care facilities closest to the site in Sweetwater and Lincoln counties, including the number and type of facilities, staffing levels, availability of EMS, and the health needs of the existing population.

5.4.9.1 Location and Characteristics of Health Care Facilities

The study area is primarily served by the Memorial Hospital of Sweetwater County (MHSC), a general medical and surgical hospital in Rock Springs located at 1200 College Drive. MHSC is located 43.7 miles, or an approximately 61-minute drive, east of the Project, as shown in **Figure 5-19**. The South Lincoln Medical Center (SLMC), with 40 beds, can also be accessed in Kemmerer approximately 48.5 miles to the northwest and a 66-minute drive from the Project. Evanston Regional Hospital (ERH), a 42-bed facility, is located 97.6 miles and a 113-minute drive to the west of the Project in Evanston. Selected summary statistics from an American Health Association Survey of more than 5,000 hospitals across the nation related to patient volume are provided in **Table 5-63**. These data were extracted from the *U.S. News and World Report* website, which maintains a searchable directory.

TABLE 5-63
Hospitals in the Study Area: Selected Statistics

| | Memorial Hospital of Sweetwater County | South Lincoln Medical Center | Evanston Regional Hospital |
|-----------------------|---|---------------------------------|-------------------------------|
| Beds | 99 | 44 | 42 |
| Admissions | 2,161 | 230 | 1,395 |
| Inpatient Surgeries | 564 | 16 | 581 |
| Outpatient Visits | 93,587 | 29,904 | 30,068 |
| Emergency Room Visits | 21,453 | 2,168 | 10,069 |

Source: *U.S. News & World Report, 2012.*

Another measure of health care service levels relates to the availability of primary care physicians (PCPs). The Wyoming Department of Health (WDH) recently evaluated the status of the primary care provider workforce (2009). Primary care providers are physicians in family practice, general practice, internal medicine, pediatrics, or OBGYN, as well as non-physician providers such as physician assistants, nurse practitioners, and nurse midwives. WDH estimated the number of PCPs needed using Rural Health Works formulas and compared the needs to the number of physicians in place. With an estimated 10 PCPs in place and 17.23 needed, it found that Sweetwater County had a 7.23 deficit of PCPs in 2009 (WDH, 2009). The Castle Rock Special Hospital District is a state authorized body, similar to a school district, with the mission of providing medical services for the citizens of Green River and Rock Springs. Located in Green River, it includes a medical center with two family practice physicians, one pediatrician, and three physician assistants as well as a 59-bed convalescence center and 24-bed independent senior living facility (CRSHD, 2012).

In addition to these health care resources, Sweetwater County also provides a variety of human service facilities and programs to meet the current demands and needs of the population in the area of site influence. These include two public health nursing offices providing services in Rock Springs

and Green River. The Community Nursing program administers a Best Beginnings Program for pregnant women and their families, as well as basic preventative health care services such as immunizations and testing (Sweetwater County Board of Health, 2012). The study area is also served by Southern Wyoming Wyoming Recovery Access Programs (SW WRAP), which administers the First Call for Help (FC4H) information and referral service that directs individuals to the appropriate community programs for basic needs, emergency assistance, and crisis intervention (SW SWAP, 2012). Public services related to potential mental health and substance abuse treatment are provided at the Wyoming Behavioral Institute (WBI) Sweetwater County Clinic in Rock Springs (WBI, 2011).

FIGURE 5-19
Location of Hospitals in the Study Area

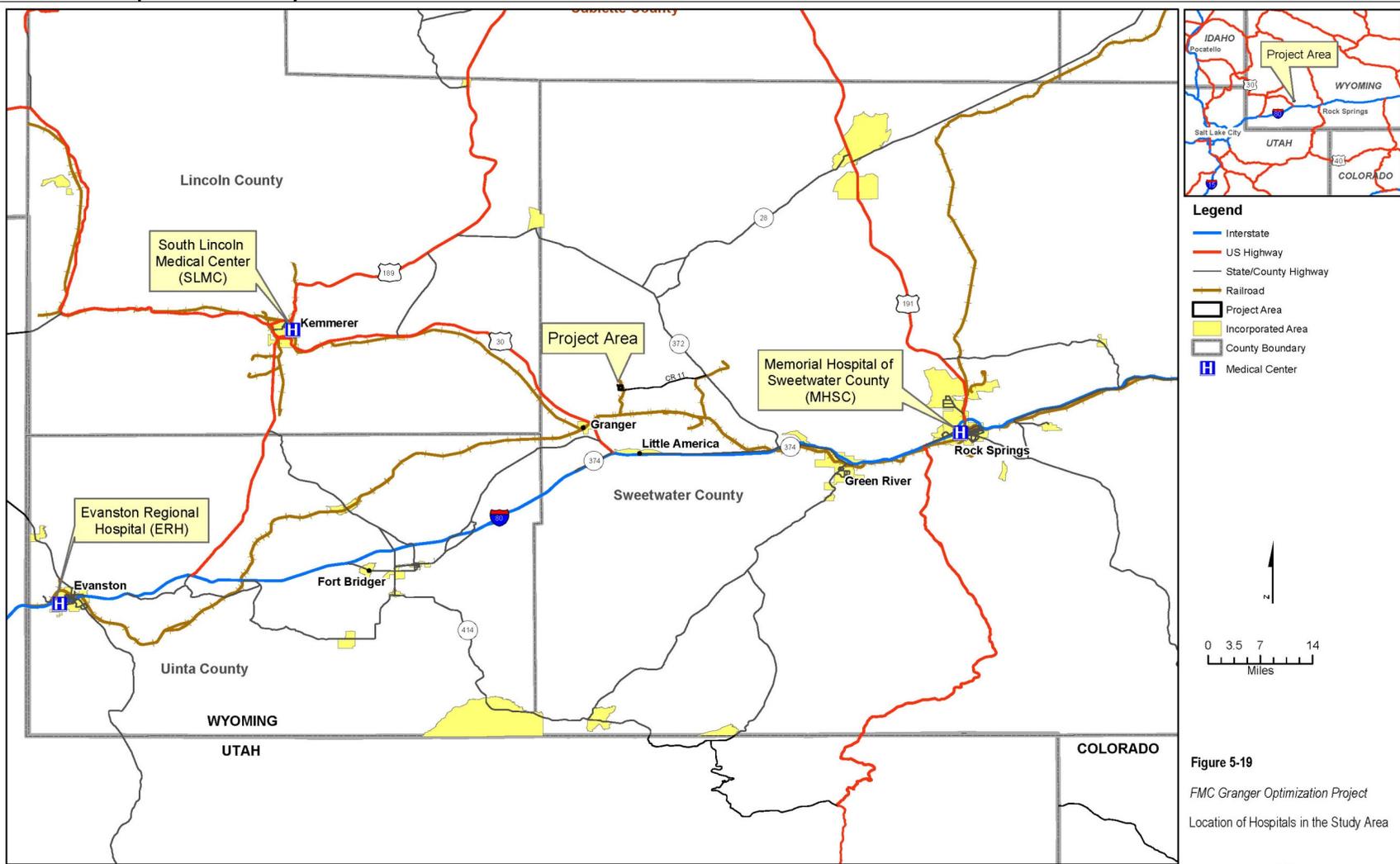


Figure 5-19
 FMC Granger Optimization Project
 Location of Hospitals in the Study Area



©VO Hivanti\GIS\project\data\Granger\MapFiles\Transportation\site_influence_05-23-12.mxd EKA 5/23/12

Source: CH2M HILL, 2012.

The public health response coordinators (PHRC) program consists of a coordinator for each participating county's public health office. The primary goal of the PHRC is to achieve local preparedness for responding to public health incidents through education, planning, training, and surveillance. Sweetwater County is in Region 4 with Uinta and Lincoln counties. PHRCs develop and maintain county public health emergency response plans. They work with county health officers and local emergency planning committees to coordinate county health and medical plans with WDH and other agencies, including hospitals, EMS, and county emergency management agencies.

EMS in the study area is provided utilizing firefighters in the delivery of EMS and fire services.

Table 5-56 summarizes EMS, Basic Emergency Medical Technician (EMT), and Advanced EMT staffing in Sweetwater County.

5.4.9.2 Health Needs of the Existing Population

This section discusses a report prepared for the Wyoming Health Care Commission in 2007 entitled *Status and Future of Health Care Delivery in Rural Wyoming*. Wyoming is undergoing significant changes in population. According to the report, which was published prior to the recent economic downturn, some areas of the state were expected to continue experiencing extraordinary growth, while others were predicted to endure continued population declines. Like many predominantly rural states, Wyoming is seeing a dramatic increase in the number of persons aged 65 and older. However, Wyoming is also experiencing substantial growth in the working-age population that supports the growth in extraction of natural resources. The two population shifts will place different pressures on the health care system. The increase in persons aged 65 and over will create more demand for geriatric care and care management of patients with multiple chronic conditions associated with the elderly. The increase of working-age persons will increase demand for dental services, preventive services, and primary care services associated with young families.

Wyoming has an adequate array of facilities offering inpatient services, hospitals, and skilled nursing facilities (nursing homes). Despite the availability of these institutional services and the presence of qualified clinical personnel, many Wyoming residents who could be served in Wyoming are using health services in Colorado, Utah, and Nebraska.

The key findings of the analysis contained in the report are as follows:

- The demographic shift of the aging population will increase an already growing demand for health care professionals. Recruitment and retention should be priorities at all levels, from local to state, including public and private entities.
- To reduce the number of health care professionals who leave Wyoming, the state should support and encourage increased participation in programs with proven success.
- Stakeholders in Wyoming health care delivery recommended a step-wise strategy of integrating services in local communities and then building regional systems.
- Stakeholders believe there is no pattern of sustained leadership in health care in Wyoming, but there are potential sources of leadership that can be explored.
- Community members expressed concern about continuous population growth combined with the number of providers reaching retirement, and stressed the importance of recruitment and retention efforts.
- Respondents identified services for the elderly as a current or future need, particularly assisted living.

- Considering the combined effect of the direct and indirect impact on Wyoming's economy, health care accounts for 10.3 percent of the state's total employment, 10.5 percent of the state's total income, and 8.2 percent of the state's total output.
- The estimated total lost revenue for Wyoming hospitals due to inpatient out-migration to Colorado, Utah, and Nebraska was \$101.3 million in 2003. As a result, an estimated \$32.5 million less was spent in other economic sectors of Wyoming communities in the same year.
- Other states have formal or informal networks of providers to coordinate care. Examples of strong comprehensive networks across providers are the Alaska Federal Health Care Access Network and the Nebraska Rural Comprehensive Care Network.
- State health agencies use advisory groups to provide technical assistance and formulate recommendations. The Health Policy Commission in New Mexico, for example, is an independent commission monitoring the health status and health care services in the state.

5.4.9.3 Construction Impacts

The estimated peak month non-local construction workforce of 254 persons could generate a demand for less than a single physician, or 0.1 percent of the current supply. While there is a shortage of primary care physicians in Sweetwater County, the short-term nature of the Project would not materially affect this issue because many of the non-local workers would continue to access their own PCPs for preventative care. At its peak, the construction workforce could generate an additional 124 emergency room visits, less than 0.6 percent increase annually. Due to the small amount of demand likely to be generated by the Project, the impact from the temporary workforce would be negligible. Medical emergencies would be initiated through 911 calls alerting the EMS system. Calls to 911 from the Project area would be received by RSFD or SCFD1, and the appropriate fire/ambulance crews would be paged for dispatch.

The vast majority of non-local workers are not expected to be accompanied by family members, and it is assumed that all workers would secure temporary accommodations for the duration of their involvement in the Project. It is unlikely that the presence of the non-local workers in the area, for the relatively short period of construction, would adversely impact the demand for health care or human services in the study area or over-extend existing facilities and personnel.

5.4.9.4 Operations Impacts

The jobs created through the O&M of the proposed facility would be staffed by 26 workers. Based on current LOS statistics, these workers, and any associated family members and dependents, would not generate a noticeable increase in demand for health care personnel, services, or facilities and, thus, Project-related impacts would be negligible. The addition to the local economy of permanent direct and secondary jobs will add to the stability of the local workforce and communities, and is unlikely to increase the demand for human services. Increased long-term employment will benefit the social and economic condition of present and expected inhabitants in the area of site influence. No substantial impairments to the health, safety, and welfare of the present or expected inhabitants in the area of site influence are anticipated.

5.4.10 Municipal Services

This section describes the location and characteristics of the following five primary municipal services provided to residents of Sweetwater County study area:

- Wastewater treatment facilities
- Water distribution and treatment facilities
- Nonhazardous waste collection and disposal
- Electricity service
- Natural gas service

These services are generally administered by the local governments of Sweetwater County, the Town of Granger, or the City of Rock Springs. Sweetwater is governed by a five-member Board of County Commissioners (BOC) led by a Chairman (Sweetwater BOC, 2012). The Town of Granger is governed by a Town Council, which includes a Mayor and four Council Members, while an eight-member City Council and Mayor govern Rock Springs (Pendersen Planning Consultants, 2009, and Rock Springs, 2012).

5.4.10.1 Wastewater Treatment

FMC Granger is currently a zero-discharge industry. The town of Granger is the closest entity to the Project providing sewer service via a municipal lift station and waste lagoon (PPC, 2009). It does not serve the FMC Granger plant. It serves most of the commercial and residential properties in Granger; however, those properties north of the Union Pacific main line dispose of their wastewater via septic system. Wastewater is collected from homes, businesses, and public facilities and flows via gravity to a lift station situated on south side of Blacks Fork River near the intersection of Blacks Fork Drive and Evans Drive. A pressurized force main transports flows to the wastewater lagoon located along the eastern municipal boundary. The existing wastewater collection system was recently upgraded during the summer of 2008 with new, enlarged pipe. The municipal wastewater treatment system comprises some minimal pre-treatment facilities and a three-cell, non-aerated wastewater lagoon. Pre-treatment facilities include a mechanical bar screen with a manual bypass bar screen and a grit chamber. The Wyoming Pollutant Discharge Elimination System (WYPDES) Permit for the Granger wastewater lagoon (WY 0022373), which expires on September 30, 2012, also indicates that wastewater discharges flow through an ultraviolet disinfection unit prior to discharge into the Blacks Fork River. However, since construction of this facility, incoming flows have been considerably less than the capacity of the lagoon. Consequently, no discharges of wastewater into the Blacks River have occurred (Williams, 2008). While Granger does not currently anticipate additional improvements to existing wastewater collection and treatment systems, an expansion of the service area will eventually be needed to support development of additional residential and commercial properties.

5.4.10.2 Potable Water Treatment and Distribution

FMC Granger currently operates its own public water system, obtaining raw water via a 9.5-mile pipeline to the Green River. FMC uses approximately 250 acre-feet of water a month (Forsgren Associates, 2002; Purcell, 2012), which is utilized in the soda ash production process as well as in its onsite steam generation facility. All of the water at the facilities is discharged through cooling towers and evaporated from holding ponds (WWDO, 2012).

The Town of Granger's raw water supplies are pumped 22 miles via a steel water pipeline from FMC Westvaco. This raw water is then treated via a Neptune micro-floc packaged treatment plant, which provides flocculation, sedimentation, filtration, and disinfection processes (Rothberg, Tamburini, &

Winsor, Inc., 2008). The municipal water system operated and maintained by the Town of Granger presently serves the original town site area and Trails West Subdivision, which are situated south of the Union Pacific Railroad main line. In July 2008, the Town provided water service to approximately 70 active water taps (Rothberg, Tamburini, & Winsor, Inc., 2008). Granger's historical per capita consumption has ranged from 152 gallons per day (gpd) per person in the winter to 422 gpd in the summer. Because per capita consumption should typically be 100-120 gpd, potential leaks or excessive use by one or more customers were suspected. Subsequently, leaks were identified and much of the Town's distribution system has been replaced, which should reduce the per capita consumption (PPC, 2009).

Granger is currently planning a municipal public works center, including a new water treatment plant, on a 3-acre property south of Rendezvous Road already owned by the Town (PPC, 2009). The community of Little America receives raw water via pipeline from FMC Westvaco.

5.4.10.3 Nonhazardous Waste Collection and Disposal

A variety of non-hazardous, inert construction wastes are typically generated during construction. The major solid waste types are wood, concrete, plastics, metal, glass, insulation, and paper products. Concrete accumulating in the concrete washout area or any other materials not suitable to be left in place, will be allowed to harden and placed in FMC's on-site landfill. Additional wastes could include erosion control materials, such as straw bales and silt fencing, and electrical equipment. The waste is typically accumulated on site in dumpsters and/or drop boxes until hauled away to the existing onsite landfill. Salvageable metals will be stored in appropriate bins and recycled. No impacts to local solid waste disposal sites or services are expected as the onsite landfill will be used.

5.4.10.4 Electricity Service

There are two primary suppliers of electricity in Sweetwater County, as summarized in **Table 5-64** and shown in **Figure 5-20**. Rocky Mountain Power (RMP) (shaded in light blue in **Figure 5-23**) serves most of the county while the Bridger Valley Electric Association (BVEA) serves most of Uinta County and the Sweetwater County communities of Granger, Farson, and Eden. The electrical needs of the Project are met by RMP.

TABLE 5-64
Electric and Gas Utility Company Service Areas

| Company | Areas Served |
|--|--|
| Electricity | |
| Rocky Mountain Power (RMP) | Majority of Sweetwater County. |
| Bridger Valley Electric Association (BVEA) | BVEA serves all of Uinta County, the Sweetwater County communities of Granger, Farson, and Eden, and portions of Daggett County and Summit County in northeast Utah. |
| Gas | |
| Questar Gas Company | Southwest corner of Sweetwater County. |
| Source Gas | Northeast corner of Sweetwater County. |

Source: Wyoming Public Service Commission, 2011.

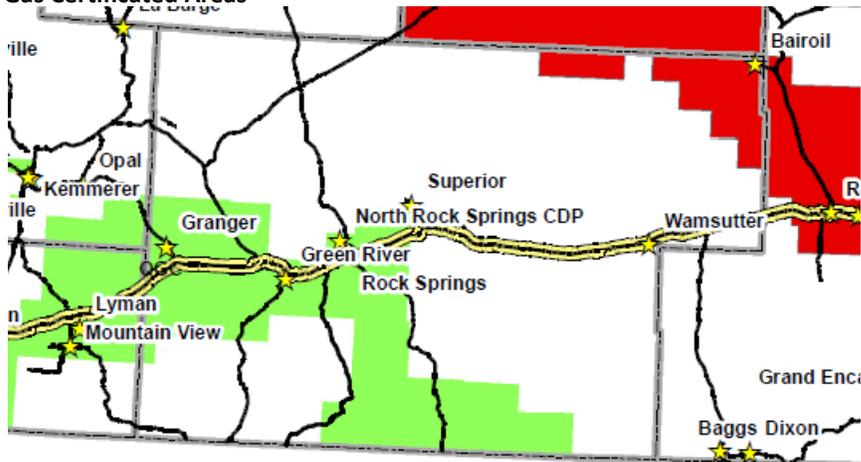
FIGURE 5-20
Electric Certificated Areas



5.4.10.5 Natural Gas Service

Questar Gas Company provides natural gas service to portions of the southwestern quadrant of Sweetwater County, including the Project site, as shown in **Table 5-64** and illustrated in **Figure 5-21**. Source Gas serves the northeastern corner while the balance of the county does not have access to natural gas service.

FIGURE 5-21
Gas Certificated Areas



5.4.10.6 Construction Impacts

It is expected that non-local construction workers would reside primarily in hotel/motels and RVs located at established sites and facilities in the existing housing stock of the area of site influence. The addition of 254 peak-month non-local residents would not increase the number of accommodation units in the area of site influence. The additional temporary population could increase the demand for municipal services such as water, wastewater, and solid waste. However, such a modest increase for this short duration would have negligible effects on the provision of these services or the facilities required for the administration of government.

Wastewater Treatment and Potable Water Treatment and Distribution. The additional temporary population could increase the demand for municipal services such as potable water and generate additional quantities of wastewater. However, such a modest increase for this short duration would have negligible effects on the provision of these services. Existing onsite restrooms will be augmented by portable restrooms as needed to provide for onsite sewage handling during construction. No other wastewater will be generated during construction.

Nonhazardous Waste Collection and Disposal, including Construction Waste Materials. A variety of non-hazardous, inert construction wastes are typically generated during construction. The major solid waste types are wood, concrete, plastics, metal, glass, insulation, and paper products. Concrete accumulating in the concrete washout area or any other materials not suitable to be left in place will be allowed to harden and placed in the Granger landfill. Additional wastes could include erosion control materials, such as straw bales, silt fencing, and electrical equipment. The waste is typically accumulated onsite in dumpsters and/or drop boxes until it is hauled away to the existing onsite industrial landfill. Salvageable metals will be stored in appropriate bins and recycled. No impacts to local solid waste disposal sites or services are expected because the onsite Granger landfill will be used.

A total of 4,214 cubic yards (yd³) of construction waste is anticipated from the Project. Estimates of the quantities of waste materials generated by month during the construction period are presented in **Table 5-65**.

TABLE 5-65
Estimated Construction Waste Materials

| Waste Stream | Volume Determination Estimate (yd ³) | Supporting Calculation |
|--|--|--|
| Construction/ Demolition Waste Wood, concrete, metal (steel, copper), plastics, paper, cardboard, glass, insulation, and building siding. | 3,520 yd ³ | 117 x 1.5 = 176 (roll-offs) x 20 yd ³ |
| Municipal Waste (office debris and lunch tent) Paper, glass, cans, plastic, food debris | 478 yd ³ | 15/4 = 3.75 x 1.09 yd ³ = 4.09 yd ³ x 117 = 438.75 yd ³ |
| Solid Waste asbestos (28,700 ft ² x 3/16" thick) | 16.60 yd ³ | 3/16"/12" = 0.015625' x 28,700 ft ² = 448.44 ft ³ / 27 ft ³ |
| Hazardous Waste | 600 lb/month | |
| Recyclables Scrap metal (steel, copper) | 100 yd ³ | 5 (roll-offs) x 20 yd ³ |
| Total | 4,214 yd³ | Total includes 16.60 yd³ asbestos |

Assumptions:

Construction Schedule= 26 months

1- Roll-off Waste Container = 20 yd³

C&D Waste Generation= 1.5 roll-offs/week

Municipal Waste: (4) 55-gal drums= ~1.09 yd³, Lunch Tent= (2) 55 gal drums/ day (6- day work week)= (12) 55-gal drums, Field Office= (3) 55 gal drums/ week Total: (15) 55 gal drums/wk

Recyclables= 5 roll-offs for entire Project

Source: CH2M HILL, 2012.

Hazardous Wastes. Any hazardous materials will be used in a manner that is protective of human health and the environment, will comply with all applicable local, state, and federal laws and regulations, and will be disposed of in appropriate, licensed facilities. Accidental releases of hazardous materials (e.g., vehicle fuel during construction) will be prevented or minimized through proper containment of these substances during use and transportation to the site. Any oily waste, rags, or dirty or hazardous solid waste will be collected in sealable drums and removed for recycling or disposal by a licensed contractor.

Small amounts of hazardous waste will be generated during Project construction. Demolition of building siding will generate asbestos-containing material (ACM). The existing process buildings were constructed in 1975 using Galbestos® exterior siding. This siding contains a layer of chrysotile asbestos imbedded in the siding material. Consequently, any disturbance to the siding is subject to regulation under OSHA 29 CFR 1926.1101, and under Wyoming Air Quality Standards and Regulations (WAQSR) Chapter 3, Section 8 for its disposal.

Prior to siding disturbance or removal, a notification of the activity is submitted to the Wyoming Air Quality Division (AQD) describing the project, the amount of ACM to be removed (estimated around 16 yd³), the certified asbestos removal contractor assigned to the Project, the means by which the material will be removed to minimize asbestos exposure, and the location of final disposal of the removed material. FMC Granger and FMC Westvaco each have permitted landfills for final disposition of ACM. The FMC Environmental Department is in charge of submitting the notifications and is the FMC contact with respect to any communication with the AQD.

Potential hazardous waste streams would be associated with spent aerosol cans and other construction-related solvent use. It is estimated that this generation will be small quantities of aerosol cans and solvent waste. Even with these hazardous waste streams, the Granger facility is anticipated to continue to be a small quantity hazardous waste generator. Since the Granger landfill is not permitted to accept hazardous waste, it will be transported for disposal at off-site permitted hazardous waste disposal facility.

In the unlikely event of an accidental hazardous materials release, any spill or release will be cleaned up and the contaminated soil or other materials disposed of and treated according to applicable regulations. Spill kits, containing items such as absorbent pads, will be located on equipment and in temporary storage facilities onsite to respond to accidental spills, if any were to occur. Employees handling hazardous materials will be instructed in the proper handling and storage of these materials, as well as where spill kits are located.

Electricity and Natural Gas Service. The temporary addition of about 254 non-local workers during the peak month of construction would not noticeably increase the demand for electricity and natural gas in the region, and impacts would be negligible.

5.4.10.7 Operations Impacts

The jobs created through the O&M of the proposed facility would be staffed by workers originating as non-local, but who would take up residence in the area primarily affected. Negligible quantities of wastewater, potable water, municipal solid waste (MSW), hazardous waste materials, electricity, and natural gas would be associated with this minor population influx.

5.5 Summary of Impacts

Table 5-66 presents a summary of impacts for the major resources addressed earlier. The Project will have a positive short-term impact on construction jobs, contributing over 5 percent to employment in that sector during the construction phase. Compared to overall employment in the region, the impact is much smaller, comprising less than 1 percent. Similarly, the operations phase will have a modest positive effect, contributing less than 1 percent to total employment in the region. One resource likely to experience an effect is vacant housing. However, the peak demand for temporary housing can be accommodated by the supply, and the higher occupancy rates will be a positive benefit for the local economy. It should be emphasized that this peak demand condition would persist only for a short period. Local demand for primary care physicians will increase by insignificant levels due to the Project; however, as noted in Section 5.4.9.1, Sweetwater County had a 7.23 deficit of PCPs in 2009 with an estimated 10 PCPs in place and 17.23 needed. Construction debris from the Project will be entirely disposed of in the onsite industrial landfill; therefore, no impact to municipal services will occur. Finally, the Project will contribute nearly \$5 million in *ad valorem* taxes to Sweetwater County during the construction phase and an additional \$21 million during the Project's operations phase. Sweetwater County collects about \$170 million in annual *ad valorem* taxes from all sources. Sales and use taxes of more than \$2 million would accrue to the three-county study area during the construction phase of the Project. In 2011, the study area collected more than \$130 million in sales and use taxes. Thus, the Project will have a modest positive impact on local tax revenues.

TABLE 5-66
Summary of Project-Related Effects and Impacts

| Direct Project Effects | | | |
|--|----------------------------------|-----------------------|---|
| Peak Month | | Average Annual | Peak Year Average (2014) |
| Construction Phase | | | |
| Total Onsite FTEs | 338 | 167 | 276 |
| Non-Local FTEs | 254 | 125 | 207 |
| Local FTEs | 85 | 42 | 69 |
| Operations Phase | | Average Annual | |
| Onsite Workers | | 26 | |
| Local Workers | | 26 | |
| Non-Local Workers | | 0 | |
| Project-Induced Impacts | | | |
| Employment (FTEs) | Study Area Baseline Condition | Project Effect | Project Impact (% over baseline condition) |
| Construction Phase (Average Annual FTE) | | | |
| Direct (Construction Sector) | 5,243 | 167 | 3.2% |
| Total | 53,367 | 217 | 0.4% |

TABLE 5-66
Summary of Project-Related Effects and Impacts

| Operations Phase | | | |
|---|---|---|-------|
| Direct | 53,367 | 26 | 0.05% |
| Total | 53,367 | 42 | 0.08% |
| Population (Peak Month) | 83,231 | 254 | 0.2% |
| Housing Supply | | | |
| Recreational Vehicle Spaces | 570 | 37 | 6.5% |
| Houses, Apartments and Mobile Homes | 262 | 5 | 1.91% |
| Motel and Hotel Rooms | 2,973 | 185 | 6.2% |
| Public School | | | |
| Students | 7,837 | 0 | 0.00% |
| Teachers and Staff | 949 | 0 | 0.00% |
| Fire Protection | | | |
| Full-Time Paid Personnel | 50 | 0 | 0.00% |
| Emergency Medical Technicians | 28 | 0 | 0.00% |
| Law Enforcement | | | |
| Officers | 114 | 0.5 | 0.44% |
| Index Crimes (crimes per 10,000) | 287.8 | 7.3 | 2.54% |
| Healthcare | | | |
| Physicians (primary care) | 17.23 | <1 | 0.1% |
| Emergency Room Visits | 33,690 | 124 | 0.4% |
| Solid Waste Generation (Cubic Yards) | | | |
| Construction Debris | All construction waste will be disposed of in the onsite private landfill and no impact to municipal waste disposal capabilities will occur | | |
| Taxes | | | |
| <i>Ad Valorem</i> Sweetwater County (2013 - 2016) | \$170,000,000 | \$4,800,000 | 3.0% |
| Cumulative <i>Ad Valorem</i> NPV (2017 – 2041) | | \$21,500,000 | |
| Study Area Sales and Use Taxes (2011) | 134,560,368 | \$2,200,000 (during the 26-month construction phase) | 1.5% |
| Study Area Lodging Taxes | \$874,125 | (negligible) | 0% |

Source: CH2M HILL, 2012.

5.6 Cumulative Impacts

Cumulative environmental impacts, as defined in the ISA Rules and Regulations, are the combined impacts upon the environment to the social or economic conditions resulting from construction and operation of the proposed industrial facility and from construction and operation of other ongoing or proposed developments in the area of site influence. Proposed developments to be included in the cumulative impact analysis include those developments or events that are being actively planned and / or permitted and have public information available. The following projects and events

were included due to their location within or near the FMC Granger area of influence and some element of overlap with its 2nd quarter 2013 to 3rd quarter 2015 construction schedule:

- FMC Granger Non-jurisdictional Project Components
- Gateway West Transmission Project
- PacifiCorp Jim Bridger Power Plant, Units 3 and 4
- PacifiCorp Naughton Power Plant
- Chokecherry and Sierra Madre (CCSM) Wind Energy Project
- Simplot Smokey Canyon Mine
- National High School Finals Rodeo (NHSFR) Championships

The following projects, also located near the study area, were considered but not taken further primarily due to their construction schedules not overlapping with that of the FMC Granger Project:

- Continental Divide/Wamsutter II natural gas play
- UR Energy uranium mine

5.6.1 Cumulative Workforce Estimates

Proposed developments to be included in the cumulative impact analysis include those developments or events that are being actively planned and / or permitted and have public information available. The following projects and events were included due to their location within or near the FMC Granger area of influence.

5.6.1.1 FMC Granger, Non-jurisdictional Project Components

In addition to the construction workforce associated with the Applicant's ISA, the Project also anticipates 57 workers will be needed during the first two quarters of 2014 to assist with the pipeline and well construction. Assuming 60 percent of the 57 workers are non-local, the study area would need temporary accommodations to support 34 workers for 6 months, as shown later in **Table 5-69**.

5.6.1.2 Gateway West Transmission Line Project

Idaho Power Company and PacifiCorp (doing business as Rocky Mountain Power) applied to the Bureau of Land Management (BLM) in May 2007 for a right-of-way (ROW) grant to use the National System of Public Lands for portions of the Gateway West Transmission Line Project (BLM, 2011). The original application has been revised multiple times since then to reflect changes and refinements in the route, which is currently composed of 1,103 miles of new 230-kilovolt (kV) and 500-kV high-voltage transmission lines in 10 segments between the Windstar Substation at Glenrock, Wyoming, and the Hemingway Substation approximately 30 miles southwest of Boise, Idaho. Construction of segments 2, 3 and 4, which cross Carbon, Sweetwater, and Lincoln counties, have the greatest potential to coincide with construction at FMC Granger. The Draft EIS assumed that during periods of peak construction, 20 percent of the workforce would be local while the remaining 80 percent of the workforce would need temporary accommodations. Construction of these segments was estimated for two separate Engineering, Procurement, and Construction (EPC) contracts, EPC #1 and EPC #2, of which Sweetwater and Lincoln counties represent 34 percent of the total length of these EPCs to be constructed. As a result, it was estimated that 34 percent of the total non-local workforce in EPC # 1 and #2 would potentially need temporary accommodations in the study area. The Project schedule has shifted a year since the Draft EIS was published in 2011. Originally, project construction was expected to occur between June 2013 and December 2018 and is now projected to begin in the middle of 2014 and continue through 2018. While employment would vary depending on the

segment, the Draft EIS projected that the average weekly employment would be 165, of which 80 percent or 132 workers would be non-local. Peak employment was projected to average 362 over the life of the project, of which 290 workers are estimated to be non-local. However, construction was delayed and an updated construction workforce estimate was developed in 2010, as presented in **Table 5-67**.

TABLE 5-67
Gateway West: Total Peak Construction Workforce

| Construction Year | 2014 | | 2015 | | |
|-------------------|------|-----|------|-----|-----|
| Calendar Quarter | 3Q | 4Q | 1Q | 2Q | 3Q |
| Total EPC | 190 | 155 | 345 | 730 | 745 |
| Non-Local | 152 | 124 | 276 | 584 | 596 |
| Study Area | 52 | 43 | 95 | 201 | 205 |

Source: Adapted from BLM, 2011.

5.6.1.3 PacifiCorp Jim Bridger Units 3 and 4

PacifiCorp is in the planning and permitting process for upgrades to Units 3 and 4 of its Jim Bridger Power Plant, located approximately 65 miles east of FMC Granger near Point of Rocks. While the construction workforce projections are still in the preliminary stages of development, PacifiCorp estimates there will be approximately 200 to 300 workers onsite between 2013 and 2016. The Applicant assumed an average of 250 construction workers and a local / non-local split of 40/60 for the purposes of this cumulative analysis, as shown in **Table 5-68**.

TABLE 5-68
Jim Bridger Units 3 and 4 Estimate of Local and Non-Local Construction Workforce

| Const. Year | 2013 | | | | 2014 | | | | 2015 | | |
|------------------------|------|-----|-----|-----|------|-----|-----|-----|------|-----|-----|
| | 1Q | 2Q | 3Q | 4Q | 1Q | 2Q | 3Q | 4Q | 1Q | 2Q | 3Q |
| Local ^a | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 |
| Non-local ^b | 150 | 150 | 150 | 150 | 150 | 150 | 150 | 150 | 150 | 150 | 150 |
| Total | 250 | 250 | 250 | 250 | 250 | 250 | 250 | 250 | 250 | 250 | 250 |

Notes:

^a The estimate for local workers was based on multiplying the total workforce by the 40 percent estimate utilized for FMC Granger.

^b The estimate for non-local workers was based on multiplying the total workforce by the 60 percent estimate utilized for FMC Granger.

The workforce estimates for each quarter are based on the average employment for the quarter.

Source: PacifiCorp, 2012.

5.6.1.4 PacifiCorp Naughton Power Plant

PacifiCorp is in the planning and permitting process for upgrades to its Naughton Power Plant, located approximately 50 miles northwest of FMC Granger near Kemmerer in Lincoln County. While the construction workforce projections are still in the preliminary stages of development, PacifiCorp estimates there will be approximately 50 construction workers onsite in 2014 and 2015. Assuming a local / non-local split similar to that of FMC Granger, a non-local workforce of 30 persons was used for the purposes of this cumulative analysis.

5.6.1.5 Chokecherry and Sierra Madre (CCSM) Wind Energy Project

The Power Company of Wyoming, LLC (PCW) proposes to construct the Chokecherry and Sierra Madre (CCSM) wind energy project in Carbon County near the Sweetwater County line. CCSM will consist of 1,000 wind turbines and associated infrastructure capable of generating approximately 2,000 to 3,000 megawatts (MW) of wind energy. Although CCSM is located more than 150 miles east of the Project along I-80 near Rawlins, both projects anticipate that portions of their construction workforce will stay temporarily in the Rock Springs area of Sweetwater County. For the purpose of this cumulative analysis, we will assume that 15 percent of the construction workforce will stay in Rock Springs, while the balance will reside outside of the FMC Granger Project study area (Atkins, 2012). The construction of the project is anticipated to occur over 5 years starting in 2013, with the construction season occurring in the months of May through November each year. **Table 5-69** summarizes the number of peak CCSM construction workers, 15 percent, anticipated to temporarily reside in the Rock Springs area concurrent with the project's construction period.

5.6.1.6 Simplot Smoky Canyon Mine

J.R. Simplot Company's Smoky Canyon Mine, located near the Idaho-Wyoming border, supplies phosphate for use in fertilizer and employs an average of 200 operations workers. Simplot is developing two new mine panels, Panels F and G (sometimes referred to as Manning Creek and Deer Creek leases or tracts, respectively), and associated project components. Because all of the mining activities would occur on federal leases and land administered by the BLM and USFS, a draft and final EIS were developed and finalized in October of 2007. Subsequent litigation delayed the start of the expansion; however, Simplot anticipates starting work in the fourth quarter of 2012 and finishing in the fourth quarter of 2014, with peaks in its workforce occurring from May to August or September of 2013 and 2014 with 300 peak and 100 average workers, 70 percent of which are expected to be non-local.

Table 5-69 provides a composite view of the quarterly non-local construction workforce estimates for the six projects. The cumulative non-local workforce would range from 409 in the second quarter of 2013 to a peak of 701 in the third quarter of 2014, with the quarterly average over FMC's construction period being 551 workers.

TABLE 5-69
Cumulative Non-Local Workforce Estimates, May 2013 to July 2015

| Time Period | FMC Granger | FMC Granger Non-Jurisdictional | Gateway West Transmission | PacifiCorp Jim Bridger | PacifiCorp Naughton | CCSM | Simplot | Total |
|---------------------|-------------|--------------------------------|---------------------------|------------------------|---------------------|------|---------|-------|
| Second Quarter 2013 | 34 | 0 | 0 | 150 | 0 | 15 | 210 | 409 |
| Third Quarter 2013 | 90 | 0 | 0 | 150 | 0 | 45 | 210 | 495 |
| Fourth Quarter 2013 | 183 | 0 | 0 | 150 | 0 | 30 | 210 | 573 |
| First Quarter 2014 | 194 | 34 | 0 | 150 | 30 | 0 | 70 | 478 |
| Second Quarter 2014 | 254 | 34 | 0 | 150 | 30 | 8 | 210 | 686 |
| Third Quarter 2014 | 199 | 0 | 52 | 150 | 30 | 60 | 210 | 701 |
| Fourth Quarter 2014 | 181 | 0 | 43 | 150 | 30 | 45 | 70 | 519 |
| First Quarter 2015 | 143 | 0 | 95 | 150 | 30 | 0 | 0 | 418 |
| Second Quarter 2015 | 154 | 0 | 201 | 150 | 30 | 60 | 0 | 595 |
| Third Quarter 2015 | 68 | 0 | 205 | 150 | 30 | 180 | 0 | 633 |

Adapted from FMC, BLM, PacifiCorp, PCW, Simplot Sources.

5.6.2 Cumulative Temporary Housing Estimates

As discussed in Section 5.4.5, there are nine RV parks or campgrounds with 570 sites in the Granger – Rock Springs area that can provide accommodations for visits with durations of weeks or months, which should be adequate to meet the peak RV / campsite needs of 105 units in the third quarter of 2014, as presented in **Table 5-70**. The Granger - Rock Springs area has approximately 2,403 rooms at 34 hotels and motels that experience average peak occupancies of approximately 77 percent in the July-to-September time period from 2006 to 2012, which coincides with the cumulative peak in temporary housing needs. Assuming historical vacancy trends continue, approximately 543 hotel units would be available in the study area to accommodate the cumulative peak non-local hotel needs of 522 hotel units in the third quarter of 2014, a surplus of 22 units. **Table 5-70** further illustrates that, with the exception of the week of the NHSFR event in July of each year and discussed in the next section, a surplus of hotel rooms ranging from 22 to 946 should be available during the Project construction period.

TABLE 5-70
Cumulative Temporary Housing Needs, 2nd Quarter 2013 to 3rd Quarter 2015^a

| Time Period | Total Non-Local Workforce | Non-Local Workforce Allocated to RV / Campsites (15%) | Non-Local Workforce Allocated to Hotel / Motels (85%) | Single Occupancy Hotel Units (75%) | Double Occupancy Hotel Units (25%) | Single + Double Hotel Units Needed | Hotel Units Available ^b | Hotel Surplus / Needs |
|---------------------|---------------------------|---|---|------------------------------------|------------------------------------|------------------------------------|------------------------------------|-----------------------|
| Second Quarter 2013 | 409 | 61 | 348 | 261 | 43 | 304 | 802 | 498 |
| Third Quarter 2013 | 495 | 74 | 421 | 316 | 53 | 368 | 543 | 175 |
| Fourth Quarter 2013 | 573 | 86 | 487 | 365 | 61 | 426 | 1086 | 660 |
| First Quarter 2014 | 478 | 72 | 406 | 305 | 51 | 356 | 1257 | 901 |
| Second Quarter 2014 | 686 | 103 | 583 | 437 | 73 | 510 | 802 | 292 |
| Third Quarter 2014 | 701 | 105 | 596 | 447 | 75 | 522 | 543 | 22 |
| Fourth Quarter 2014 | 519 | 78 | 441 | 331 | 55 | 386 | 1086 | 700 |
| First Quarter 2015 | 418 | 63 | 355 | 266 | 44 | 311 | 1257 | 946 |
| Second Quarter 2015 | 595 | 89 | 506 | 379 | 63 | 442 | 802 | 360 |
| Third Quarter 2015 | 633 | 95 | 538 | 403 | 67 | 471 | 543 | 73 |

Notes:

^a Does not reflect the NHSFR discussed below.

^b Based on average quarterly vacancies from 2006 to 2012.

Source: CH2M HILL and Smith Reports, 2012.

5.6.2.1 National High School Finals Rodeo

As mentioned in Section 5.4.5.4, the NHSFR will be held in Rock Springs at the Sweetwater Events Complex for 1 week each summer from 2012 to 2015 (July 15 – 21, 2012, July 14 – 20, 2013, July 13 – 19, 2014, and July 12 – 18, 2015), overlapping with the third quarter non-local workforce temporary housing needs. A recent Economic Impact Analysis of the 2011 NHSFR in Gillette, Wyoming, estimated 2,742 groups in attendance, resulting in a total of 12,212 contestants, vendors, and spectators (Grotta, 2011). **Table 5-71** summarizes the number of groups, group size, percent staying in motels, and average number of rooms needed per group observed during the 2011 rodeo. Of the 2,742 groups surveyed (the weighted average group size was 4.45 persons), 27.1 percent noted they were staying in a hotel / motel and accessed 1.31 rooms per group on average.

TABLE 5-71
National High School Finals Rodeo 2011 Attendance Estimates

| | Groups | Average Group Size | Total People | Percent in Motels / Hotels | Average # of Rooms |
|----------------------------|--------|--------------------|--------------|----------------------------|--------------------|
| Contestants | 2,409 | 4.56 | 10,985 | 28.8 | 1.25 |
| Vendors | 92 | 3.0 | 276 | 28.6 | 2.88 |
| Spectators | 241 | 3.94 | 950 | 9.1 | 1.33 |
| Total or Weighted Average* | 2,742 | 4.45* | 12,211 | 27.1* | 1.31* |

Source: Grotta, 2011.

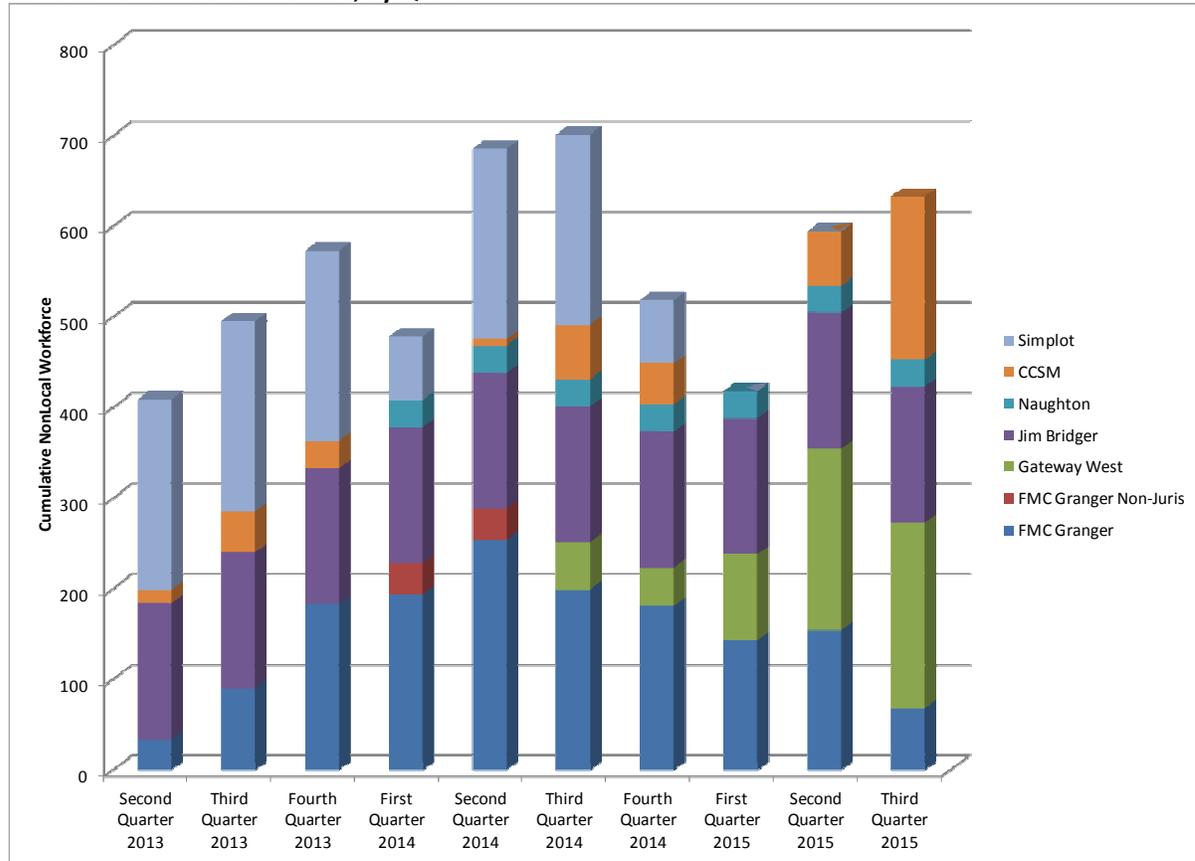
For the purposes of the cumulative analysis, it is assumed that approximately the same number of attendees will participate in the 2012 to 2015 events as well as an additional 600 shooting sports competitors for a total of 3,342 groups. Further, it is conservatively assumed that all attendees will need temporary accommodations. Utilizing the weighted average number of rooms used per group in 2011, 1.31, this results in the need for 2,548 temporary housing units, 689 hotel / motel rooms, and 1,858 RV or campsites. To help accommodate the influx of visitors, the Sweetwater Events Complex will provide 1,250 campsites meeting the needs of all but 608 campers. Thus, the Applicant's cumulative analysis assumes that 1,298 non-local competitors will need one temporary housing unit each during the week of the NHSFR for the duration of construction. Due to the short-term duration this peak demand will place on temporary housing, the Applicant anticipates the need for special arrangements, such as additional confirmed housing commitments, and / or coordinated transportation to and from more distant communities.

5.6.3 Summary of Cumulative Impacts

The direct cumulative non-local workforce would range from 409 in the second quarter of 2013 to a peak of 701 in the third quarter of 2014, with the quarterly average over FMC's construction period being 551 workers. As shown in **Figure 5-22**, FMC Granger would represent over a third, 41 percent, of the cumulative non-local workers in first quarter of 2014, while contributing a fourth, 28 percent, to the overall cumulative peak during construction, which occurs in the third quarter of 2014. However, the Project would contribute toward sustaining construction employment in the study area at an elevated level. Thereafter, FMC Granger would contribute a modest amount toward long-term employment in the region by maintaining its expected 26-person operations workforce. The Granger, Green River, and Rock Springs area has adequate hotel / motel capacity to accommodate the cumulative peak non-local workforce needs with the exception of the week of the NHSFR during

which an additional 1,298 non-local participants would be competing for the same accommodations. Other peak cumulative conditions during construction of the Project would be identical to those described in earlier, resource-specific sections.

FIGURE 5-22
Cumulative Number of Workers, by Quarter



Source: CH2M HILL, 2012.

5.6.4 Trade-Off Analysis

The proposed Project is expected to create significant and ongoing tax benefits and a modest temporary increase in employment throughout the study area and area of site influence. It is anticipated that Project-related impacts, especially on community services, would be minor, and distributed throughout the area of site influence, with the majority occurring in Sweetwater County.

Implementation of the Project would create both primary and secondary employment opportunities, contribute modest growth to the local economy, including the service sectors, and provide a substantial source of revenues for local governments through the collection of significant *ad valorem* taxes and sales and use taxes. The potential for short-term impacts associated with implementation of the Project on socioeconomic resources is minimal.

The major long-term impact of the Project would be the additional revenue collected by the state and distributed to Sweetwater County through increased *ad valorem* taxes. The increased *ad valorem* tax revenues would be distributed by the state and counties for schools, roads, and other community infrastructure. Further expansion of mining-related resources in the region will continue to add jobs to the growing economies and generate additional tax revenues.

5.6.5 Beneficial and Adverse Impacts

The proposed Project is expected to create long-term tax benefits to Sweetwater County and a modest increase in employment. Project-related impacts, especially on community services, would be small and concentrated in the greater Granger, Green River, and Rock Springs area in Sweetwater County, the primary area of site influence. Adverse impacts are possible due to a shortage of temporary housing during the NHSFR for 1 week each summer, especially in 2014. However, the Applicant plans to mitigate the excess demand on local housing by a combination of doubling up on occupancy and securing rooms more distant from the rodeo. The Project is primarily adjacent on three sides to parcels owned by Union Pacific, and is bordered on the east by State and Federal lands. Because the Project is an expansion of an existing facility and adequate buffer exists from these adjacent properties, negative externalities such as decreases in property values are not anticipated. The Project would have the following benefits to the local communities and counties comprising the study area and area of site influence:

- The creation of 501 direct FTE jobs summed over the construction period, averaging about 167 FTEs per year—about 125 of the total FTEs, or 42 jobs per year would be filled by local workers, on average, over the construction period.
- The creation of 26 jobs annually would be attributable to O&M.
- *Ad valorem* (property) taxes accruing to Sweetwater County would increase as a result of an increase in the fair market value (and assessed value) of the real property comprising the Project site. *Ad valorem* taxes would be approximately \$ 2 million annually commencing in 2016 and will continue to be paid for the next 25 years, albeit at lower rates due to depreciation of the assets.
- Sales and use tax revenues attributable to the Project could total more than \$2 million over the construction period.

Temporary construction workers are expected to reside mostly in local hotels / motels and RV camps. Depending on their length of stay, Sweetwater, Uinta, and Lincoln and counties could gain revenues from the lodging tax levied on room expenditures.

5.6.6 Impacts to Community Services

During the construction phase of the Project, the number of non-local workers (and any accompanying family members) entering the area temporarily would peak at 254. Only a small proportion of these workers would be accompanied by family members or occupy permanent housing. The potential impacts this inflow of persons would have on community services in the area of site influence would be negligible. Their short-term presence would have negligible impacts on law enforcement, fire protection, health care, or municipal services. While there is a shortage of primary care physicians in Sweetwater County, the short-term nature of the Project would not materially affect this issue, as many of the non-local workers would continue to access their own PCPs for preventative care.

Hotel/motels are the expected primary temporary lodging choices of 85 percent of the non-local workers. Thus, the most noticeable impact would be on the availability of hotel and motel rooms for other visitors, especially participants in the NHSFR for 1 week each July. However, due to the short-term duration this peak demand will place on temporary housing, the Applicant anticipates the need for special arrangements such as temporarily increasing double occupancy, additional confirmed housing commitments and / or coordinated transportation to and from more distant communities.

The transition from construction to operations will involve the departure of the temporary workforce and the establishment of the permanent workforce. Issues could arise if there was a sudden and drastic drop in hotel use and other services. The temporary workforce will taper over the final 6 months of construction, easing these transition issues. Furthermore, projects considered in the cumulative analysis are forecast to begin as the Project is concluding. For example, **Table 5-68** shows that the Gateway West Transmission Line workforce will essentially replace the Project's departing workforce. This will temper any issues from the departure of the Project's temporary workforce. Transitioning to a permanent workforce of an additional 26 permanent employees is not expected to be discernible from over 900 employees at the FMC Granger and neighboring Westvaco facilities.

5.7 Mitigation Measures to Offset Adverse Cumulative Impacts to Housing

Housing for a temporary construction workforce can be a concern of communities in Wyoming. FMC is addressing these concerns through the thorough consideration of cumulative housing impacts from other projects and the NHSFR. As noted previously, with the exception of the week of the NHSFR event in July of each year, the cumulative analysis shows that a surplus of hotel rooms should be available during the Project construction period. Special arrangements such as temporarily increasing double occupancy, additional confirmed housing commitments, and / or coordinated transportation to and from more distant communities will be considered for the weeks of NHSFR. FMC has acquired letters of interest from hotels and motels that are summarized and included in **Appendix E**.

6.0 Evaluation of Environmental Impacts

Potential environmental impacts associated with the construction, operation, and maintenance of the Project are presented in this section. Resource data were collected from existing sources and field studies performed for the Project. Impact analyses were conducted to evaluate the effects of the Project on the natural environment. Methods of mitigating and avoiding impacts will be implemented as part of the Project and are incorporated into the impact analyses and site-specific monitoring plans. Unless otherwise stated, the area of analysis for the evaluated environmental resources consists of the area within the Project boundary as detailed in **Appendix A**.

6.1 Physical, Chemical, Biological, and Radiological Discharges

There are no anticipated chemical, physical, biological, or radiological discharges associated with construction or operation of the Project that would substantially impair the health, safety, or welfare of the present or expected inhabitants in the area of site influence or the Project area.

6.2 Air Quality

6.2.1 Regulatory Jurisdiction

The WDEQ AQD implements adopted air quality standards and regulations. Air emissions associated with construction and operation of the Project will be subject to the WDEQ AQD Standards and Regulations. Specifically, Chapter 6 of the Standards and Regulations establishes permitting requirements for all sources being constructed and/or operating in the State of Wyoming. A Prevention of Significant Deterioration (PSD) air construction permit application will be submitted to WDEQ by August 31, 2012. The facility is also subject to federal PSD for GHGs. A PSD GHG permit application was submitted to U.S. Environmental Protection Agency (EPA) Region 8 on May 10, 2012. The Granger facility's Title V Operating Permit will also be updated to reflect the Project's additions.

6.2.2 Emission Sources

Construction Emissions

Particulate matter (PM), consisting primarily of dust emissions, is the primary pollutant of concern. Most emission points are fugitive in nature. The main source of fugitive dust is the disturbed soil in the construction area for the new facilities within the existing plant site; however, this will be a temporary and limited impact. Asphalt, gravel, or concrete will be used as surface coverage beneath and around the various facilities' components.

Operation Emissions

As part of the PSD permit application, CALPUFF air dispersion modeling was conducted to assess air quality related value (AQRV) impacts of the project on the Jim Bridger and Fitzpatrick Wilderness Areas (Class I), the Grand Teton National Park (Class I), and the Popo Agie Wilderness Area (Class II). Additionally, AERMOD air dispersion modeling was conducted on the area surrounding the FMC Granger facility to determine attainment with the National Ambient Air Quality Standards (NAAQS)/Wyoming Ambient Air Quality Standards (WAAQS) for particulate matter (PM₁₀), fine particulate matter (PM_{2.5}), sulfur dioxide (SO₂), and nitrogen dioxide (NO₂).

The Project will include the installation of the following new emission units:

- UIN-50 Carbon Dioxide (CO₂) Stripping System
- UIN-51 Mine Water (MW) Cooling Tower
- UIN-52 Filter Aid Silo
- UIN-53 Filter Precoat Silo

The maximum controlled emissions for each unit are shown in **Table 6-1**:

TABLE 6-1

Estimated Maximum Controlled Emissions

| Emission Unit | Emissions, tons per year | | | |
|---|--------------------------|------------------|-------------------|-------------------|
| | H ₂ S | PM ₁₀ | PM _{2.5} | CO ₂ e |
| UIN-50 CO ₂ Stripping System | 15.8 | 0.0 | 0.0 | 147,500 |
| UIN-51 MW Cooling Tower | 0.0 | <0.1 | <0.1 | 0 |
| UIN-52 Filter Aid Silo | 0.0 | <0.1 | <0.1 | 0 |
| UIN-53 Filter Precoat Silo | 0.0 | <0.1 | <0.1 | 0 |

For purposes of PSD applicability, increased utilization of the existing process equipment and steam boilers as a result of the Project was also considered. The emissions increases from utilization are the sum of the differences between baseline actual emissions and the potential to emit of each affected existing emissions unit.

The net emissions increase from the project for each pollutant is shown in **Table 6-2**:

TABLE 6-2

Project Net Emissions Increase Summary, tpy

| PM | PM ₁₀ | PM _{2.5} | SO ₂ | NO _x | CO | VOC | H ₂ S | H ₂ SO ₄ | F | Pb | CO ₂ e |
|-----|------------------|-------------------|-----------------|-----------------|-----|-----|------------------|--------------------------------|---|----|-------------------|
| 369 | 359 | 179 | 292 | 1,081 | 256 | 7 | 15.8 | 10 | 6 | 0 | 835,972 |

With respect to the estimated emission increases in **Table 6-2**, due to highly variable market conditions the Granger facility has been operated in one of three conditions over the last 10 years: a) full mothball; b) reduced capacity; c) ramp-up mode post-mothball (i.e., less than full capacity during ramp up). As such, the existing process equipment and boilers are expected to operate at higher production rates post-project compared to recent operating history, but the rates are not expected to exceed those which would have been achieved once the existing process was fully ramped up.

Proposed Emission Control Equipment

The four new emission units are subject to Best Available Control Technology (BACT) analysis. Following is a description of each emission unit and its selected BACT control option.

UIN-50 Carbon Dioxide (CO₂) Stripping System - The Project will include installation of a Carbon Dioxide (CO₂) Stripping System. The sodium bicarbonate in the mine water decomposes to sodium carbonate in the stripping columns and releases CO₂, water vapor, and a small amount of hydrogen

sulfide (H₂S). The vapor stream will be collected from the stripping columns and sent to an H₂S absorber.

The absorber is a two-stage unit with a vertical counter-current spray tower that will use an alkaline liquor to capture the H₂S in the vapor stream. The alkaline liquor will absorb the H₂S and will be pumped to a remotely located tailings impoundment for disposal.

The absorber will be BACT for the control of H₂S. No BACT has been identified for the GHG component; therefore, the CO₂ will be emitted to the atmosphere.

UIN-51 Mine Water (MW) Cooling Tower - A cooling tower will be constructed as part of the Project. It will be a two-cell induced draft unit employing a polyvinyl chloride (PVC) cellular drift eliminator system. The aerosol drift that results in PM emissions after evaporation of the liquid will be 0.001 percent, which represents BACT for a cooling tower of this type.

UIN-52 Filter Aid Silo and UIN-53 Filter Precoat Silo - These two silos will be installed for storage of dry bulk chemical additives used to enhance the operation and efficiency of the mine water filtration system. The capacities of UIN-52 and UIN-53 are 60,000 pounds and 20,000 pounds, respectively. Each silo will be pneumatically filled and will be equipped with cartridge bag dust collectors to control particulate emissions from the filling process. The dust collectors will be BACT for this application.

6.2.3 Construction Impacts

Water trucks will be used as appropriate during construction activities to wet the surface of access roads and other work area sources of fugitive PM. The selected Engineering, Procurement, and Construction (EPC) contractor or subcontractor will be responsible for ensuring that the plant is constructed in accordance with the issued permit conditions. The resulting construction emissions will not significantly impair the environment or the social and economic condition of present or expected inhabitants in the area of site influence.

6.2.4 Operation Impacts

The facility will comply with all permit conditions stipulated in the PSD construction permits to be issued by WDEQ and EPA. Dispersion modeling conducted for the facility demonstrated compliance with all NAAQS. Therefore, the operation emissions will not significantly impair the environment or the social and economic condition of present or expected inhabitants in the area of site influence.

6.3 Cultural Resources

Cultural resources of concern consist of historical or archaeological sites that are listed on or are eligible to be listed on the National Register of Historic Places (NRHP).

6.3.1 Regulatory Jurisdiction

The National Historic Preservation Act (NHPA) is the principal federal law guiding federal actions with respect to the treatment of cultural, archaeological, and historic resources. Section 106 (16 USC 470f) of the NHPA requires federal agencies, prior to taking action to implement an undertaking, to take into account the effects of their undertaking on historic properties and to give the Advisory Council on Historic Preservation (ACHP) and the State Historic Preservation Office (SHPO) a reasonable opportunity to comment regarding the undertaking. Historic properties are “any prehistoric or historic district, site, building, structure, or object included in, or eligible for inclusion in, the NRHP” (16 USC 470w [5]). The criteria used to evaluate the NRHP eligibility of properties affected by federal agency undertakings are contained in 36 CFR 60.4.

The lead federal or state agency that administers the land or minerals or that issues key permits determines the level and scope of cultural resources inventory that will be required for a project.

Federal Lands

Development of any area that is predominantly federal surface lands or federal minerals would require a complete cultural resource inventory in compliance with Section 106 of the NHPA. Consideration of potential effects on cultural resources by actions on federal surface lands or involving federal permits or funding may be required by the National Environmental Policy Act (NEPA) or Section 106 of the NHPA. No federal lands will be occupied or disturbed during construction or operation of the Project.

State Lands

Section 106 consultation on state lands would be invoked by a federal action or state requirement such as authorization by the Land Quality Division. With respect to discoveries located on easements obtained across state-owned lands, the Board of Land Commissioners' Rules and Regulations, Chapter 3, Section 9(b) requires that the Director of the Office of State Lands and Investments be notified and that the SHPO, the State Archeologist, State Geologist, or other authority will be notified if "deemed necessary" by the Director. No state lands will be occupied or disturbed during construction or operation of the Project.

Private Fee Lands

There is no nexus for Section 106 consultation on private fee lands unless a federal action would serve as the trigger. Additionally, there are no state laws applicable to the protection of cultural resources on private fee lands.

6.3.2 Survey Results

Archaeologists completed a Class I files search for the Project area and surrounding lands (Section 36, Township 20N, Range 111W) in which the Project components will be located. The confidential Class III report was submitted to the SHPO for its review (Western Archeological Services, 2012). The file search found 18 previous surveys were conducted, three of which overlap with the Project area. Three sites are located within 0.25 mile of the Project: the Emigrant Trail and two lithic scatters.

6.3.3 Construction and Operation Impacts

The setting of the Emigrant Trail has already been affected by the FMC Granger facility and the overall setting is no longer important to the integrity of the trail; therefore, the Project will not affect that resource. One of the lithic scatters has been determined to be not eligible for the NRHP with SHPO concurrence. The other lithic scatter has not been evaluated, but is not in an area that will be impacted.

No adverse impacts to cultural resources are expected as a result of construction and operation of the Project. The SHPO will ultimately make a determination of any effects to cultural resources. Any mitigation necessary will be in consultation with the SHPO.

6.4 Surface and Groundwater

6.4.1 Regulatory Jurisdiction

The Wyoming Constitution defines that all natural waters within the boundaries of the state are declared to be the property of the State. The Wyoming State Engineer's Office (WSEO) is charged with the regulation and administration of the water resources in Wyoming. Water quality impacts associated with construction and operation of the Project will be subject to the WDEQ-WQD Standards and Regulations. Specifically, implementing Water Quality Rules and Regulations are found in Chapters 1 to 23, as well as promulgated rules adopted in the Wyoming Environmental Quality Act.

If an applicant for an industrial siting permit plans to construct a facility that will use more than 260.7 million gallons (800 acre-feet [ac-ft]) of water per year, the applicant must submit a water supply and water yield analysis to the State Engineer. The State Engineer will then review the analysis and "render a preliminary opinion as to the quantity of water available for the proposed facility" [W.S. 35-12-108(c)].

6.4.2 Construction

The main water use during construction will be applications for dust control. During Project construction, water will be obtained from the existing water rights for the Granger facility or another permitted water source. No new groundwater wells will be installed. Once onsite, water will either be put to immediate use or placed in an onsite temporary water storage tank.

A small quantity of water will be required to support the Project over the 26-month construction period. The actual amount of water applied daily to control dust is variable and is dependent on daily weather temperatures, humidity, wind speeds, and local precipitation amounts. Water will also be used in the concrete for foundations and other footings. Concrete will be supplied by a local permitted contractor.

The ephemeral Sevenmile Gulch is the largest nearest drainage, approximately 1.3 miles to the southwest. The Blacks Fork River is the nearest perennial waterway, located about 4.5 miles to the south. Other smaller unnamed ephemeral drainages surround the Project area, but none would be affected by construction.

There are no known wetlands or other waters of the United States within the areas to be disturbed by the Project; therefore, no impacts are expected.

6.4.3 Operations

Water will be supplied by existing water rights granted by the following permits, all of which are in good standing:

- Permit No. 22808D, Texasgulf Sulphur Water Pipeline, which is adjudicated for 5 cubic feet per second (cfs) from the Green River.
- Permit No. 7032E, Tg Soda Ash, Inc. Enlargement of the Texasgulf Sulphur Water Pipeline, which is adjudicated for 2.5 cfs from the Green River.
- Permit No. U.W.197597, FMC Granger Mine Extraction Well, is permitted for 1,200 gpm and has an automatic cancellation date of December 31, 2038. On average, 300 gpm are used from this source.

Based on estimated water balance calculations, the Project will exceed the 800 ac-ft/year threshold indicated by W.S. 35-12-108. It is estimated annual water use will be approximately 5,000 ac-ft/year. The WSEO must evaluate a Water Supply and Yield Analysis to determine if there could be adverse impacts from the proposed water uses.

The WSEO was provided the Water Supply and Yield Analysis on April 10, 2012. On May 22, 2012, the WSEO submitted written comment to the ISD that it had found FMC to be operating within the limits of its permits, and approved the analysis. Therefore, impacts to surface and groundwater during operations are expected to be less than significant.

6.5 Traffic and Transportation

6.5.1 Transportation Facilities

This section will outline the methodology used to determine the transportation impacts of the Project. The Project is located near Granger, Wyoming, north of I-80 between US 30 and WY 372. **Figure 6-1** shows the major roadway corridors within the study area, with I-80 being the primary route to the site. The speed limit on I-80 is generally 75 miles per hour (mph) in the rural areas, but WYDOT recently installed Variable Speed Limit signs within the study area to allow for reduced speed limits during inclement weather. There are four interchanges affected in the study area: US 30 and I-80, WY 372 (La Barge Road) and I-80, Flaming Gorge Way (WY 374) and I-80 in Green River, and Dewar Drive and I-80 in Rock Springs. **Table 6-3** details the major roads and highways in the study area.

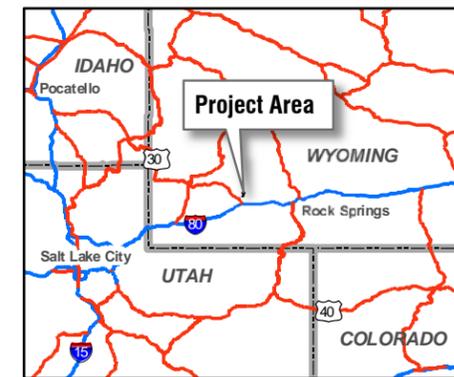
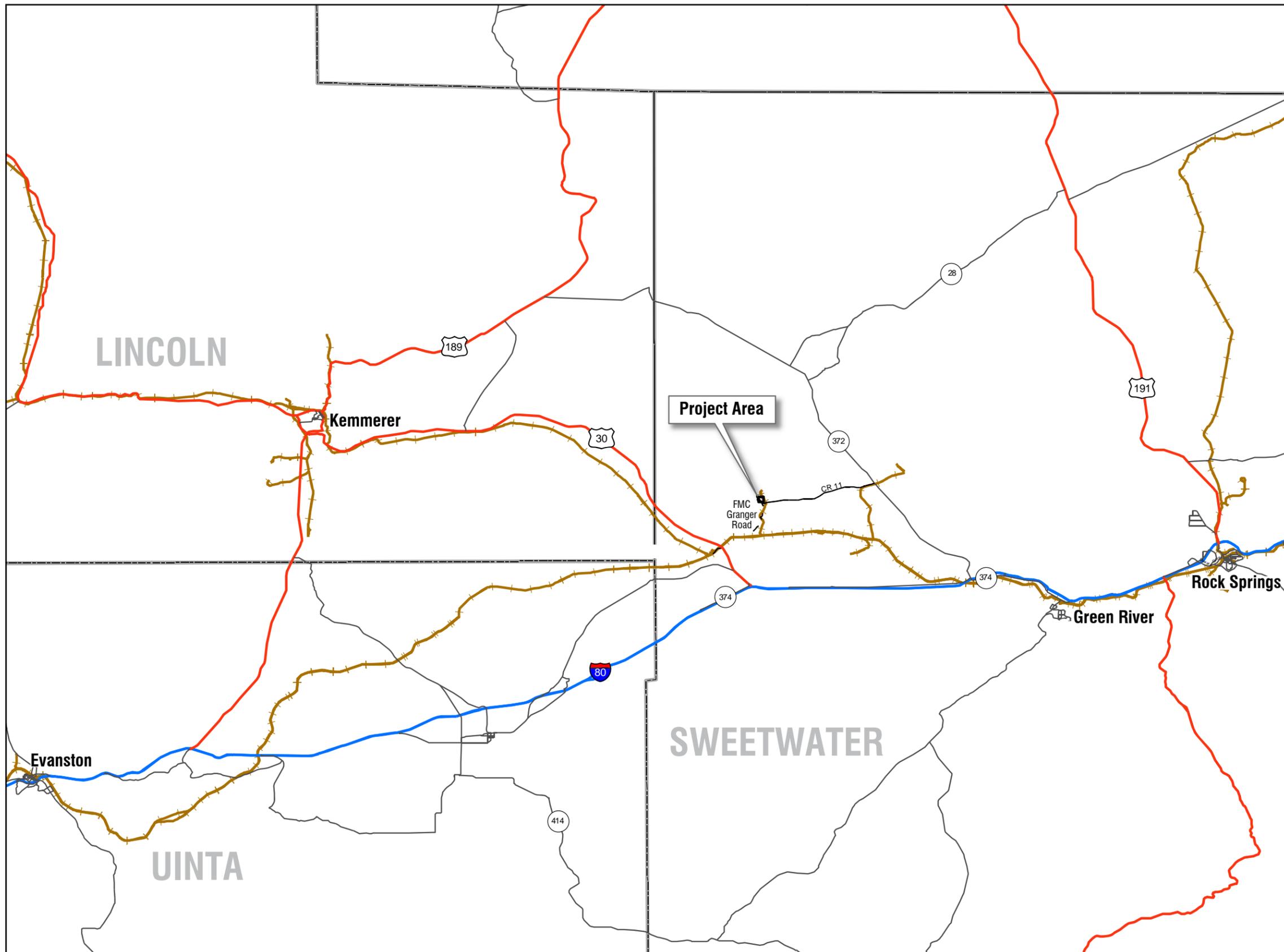
TABLE 6-3

Major Roadway Corridors within the Study Area

| Road | Type | General Direction |
|--------------------------|--------------------|-------------------|
| I-80 | Interstate | East-West |
| US 30 | Principal Arterial | North-South |
| WY 372/La Barge Road | Major Collector | North-South |
| Flaming Gorge Way/WY 374 | Principal Arterial | East-West |
| Dewar Drive | Principal Arterial | East-West |
| US 189 | Principal Arterial | East-West |

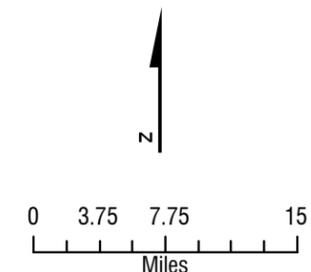
Source: CH2M HILL, 2012

Traffic counts are recorded at several locations by WYDOT. These locations are shown in **Figure 6-2**. The highest traffic volumes are on I-80 near Rock Springs, as can be seen from the traffic counts presented in **Table 6-4**. The highest proportion of trucks (approximately 53 percent) is recorded on I-80 westbound (WB) east of WY 374/Little America. The traffic counts shown in **Table 6-4** were used as the background existing scenario for the year 2010.

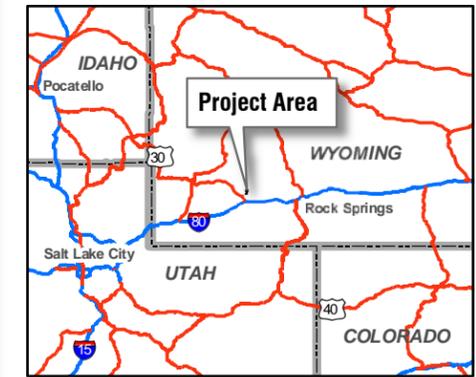
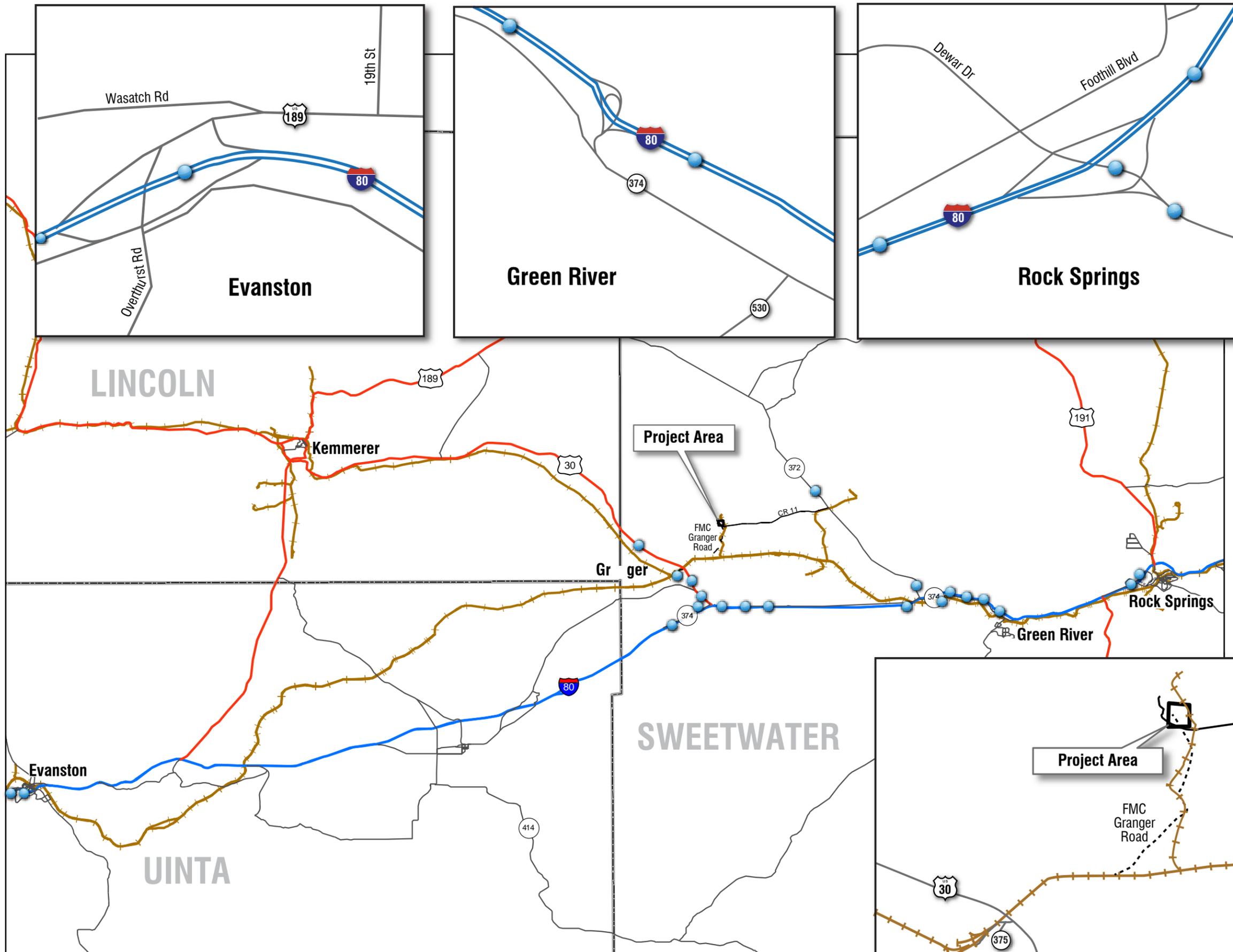


LEGEND

- Interstate
- US Highway
- State Highway
- County Road
- - - Dirt Road
- Railroad
- Project Area
- County Boundary



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LEGEND

- Interstate
- US Highway
- State Highway
- County Road
- - - Dirt Road
- Railroad
- Project Area
- County Boundary
- Count Locations

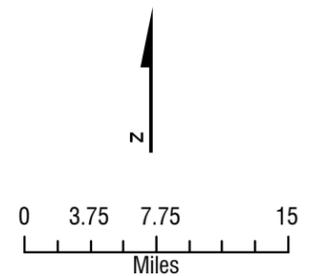


Figure 6-2
Traffic Count Locations

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TABLE 6-4
2010 Traffic Count and Percent Truck Traffic

| Route | Direction | Description | Average Annual Daily Traffic | % Trucks |
|-------|-----------|---|------------------------------|----------|
| 80 | EB | E of Evanston West Urban & Corp Limit | 6,031 | 41 |
| 80 | EB | E of Juct Route 51 (West Evanston Int) | 7,960 | 33 |
| 80 | EB | E of Jct Route 1910 (Cedar Mtn Route Int) | 5,186 | 45 |
| 80 | EB | E of Jct Route 12 (Granger Jct Int) | 6,583 | 47 |
| 80 | EB | E of Jct Route 374 (Little America Int) | 6,220 | 49 |
| 80 | EB | E of West Vaco Int | 6,742 | 45 |
| 80 | EB | E of Ramp 77 | 6,492 | 48 |
| 80 | EB | E of Jct Route 374 (Labarge Int) | 7,528 | 43 |
| 80 | EB | E of Green River West Urban Limits | 6,917 | 46 |
| 80 | EB | E of Jct Route 52 (West Green River Int) | 6,599 | 46 |
| 80 | EB | E of Rock Springs West Corp Limits | 9,865 | 33 |
| 80 | EB | E of Jct Route 53 (Dewar Drive Int) | 8,865 | 36 |
| 80 | WB | E of Evanston West Ubran & Corp Limit | 6,148 | 46 |
| 80 | WB | E of Juct Route 51 (West Evanston Int) | 7,206 | 40 |
| 80 | WB | E of Jct Route 1910 (Cedar Mtn Route Int) | 5,658 | 51 |
| 80 | WB | E of Jct Route 12 (Granger Jct Int) | 6,875 | 44 |
| 80 | WB | E of Jct Route 374 (Little America Int) | 6,399 | 53 |
| 80 | WB | E of West Vaco Int | 6,683 | 51 |
| 80 | WB | E of Ramp 80 | 6,417 | 51 |
| 80 | WB | E of Jct Route 374 (Labarge Int) | 7,457 | 47 |
| 80 | WB | E of Green River West Urban Limits | 7,134 | 47 |
| 80 | WB | E of Jct Route 52 (West Green River Int) | 8,130 | 41 |
| 80 | WB | E of Rock Springs West Corp Limits | 9,990 | 36 |
| 80 | WB | E of Jct Route 53 (Dewar Drive Int) | 8,480 | 43 |
| 372 | NB/SB | N of Jct Route 374 | 1,130 | 26 |
| 372 | NB/SB | N of Acess Road to Soda Ash Plant | 1,078 | 22 |
| 375 | EB/WB | W of Jct Route 12 (US 30) | 214 | 9 |
| 374 | NB/SB | Jct I-80 (Little America Int) | 3,290 | 23 |
| 374 | NB/SB | E of Little America Access Rd to I-80 | 336 | 51 |
| 374 | EB/WB | E of Jct Route 1906 (WY 372) | 2,385 | 27 |
| 374 | EB/WB | E of Jct I-80 (LaBarge Int) | 459 | 22 |
| 374 | EB/WB | E of Green River W Corp & Urban Limits | 2,577 | 5 |
| 30 | NB/SB | S of Granger North Corp Limits | 2,916 | 31 |
| 30 | NB/SB | S of Jct Route 1909 (WY 375) | 2,898 | 31 |
| 30 | NB/SB | S of Jct Route 1910 (WY 374) | 2,699 | 31 |
| Dewar | NB/SB | S of Jct I-80 (West Rock Springs Int) | 27,693 | 2 |
| Dewar | NB/SB | S of Jct Frontage Rd | 27,864 | 2 |

Source: Wyoming Department of Transportation, 2010.

Figure 6-1 also shows the rail infrastructure in the study area. The Union Pacific Railroad (UPRR) operates the “Central Corridor” running east-west across the southern part of Wyoming from Utah to Nebraska. The line from Cheyenne to Granger is one of the nation’s most heavily used freight routes, moving in excess of 100 million gross tons per year (WSA, 2004). Coal is the primary commodity flowing through Wyoming on the rail lines, accounting for 95 percent of the originating freight tons in 2002.

There is also existing rail infrastructure running directly from the site to the UPRR line just east of the town of Granger. This spur route crosses FMC Granger Road at grade at two locations, and it crosses County Road 11 at grade near the site. Another UPRR spur line runs east of the FMC Granger Plant toward another plant and crosses WY 372 at grade near County Road 11. It is assumed that the rail operations will avoid the peak hours so not to cause significant delay at the grade crossings. Therefore, it is assumed that the rail lines will not impact the construction operations traffic scenario.

Roadway Facilities Adjacent to the Project

The Project is located north of Granger, Wyoming, approximately 9 miles north of I-80. I-80 is the only interstate within the study area, consisting of two lanes in each direction with a speed limit of 75 mph. The site is accessed from the west I-80, US 30 and the unpaved FMC Granger Road. The site is accessed from the east via I-80, WY 372, and Sweetwater County Road 11. US 30 is a principal arterial connecting I-80 north to Granger and beyond to Opal and Kemmerer. FMC Granger Road is the existing unpaved local access from US 30 to the site. WY 372 is a major collector that runs north of I-80 intersecting with WY 28 and eventually ending at US 189 in Lincoln County. County Road 11, also known as Texasgulf Road, is a local road running approximately 10 miles west from WY 372 to access the existing FMC Granger plant.

Other facilities that will be used include State Highway 375, WY 374, West Flaming Gorge Way, and Dewar Drive. State Highway 375 is the connection between US 30 and the town of Granger. This route would be used by local Granger residents who are working at the site. WY 374 runs as a frontage road parallel to I-80 throughout the study area, but for this Project there are two short sections that would be affected. One segment of WY 374 is used to route personnel near Little America and I-80. The other segment is West Flaming Gorge Way (a continuation of WY 374), which is the main arterial through the town of Green River and will be the main access from the Green River hotels to I-80. Dewar Drive is the interchange that provides access to many hotels in the Rock Springs Area both north and south of I-80. Dewar Drive is also the westernmost interchange providing access to the residences in Rock Springs.

Potentially Affected Roads and Highways

During project construction, roads and highways may be impacted by vehicles hauling materials to and from the site. Contractors will comply with existing federal, state, and county requirements and restrictions to protect the road network and the traveling public. In addition, load limits will be observed at all times to prevent damage to existing paved road surfaces and structures.

Along US 30, WY 372, and County Road 11 there are several water and grade-separated railroad crossings. The structures along these major facilities which will be used as haul routes to the project are:

- US 30 over I-80 (northbound [NB] and southbound [SB] are separate structures)
- US 30 over Blacks Fork River

- US 30 over UPRR
- WY 372 over I-80

This list excludes the I-80 structures as it is assumed that these structures are sufficient to handle the Project loads. In addition to these major structures, there are culvert crossings that will need to be load verified. If necessary, arrangements to transport oversized loads will be coordinated with and approved by WYDOT.

Personnel Access Routes

Construction for the Project is expected from the second quarter of 2013 through the third quarter of 2015. The peak construction workforce (estimated at 338 workers) is anticipated during the second quarter of 2014. The workforce is expected to travel from Kemmerer, Granger, WY 374 near Little America, Green River, Rock Springs, and Evanston. The workforce is expected to use the following access routes:

- Kemmerer south on US 30 to FMC Granger Road
- Granger east on State Highway 375 to US 30 North to FMC Granger Road
- WY 374 (near Little America) to I-80 West to US 30 North to FMC Granger Road
- Green River to West Flaming Gorge Way (WY 374) to I-80 West to WY 372 North to County Road 11 West
- Rock Springs to Dewar Drive to I-80 West to WY 372 North to County Road 11 West
- Evanston to US 189 to I-80 East to US 30 North to FMC Granger Road

Once construction is complete, facility operations will require an estimated 26 additional personnel. Like the construction period, the site will be accessed from either US 30 and FMC Granger Road or WY 372 and County Road 11. It is assumed that all operations personnel will live in one of the surrounding towns and drive their own vehicles to the site.

Truck Access Routes

Construction deliveries by rail are not anticipated; therefore, all of the construction materials will be trucked to the site. Deliveries will arrive at the site via I-80 from cities outside of Granger. The truck routes will be the same as the personnel routes (US 30 to FMC Granger Road and WY 372 to County Road 11) with the primary route being the fully paved route on WY 372. The truck deliveries will be scheduled during the day outside of the peak traffic hours. Frequent heavy truck traffic is not expected during the operations period.

6.5.2 Traffic Analysis – Existing Conditions

In order to assess the potential traffic impacts associated with the Project, existing and future traffic conditions were analyzed both with and without the Project for three time periods: existing, construction, and operations. The Institute of Transportation Engineers' *Trip Generation Manual*, the Federal Highway Administration's *Highway Capacity Manual*, and the WYDOT planning department were used as resources for this analysis.

The operating conditions, or LOS, provided by the highways and the intersections were assessed using *Highway Capacity Manual* freeway, ramps, signalized, and un-signalized intersection methodologies. LOS is a term used to qualitatively describe operating conditions in a traffic stream and motorists' perceptions of those conditions. Six LOS classifications are given a letter designation

from A to F, with A representing the best operating conditions and F the worst. LOS D is typically considered acceptable for peak hour operations.

For freeways, LOS is defined in terms of speed and flow rate. For signalized intersections, LOS is defined in terms of average delay per vehicle. The method incorporates delay associated with deceleration, acceleration, stopping, and moving up in the queue. For side street stop-controlled intersections, LOS is defined in terms of delay in seconds for each movement from the minor approaches and the left turns from the major street.

The 2010 daily volumes were used to calculate the peak hour volumes based on the respective data from the May 2011 WYDOT Automated Traffic Recorder data (**Figure 6-3**). The peak hour percentage used on I-80 was 7 percent, on US 30 it was 8 percent, and on WY 372 it was 12 percent. The data indicated that the peak hour occurs in the afternoon on I-80 and in the morning on WY 372. The data for US 30 showed similar morning and evening peak hours. For the purpose of this analysis, it is assumed that the highest peak hour percentage would be used to calculate the background peak hour volume. These peak hour roadway volumes were then used to determine the peak hour intersection and ramp volumes used in the traffic operations analysis. The 2010 peak hour volumes indicate that all intersections are operating at LOS A except the following, which operate at LOS B:

- US 30 and FMC Granger Road (WB movement)
- I-80 EB Ramps/ WY 372 (EB movement)
- I-80 WB Ramps/ WY 374 (WB movement)
- I-80 EB Ramps/ WY 374 (EB movement)
- I-80 EB Ramps/ US 189 (EB movement)

All of the freeway segments and ramps within the study area operate at a LOS A during the 2010 peak hour, with the exception of the Dewar Drive EB Diverge and the Dewar Drive WB Merge, which operate at LOS B, which is still acceptable per WYDOT.

The 2010 Existing Peak Hour Traffic Volumes are shown in **Figure 6-3**.

6.5.3 Traffic Analysis - Construction

Approximately 4,790 trucks are expected to make deliveries to the site over the 26-month construction period. **Table 6-5** lists the expected delivery schedule and number of trucks per type of delivery. All deliveries will come from either the I-80 / US 30 interchange or the I-80 / WY 372 interchange during off-peak hours. WYDOT will require all oversized loads to avoid peak traffic hours, holidays, and nighttime hours. Suppliers and/or haul contractors will be required to check each proposed load to verify clearances prior to beginning a haul to ensure that no detours are necessary.

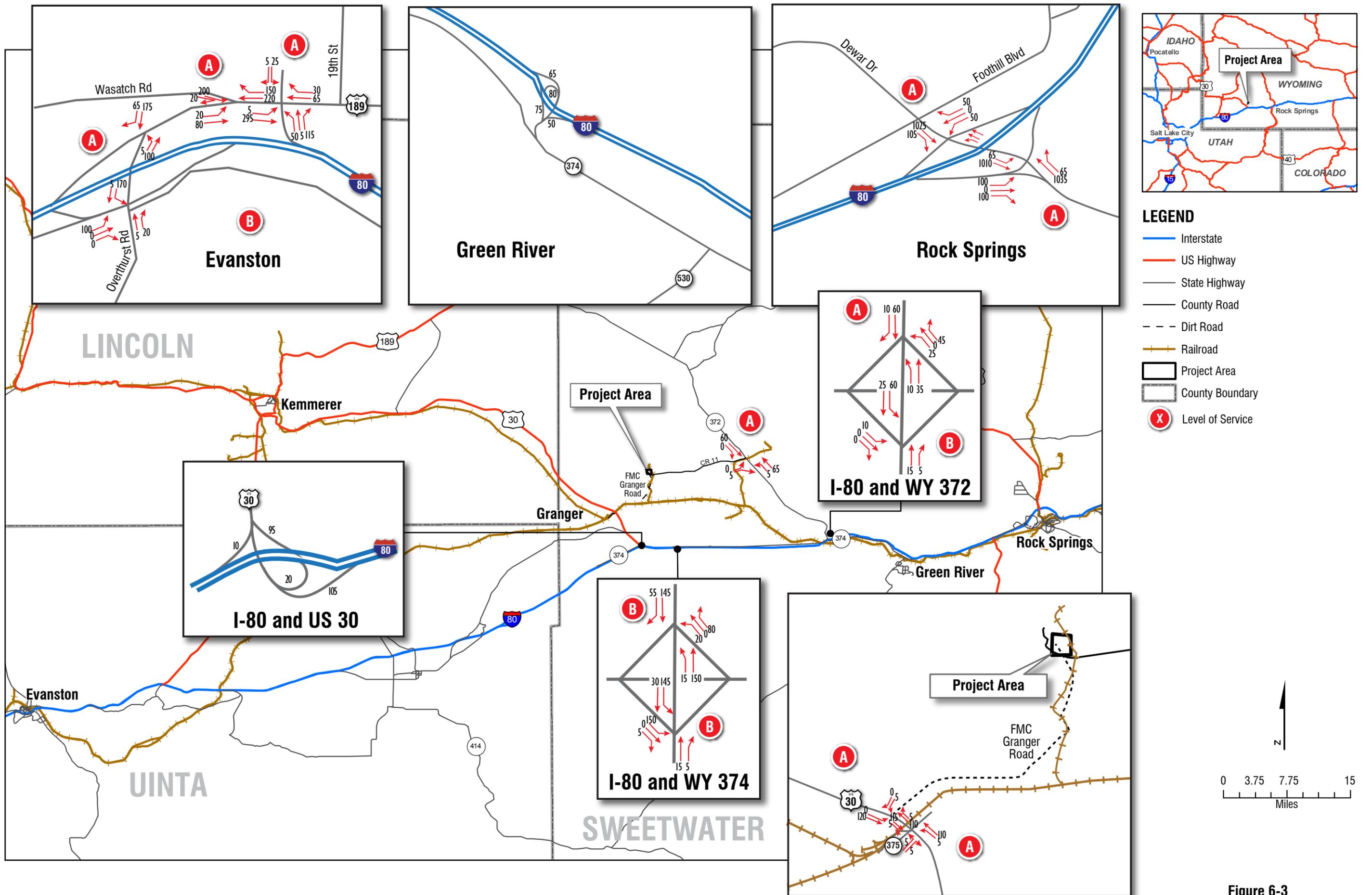


Figure 6-3
2010 Existing

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TABLE 6-5

Construction Truck Traffic¹

| Category | Q2 2013 | Q3 2013 | Q4 2013 | Q1 2014 | Q2 2014 | Q3 2014 | Q4 2014 | Q1 2015 | Q2 2015 | Q3 2015 |
|--|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|
| Mechanical Equipment | | | 30 | 50 | 50 | 20 | | | | |
| EI&C Equipment | | | 10 | 20 | 20 | | | | | |
| HPD (Evap/Strippers + Crystallizers) | | | 20 | 30 | | | | | | |
| Process Piping, Valves & Fittings | | | | | | 20 | 50 | 10 | 20 | |
| Structural Steel, Siding, Piperacks | | | | 50 | 100 | 50 | | | | |
| Pre-engineered buildings | | | | | | | | 6 | | |
| Field Erected Tanks + Clarifiers | | | | | 35 | 35 | | | | |
| Pipeline | | | | | 40 | 54 | | | | |
| Pre-construction | 20 | 10 | | 5 | 25 | 20 | | | | |
| Civil | 750 | 1,700 | | | | | | | | |
| Concrete | 240 | 720 | 240 | | | | | | | |
| Construction | | | 20 | | 40 | 40 | 30 | 30 | | |
| Post-construction | | | | | | | | 30 | 50 | |
| Miscellaneous | | | 10 | 20 | 20 | 20 | 20 | 10 | | |
| Total | 1,010 | 2,430 | 330 | 175 | 330 | 259 | 100 | 86 | 70 | |

¹ Trucks traveling on highway system, not including internal site trips

The potentially affected highways, ramps, and intersections were analyzed with and without the Project to determine impacts to the facilities due to Project construction. The construction will take place from 2013 to 2015, so the worst-case analysis year is 2015.

Background Analysis

The traffic count data were projected to 2015 by increasing the volumes from the 2010 base year volumes using calculated growth rates on each road. The growth rates were based on the change between the 2009 count data and the 2010 count data for each segment. If a segment did not indicate any growth, a conservative 2 percent growth was assumed. It is also assumed the existing truck percentages will remain the same in future years.

The 2015 background traffic level is shown on **Figure 6-4**. All of the facilities operate at an acceptable LOS during the peak hours, and only three intersections have degraded LOS from the 2010 existing scenario. All intersections still operate at acceptable LOS. The following intersections changed:

- I-80 EB ramp and WY 374 changes from LOS B in 2010 to LOS C in the 2015 background analysis
- I-80 WB ramp and WY 372 changes from LOS A in 2010 to LOS B in the 2015 background analysis.
- I-80 EB ramp and US 189 changes from LOS B in 2010 to LOS C in the 2015 background analysis

The I-80 Freeway LOS is calculated for each direction between each interchange as the volumes vary between segments. Each freeway segment operates at LOS A. The ramps all operate at LOS A, except the Dewar Drive EB Diverge and the Dewar Drive WB Merge which operate at LOS B as they did in the 2010 scenario. With very little volume growth from 2010 to 2015, there is little change in the operating conditions.

Total Analysis

Adding the Project-generated traffic to the background traffic yields the volumes for the analysis of the Project's construction period. The trip generation and distribution process used the following assumptions to calculate the additional highway and turn movement volumes due to the construction of the Project:

- Estimated 338 peak construction workers.
- Construction will occur in one daily shift with personnel arriving in the morning peak hour and departing in the evening peak hour.
- Three-quarters of the workers will reside in hotels in Green River (30 percent), Rock Springs (25 percent), Evanston (15 percent), or at the WY 374 Interchange (5 percent).
- A fourth of the workforce will be local residents from Kemmerer (8 percent), Granger (2 percent), Green River (5 percent), or Rock Springs (10 percent).
- Approximately 30 percent of the people will carpool with others to the site (1.4 passengers per vehicle).

The proposed trips were distributed as shown in **Figure 6-5**.

Adding the site-generated traffic to the background traffic yields the volumes for the analysis of the Project's construction period. Morning traffic is shown on **Figure 6-6** and afternoon traffic is presented on **Figure 6-7**. The direction of travel is to the site in the morning and from the site in the evening peak hour, resulting in the following increases in traffic. During the construction period, there will be 170 additional vehicles accessing the site from the east via County Road 11 and 75 additional vehicles accessing the site from the west via FMC Granger Road. Moreover, there will be an additional 85 vehicles coming from Rock Springs (40 from the south and 45 from the north) and an additional 85 vehicles coming from Green River, for a total of 170 additional vehicles traveling on I-80 to WY 372 to County Road 11. There will be an additional 35 vehicles traveling on I-80 from Evanston, and there will be an additional 15 vehicles traveling from WY 374 near Little America on I-80 to US 30 totaling an additional 50 vehicles north of I-80 on US 30. There will be an additional 5 vehicles traveling from Granger to US 30, and there will be an additional 20 vehicles traveling from Kemmerer on US 30. This totals an additional 75 vehicles on FMC Granger Road during the

construction period. The additional volume generated by the project construction degrades level of service by one letter designation at three locations relative to the 2015 background condition.

- The intersection of US 30 and State Highway 375 operates at LOS B in the morning and evening peak hours with the construction traffic, which is a decrease from LOS A in the background condition.
- The intersection of the I-80 EB ramp and WY 372 changes from LOS B in the in the background scenario to LOS C in the construction period afternoon peak hour scenario only.
- The intersection of the County Road 11 and WY 372 changes from LOS A in the in the background scenario to LOS B in the construction period afternoon peak hour scenario only.

The ramp operations do not change with the addition of the construction traffic, and the freeway segments all operate at LOS A. Therefore, all of the intersections, ramps, and freeway segments operate at an acceptable LOS during the construction period.

In addition to the highway system, construction workers staying in the area may use county roads for recreational purposes. The additional vehicle trips on these roads are not likely to degrade the operational performance of the roadways.

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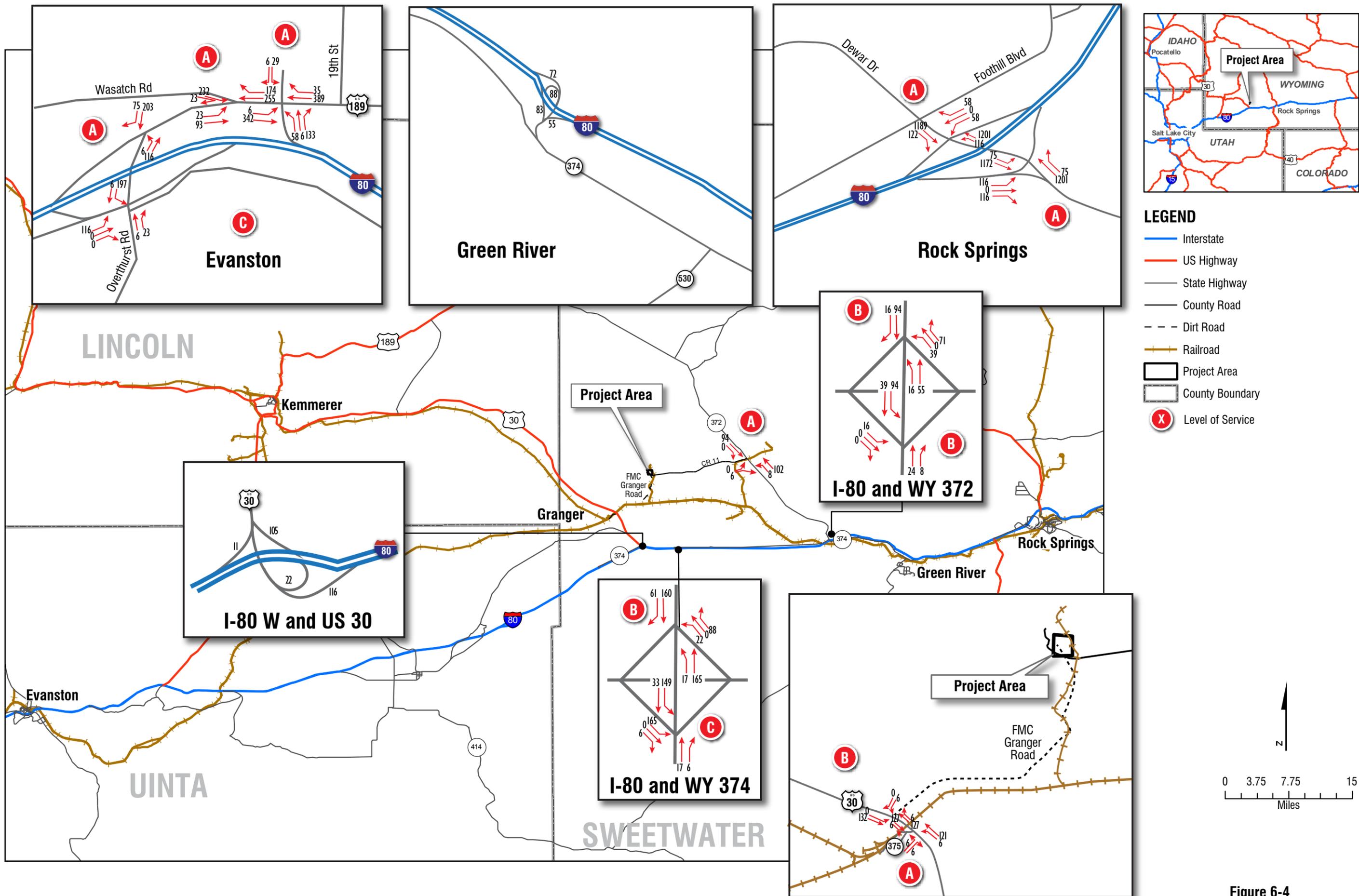
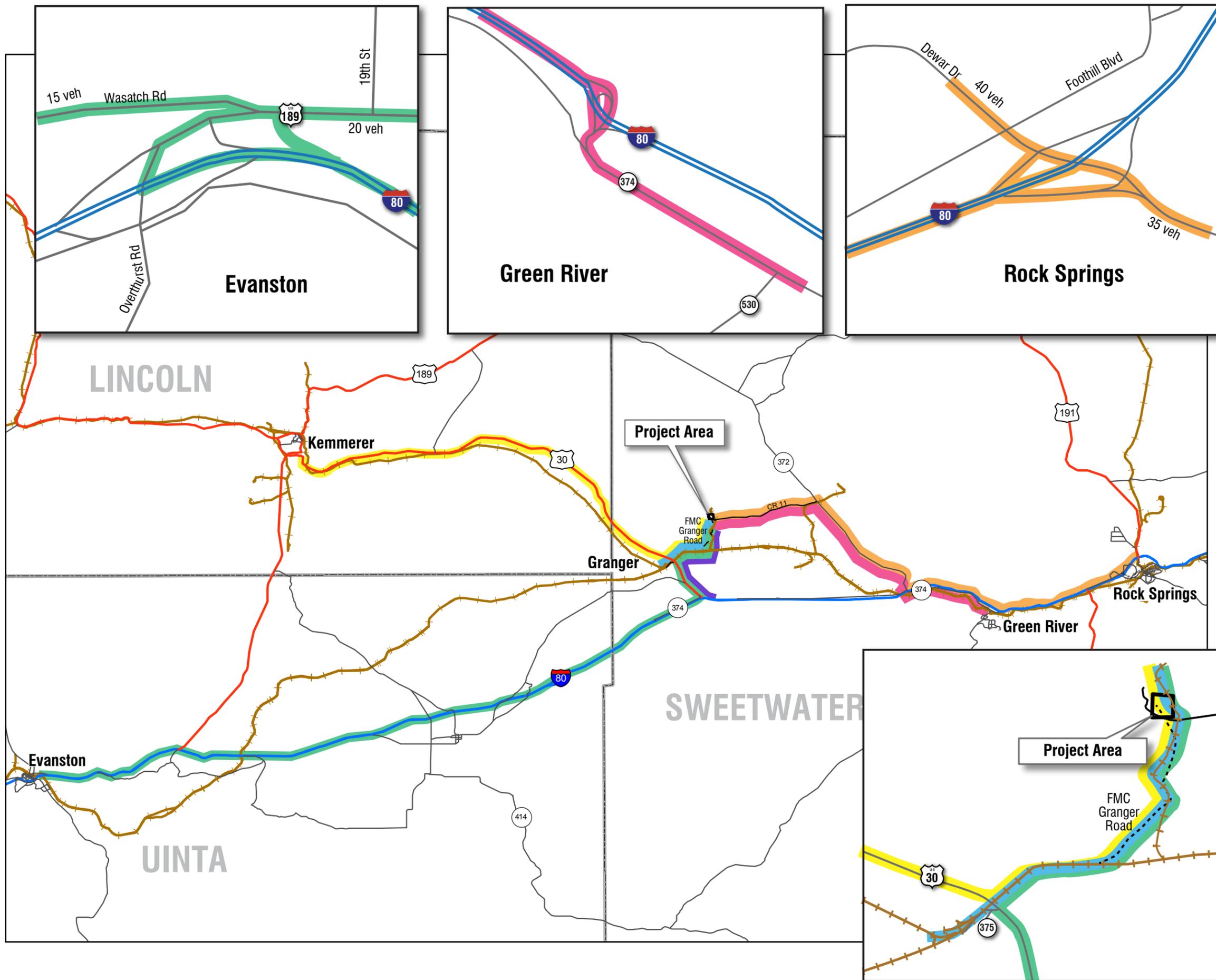


Figure 6-4
2015 Background

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LEGEND

- Interstate
- US Highway
- State Highway
- County Road
- - - Dirt Road
- Railroad
- Project Area
- County Boundary

Trip Distribution Construction

- 35 veh
- 85 veh
- 85 veh
- 20 veh
- 15 veh
- 5 veh

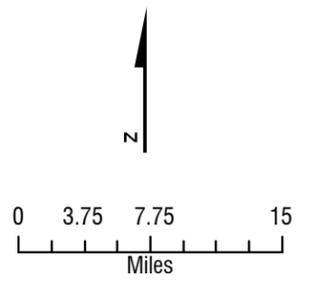


Figure 6-5
Trip Distribution
Construction

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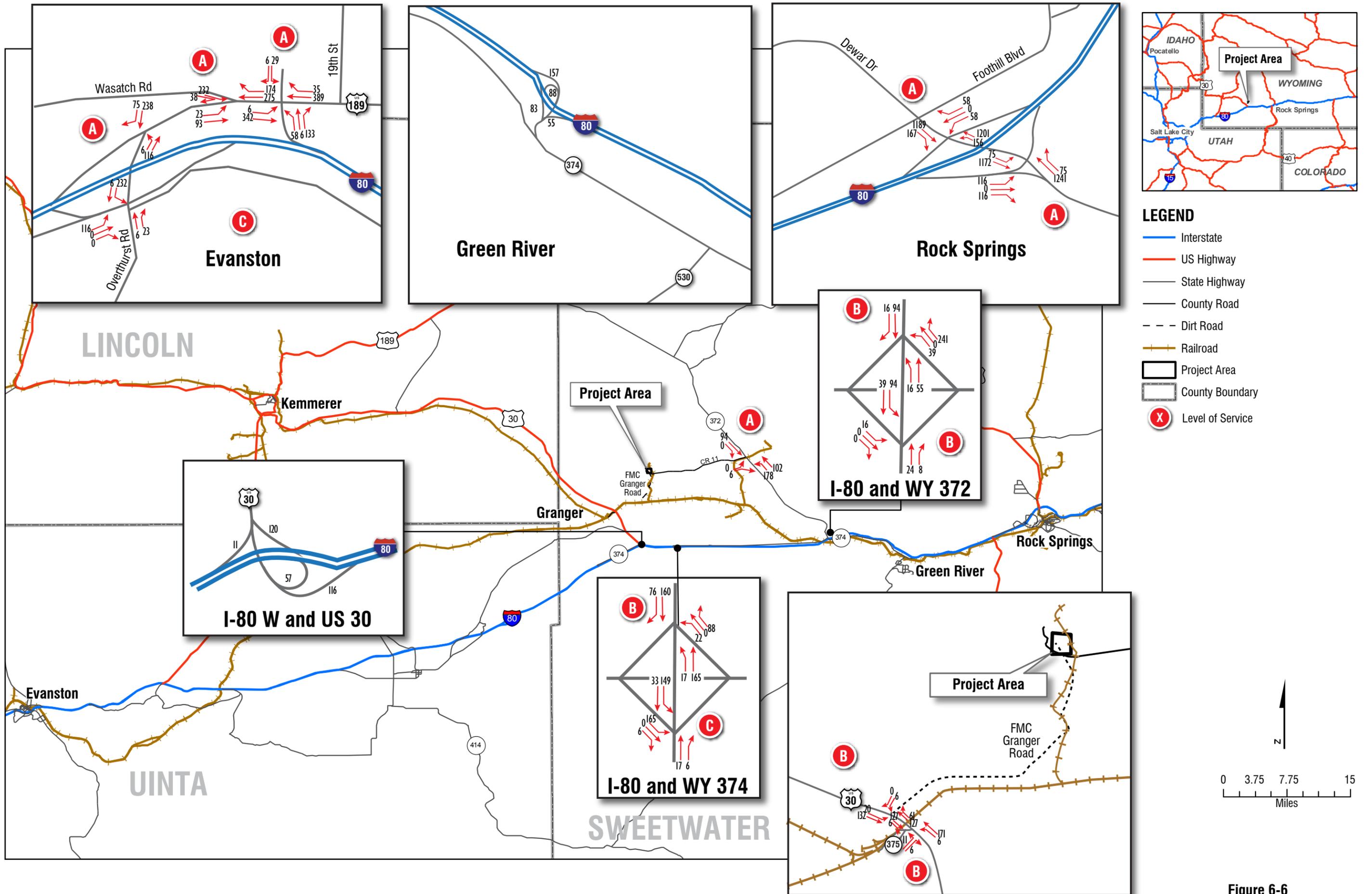


Figure 6-6
2015 AM Construction

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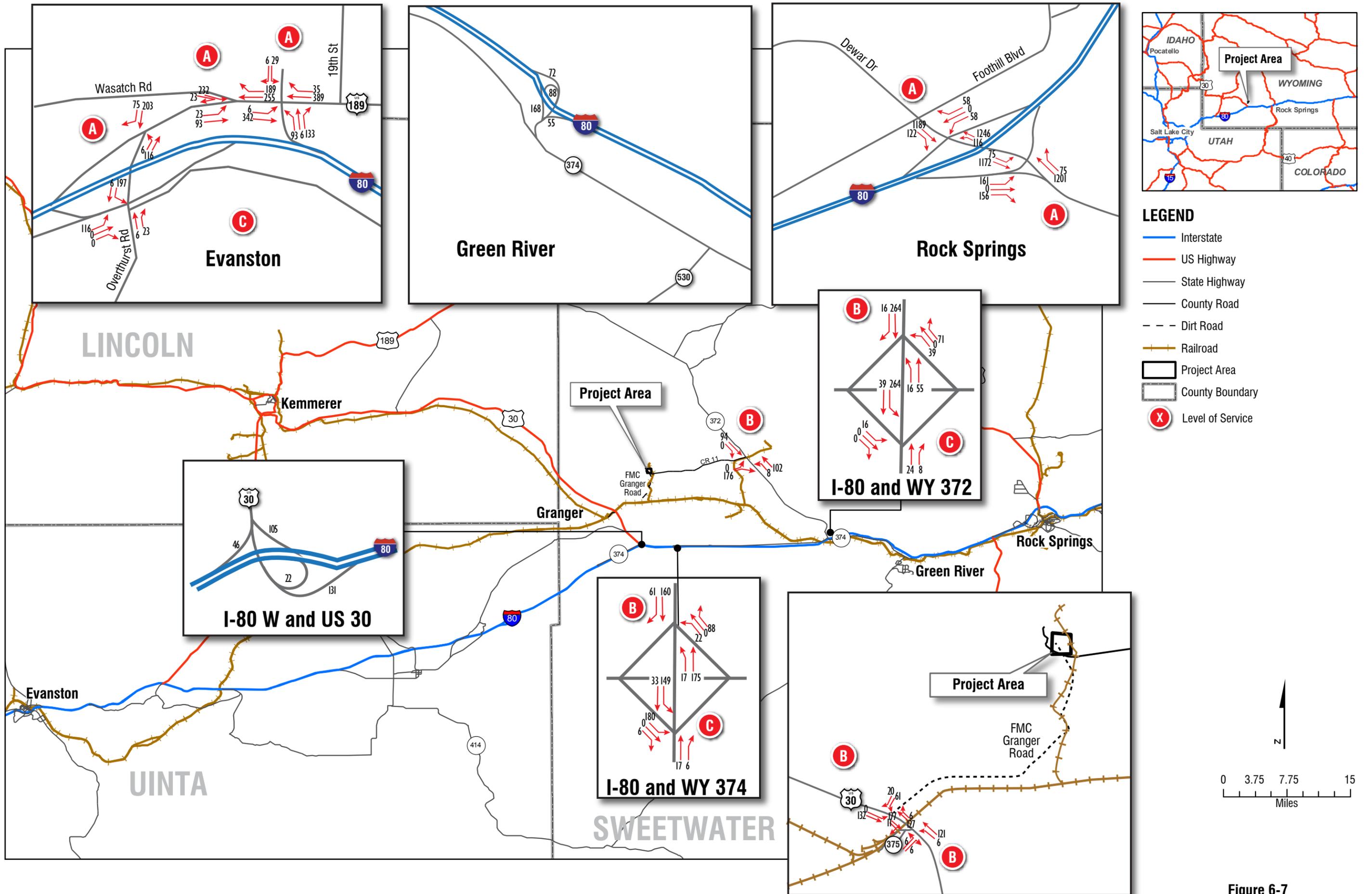


Figure 6-7
2015 PM Construction

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6.5.4 Traffic Analysis - Operations

The potentially affected freeways, ramps, and intersections were analyzed with and without the Project to determine impacts to the facilities due to the operations at the site once construction is complete. The operations will begin in the fourth quarter of 2015, so the operations analysis year is the same as the construction analysis year.

Background Analysis

The background volumes for the operations analysis scenario are the same as those for the background construction analysis scenario. All of the freeways, ramps, and intersections operate at acceptable LOS.

Total Analysis

Adding the site-generated traffic to the background traffic yields the volumes for the analysis of the Project's operations period. The trip generation and distribution process used the following assumptions to calculate the additional highway and turn movement volumes due to the operation of the project:

- The Project will require an estimated 26 people daily during one shift for operations. This is in addition to current personnel at the site.
- Eight people will travel from Rock Springs, seven from Green River, seven from Evanston, three from Granger, and one from Kemmerer.
- All personnel will travel in their own vehicles to the project site.
- Personnel will not leave the site during the shift.
- There will infrequent be heavy truck deliveries during the operations period.

These additional employees represent total workers needed, not necessarily the total that would be working at one time. As work is done in shifts and employees have time off, the actual number of added workers at any given time would be fewer than 26. FMC provides bus service to the facility from Green River and Rock Springs, so additional employees could use that service instead of driving themselves. Nonetheless, the analysis was completed assuming all 26 additional cars traveling to the site in the morning peak hour and 26 cars traveling from the site in the evening peak hour.

The intersection LOS was analyzed for both the morning and evening peak hours if they were the same or the worst case scenario if they were different. The results indicate no changes in the operations scenario LOS from the background scenario LOS. The freeway and ramp LOS also do not change from the background scenario. Morning traffic is shown on **Figure 6-8** and afternoon traffic is presented on **Figure 6-9**.

The existing facilities operate at acceptable levels of service during the peak hours at freeways, ramps, and intersections. The additional volume generated by the project operations does not decrease the level of service nor degrade the operational performance of the adjacent roadway facilities.

6.5.5 Conclusion

The existing roadway network has adequate capacity to accommodate the expected increase in traffic during the construction and operation phases of the Project. All freeways, ramps, and intersections analyzed operate with acceptable levels of service both with and without the Project-generated traffic. The contractor will determine the structural sufficiency of major structures and

culvert crossings while planning haul routes. As necessary, arrangements to transport oversized loads will be coordinated with and approved by WYDOT.

WYDOT reviewed the traffic study prepared for the Project. On June 5, 2012, WYDOT issued a letter confirming the findings that the Project would have relatively minimal impact to the highways governed by WYDOT. WYDOT also stated it has no concern with the proposed plan of operation for the Project. The letter is included in **Appendix F**.

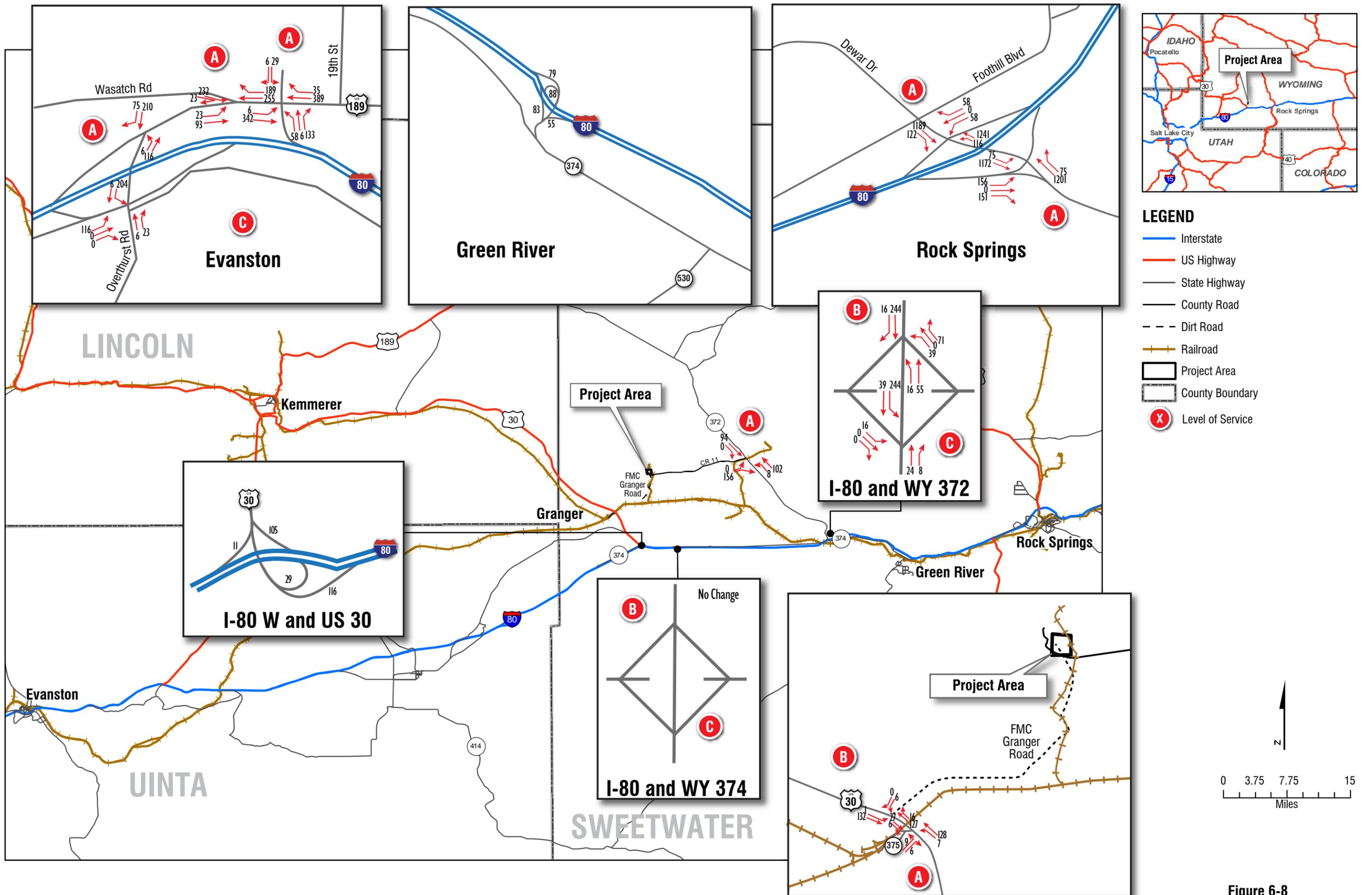


Figure 6-8
2015 AM Operations

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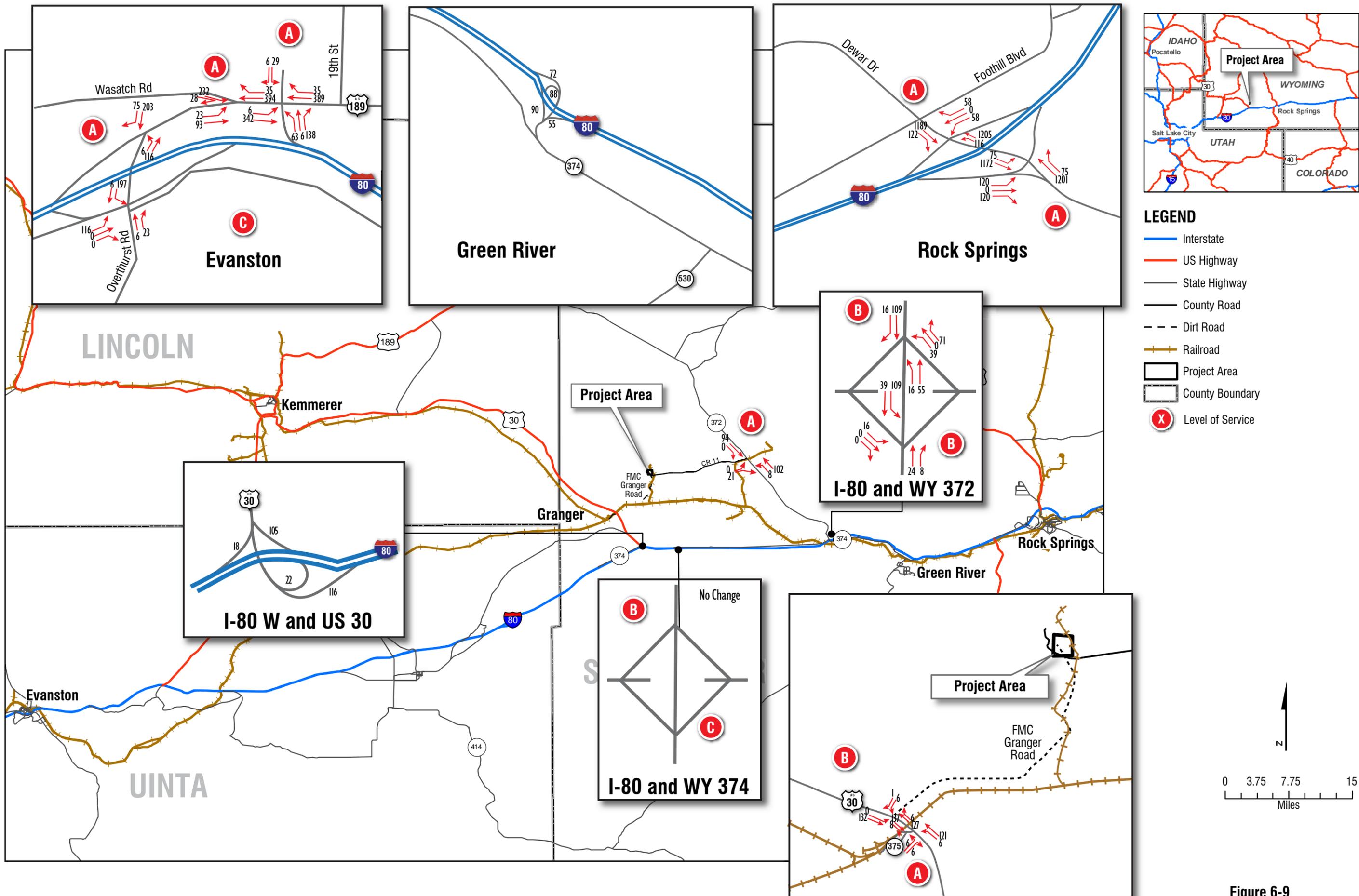


Figure 6-9
2015 PM Operations

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6.6 Land Use

This section presents information regarding existing and future land uses, zoning, and adopted land use plans and regulations for the study area. It analyzes the consistency of the Project with current and future land uses, policies, and plans.

The Project site is located in Sweetwater County, Wyoming, on lands entirely owned by FMC. The parcel is currently the location of the Granger soda ash processing facility, a plant that has been in operation since October 1976. The surrounding landscape is a checkerboard of privately owned and BLM-managed lands within the Kemmerer and Rock Springs Field Offices. Surrounding land uses of both private and BLM-managed lands include grazing, oil and gas extraction, and facilities supporting trona mining.

6.6.1 Consistency with Land Use Plans

Local land use plans establish the vision for how a jurisdiction can develop and establish the goals, objectives, and action items for achieving that vision. The plans also establish a framework to guide and evaluate future development. A land use plan is a key tool that communities use to protect valued resources, guide development in a predictable manner, and encourage a preferred patterning and design of the built environment. These land use plans, in combination with the zoning code, provide a community the ability to evaluate the compatibility of new development and ensure that the objectives of that community are achieved.

The Project lies within Mineral Development District 1 (MD-1), as determined by Sweetwater County; and, therefore, is subject to requirements set forth in the Zoning Resolution of Sweetwater County (Sweetwater County, 2012).

6.6.2 Construction and Operation Impacts

Surface and underground mining are permitted uses within the MD-1 district; therefore, changes in zoning designation or conditional use permits are not needed for the Project. The surrounding land uses can continue unaffected by the Project. Agricultural lands or activities will not be affected by the Project. Construction and operation of the Project would not conflict with any adopted land use, land use plan, policy, or regulation.

6.7 Noise

There are no noise restrictions or limits associated with the MD-1 district; however, Sweetwater County does have Resolution 08-12-CC-04 that establishes nuisance regulations, including those for noise (Sweetwater County, 2008). This Resolution sets a nuisance noise limit of 70 A-weighted decibels (dBA) beyond the property line of commercial or industrial zoning districts. Per Section 3(d) of the Resolution, noise resulting from the operation of a permitted industrial facility is not considered a public nuisance; therefore, the Project will be in compliance with local noise regulations. Nonetheless, the Project is located in a remote area with no nearby sensitive receptors, and no noise complaints have been raised. Construction and operation of the Project is not expected to generate any significant noise-related impacts.

6.8 Recreational Resources

The Project area itself does not provide formal recreational opportunities. There are no developed trails or water bodies accessible by the public. There are no national parks or state parks within 10 miles of the Project site.

6.8.1 Construction Impacts

It is anticipated that the Project would result in a temporary population increase in the area of site influence during construction. A limited number of workers are expected to visit the regional recreational resources. It is anticipated that a very small incremental increase in park visitations would occur during construction. This usage would be limited to periods when employees are not working and would not result in a significant increase in annual visitation. Therefore, the Project is not expected to result in impacts from increased visitation to area parks that would substantially impair the health, safety, and welfare of present or expected local inhabitants.

6.8.2 Operation Impacts

Operation of the proposed Project would not directly impact any parks or recreation facilities. It would not require the conversion of park or recreation facilities to industrial facilities. The closest park lies more than 10 miles from the Project boundary and operation of the Project would not adversely affect recreational opportunities nor diminish the quality of the recreational experience for users. The small incremental increase in the operational workforce would not have a noticeable effect on local or regional recreation. As construction and operations would occur within an existing industrial complex with no public recreational facilities, no impacts to recreational resources are expected.

Wyoming State Parks, Historic Sites, and Trails (SPHST) reviewed information about the Project. On June 4, 2012, SPHST issued a letter stating that it found no existence or importance of public recreational opportunities located within the project area. The letter is included in **Appendix F**.

6.9 Scenic Resources

Visual or scenic resources are the natural and built features of the landscape that contribute to the public's experience and appreciation of the environment. Visual resource or scenic impacts are generally defined in terms of a Project's physical characteristics and potential visibility and the extent to which the Project's presence would change the perceived visual character and quality of the environment in which it would be located.

ISD regulations state that scenic resources must be taken into account in the application process. However, visual resource standards have not been specified at the state or county level, and there are no visual restrictions or limits associated with the MD-1 district. Sweetwater County does have Resolution 08-12-CC-04 that establishes nuisance regulations, including those for visual impacts (Sweetwater County, 2008). The Project will be modifying an existing industrial complex, and changes in appearance or visibility will be minor to those viewing the facility, if they would be noticeable at all. Regardless, the Project is located in a remote area with no nearby sensitive receptors, and no complaints regarding the visual nature of the facility have been raised. Construction and operation of the Project is not expected to generate any significant impacts on the scenic quality of the surrounding area.

6.10 Terrestrial and Aquatic Wildlife

This section identifies wildlife species known to or that potentially will occur within the Area of Site Influence and addresses the potential wildlife impacts within the limited Project area. It is difficult to summarize the wildlife in the Area of Site Influence due to the unique configuration of the area and as such the wildlife occurring in the larger region has been described. This review also specifically reviews what wildlife is expected to be encountered in the actual Project area. It is important to note that the Project area is confined to less than ½ square mile inside an existing industrial plant

facility. The Area of Site Influence is illustrated in Figure 5-1, and the Project area is illustrated in Figures A-2 and A-3 in Appendix A.

6.10.1 Regulatory Jurisdiction

The State of Wyoming has jurisdiction over all aquatic and terrestrial wildlife in the state (exclusive of federally listed species), placing species under management of the WGFD or the Department of Agriculture. The WGFD is responsible for oversight of big game species, nongame species, aquatic, and small game species that are non-migratory. The evaluation, plans, and proposals presented in this application must address terrestrial and aquatic wildlife, as well as threatened, endangered, and other species of concern identified in the Wyoming State Wildlife Action Plan (SWAP) (WGFD, 2010). Additionally, W.S. 35-12-110 (b) requires the WGFD to provide information and recommendations to the ISC regarding the impacts of projects under the jurisdiction of the ISD.

The Project is also regulated under the Wyoming Department of Environmental Quality, Land Quality Division (LQD) non-coal program because the Project is included in LQD Mining Permit #454. W.S. 35-11-101 through W.S. 35-11-1106 include the requirements of the LQD. Specifically, LQD Rules and Regulations Chapter 1, Section 1 (f), and Section 2(a)(i)(E) require consultation with the WGFD for wildlife evaluations and protection as required.

The USFWS has oversight of migratory bird species, whether they are hunted (i.e., waterfowl) or not (i.e., passerine species), and of all federal threatened, endangered, or candidate terrestrial plant and animal species. Many of the species groups under USFWS regulations also receive management and protection under state statutes and regulations. WGFD participates in these activities through interagency operating agreements.

The Project area is identified in the Wyoming SWAP as occurring within an area interspersed with two habitat types: sagebrush shrublands and desert shrublands. The two habitats together provides habitat for 22 species of wildlife identified as Species of Greatest Conservation Need (SGCN) that could occur within the area (WGFD, 2010).

SGCN identified in the Wyoming SWAP that may occur in or near the Project are presented in **Table 6-6**. Potential for occurrence of each SGCN was determined using range maps and habitat associations for each species as identified in the SWAP. Particular species groups (Big Game, Avian, and Aquatic Species) are addressed in detail, whereas species with a federal status are discussed separately.

TABLE 6-6
Species of Greatest Conservation Need Identified in the Wyoming 2010 State Wildlife Action Plan Potentially Occurring in or near the Project Area

| Species | Scientific Name | Native Species Status (NSS) | Habitat |
|---------------------------|-------------------------------|-----------------------------|---|
| Mammals | | | |
| Great Basin pocket mouse | <i>Perognathus parvus</i> | NSS3 | Inhabits arid and semiarid habitats. Strongly associated with sandy habitats where sagebrush is dominant, and primarily occupies steppe and arid open shrub and woodland habitats. Also may be abundant locally in rocky areas. |
| Idaho pocket gopher | <i>Thomomys idahoensis</i> | NSS3 | Found in shallow, stony soils in open sagebrush, sagebrush-grassland, and mountain meadow habitats. Occurs in open sagebrush, grassland plains, and subalpine mountain meadows. Prefers soils that are shallower and stonier than those preferred by the partially sympatric <i>Thomomys talpoides</i> . |
| Olive-backed pocket mouse | <i>Perognathus fasciatus</i> | NSS4 | A variety of arid and semiarid upland habitats. Primarily occurs in sparsely vegetated grasslands and sagebrush-grasslands and prefers loose sandy to clay soils. |
| Pallid bat | <i>Antrozous pallidus</i> | NSS3 | Generally inhabits low desert shrublands, juniper woodlands, and grasslands, and occasionally cottonwood-riparian zones in those habitats. Most common in low, arid regions with rocky outcroppings, particularly near water. During summer, it usually roosts in rock crevices and buildings, but also uses rock piles, tree cavities, shallow caves, and abandoned mines. |
| Pygmy rabbit | <i>Brachylagus idahoensis</i> | NSS3 | Inhabits dense, tall stands of big sagebrush, usually along intermittent streams or riparian areas in sagebrush-grasslands. Uniquely dependent on sagebrush, which comprises up to 99% of its winter diet. Excavates its own burrows, so soft, deep soil is a key habitat feature. Considered a keystone species in the big sagebrush habitat type because it does not flourish in habitats dominated by other vegetation, its burrows are used by invertebrates and other vertebrates, and it offers terrestrial and avian predators a dependable food supply. |
| Spotted bat | <i>Euderma maculatum</i> | NSS3 | Occupies a wide variety of habitats, from desert scrub to coniferous forest, although most often observed in low deserts and basins and juniper woodlands. Roosts in cracks and crevices in high cliffs and canyons. May occasionally roost in buildings, caves, or abandoned mines, although cliffs are the only roosting habitat in which reproductive females have been documented. |

TABLE 6-6
Species of Greatest Conservation Need Identified in the Wyoming 2010 State Wildlife Action Plan Potentially Occurring in or near the Project Area

| Species | Scientific Name | Native Species Status (NSS) | Habitat |
|---------------------|----------------------------------|-----------------------------|--|
| Birds | | | |
| Bobolink | <i>Dolichonyx oryzivorus</i> | NSS4 | Grasslands with large expanses of grass or forbs for cover. Prefers large open areas of tall grass, alfalfa, clover, or grain crops. |
| Brewer's sparrow | <i>Spizella breweri</i> | NSS4 | Considered a sagebrush obligate. Closely associated with sagebrush shrublands that have abundant, scattered shrubs and short grass. Also found in mountain mahogany, rabbitbrush, pinyon juniper, or bunchgrass grasslands. Presence positively correlated with shrub cover, above-average vegetation height, bare ground, and horizontal habitat heterogeneity (patchiness). |
| Burrowing owl | <i>Athene cunicularia</i> | NSSU | Uses a wide variety of arid and semiarid environments, with well-drained, level to gently sloping areas characterized by sparse vegetation and bare ground. Prefers open prairie, grassland, desert, and shrub-steppe habitats, and may also inhabit agricultural areas. Depends on mammals, particularly prairie dogs and ground squirrels, that dig burrows, which it uses for nesting, roosting, and escape. |
| Ferruginous hawk | <i>Buteo regalis</i> | NSS3 | Primarily found on semiarid open grasslands, basin-prairie shrublands, and badlands. Requires large tracts of relatively undisturbed rangeland and nests on rock outcrops, cutbanks, cliffs, trees, or the ground. |
| Grasshopper sparrow | <i>Ammodramus savannarum</i> | NSS4 | Shortgrass prairies, mixed grasslands, meadows, open sagebrush-grasslands, and agricultural areas. Requires herbaceous cover and conspicuous perches. |
| Greater sage-grouse | <i>Centrocercus urophasianus</i> | NSS2 | Depend on sagebrush community types and associated habitats, including basin-prairie and mountain foothills shrub lands. During summer, wet-moist meadows, alfalfa, and irrigated meadows also serve as habitat when immediately adjacent to sagebrush |
| Lark bunting | <i>Calamospiza melanocorys</i> | NSS4 | Shortgrass prairie, mixed-grass prairie, and shrubsteppe habitats support populations, as do weedy fallow croplands, minimum-tillage croplands, planted cover. |
| Mountain plover | <i>Charadrius montanus</i> | NSSU | Inhabits low, open habitats such as arid shortgrass and mixed-grass prairies dominated by blue grama and buffalo grass with scattered clumps of cacti and forbs, and saltbush habitats of the shrub-steppe of central and western Wyoming. Prefers to nest in large, flat grassland expanses with less than 5% slope; sparse, short vegetation (10 cm [4 in] or less); and bare ground. It is adapted to areas that have been disturbed by prairie dogs, heavy grazing, or fire. |

TABLE 6-6
Species of Greatest Conservation Need Identified in the Wyoming 2010 State Wildlife Action Plan Potentially Occurring in or near the Project Area

| Species | Scientific Name | Native Species Status (NSS) | Habitat |
|-----------------------------|--|-----------------------------|--|
| Sage sparrow | <i>Amphispiza belli</i> | NSS4 | Breeds from central Washington, east to northwestern Colorado, and south to Baja California and northwestern New Mexico. It winters from central California, east to central New Mexico, and south to northwestern Mexico. During summer, it occurs throughout most of Wyoming where sagebrush is present. Considered a common summer resident in Wyoming. |
| Sage thrasher | <i>Oreoscoptes montanus</i> | NSS4 | Considered a sagebrush obligate. Inhabits prairie and foothills shrubland habitat where sagebrush is present. Prefers shrublands with tall shrubs and low grass cover, where sagebrush is clumped in a patchy landscape. |
| Swainson's hawk | <i>Buteo swainsoni</i> | NSSU | Semi-open and open areas below 9,000 feet (2,740 meters) elevation, including prairies, plains, shrub-steppe, large mountain valleys, savannah, open pine-juniper woodlands, and cultivated lands with scattered trees. |
| Reptiles | | | |
| Great Basin gopher snake | <i>Pituophis catenifer deserticola</i> | NSS2 | Inhabit sagebrush and desert habitats in the plains zone. Need deep, loose soil and animal burrows for shelter. Little is known about this species' habits in Wyoming. |
| Greater short-horned lizard | <i>Phrynosoma hernandesi</i> | NSS4 | A variety of habitats ranging from semiarid plains to the mountains. May be found in shortgrass prairie and sagebrush habitats, and open pine-spruce, pinyon-juniper, and spruce-fir forests. |
| Midget faded rattlesnake | <i>Crotalus oreganus concolor</i> | NSS1 | Found in sagebrush communities in the plains zone. This species requires an abundance of south-facing rock outcroppings and exposed canyon walls. Rocky outcrops are essential for cover, variable thermal conditions, and hibernation. |
| Northern tree lizard | <i>Urosaurus ornatus wrighti</i> | NSS1 | Inhabits rocky cliffs, canyon walls, steep exposures of bedrock and large boulders in sagebrush and juniper habitats. |

TABLE 6-6
Species of Greatest Conservation Need Identified in the Wyoming 2010 State Wildlife Action Plan Potentially Occurring in or near the Project Area

| Species | Scientific Name | Native Species Status (NSS) | Habitat |
|-----------------------|---------------------------|-----------------------------|--|
| Amphibians | | | |
| Great Basin spadefoot | <i>Spea intermontanus</i> | NSSU | Xeric-adapted amphibian. Lives in sagebrush flats and semidesert shrublands in Wyoming. Requires loose, sandy soil for burrowing and may make its own burrow or use pre-existing rodent burrows. Also require permanent or temporary water sources for breeding (e.g., playas, springs, seeps, ponds, reservoirs, riverine areas, roadside puddles, irrigation ditches, rain pools, flooded fields). Breeding sites (water sources) may be variable and differ each year, depending on water levels and precipitation. Successful breeding usually occurs in wetlands or areas in wetlands that do not contain predatory fish. |

Notes:

NSS1 = Population status imperiled, limiting factors are severe and continue to increase in severity.

NSS2 = Population status imperiled, limiting factors are severe and not increasing significantly; or vulnerable, limiting factors are severe and continue to increase in severity.

NSS3 = Population status vulnerable, limiting factors are severe and not increasing significantly.

NSS4 = Population status vulnerable, limiting factors are moderate and appear likely to increase in severity; or population status stable, limiting factors are severe and not increasing significantly.

NSSU = NSS unknown until additional information is obtained for the species.

Source: WGFD, 2010.

6.10.2 Avian Species

Migratory passerine birds and raptor species are protected from take by implementing acts and federal policies. The following details the acts and policies that currently protect migratory birds and raptors.

Migratory Bird Treaty Act. The Migratory Bird Treaty Act (MBTA) offers protection of 836 species of migratory birds (listed in 50 CFR 10.13), including waterfowl, shorebirds, seabirds, wading birds, raptors, and passerines. Generally speaking, the MBTA protects all birds in the United States, except gallinaceous (upland game) birds, rock pigeons, Eurasian collared doves, European starlings, and house sparrows.

The MBTA implements various treaties and conventions between the United States and Japan, Mexico, and the former Soviet Union for the protection of migratory birds. Under the MBTA, taking, killing, or possessing migratory birds is unlawful. Unless permitted by regulation, the MBTA provides that it is unlawful to pursue, hunt, take, capture, or kill; attempt to take, capture, or kill; possess; offer to or sell, barter, purchase, or deliver; or cause to be shipped, exported, imported, transported, carried, or received any migratory bird, part, nest, egg, or product, manufactured or not.

According to the MBTA, a person, association, partnership, or corporation that violates the Act or its regulations is guilty of a misdemeanor and subject to fines, imprisonment, or both. The USFWS is responsible for implementing the provisions of the MBTA, which is enforced by the USFWS Division of Law Enforcement.

Bald and Golden Eagle Protection Act. In addition to the protections afforded to eagles under the MBTA, the Bald and Golden Eagle Protection Act (BGEPA) prohibits knowingly taking, or taking with wanton disregard for the consequences of an activity, any bald eagle (*Haliaeetus leucocephalus*) or golden eagle (*Aquila chrysaetos*) or their body parts, nests, or eggs, which includes collection, molestation, disturbance, or killing. Under the BGEPA take “includes also pursue, shoot, shoot at, poison, wound, kill, capture, trap, collect, molest or disturb” (16 U.S.C. § 668c).

The term “disturb” under the BGEPA has recently been defined as: “to agitate or bother a bald or golden eagle to a degree that causes, or is likely to cause, based on the best scientific information available, 1) injury to an eagle, 2) a decrease in its productivity, by substantially interfering with normal breeding, feeding, or sheltering behavior, or 3) nest abandonment, by substantially interfering with normal breeding, feeding, or sheltering behavior” (72 CFR 31332). In addition to immediate impacts, this definition also covers impacts that result from human-induced alterations initiated around a previously used nest site during a time when eagles are not present, if, upon the eagles return, such alterations agitate or bother an eagle to a degree that injures an eagle or substantially interferes with normal breeding, feeding, or sheltering habits and causes, or is likely to cause, a loss of productivity or nest abandonment.

6.10.3 Federally Listed Species

Threatened and endangered plant and animal species are protected under the federal ESA of 1973, as amended. Designated threatened and endangered plant and animal species are protected from incidental take by implementing acts and federal policies. The following details the ESA and policies that currently protect threatened and endangered species.

Endangered Species Act of 1973 - Those species classified as threatened or endangered are protected under the ESA, enforced by USFWS. Threatened or endangered species are considered “federally listed” or “listed” after a final rule has been published in the Federal Register. Federal

candidate species are those plant and animal species being considered for listing as endangered or threatened, but for which a proposed regulation has not yet been published in the Federal Register. Wyoming does not have an endangered species act; therefore, those species with federal designation are protected under the ESA.

This Project requires a greenhouse gas permit from the EPA; therefore, ESA Section 7 consultation is required between the EPA and USFWS. If the construction or operation of the Project were to result in the take of an endangered species, the applicant would be in violation of the ESA.

A major difference in the ESA is how it establishes broad prohibitions against “taking” endangered or threatened plant species. On private lands it is illegal to “remove, cut, dig up, or damage or destroy” plants only when it is “in knowing violation of any state law or in the course of any violation of state criminal trespass law.” Stated another way, there are no federal prohibitions under the ESA for the take of listed plants on nonfederal lands, unless taking of those plants is in violation of state law.

Threatened and Endangered Species - Endangered species are those plant and animal species, subspecies, or varieties that are in danger of extinction throughout all or a significant portion of their range. The threatened category comprises plant and animal species, subspecies, or varieties likely to become endangered within the foreseeable future throughout all or a significant portion of their range.

Candidate Species. Federal candidate species are plants and animals for which the USFWS has sufficient information on their biological status and threats to propose them as endangered or threatened under the ESA but for which development of a proposed listing regulation is precluded by other higher priority listing activities. Candidate species receive no statutory protection under the ESA. However, USFWS encourages cooperative conservation efforts for these species because they are, by definition, species that may warrant future protection under the ESA.

6.10.4 USFWS Threatened and Endangered Species

A review of the USFWS endangered, threatened, and candidate species for Wyoming was completed to identify species listed under the ESA that have the potential to occur in the Project vicinity (TRC, 2012).

Ten species may occur or could be affected by projects in Sweetwater County (USFWS, 2012). One candidate species, the greater sage-grouse, has been documented in the area surrounding the Project (WNDD 2012 and TRC, 2011). Two other species have been historically documented within 7.0 miles of the Project area: the yellow-billed cuckoo and black-footed ferret. However, the area has been designated as a ferret free area (TRC, 2012) and there is no suitable habitat for the yellow-billed cuckoo in the area (TRC, 2012). No suitable habitat for Canada lynx, blowout penstemon, or Ute ladies'-tresses occurs (TRC, 2011). No perennial rivers or streams occur in the search area; therefore, no suitable habitat for the four Colorado River fish species occurs in the search area. No designated critical habitat occurs for any identified species in the search area (USFWS, 2012).

Table 6-7 provides the species name, status, habitat, and potential for occurrence within the Project area. Potential for occurrence was determined based on detailed assessment of the area proposed for development by technical experts (TRC, 2012).

TABLE 6-7
Listed Threatened and Endangered Species Potentially Occurring near the Project Area

| Species/Listing Name | Scientific Name | Status | Habitat | Potential for Occurrence |
|----------------------------|----------------------------------|------------|---|--------------------------|
| Greater sage-grouse | <i>Centrocercus urophasianus</i> | Candidate | Sagebrush basins and foothills | O |
| Yellow-billed cuckoo | <i>Coccyzus americanus</i> | Candidate | Deciduous woods and thickets along streams | R |
| Black-footed ferret | <i>Mustela nigripes</i> | Endangered | Prairie dog colonies | U |
| Canada lynx | <i>Lynx canadensis</i> | Threatened | Montane forests | X |
| Blowout penstemon | <i>Penstemon haydenii</i> | Endangered | Sand blowouts and dunes | X |
| Ute ladies'-tresses orchid | <i>Spiranthes diluvialis</i> | Threatened | Seasonally moist soils and wet meadows of drainages | X |

Species occurrence (based on WNDD [2012] and TRC [2011]):

O = Known to occur.

U = Suitable habitat (i.e., prairie dog colonies) occurs in search area and vicinity; however, unlikely to occur, no known wild populations.

R = Rare; species may be in the area for just a few days or hours. Suitable habitat in the vicinity of the project area. Encounters during project development are very unlikely.

X = Unlikely; no habitat present.

Note: the Colorado pikeminnow, Humpback chub, and the Razorback sucker occur in the downstream riverine habitat in the Yampa, Green and Colorado Rivers but are not impacted by this project because no additional water allocation is necessary as a result of the project.

6.10.5 Baseline Assessments

FMC, WGFD, and the Federal Land Managers continue to collect wildlife habitat and use information for the region and the Project area. FMC is required to collect baseline data for the LQD Permit #454, and has specifically collected baseline data over the past couple of years. Through consultation with the BLM and WGFD, specific species of concern have been identified for the Project area. Those species are sage grouse, mountain plover, burrowing owls (including white tailed prairie dog colonies), raptors, sagebrush obligate species (Brewer's sparrow, sage thrasher, sage sparrow), pygmy rabbit, big game (notably pronghorn antelope), and pocket gopher. FMC has not been required to collect big game data specifically, but has done so on a proactive basis.

Various avian baseline assessments have been completed for the Project area. The most recent assessments for the Project area were completed in 2011 and 2012 by TRC Consultants. The April 18, 2012 TRC report, *Federally Listed Species Assessment for FMC Corporation's Granger Optimization Project, Sweetwater County, Wyoming* was sent to WGFD by FMC on May 29, 2012.

6.10.6 Construction and Operation Impacts

Big Game

Important criteria for federal and state wildlife managers in Wyoming are land areas that are designated as crucial winter ranges, parturition areas, and migration routes for big game. The Project is not located within any big game crucial winter ranges, other partition areas, or significant migration routes. Given the developed industrial nature of the Project area, big game is not a frequent user of the areas proposed for development by the Project. Based on review of multiple year wildlife use surveys and WGFD data, the big game species will not be affected by construction or operation of the Project.

Avian

Areas to be affected by construction are located in an already disturbed industrial facility. Species nesting or using these areas are accustomed to human activity including noise and vehicle operations. No shrubs or trees will be removed for construction. No avian species will be displaced during construction.

Areas to be affected by construction are located in an already disturbed industrial facility. There is no known avian nesting in the project area. Operation of the Project will produce disturbances very similar to the conditions experienced at the site for many years. Therefore, continued operation of the Project is not expected to increase disturbance to avian species.

Aquatic

No water bodies will be crossed or impacted during construction of the Project. No discharges to surface or groundwater are expected. Therefore, no impacts to aquatic wildlife are expected during construction.

Operation of the Project will use an estimated 5,000 ac-ft of water per year. This equates to an average withdrawal of 6.9 cfs. The water will be sourced from existing permitted water rights from the Green River. The USGS maintains a gage on the Green River just south of I-80 approximately 19 miles downstream of FMC's point of withdrawal. This is the gage nearest the withdrawal point. The average daily flow at this gage over the past 15 years is 1,389 cfs (range 300 to 11,800 cfs) with peak annual flows typically occurring in June (USGS, 2012). Project-related water use (6.9 cfs) would represent one-half of 1 percent of the average flow in the Green River. Even at the lowest flow level of 300 cfs (note that 95 percent of the daily averages are above 500 cfs), Project use of 6.9 cfs would represent 2.3 percent of the Green River's flow. It is important to note these water withdrawals are already partially reflected in the baseline. That is, the Project would not withdraw an additional 6.9 cfs from the Green River. But rather, the Project would continue to exercise long-standing water rights already in use.

There are no aquatic systems within the area to be affected by the Project. The Green River, and subsequent downstream aquatic systems are not expected to be affected by construction or operational water use.

Species with federal status

The only species with a federal status potentially affected by construction is the greater sage-grouse. WGFD reviewed the Density Disturbance Calculation Tool (DDCT) prepared for the Project (**Appendix F-14**). WGFD has determined that the Project does not impact the greater sage-grouse and requires no specific stipulations for the project, as approved by the WGFD on August 1, 2012.

There are no known additional impacts to wildlife as a result of ongoing operations; therefore, no significant population-level impacts that may impair the health, safety, or welfare of species with a federal status occur in the project area.

6.11 Cumulative Impacts

The cumulative impacts analysis is organized by resource to provide better presentation of cumulative impacts. Potential direct and indirect impacts were analyzed previously in this section. The environmental impacts evaluation of the Project indicated that, although the construction and operation impacts would not result in significant or adverse resource impacts, minor impacts could occur to some resources; therefore, a cumulative impacts assessment was completed to determine if the minor impacts of the Project could, along with other actions in the area of site influence under

the jurisdiction of the Industrial Siting Division, contribute to a significant or adverse cumulative impact.

6.11.1 Approach to Cumulative Impacts Analysis

The ISA lacks issuing guidance that defines or details requisite cumulative impact analysis methodology. Therefore, the Council on Environmental Quality (CEQ) was queried to identify cumulative impact methodology and guidance (CEQ, 1997).

Based on a review of CEQ guidance, the following factors were considered for the Project.

- The direct and indirect impacts of the proposed project
- An evaluation of which resources, ecosystems, and human communities are affected
- An evaluation of which impacts to these resources are important from a cumulative perspective

Based on additional CEQ guidance, cumulative impacts are those impacts resulting from the incremental impact of an action when added to other past, present, or reasonably foreseeable actions. Cumulative impacts would occur if incremental impacts of the Project, added to the environmental impacts of past, present, and reasonably foreseeable future actions, would result in adverse impacts to resources. Cumulative impacts could only occur for those resources that are affected by the Project and by other actions whose impacts occur within the same timeframe.

6.11.2 Geographic Scope of Cumulative Analysis

Cumulative environmental impacts, as defined in the ISA Rules and Regulations, means the combined impacts upon the environment to the social or economic conditions resulting from construction and operation of the proposed industrial facility and from construction and operation of other ongoing or proposed developments in the area of site influence.

Proposed developments to be included in cumulative impacts include those developments that are actively planning and have public information available or may be actively permitting under the auspices of the ISA. Therefore, the geographic scope of cumulative impacts analysis is generally based on the area of site influence of each resource.

6.11.3 Timeframe

Potential impacts from the construction of the Project would be relatively short-term, generally occurring over the 26-month construction period. For the purposes of the cumulative impacts analysis, it is assumed that operation of the proposed project would begin in October 2015. Potential impacts associated with operation of the proposed Project would continue for approximately 25 years.

6.11.4 Past, Present, and Reasonably Foreseeable Actions

The lands of Sweetwater County surrounding the Project area are primarily either privately or BLM-managed. With the distribution of federally managed lands, NEPA compliance is required for most large project actions. Through NEPA analysis of projects with a federal nexus, federal land management agencies are able to understand how projects relate to one another with respect to cumulative impacts. Similarly, State of Wyoming lands are managed by the Office of State Lands and Investments for revenues directed into the Wyoming State Land Trust. As such, a Special Use Lease is required from the Board of Land Commissioners to develop industrial facilities on State of Wyoming lands. Therefore, each of these governmental entities have specific planning processes and implementing rules that require evaluation prior to construction and operation industrial projects on State and Federal lands in the area of site influence.

Private land projects are difficult to track and forecast. Unlike projects analyzed under NEPA, most private projects lack a lengthy permitting process, and there is no overarching management direction for large resource areas. City and county land use plans can provide some guidance on how the municipalities view development in lands under their jurisdiction. Because the Project lies within the general region of Granger, Green River, Rock Springs, and the I-80 corridor, there is a constant baseline level of smaller projects ranging from public works (e.g., road construction and repair) to private enterprise (e.g., new business or industrial development).

In evaluating the cumulative impacts of other projects at and around the Project site, the project team considered relevant historical events in the region and present and reasonably foreseeable future actions under the jurisdiction of the ISA. There are no projects within the area of influence that is currently engaged with the ISD seeking evaluation under the ISA. However, one ISA-jurisdictional project, the Chokecherry and Sierra Madre Wind Energy Project, has an area of influence that overlaps with the area of influence of FMC's project (it includes Rock Springs).

Some of the past, present, and reasonably foreseeable activities affecting surrounding lands include the following:

- Oil and natural gas exploration and extraction
- Pipeline construction
- Electric transmission line construction
- Wind power generation projects
- Ranching and grazing
- Phosphate and trona mining

Descriptions of the major projects considered in the cumulative impacts are presented in Section 5.6.

6.11.5 Cumulative Impacts

Construction of the Project along with the other listed projects has the potential to contribute to cumulative impacts, especially if the schedules are concurrent. At the time of construction for the Project, it is possible other smaller projects could be underway. Given the low level of impacts expected from the Project, cumulative impacts are not expected to be significant for any resource.

Air Quality

Air quality in the cumulative impact area is generally good, and the area is not in violation of any NAAQS. The Project will obtain air quality permits from both the state and the EPA. Any other projects with emissions sufficient to have cumulative impacts would also be evaluated by the relevant agencies. As the Project would have minimal ground disturbance, local impacts to air quality from fugitive dust emissions from construction is expected to be minimal.

Surface and Groundwater

Project water will be obtained from existing water rights from the Green River. Construction activities are not anticipated to discharge into surface waters, and no significant water use is expected during construction. During operations, there will be no discharge to surface waters; the facility is a zero-discharge facility.

Projects in the cumulative analysis will combine impacts to regional water quantity. It is presumed that future projects will obtain water from existing sources or obtain permits for new withdrawals. The projects considered generally do not require large quantities of water for operations. Rather, the highest water use would be expected during the temporary construction period. For example,

the Gateway West Transmission line and the Chokecherry/Sierra Madre Wind Energy Project will require water for concrete to form many foundations. However, once operational, neither project would consume large quantities of water. Due to the minor impacts associated with this Project, water quality and quantity impacts are not expected to contribute to any significant impacts on a cumulative scale.

Terrestrial and Aquatic Wildlife

No significant or adverse impacts to wildlife are expected to occur in response to construction and operations of the project; therefore, implementation of the Project will not contribute to cumulative loss or degradation of these resources.

As discussed in Section 6.10.4, a total of 10 USFWS threatened and endangered species may occur or could be affected by projects in Sweetwater County. The only species with a federal status potentially affected by construction is the greater sage-grouse. Based on review of the DDCT prepared for the project, WGF D determined that the Project does not impact the greater sage-grouse. Therefore, cumulative impacts to threatened and endangered species or their critical habit is not expected to occur as a result of the Project.

7.0 Controls, Mitigation, and Monitoring Measures

A number of specific mitigation measures will be implemented to alleviate impacts related to construction and operation of the Project. These measures are described in the following sections.

7.1 Controls

A broad array of measures have been proposed to mitigate the potential hazards associated with the Project and the exposure of persons, animals, and facilities in the area of site influence. These measures can generally be classified as avoidance, prevention, and exclusionary actions.

The following control measures, in combination with setback distances, significantly reduce the likelihood of the public coming within a hazardous distance of the Project and electrical equipment. The Project will be designed, constructed, and operated to adequately restrict public access and minimize impacts.

7.1.1 Avoidance

The overall minimal impacts of the Project are possible largely because of its location. Essentially occurring within an active, remote industrial facility, the Project is not affecting resources in the manner that a true greenfield project would. This Project location avoided many issues typically faced by large industrial projects, e.g., visual or noise impacts. The site plan maximized the ability to renovate existing facilities and use previously disturbed ground where new construction was necessary.

7.1.2 Prevention

Primary among the means of preventing hazards described herein will be adherence to appropriate design and construction protocols such as those provided by NFPA 70, the American Society of Mechanical Engineers (ASME), American National Standards Institute (ANSI), and American Water Works Association (AWWA). A second important form of prevention is the establishment of a skilled workforce and implementation of effective facility-wide maintenance, monitoring, compliance, and security programs. This includes the preparation and implementation of an SWPPP, SPCC Plan, and Fire Protection and Prevention Plan, as well as consultation with the appropriate local agencies.

7.1.3 Exclusion

Every hazard identified herein decreases as some function of linear distance. In many cases, therefore, it has been possible to reduce or eliminate hazards to persons and facilities by prohibiting or controlling their presence in the area of site influence. Where multiple hazard areas overlap, the largest distance should govern. The Project, as a component of the currently operating facility, will have controlled access, and access to the facilities will be limited to persons who are knowledgeable of safety measures and potential risks.

7.1.4 Restricted Public Access

The Project will be located on private lands. FMC will restrict public access to the main facility and any related or supporting facilities that could pose a potential safety threat. The facility will be staffed continuously during operations.

7.1.5 Health and Safety Measures

FMC is committed to a safe and healthy workplace that promotes a zero-accident culture. Additionally, FMC is committed to continuous improvement to identify and control risks so that company safety metrics and performance meets high expectations. To meet this commitment, FMC's health and safety policies will require the following:

- Operate in compliance with or exceed all health and safety governmental laws, regulations, ordinances, standards, and permit requirements.
- Ensure all employees are involved in health and safety programs with appropriate training and communication to work responsibly, make decisions to carry out their duties, and be accountable for the results.
- Provide a health and safety plan and structure that ensure effective health and safety management with risks, impacts, and legal requirements controlled through appropriate actions and governance.
- Ensure that health and safety goals are set and communicated to all employees and that performance is monitored to promote continuous improvement.
- Work to proactively prevent incidents, accidents, and environmental damage before these occur through sustainable actions and process improvements at all locations.

7.1.6 Worker, Environmental, and Facility Controls

Occupational Hazards

Construction and operations workers at any facility are subject to risk of injury or fatality from physical hazards. While such occupational hazards can be minimized when workers adhere to safety standards and use appropriate protective equipment, injuries or fatalities from on-the-job accidents can still occur. Occupational health and safety are regulated at the federal level through OSHA (29 USC 651 et seq.). Wyoming has additional laws and regulations that build on the federal law.

Some of the occupational hazards associated with the Project are similar to those of other heavy construction and mining/extraction facilities. FMC and its subcontractors will comply with all applicable local, state, and federal safety, health, and environmental laws, ordinances, regulations, and standards. Some of the primary laws, ordinances, regulations, and standards designed to protect human health and safety that will be reflected in the design, construction, and operation of the Project include:

- Occupational Safety and Health Act of 1970 (29 USC 651, et seq.) and 29 *Code of Federal Regulations* (CFR) 1910, Occupational Safety and Health Standards
- Americans with Disabilities Act (ADA) for accessibility at administrative buildings
- Uniform Fire Code Standards

- Uniform Building Code
- National Fire Protection Association (NFPA), which provides design standards for the requirements of fire protection systems
- National Institute for Occupational Safety and Health (NIOSH), which requires that safety equipment carry markings, numbers, or certificates of approval for stated standards
- National Electric Safety Code
- American Concrete Institute Standards
- American Institute of Steel Construction Standards
- American Society for Testing and Materials
- National Electric Code

Public Safety

The public will not have access to the Project during construction as it is within the existing Granger facility. Other areas determined to be hazardous, or where security or theft is of concern, may also be fenced or signed. Temporary fencing will typically be a high-visibility plastic mesh. Security guards, cameras, and/or additional fencing may be used as necessary to protect public health and safety and Project facilities.

Traffic Management

Construction

The potential for traffic issues will be highest during construction, when deliveries of equipment and materials and worker traffic will occur. A traffic study has been completed (see **Section 6**) that details the number and nature of vehicle trips to, within, and from the Project area. No significant impacts to the levels of service for intersections along Project access routes are expected. Should issues arise; a traffic management plan will be developed in consultation with WYDOT.

Operation

In terms of access traffic, the Project will operate continuously (24 hours per day, 7 days per week). It will employ an additional 26 workers, although not all will be working onsite at the same time. There will be a minimal daily increase in traffic to and from the site.

Construction Waste Management

Solid Waste Management

The generation of solid waste during the construction phase will be handled by disposal at the existing onsite industrial landfill. Portable haul-off 20-cubic-yard dumpsters will be used to collect generated construction waste materials. The dumpsters will be emptied on an as-needed basis. There are no plans to store or treat solid waste at the Project construction site other than via portable dumpsters.

Fuel Storage

Aboveground fuel storage tanks will be used by the General Contractor to facilitate onsite equipment refueling. The storage tanks will comply with relevant rules and regulations. No

underground tanks will be used during construction or operation of the Project. All aboveground fuel tanks will have secondary containment systems.

Hazardous Wastes

Waste determinations, in accordance with 40 CFR §262.11, will be made by the General Contractor for all the solid wastes generated from construction of the project to determine whether these wastes are hazardous. The General Contractor, in accordance with applicable RCRA requirements, other legal requirements, and FMC Policies and Procedures will manage all wastes that are determined to be hazardous. Since the on-site industrial landfill is not permitted to accept hazardous wastes, they must be transported off site for disposal at an approved hazardous waste facility. While it is anticipated that minimal hazardous wastes will be generated as part of the construction of the project, examples of potential hazardous wastes include waste paints, solvents, aerosol cans, and gasket related chemicals.

The project is also anticipated to generate asbestos containing materials that will be handled in accordance with Wyoming Department of Environmental Quality requirements.

Spill Management

The General Contractor will develop and implement a SPCC Plan in accordance with 40 CFR Part 112 and Solid Waste Rules and Regulations. If fuels and/or other petroleum-based products are spilled during construction of the Project, a treatment/disposal facility currently permitted by the Solid and Hazardous Waste Division will be contracted to dispose and manage the contaminated soils. The General Contractor will contract with properly licensed firms to clean up contaminated areas and properly dispose of any oily wastes generated as a result of such releases.

7.2 Mitigation Measures

7.2.1 Air Quality

FMC and its contractors shall use such practicable methods and devices as are reasonably available to control, prevent, and otherwise minimize atmospheric emissions or discharges of air contaminants.

Construction-related dust disturbance shall be controlled by the periodic application of water to all disturbed areas along the ROW and access roads.

Vehicles and equipment showing excessive emission of exhaust gases due to poor engine adjustments or other inefficient operating conditions shall not be operated until corrective adjustments or repairs are made.

7.2.2 Cultural Resources

Should any previously unknown historic/prehistoric sites or artifacts be encountered during construction, all land-altering activities at that location will be immediately suspended and the discovery left intact until such time that FMC is notified and appropriate measures are taken to ensure compliance with the NEPA and enabling legislation. Should any additional cultural resources be discovered during construction, FMC will be contacted and FMC may coordinate and consult with appropriate governmental agencies for suggested voluntary mitigation and preservation measures designed to safeguard such resources.

7.2.3 Biology and Wildlife

To reduce employee-wildlife incidents, construction workers will receive information on wildlife awareness during their employee orientation program. The program will include, at a minimum:

- Information regarding restrictions or prohibition of construction employees' access to sensitive wildlife activity areas
- Information regarding applicable wildlife laws and resident hunting requirements
- Information regarding policies and laws penalizing wildlife harassment and poaching
- Statement prohibiting the possession of firearms on the site
- Reporting procedures and requirements for vehicle collisions with wildlife
- Reporting procedures and requirements for incidental observation of wildlife including threatened or endangered species
- Posted and enforced speed limits to minimize wildlife vehicle collisions

Removal of vegetation will be limited to that necessary for construction of the Project.

Erosion and sedimentation controls will be used to prevent runoff of particulates.

On completion of the work, all work areas, except any permanent access roads, shall be graded, as required, so that all surfaces drain naturally, blend with the natural terrain, and are left in a condition that will facilitate the establishment of natural vegetation, provide for proper drainage, and prevent erosion. All construction materials and debris shall be removed from the Project site in a timely manner.

7.2.4 Fire Prevention and Control

Construction vehicles shall be equipped with government-approved spark arresters. The contractor shall maintain in all construction vehicles a current list of local emergency response providers and methods of contact/communication.

The mechanical systems and equipment, at a minimum, will meet the relevant requirements of NFPA 70, ASME, ANSI, and AWWA.

7.2.5 Land Use

The contractor shall limit movement of crews, vehicles, and equipment to the Project area and access roads to minimize damage to property and disruption of surrounding land use activity.

7.2.6 Noise

Construction vehicles and equipment shall be maintained in proper operating condition and shall be equipped with manufacturers' standard noise control devices or better (e.g., mufflers, engine enclosures).

The Project will be designed to meet or exceed all applicable local, state, and federal noise specifications.

7.2.7 Soils

Administered through Project specifications and job supervision, the following erosion control measures will be implemented to minimize the impacts to soils during and after construction:

- An erosion control plan will be prepared by the contractor that addresses excavation, grading, and erosion control measures during and after construction.
- Limits of construction and areas to be disturbed will be defined and managed by onsite inspectors and construction managers.
- Periodic inspection will be made of erosion control measures by project managers, especially after storms. Erosion control measures will be repaired or replaced as necessary.
- Berms and other water-channeling measures will be used to direct water to appropriate detention ponds.
- Barriers and other measures consisting of hay bales, silt fences, and straw mulches will be used to minimize and control soil erosion.
- All disturbed areas will be restored and reclaimed using certified weed-free native grasses.

7.2.8 Traffic

The contractor shall make all necessary provisions for conformance with federal, state, and local traffic safety standards and shall conduct construction operations to offer the least possible obstruction and inconvenience to public traffic.

Truck deliveries will be scheduled to fall outside of peak hours, both AM and PM, to avoid cumulative impacts during commuting times, both for Project construction workers and for the general public.

7.2.9 Surface Water

Potential impacts to surface water from erosion and sedimentation will be prevented by measures to control runoff during construction and operation of the Project. A pollution prevention plan will be developed and implemented to minimize impacts on water resources during long-term operation of the Project. All requirements of the Storm Water Permit will be administered and adhered to during and after construction.

FMC facilities fall under SPCC/Stormwater Plan requirements. The facility grounds are defined as inside the fences located around the entire facilities or the entire facility in general. Any contractor activities within these boundaries are required to meet the following requirements:

- No lubricant/chemical/compound in any form will be discharged from its original/intended container onto plant grounds/facilities or into stormwater or treatment systems without direct permission from plant or project management personnel (this includes significant volumes of water).
- No lubricant/chemical/compound in any form in any container will be left unattended in any area where a potential exists for damage from activities (e.g., vehicle traffic, persons working, spillage, uncovered where rain/snow will overflow, temperature extremes, etc.).

- No lubricant/chemical/compound in any form will be located where, if container leakage or overflow occurs, the contents will enter the stormwater or plant treatment systems. Therefore, lubricants or chemicals onsite will be required to be stored properly in solid, well-maintained containments that function properly (e.g., equipment engines, hydraulic systems, fuel systems, oil/lube containers, chemical containers/equipment).
- If large storage quantities of any lubricant/chemical/compound are required for contractor's operation, FMC maintains containment areas that may be used by contractors (with permission).
- If a spill or leak occurs, the contractor shall immediately contact the FMC plant shift supervisor (when on the plant site) or contract coordinator (when off the plant site), or FMC Security.

7.2.10 Water Quality

Construction activities shall be performed by methods that prevent entrance or accidental spillage of solid matter, contaminant debris, and other objectionable pollutants and wastes into flowing streams or dry watercourses, lakes, and underground water sources. Such pollutants and wastes include, but are not restricted to, refuse, garbage, cement, concrete, sanitary waste, industrial waste, radioactive substances, oil and other petroleum products, aggregate processing tailings, mineral salts, and thermal pollution.

Borrow pits shall be so excavated that water will not collect and stand therein. Before being abandoned, the sides of borrow pits shall be brought to stable slopes, with slope intersections shaped to carry the natural contour of adjacent, undisturbed terrain into the pit or borrow area, giving a natural appearance. Waste piles shall be shaped to provide a natural appearance.

Dewatering work for structure foundations or earthwork operations adjacent to, or encroaching on, streams or watercourses shall not be performed without prior approval by the applicable land managing agency or landowner.

Excavated material or other construction materials shall not be stockpiled or deposited near or on stream banks, lake shorelines, or other watercourse perimeters where they can be washed away by high water or storm runoff, or can encroach, in any way, upon the actual water source itself.

Wastewaters from construction operations shall not enter streams, watercourses, or other surface waters without the use of such turbidity control methods as settling ponds, gravel filter entrapment dikes, approved flocculating processes that are not harmful to fish, recirculation systems for washing of aggregates, or other approved methods. Any such wastewaters discharged into surface waters shall be essentially free of settleable material. Settleable material is defined as that material that will settle from the water by gravity during a 1-hour quiescent period.

7.2.11 Paleontological Resources

To reduce the potential for adverse impacts and to foster beneficial impacts from the discovery of fossil resources, the following mitigation measures will be implemented. A qualified paleontologist will be notified if fossils of potential significance are uncovered during ground disturbance. Activities that might adversely affect such fossils will cease within 100 feet of the discovery or, if possible, the fossils will be set safely aside until their scientific significance can be determined.

7.3 Monitoring Programs

7.3.1 Air Quality

The facility will comply with all permit conditions stipulated in the PSD construction permits to be issued by WDEQ and EPA. The facility will also prepare amendments to the current Title V operating permit, as required.

7.3.2 Wildlife

There are no impacts expected to wildlife, however, the facility will comply with all rules and requirements by the Wyoming Game and Fish Department, the Land Quality Division, the USFWS, and the BLM as stipulated. FMC will continue to monitor for the presence of wildlife in the facility area and record and report any impacts to wildlife. Impacts to wildlife are reported to the respective agencies as required. FMC continues to monitor sage grouse lek information in the surrounding area.

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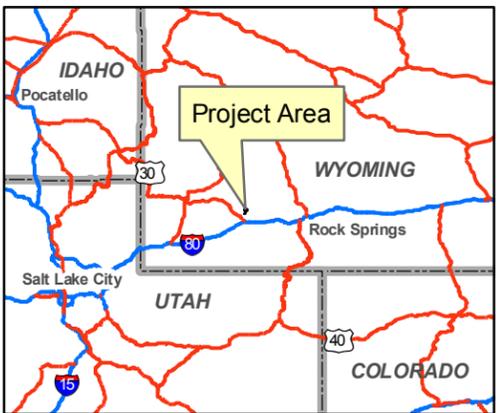
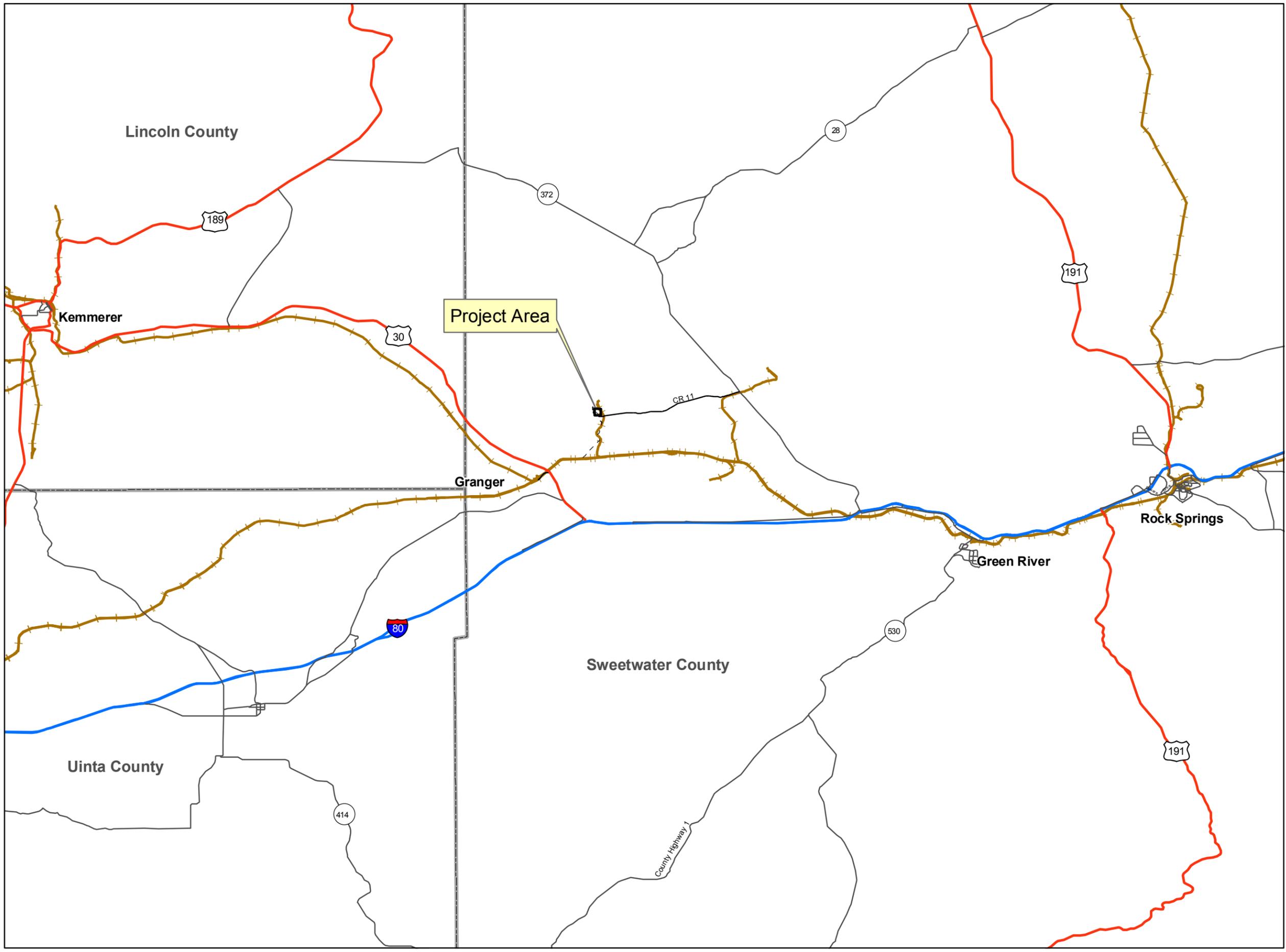
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Appendix A-1
Project Site Location



- Legend**
- Interstate
 - US Highway
 - State Highway
 - County Road
 - - - Dirt Road
 - Railroad
 - Project Area
 - County Boundary

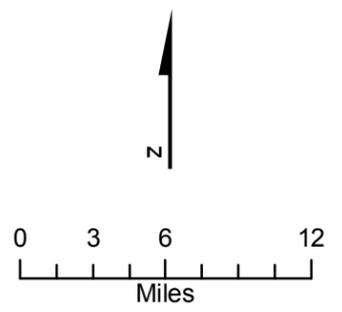
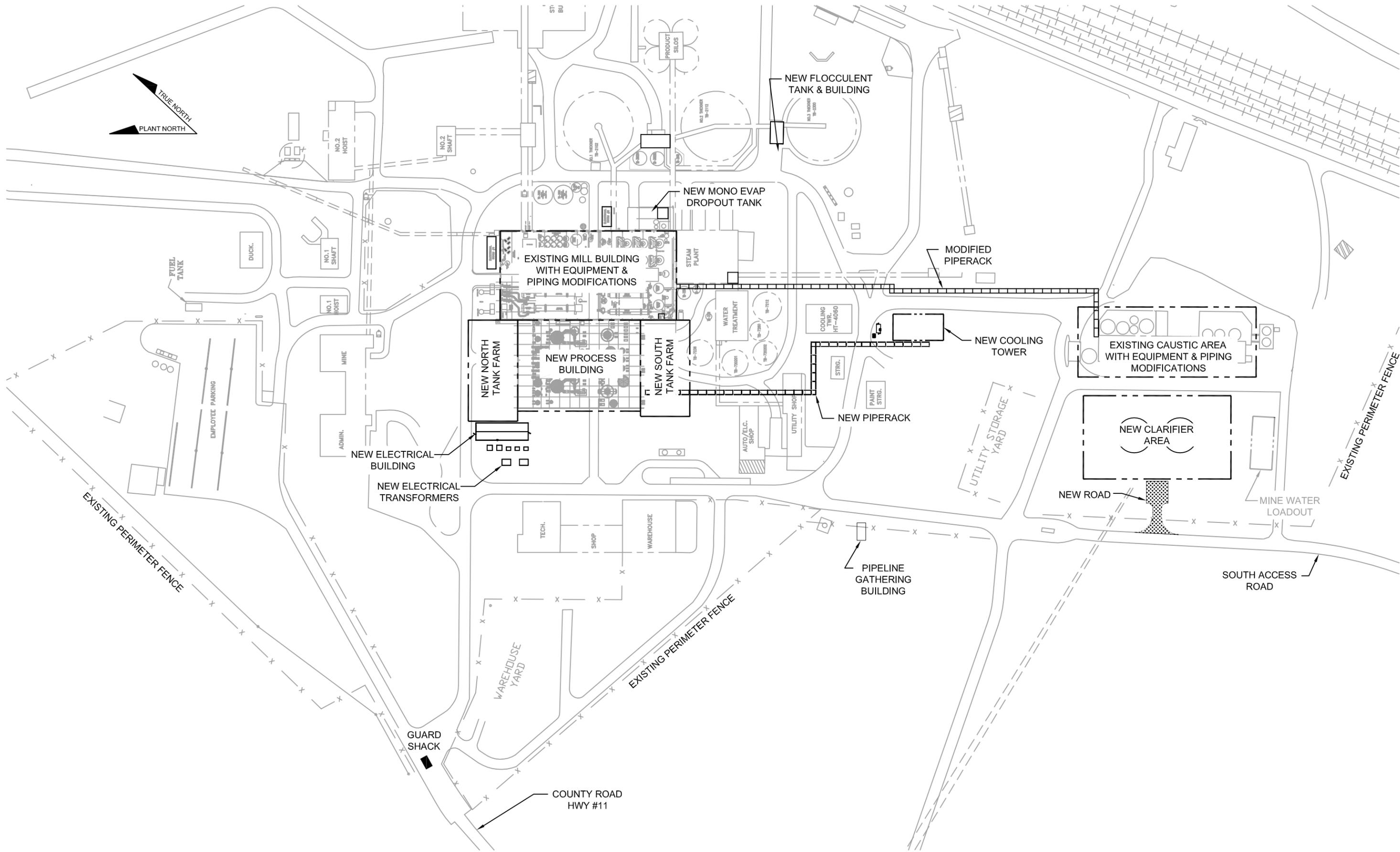


Figure A-1
 Granger Optimization
 Project Location
 FMC Corporation
 Sweetwater County, Wyoming





| MARK | DESCRIPTION | DATE | BY | CHK. | MARK | DESCRIPTION | DATE | BY | CHK. | MARK | DESCRIPTION | DATE | BY | CHK. | NUMBER | TITLE | NUMBER | TITLE | |
|-----------|------------------------|----------|-----|------|-----------|-------------|------|----|------|-----------|-------------|------|----|------|--------------------|-------|--------|-------|--|
| D | ISSUED FOR INFORMATION | 05/14/12 | RGP | XXX | | | | | | | | | | | | | | | |
| C | ISSUED FOR INFORMATION | 03/15/12 | RGP | XXX | | | | | | | | | | | | | | | |
| B | ISSUED FOR INFORMATION | 10/07/11 | RGP | XXX | | | | | | | | | | | | | | | |
| A | ISSUED FOR INFORMATION | 09/30/11 | RGP | XXX | | | | | | | | | | | | | | | |
| REVISIONS | | | | | REVISIONS | | | | | REVISIONS | | | | | REFERENCE DRAWINGS | | | | |

FMC FMC Corporation
Green River, Wyoming

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FMC CORPORATION

Figure A-2

OVERALL SURFACE PLAN
GRANGER PLANT OPTIMIZATION PROJECT

| | | | |
|------------------------|------------------|------------------------|-------|
| DESIGNED BY: RGP | DATE: 09/30/2011 | APPROVED BY: XXX | DATE: |
| DRAWN BY: RGP | DATE: | PLOT SCALE: 1:1 | |
| CHECKED BY: XXX | DATE: | DWG. SCALE: 1"=100'-0" | |
| CHARGE: | | | |
| DRAWING NO. SK-PI-0002 | | REV. D | |

Appendix A-3
FMC Granger Work Areas



FMC Granger Plant

Legend

- Modified Existing Facilities
- New Facility Locations

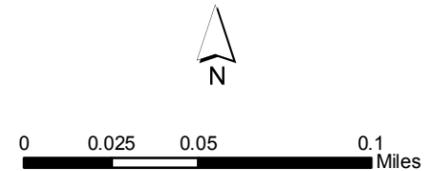


Figure A-3
FMC Granger Optimization Project
Work Areas

Appendix A-4
Surface Ownership Map

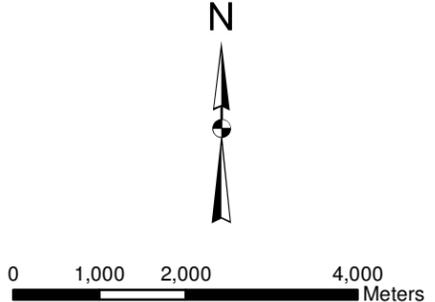
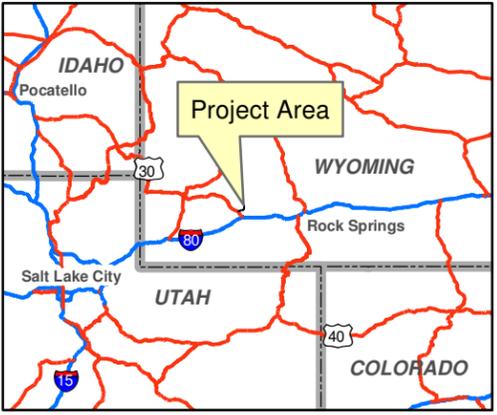
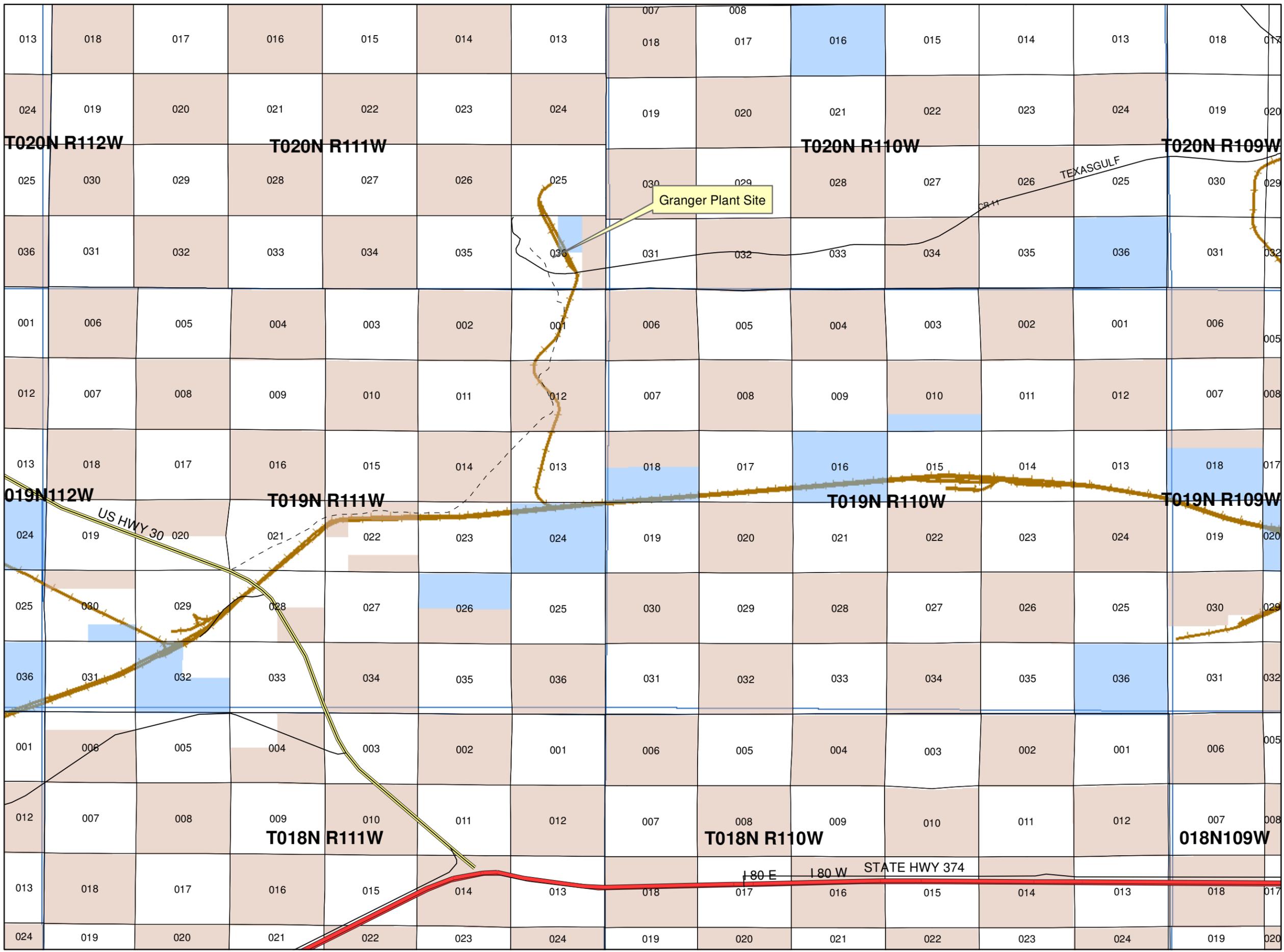


Figure A-4
 Surface Ownership
 FMC Corporation
 Sweetwater County, Wyoming
 Date Issued: July, 5 2012

Appendix B-1

Letters of Support – Sweetwater County Commissioners

COPY

SWEETWATER C·O·U·N·T·Y

BOARD OF COUNTY COMMISSIONERS

- WALLY J. JOHNSON, CHAIRMAN
- JOHN K. KOLB, COMMISSIONER
- GARY BAILIFF, COMMISSIONER
- REID WEST, COMMISSIONER
- DON VAN MATRE, COMMISSIONER

80 WEST FLAMING GORGE WAY, STE 109
GREEN RIVER, WY 82935
PH: (307) 872-3890 ~ FAX (307) 872-3992

March 21, 2012

Tom Schroeder, Program Principal
State of Wyoming
Department of Environmental Quality
Industrial Siting Division
Herschler Building, 4W
122 West 25th Street
Cheyenne, Wyoming 82002

Dear Tom:

I am writing on behalf of the Sweetwater County Board of County Commissioners to express my and the Board's support for the FMC Granger Optimization Project in Sweetwater County, Wyoming. The Board has been a strong supporter of economic development in southwestern Wyoming for many years and is pleased to see FMC's plans for its Granger facility come to fruition.

FMC has been a good partner with Sweetwater County. FMC helps provide a wonderful quality of life for the local community. Sweetwater County looks forward to the positive economic impacts that the FMC Granger Optimization Project will bring such as jobs, increased tax support and growth in the community.

Sincerely,

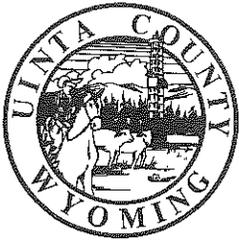


Wally Johnson, Chairman
Sweetwater County Board of County Commissioners

Cc: John Lucas, FMC Environmental Team Leader, PO Box 872 Green River, WY 82935



Appendix B-2
Letters of Support – Uinta County Commissioners



Uinta County Commissioners

Craig B. Welling
Commissioner

W. Robert Stoddard
Commissioner

Leonard C. Hysell
Commissioner

March 22, 2012

Tom Schroeder, Program Principal
State of Wyoming
Department of Environmental Quality
Industrial Siting Division
Herschler Building, 4W
122 West 25th Street
Cheyenne, Wyoming 82002

Dear Tom:

On behalf of the Uinta County Board of County Commissioners, I am writing to express the Board's unanimous support for the FMC Granger Optimization Project in Sweetwater County, Wyoming.

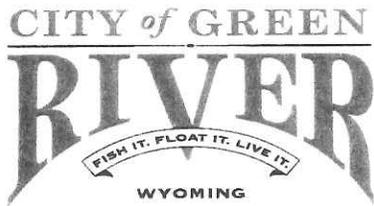
Although FMC's two major Wyoming trona production facilities are located in Sweetwater County, approximately thirty percent (30%) of these FMC employees reside in Uinta County. Because of this connection with Uinta County, FMC has been a strong supporter of our local community. FMC has made great contributions to Uinta County and to the State of Wyoming.

FMC's Granger Optimization Project is great news for southwestern Wyoming, as it will bring positive economic impacts such as jobs and growth to the community. We fully support FMC's Granger Optimization Project and look forward to continuing our important and long-standing relationship with FMC.

Sincerely,

Robert Stoddard, Chairman
Uinta County Board of County Commissioners

Cc: John Lucas, FMC Environmental Team Leader, PO Box 872, Green River, WY 82935



OFFICE OF THE MAYOR

50 E 2nd North Street Green River WY 82935
(307) 872-6136 admininfo@cityofgreenriver.org
www.cityofgreenriver.org

March 27, 2012

Tom Schroeder, Program Principal
State of Wyoming
Department of Environmental Quality
Industrial Siting Division
Herschler Building, 4W
122 West 25th Street
Cheyenne, Wyoming 82002

Dear Tom:

On behalf of the City Council for the City of Green River, Wyoming, I am writing to express our unanimous support for the FMC Granger Optimization Project in Sweetwater County, Wyoming.

The City is excited to learn about FMC's imminent plans for the Granger facility. The construction and operation of FMC's Granger Optimization Project will provide investment in the local community, employment and additional tax revenue.

FMC has been a steadfast supporter of the City and Sweetwater County. The City appreciates and values its long-standing relationship with FMC.

The City fully supports FMC's Granger Optimization Project and looks forward to the resulting positive economic benefits to our community.

Sincerely,

A handwritten signature in blue ink that reads "Hank Castillon".

Hank Castillon

Mayor

✓ cc: John Lucas, Environmental Team Leader, PO Box 872, Green River, WY 82935

Appendix B-4

Letters of Support – Lincoln County Commissioners



Board of Lincoln County Commissioners

Kent Connelly, Chairman
Kemmerer, Wyoming 83101

Paul C. Jenkins
Thayne, Wyoming 83127

T. Deb Wolfley
Fairview, Wyoming 83119

925 Sage Avenue, Suite 302, Kemmerer, WY 83101 Phone: 307-877-2004 Fax: 307-877-4237
Email: commission@lcwy.org

April 12, 21012

Tom Schroeder, Program Principal
State of Wyoming
Department of Environmental Quality
Industrial Siting Division
Herschler Building, 4th
122 West 25th Street
Cheyenne, WY 82002

Dear Mr. Schroeder,

The Lincoln County Board of Commissioners would like express our support for the FMC Granger Optimization Project in Sweetwater County, Wyoming. The Board has been a strong supporter of economic development in southwestern Wyoming for many years and is pleased to see FMC's plans for its Granger facility come to fruition.

FMC has been a good partner with Lincoln County. FMC helps provide a wonderful quality of life for the local community. Lincoln County looks forward to the positive economic impacts that the FMC Granger Optimization Project will bring such as jobs, increased tax support and growth in the area.

Sincerely,


Kent Connelly, Chairman


T. Deb Wolfley


Paul C. Jenkins

cc: John Lucas, FMC Environmental Team Leader



Carl R. Demshar, Jr., Mayor
212 D Street, Rock Springs, WY 82901
Office [307] 352-1510 • FAX [307] 352-1516
carl_demshar@rswy.net

April 13, 2012

Tom Schroeder, Program Principal
State of Wyoming
Department of Environmental Quality
Industrial Siting Division
Herschler Building, 4W
122 West 25th Street
Cheyenne, Wyoming 82002

RE: Letter of Support for FMC's Granger Optimization Project

Dear Mr. Schroeder:

On behalf of the governing body of the City of Rock Springs, I am submitting this letter to show our full support for FMC's Granger Optimization Project. In addition to FMC being the leader in the soda ash industry, they have always maintained a very high profile in our community and have always been a good corporate citizen. With this project, FMC continues to contribute to the economic viability of the area through construction jobs, permanent operating jobs, and the purchase of equipment to bring this project to fruition.

FMC has been a major employer in the area and they have contributed significantly to the quality of life that we enjoy. The City of Rock Springs and FMC have maintained a very good partnership for many years, and we look forward to continuing that relationship for many years to come.

Yours very truly,

A handwritten signature in cursive script, appearing to read "Carl Demshar, Jr.", is written over a large, faint, circular watermark or ghost signature.

Carl R. Demshar, Jr.
Mayor



Tel: 307.777.2800 • FAX: 307.777.2837
214 W. 15th Street • Cheyenne, WY 82002
www.wyomingbusiness.org

May 11, 2012

Mr. Tom Schroeder
State of Wyoming
Department of Environmental Quality
Industrial Siting Division
Herschler Building, 4W
122 W 25th Street
Cheyenne, Wyoming 82002

Re: FMC Granger Optimization Project

Dear Mr. Schroeder:

The Wyoming Business Council would like to offer our support for the FMC Granger Optimization Project in Sweetwater County, Wyoming and its associated benefits to the Sweetwater County and Wyoming economy. It is our understanding that this project would restore the production capacity of the FMC Granger facility to 1.3 million tons per year of refined soda ash and will enable FMC to meet market demands for soda ash by leveraging existing ore resources.

FMC is a valued partner in the growth and vibrancy of the economy in Sweetwater County and the State of Wyoming. They employ over 900 employees and contribute significantly to the tax base of the State. The \$200 million plus capital investment in this Optimization Project is projected to create 310 onsite construction jobs for the 26 month construction duration and result in the creation of an additional 26 full time permanent positions once the plant is on line.

FMC is an asset to the State, and we appreciate their continued and expanded investment in their facilities here. We look forward to their re-opening the Granger Facility.

Sincerely,

A handwritten signature in blue ink, appearing to read "Robert K. Jensen", is written over a faint, larger version of the same signature.

Robert K. Jensen
Chief Executive Officer

RJ/PR: Ish

C: Pat Robbins, WBC SC Regional Director

TOWN OF GRANGER

PO Box 42 Granger, Wyoming 82934
(307) 875 5556

25 June 2012

Tom Schroeder, Program Principal
State of Wyoming Department of Environmental Quality
Industrial Siting Division
Herschler Building, 4 West
122 West 25th Street
Cheyenne, Wyoming 82002

Dear Mr. Schroeder:

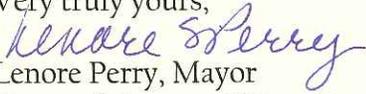
On behalf of the Town of Granger, I am pleased for this opportunity to convey our wholehearted support for the Optimization Project planned by our neighbor and friend, FMC. We understand this plan will allow FMC to fully recover the trona resources available to it under its existing permit, increasing its current production to previous optimal levels.

The effective long-reach of this undertaking will extend far beyond Sweetwater County, Wyoming. Not only our local communities, but also the state and nation will reap substantial direct and indirect benefits. Natural resources that presently lie useless in the ground will be recovered and made available for eventual development into valuable, useful products. Quality, private sector employment opportunities with a world-class corporation will be created and families will benefit. Production tax dollars will increase. Our domestic natural trona will more favorably compete with the cost of Chinese synthetics and so the U.S. percentage of the Asian trona market will expand. As a consequence, our nation's balance of trade should also benefit from the increased material exports.

Our country and our state need big business to bring about big accomplishments. Given the opportunity, individuals with initiative, vision, and ingenuity can perform great achievements, increase efficiency and profitability, and continually "make the best better." FMC is made up of just such individuals, and we enthusiastically applaud them and their work.

For me personally, writing this letter has been especially gratifying. Our small community has been the beneficiary of FMC's goodwill for the better part of four decades. Over and over they have proven themselves to be exemplary corporate neighbors. Their plans deserve your encouragement and expedited acceptance. Their success is our success, and we sincerely wish them well in this important venture.

Very truly yours,


Lenore Perry, Mayor
Town of Granger, Wyoming

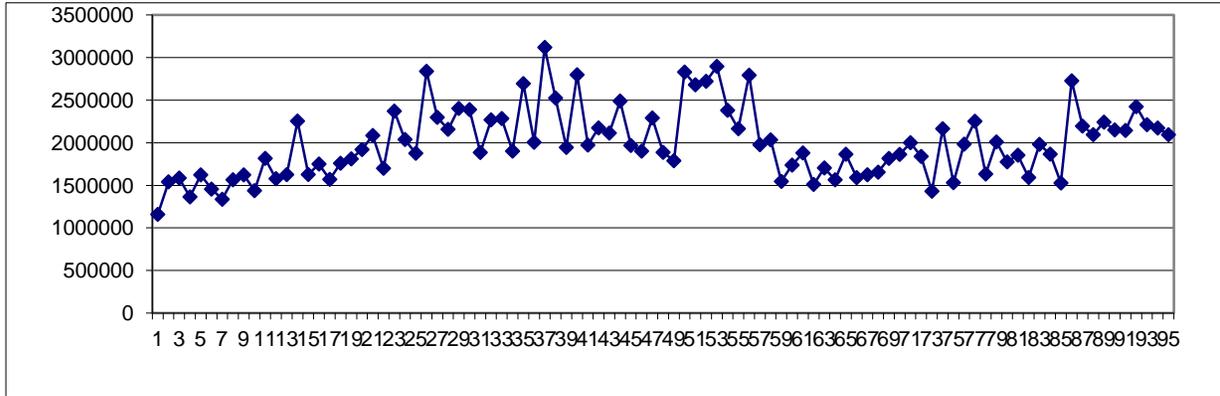
Appendix C-1
Impact Assistance Calculation

History of State Sales and Use Tax Given to Sweetwater County Governments

| Serial | Month | State Share Given | | | State Share Given to Muni's | | | Total |
|--------|---------|-------------------|--------|--------|-----------------------------|-----------|-----------|-----------|
| | | Sales | Use | Total | Sales | Use | Total | |
| 1 | July 04 | 21,059 | 1,569 | 22,628 | 973,378 | 163,063 | 1,136,441 | 1,159,069 |
| 2 | Aug 04 | 29,591 | 2,775 | 32,366 | 1,242,399 | 266,454 | 1,508,853 | 1,541,219 |
| 3 | Sep 04 | 29,939 | 2,204 | 32,143 | 1,333,278 | 220,950 | 1,554,228 | 1,586,371 |
| 4 | Oct 04 | 29,537 | 2,363 | 31,900 | 1,159,822 | 172,942 | 1,332,764 | 1,364,664 |
| 5 | Nov 04 | 29,986 | 2,693 | 32,679 | 1,336,445 | 253,737 | 1,590,182 | 1,622,861 |
| 6 | Dec 04 | 26,967 | 2,646 | 29,613 | 1,193,723 | 232,654 | 1,426,377 | 1,455,990 |
| 7 | Jan 05 | 24,778 | 2,010 | 26,788 | 1,136,994 | 172,615 | 1,309,609 | 1,336,397 |
| 8 | Feb 05 | 26,639 | 1,867 | 28,506 | 1,380,795 | 156,430 | 1,537,225 | 1,565,731 |
| 9 | Mar 05 | 29,513 | 2,454 | 31,967 | 1,399,176 | 191,850 | 1,591,026 | 1,622,993 |
| 10 | Apr 05 | 22,995 | 2,392 | 25,387 | 1,220,081 | 191,831 | 1,411,912 | 1,437,299 |
| 11 | May 05 | 26,693 | 3,843 | 30,536 | 1,499,967 | 286,907 | 1,786,874 | 1,817,410 |
| 12 | Jun 05 | 27,820 | 3,324 | 31,144 | 1,272,341 | 274,929 | 1,547,270 | 1,578,414 |
| 13 | Jul 05 | 26,793 | 3,081 | 29,874 | 1,277,537 | 318,883 | 1,596,420 | 1,626,294 |
| 14 | Aug 05 | 43,046 | 3,600 | 46,646 | 1,894,993 | 313,405 | 2,208,398 | 2,255,044 |
| 15 | Sep 05 | 31,328 | 3,152 | 34,480 | 1,313,282 | 279,917 | 1,593,199 | 1,627,679 |
| 16 | Oct 05 | 35,716 | 3,276 | 38,992 | 1,381,046 | 330,372 | 1,711,418 | 1,750,410 |
| 17 | Nov 05 | 31,542 | 3,117 | 34,659 | 1,211,707 | 324,069 | 1,535,776 | 1,570,435 |
| 18 | Dec 05 | 29,940 | 3,242 | 33,182 | 1,465,389 | 261,140 | 1,726,529 | 1,759,711 |
| 19 | Jan 06 | 30,891 | 2,462 | 33,353 | 1,537,065 | 240,695 | 1,777,760 | 1,811,113 |
| 20 | Feb 06 | 33,317 | 3,260 | 36,577 | 1,648,912 | 235,227 | 1,884,139 | 1,920,716 |
| 21 | Mar 06 | 37,264 | 2,794 | 40,058 | 1,834,743 | 211,215 | 2,045,958 | 2,086,016 |
| 22 | Apr 06 | 24,044 | 2,707 | 26,751 | 1,437,698 | 236,050 | 1,673,748 | 1,700,499 |
| 23 | May 06 | 36,597 | 5,708 | 42,305 | 1,947,953 | 381,804 | 2,329,757 | 2,372,062 |
| 24 | Jun 06 | 35,290 | 4,828 | 40,118 | 1,718,325 | 280,203 | 1,998,528 | 2,038,646 |
| 25 | Jul 06 | 32,204 | 3,637 | 35,841 | 1,551,406 | 289,528 | 1,840,934 | 1,876,775 |
| 26 | Aug 06 | 47,294 | 5,788 | 53,082 | 2,280,682 | 505,944 | 2,786,626 | 2,839,708 |
| 27 | Sep 06 | 36,883 | 4,546 | 41,429 | 2,034,206 | 223,035 | 2,257,241 | 2,298,670 |
| 28 | Oct 06 | 36,682 | 5,400 | 42,082 | 1,671,987 | 444,159 | 2,116,146 | 2,158,228 |
| 29 | Nov 06 | 43,894 | 6,509 | 50,403 | 1,982,944 | 370,348 | 2,353,292 | 2,403,695 |
| 30 | Dec 06 | 33,188 | 5,146 | 38,334 | 1,842,155 | 509,146 | 2,351,301 | 2,389,635 |
| 31 | Jan 07 | 37,723 | 4,404 | 42,127 | 1,816,218 | 27,972 | 1,844,190 | 1,886,317 |
| 32 | Feb 07 | 35,343 | 5,035 | 40,378 | 1,847,869 | 381,227 | 2,229,096 | 2,269,474 |
| 33 | Mar 07 | 33,061 | 4,061 | 37,122 | 1,842,961 | 404,711 | 2,247,672 | 2,284,794 |
| 34 | Apr 07 | 30,495 | 3,481 | 33,976 | 1,658,865 | 209,293 | 1,868,158 | 1,902,134 |
| 35 | May 07 | 37,735 | 5,201 | 42,936 | 2,282,429 | 369,540 | 2,651,969 | 2,694,905 |
| 36 | June 07 | 30,899 | 4,116 | 35,015 | 1,625,030 | 345,958 | 1,970,988 | 2,006,003 |
| 37 | July 07 | 38,102 | 6,304 | 44,406 | 1,991,634 | 1,084,337 | 3,075,971 | 3,120,377 |
| 38 | Aug 07 | 44,726 | 6,763 | 51,489 | 1,869,079 | 604,755 | 2,473,834 | 2,525,323 |
| 39 | Sep 07 | 39,880 | 2,638 | 42,518 | 1,753,370 | 149,756 | 1,903,126 | 1,945,644 |
| 40 | Oct 07 | 43,701 | 10,705 | 54,406 | 1,979,494 | 765,106 | 2,744,600 | 2,799,006 |
| 41 | Nov 07 | 40,695 | 4,078 | 44,773 | 1,589,988 | 338,622 | 1,928,610 | 1,973,383 |
| 42 | Dec 07 | 35,077 | 5,290 | 40,367 | 1,770,662 | 363,285 | 2,133,947 | 2,174,314 |
| 43 | Jan 08 | 37,749 | 4,611 | 42,360 | 1,796,514 | 275,161 | 2,071,675 | 2,114,035 |
| 44 | Feb 08 | 39,508 | 6,298 | 45,806 | 2,045,031 | 399,370 | 2,444,401 | 2,490,207 |
| 45 | Mar 08 | 34,546 | 4,636 | 39,182 | 1,606,739 | 322,565 | 1,929,304 | 1,968,486 |
| 46 | Arp 08 | 34,093 | 3,396 | 37,489 | 1,521,645 | 342,783 | 1,864,428 | 1,901,917 |

| | | | | | | | |
|------------|--------|-------|--------|-----------|---------|-----------|-----------|
| 47 May 08 | 38,257 | 5,519 | 43,776 | 1,853,518 | 394,207 | 2,247,725 | 2,291,501 |
| 48 Jun 08 | 36,646 | 4,370 | 41,016 | 1,567,195 | 279,494 | 1,846,689 | 1,887,705 |
| 49 Jul 08 | 35,926 | 3,773 | 39,699 | 1,506,413 | 243,166 | 1,749,579 | 1,789,278 |
| 50 Aug 08 | 51,500 | 6,242 | 57,742 | 2,304,519 | 468,245 | 2,772,764 | 2,830,506 |
| 51 Sep 08 | 49,413 | 5,344 | 54,757 | 2,070,202 | 556,169 | 2,626,371 | 2,681,128 |
| 52 Oct 08 | 49,112 | 5,201 | 54,313 | 2,273,152 | 394,426 | 2,667,578 | 2,721,891 |
| 53 Nov 08 | 41,678 | 5,389 | 47,067 | 2,423,010 | 426,805 | 2,849,815 | 2,896,882 |
| 54 Dec 08 | 39,746 | 5,143 | 44,889 | 1,797,666 | 538,948 | 2,336,614 | 2,381,503 |
| 55 Jan 09 | 37,307 | 4,560 | 41,867 | 1,833,551 | 289,619 | 2,123,170 | 2,165,037 |
| 56 Feb 09 | 46,148 | 5,517 | 51,665 | 2,383,859 | 358,200 | 2,742,059 | 2,793,724 |
| 57 Mar 09 | 34,909 | 6,797 | 41,706 | 1,684,547 | 251,373 | 1,935,920 | 1,977,626 |
| 58 Apr 09 | 33,889 | 5,943 | 39,832 | 1,755,016 | 239,264 | 1,994,280 | 2,034,112 |
| 59 May 09 | 26,999 | 3,994 | 30,993 | 1,242,277 | 273,321 | 1,515,598 | 1,546,591 |
| 60 Jun 09 | 30,208 | 3,480 | 33,688 | 1,432,817 | 271,543 | 1,704,360 | 1,738,048 |
| 61 Jul 09 | 33,794 | 6,022 | 39,816 | 1,504,783 | 336,399 | 1,841,182 | 1,880,998 |
| 62 Aug 09 | 34,291 | 3,308 | 37,599 | 1,343,298 | 130,282 | 1,473,580 | 1,511,179 |
| 63 Sep 09 | 32,994 | 4,477 | 37,471 | 1,406,188 | 260,904 | 1,667,092 | 1,704,563 |
| 64 Oct 09 | 31,151 | 3,847 | 34,998 | 1,260,486 | 269,629 | 1,530,115 | 1,565,113 |
| 65 Nov 09 | 35,726 | 3,548 | 39,274 | 1,583,030 | 243,140 | 1,826,170 | 1,865,444 |
| 66 Dec 09 | 32,735 | 3,267 | 36,002 | 1,338,304 | 216,394 | 1,554,698 | 1,590,700 |
| 67 Jan 10 | 26,247 | 3,784 | 30,031 | 1,313,571 | 280,858 | 1,594,429 | 1,624,460 |
| 68 Feb 10 | 30,969 | 861 | 31,830 | 1,381,654 | 241,359 | 1,623,013 | 1,654,843 |
| 69 Mar 10 | 30,394 | 3,085 | 33,479 | 1,456,602 | 326,506 | 1,783,108 | 1,816,587 |
| 70 Apr 10 | 27,940 | 3,397 | 31,337 | 1,527,233 | 305,078 | 1,832,311 | 1,863,648 |
| 71 May 10 | 29,111 | 3,865 | 32,976 | 1,440,463 | 527,430 | 1,967,893 | 2,000,869 |
| 72 Jun 10 | 32,692 | 4,266 | 36,958 | 1,404,861 | 397,861 | 1,802,722 | 1,839,680 |
| 73 Jul 10 | 29,563 | 5,504 | 35,067 | 1,176,598 | 219,313 | 1,395,911 | 1,430,978 |
| 74 Aug 10 | 41,059 | 4,388 | 45,447 | 1,783,679 | 336,454 | 2,120,133 | 2,165,580 |
| 75 Sep 10 | 32,801 | 4,041 | 36,842 | 1,288,856 | 205,598 | 1,494,454 | 1,531,296 |
| 76 Oct 10 | 39,501 | 7,478 | 46,979 | 1,573,522 | 363,522 | 1,937,044 | 1,984,023 |
| 77 Nov 10 | 40,103 | 4,817 | 44,920 | 1,900,959 | 307,087 | 2,208,046 | 2,252,966 |
| 78 Dec 10 | 30,491 | 3,203 | 33,694 | 1,347,773 | 251,754 | 1,599,527 | 1,633,221 |
| 79 Jan 11 | 38,411 | 5,324 | 43,735 | 1,625,695 | 340,597 | 1,966,292 | 2,010,027 |
| 80 Feb 11 | 32,382 | 4,154 | 36,536 | 1,420,699 | 318,085 | 1,738,784 | 1,775,320 |
| 81 Mar 11 | 33,347 | 3,902 | 37,249 | 1,400,755 | 416,483 | 1,817,238 | 1,854,487 |
| 82 Apr 11 | 28,207 | 3,548 | 31,755 | 1,310,959 | 249,636 | 1,560,595 | 1,592,350 |
| 83 May 11 | 35,262 | 4,836 | 40,098 | 1,589,529 | 352,365 | 1,941,894 | 1,981,992 |
| 84 Jun 11 | 36,429 | 4,540 | 40,969 | 1,498,056 | 327,602 | 1,825,658 | 1,866,627 |
| 85 Jul 11 | 29,344 | 4,509 | 33,853 | 1,226,457 | 267,508 | 1,493,965 | 1,527,818 |
| 86 Aug 11 | 49,600 | 5,555 | 55,155 | 2,285,514 | 387,208 | 2,672,722 | 2,727,877 |
| 87 Sept 11 | 43,559 | 5,064 | 48,623 | 1,535,142 | 612,641 | 2,147,783 | 2,196,406 |
| 88 Oct 11 | 40,906 | 4,963 | 45,869 | 1,713,028 | 336,291 | 2,049,319 | 2,095,188 |
| 89 Nov 11 | 45,225 | 6,040 | 51,265 | 1,889,400 | 301,919 | 2,191,319 | 2,242,584 |
| 90 Dec 11 | 35,887 | 4,641 | 40,528 | 1,780,696 | 329,648 | 2,110,344 | 2,150,872 |
| 91 Jan 12 | 42,647 | 4,366 | 47,013 | 1,753,845 | 343,848 | 2,097,693 | 2,144,706 |
| 92 Feb 12 | 43,870 | 4,515 | 48,385 | 2,145,056 | 230,656 | 2,375,712 | 2,424,097 |
| 93 Mar 12 | 33,556 | 4,373 | 37,929 | 1,706,297 | 468,295 | 2,174,592 | 2,212,521 |
| 94 Apr 12 | 37,799 | 4,473 | 42,272 | 1,771,822 | 359,357 | 2,131,179 | 2,173,451 |
| 95 May 12 | 37,489 | 5,515 | 43,004 | 1,812,499 | 239,460 | 2,051,959 | 2,094,963 |

Base Period Amount = 2,154,759



Forecast of Impact Assistance Payments

| Serial | Month | SLR | BasePeriod | Impact Assistance |
|--------|----------|-----------|------------|-------------------|
| 96 | Jun 2012 | 2,128,684 | 2,154,759 | (26,075) |
| 97 | Jul 2012 | 2,131,507 | 2,154,759 | (23,252) |
| 98 | Aug 2012 | 2,134,330 | 2,154,759 | (20,430) |
| 99 | Sep 2012 | 2,137,152 | 2,154,759 | (17,607) |
| 100 | Oct 2012 | 2,139,975 | 2,154,759 | (14,784) |
| 101 | Nov 2012 | 2,142,798 | 2,154,759 | (11,961) |
| 102 | Dec 2012 | 2,145,621 | 2,154,759 | (9,138) |
| 103 | Jan 2013 | 2,148,444 | 2,154,759 | (6,316) |
| 104 | Feb 2013 | 2,151,266 | 2,154,759 | (3,493) |
| 105 | Mar 2013 | 2,154,089 | 2,154,759 | (670) |
| 106 | Apr 2013 | 2,156,912 | 2,154,759 | 2,153 |
| 107 | May 2013 | 2,159,735 | 2,154,759 | 4,976 |

(10,550) Forecast average monthly impact assistance

(126,597) Forecast yearly impact assistance

1.015 Forecast growth rate in sales & use tax

Project Description

FMC Corporation's Alkali Chemicals division is the world's largest producer of natural soda ash and the market leader in North America. FMC is also the leader in mining and production of natural soda ash, having developed and implemented multiple proprietary, low-cost mining and processing technologies. The purpose of the Granger Optimization Project is to restore the production capacity of the FMC Granger facility to a nominal 1.3 million tons per year of refined soda ash. The Project will enable FMC to maintain the ability to meet market demands for soda ash by leveraging existing ore resources and its supporting infrastructure.

Restoration of production capacity is necessary in order to meet the soda ash product needs of FMC's worldwide customers. Restoration of production capacity will be accomplished in the Granger Optimization Project through the addition of new brine processing equipment designed to provide the existing facilities with a soda ash liquor concentration similar to that which was obtainable from dry ore processing. Construction of the project is scheduled to begin by May 2013.

The FMC Granger facility currently produces soda ash and caustic soda using weak alkaline brine. The facility presently consists of a flooded underground trona mine used for recovery of brine, soda ash plant, caustic plant, and ancillary utilities (e.g., boilers, water treatment). From the start of operations in 1976 and until 2005 the feedstock for soda ash production came from dry ore produced from the on-site underground trona mine. Under this operating mode the soda ash plant had a permitted production capacity of 1.3 million tons of refined soda ash based on the alkaline liquor concentration achievable from dissolving dry ore. Dry ore mining was eventually discontinued (due to declining ore quality and associated higher production costs) and in 2005 the feedstock for the soda ash plant was switched to mine water (the weak alkaline brine extracted from the underground trona mine). With the less concentrated mine water as the feedstock, the permitted production capacity of the plant was effectively reduced to half of the original 1.3 million tons per year to 650,000 tons per year of refined soda ash; the plant is currently operating at 500,000 tons per year. After completion of the Granger Optimization Project, the production capacity of the plant will be restored to 1.3 million tons per year of soda ash using mine water as the feedstock.

Schedule

Permitting is currently underway for the project. Detailed engineering design began in March 2012. The submittal of the Industrial Siting Application to Wyoming DEQ is planned for August 2012. Major equipment would be ordered in late 2012/early 2013, construction would start in the second quarter of 2013 and full commercial operation would commence on or before the end of 2015.

Construction and Operations Workforce

Construction at the site is expected to start in May 2013. The average construction workforce is estimated at 193 for the 26-month construction duration. The peak construction workforce is estimated at 310 on-site workers. The Operations and Maintenance Workforce for the Granger facility is estimated to be an additional 26 full time permanent positions.

Benefits and Sustainability

FMC has operated two major production facilities in Southwest Wyoming for many decades. Our 930 employees solution mine and dry mine trona from approximately 1,600 feet underground and then process the mineral into natural soda ash, sodium bicarbonate, and caustic soda using modern progressive



technologies. Soda ash is essential to the production of all forms of glass, namely: flat glass, for autos, homes and buildings, container glass for consumer products as well as fiberglass, tableware, lighting and screens for consumer electronics. Soda ash is also a key ingredient in detergents and a building block for other chemicals such as sodium bicarbonate, sodium silicate, sodium phosphates and sodium citrates.

Natural soda ash is considerably less energy intensive and has a lower production cost than its primary competition – synthetic sodas produced in China. As a result, over 50% of U.S. natural soda ash production is exported, providing a significant positive trade balance for the U.S. Our operations depend on the safe and efficient extraction of trona to maintain our worldwide competitiveness. Natural soda ash production from the Wyoming trona basin uses 40% less energy and produces about 40% less greenhouse gas than the worldwide alternative, synthetic soda ash.

The construction and operation of the Granger Optimization Project will provide investment in the local community, employment and expanded tax base with minimal new infrastructure needed. There will be new jobs for both construction and long-term operation. The project will result in additional property, ad valorem, severance and other taxes paid by the project.

Environment

Major environmental permits required for the project include:

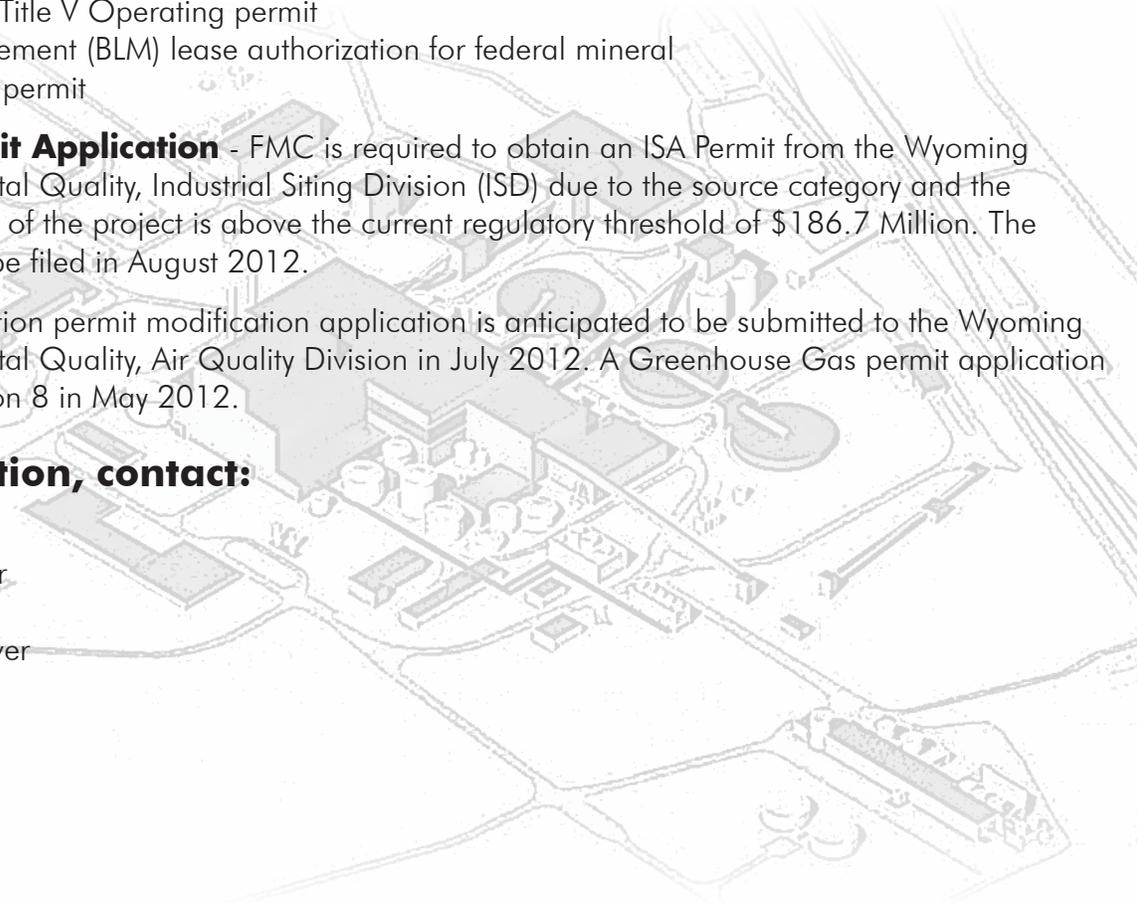
- Wyoming Industrial Development Information and Siting Act (ISA) permit
- Prevention of Significant Deterioration (PSD) Air Construction modification permit
- Greenhouse Gas PSD Construction permit
- Amendment to existing Title V Operating permit
- Bureau of Land Management (BLM) lease authorization for federal mineral
- Wyoming Land Quality permit

Industrial Siting Permit Application - FMC is required to obtain an ISA Permit from the Wyoming Department of Environmental Quality, Industrial Siting Division (ISD) due to the source category and the estimated construction cost of the project is above the current regulatory threshold of \$186.7 Million. The application is expected to be filed in August 2012.

Air - The PSD air construction permit modification application is anticipated to be submitted to the Wyoming Department of Environmental Quality, Air Quality Division in July 2012. A Greenhouse Gas permit application was submitted to EPA Region 8 in May 2012.

For more information, contact:

John Lucas
Environmental Team Leader
FMC Corporation
26 Miles West of Green River
P.O. Box 872
Green River, WY 82935
307-872-2195
john.lucas@fmc.com



Appendix D-2
Public Open House Newspaper Notice

Public Open House Notice

Newspaper Ads were run on Wednesday May 2, 2012 in the Rocket Miner and Green River Star, and the Sweetwater County Guide on Saturday May 5, 2012.

FMC Granger Optimization Project



Public Open House

Please join us to learn more about the FMC Granger Optimization Project. The purpose of the Granger Optimization Project is to restore the production capacity of the FMC Granger facility to 1.3 million tons per year of refined soda ash. The Project will enable FMC to maintain the ability to meet market demands for soda ash by leveraging existing ore resources and its supporting infrastructure.

Topics will include

- Project location and site plan
- Project description
- Project schedule
- Permitting
- Construction and operations workforce
- Business needs and community benefits

May 8, 2012, 2:30-7 pm - Green River
Chamber of Commerce
1155 West Flaming Gorge Way

May 9, 2012, 2:30-7 pm - Rock Springs
White Mountain Library
2935 Sweetwater Dr.

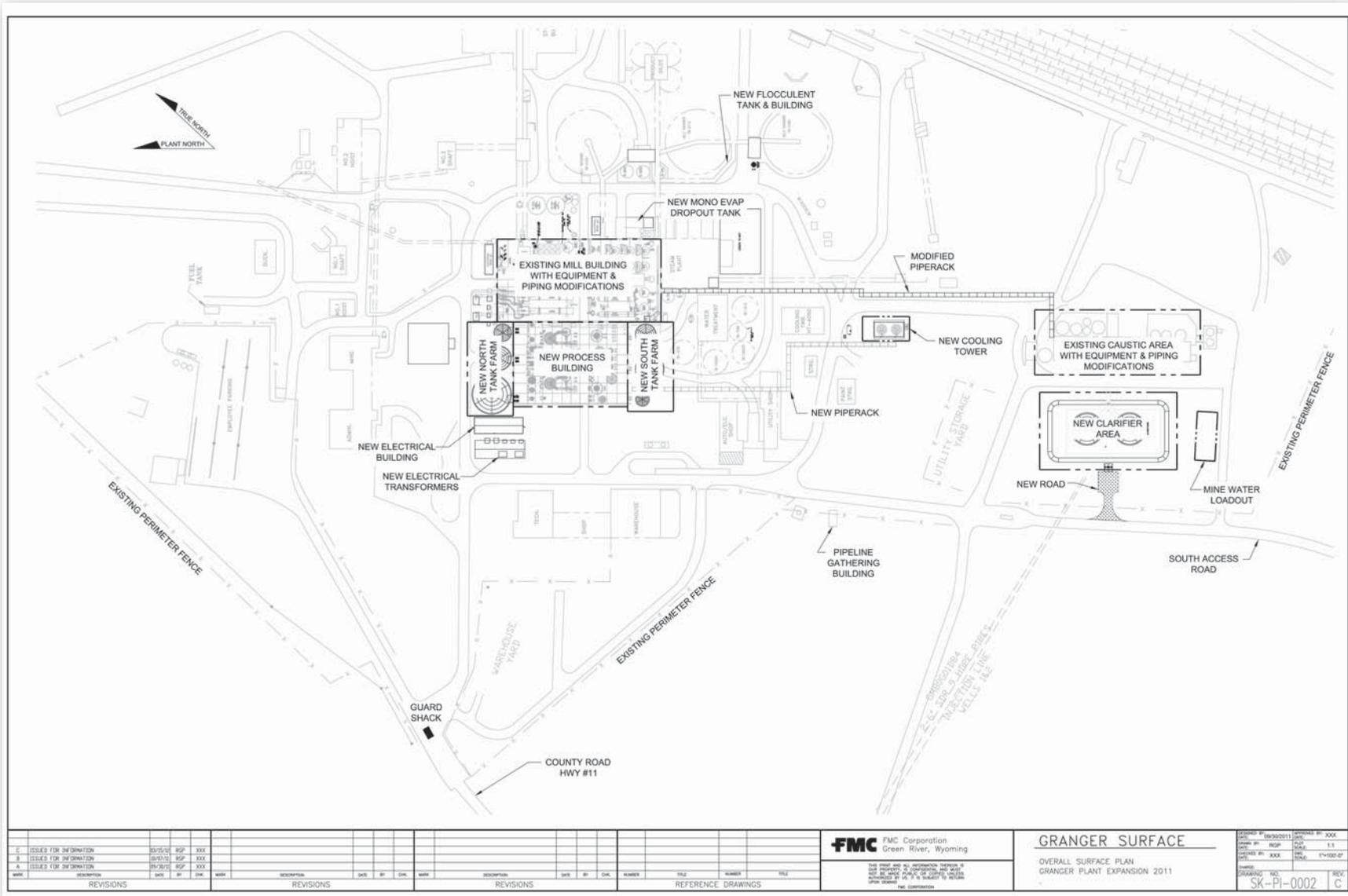
Appendix D-3
Public Open House Welcome Sign

Welcome

FMC Granger Optimization Project

Please Sign In!





Granger Optimization Project Description

This description is intended to provide a general overview of the Granger Optimization Project as it is currently conceived. Engineering design work for the project is ongoing so certain features could change as this work is completed. Associated displays show a block flow diagram of the process and a site plan of the major equipment location relative to the existing plant facilities.

The project design is based on pumping a nominal flow of mine water to the new processing equipment. This equipment will be located in Sweetwater County and will be adjacent and integral to existing equipment at the FMC Granger facility. The new equipment for processing mine water consists of mine water concentrating vessels, sodium carbonate decahydrate crystallizers (and associated centrifuges) for impurity removal, and various ancillary fluid storage tanks.

Sodium hydroxide (caustic) is used during the production of soda ash from mine water and a component of the Granger Optimization Project is the addition of a caustic clarifier and a lime mud washer to the FMC Granger facility's existing caustic production plant. These new vessels will enhance recovery of caustic material while improving caustic product quality. These new vessels will enhance caustic product quality.

Mine Water Concentration

The alkali solution originating in the FMC Granger underground mine workings will be pumped to an existing clarifier on the surface where fine insoluble particles will be removed. The clarified mine water then goes to other processing vessels where the sodium bicarbonate fraction of the mine water alkalinity will be converted to sodium carbonate, using proprietary technology, and a concentrated solution formed through evaporation. The bicarbonate conversion process will result in emission of carbon dioxide, water vapor, and a small quantity of hydrogen sulfide. The hydrogen sulfide, which is formed from natural sodium sulfide in the mine water feedstock, will be controlled with an absorber.

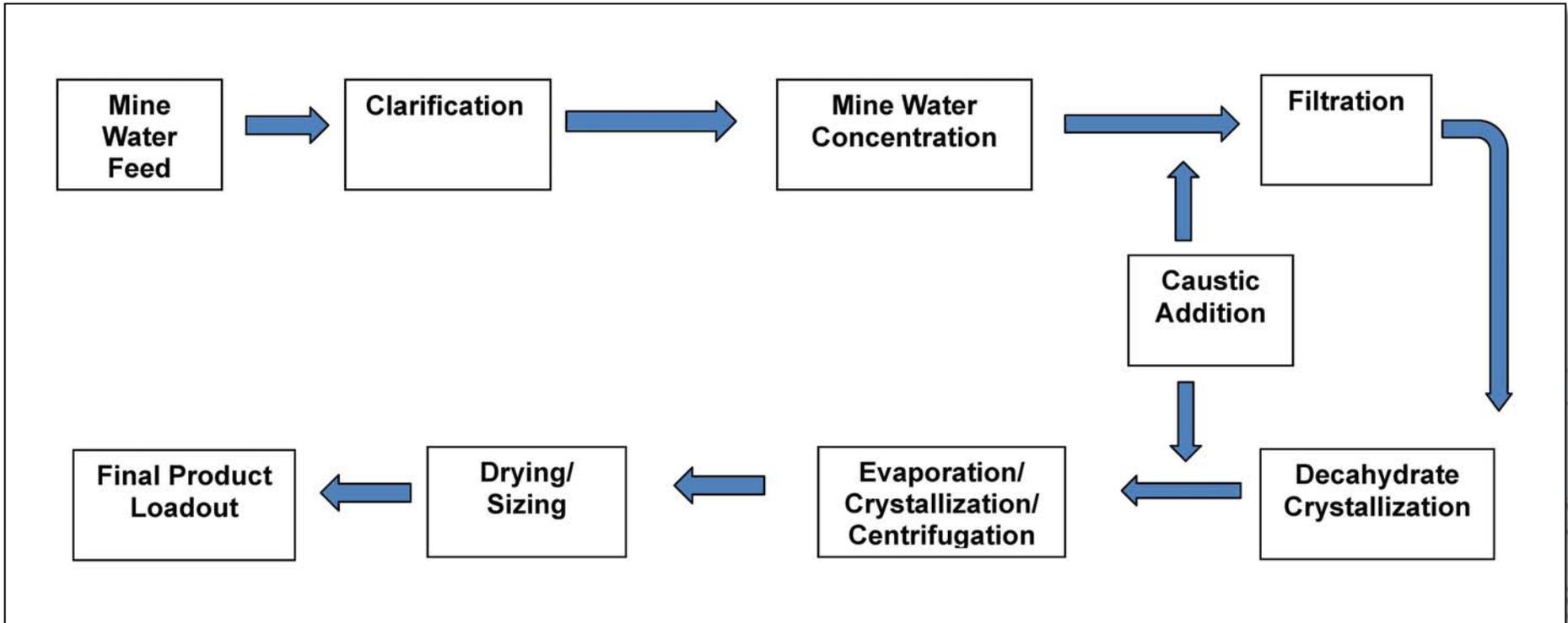
Since the bicarbonate decomposition process will not be completely efficient in converting sodium bicarbonate to sodium carbonate, a small amount of weak caustic solution will be added to the process liquor stream in order to further the conversion. Following the mine water concentration operation, the process liquor will proceed to existing pressure leaf filters for removal of any residual insoluble particles.

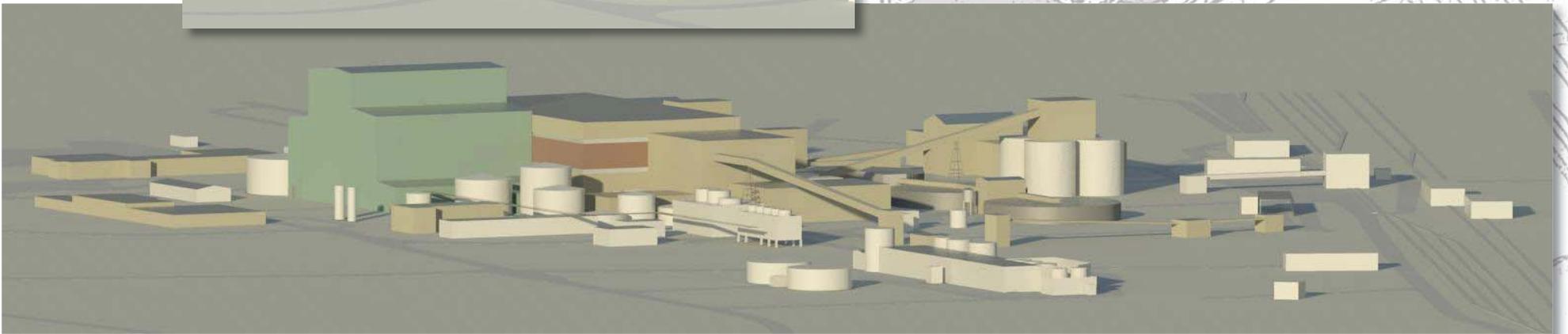
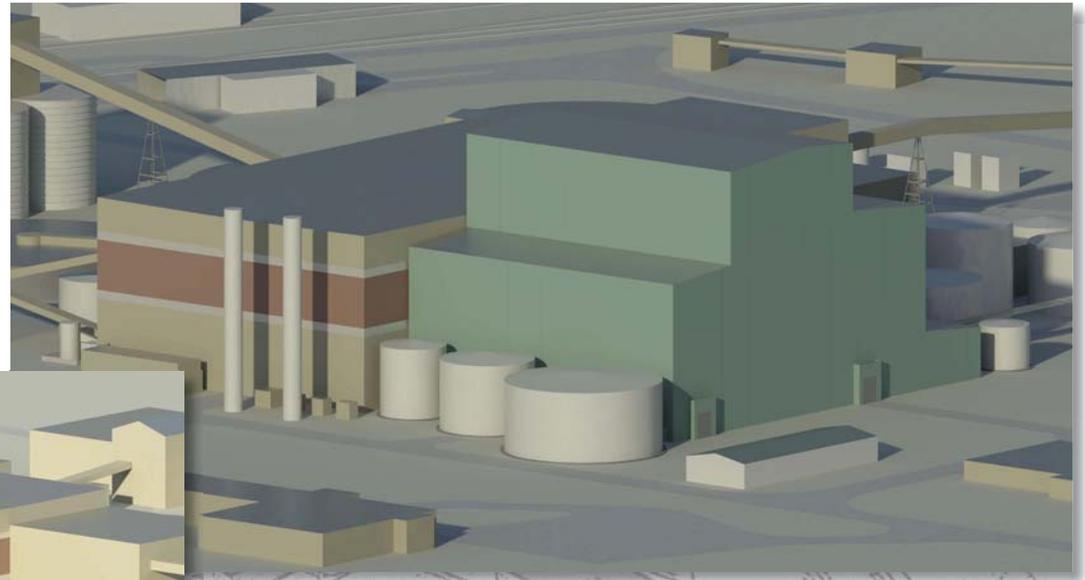
Decahydrate Crystallization

In the next step in the process the filtered liquor will be cooled in crystallizer vessels where sodium carbonate decahydrate crystals will be formed. The decahydrate crystallization process rejects soluble impurities and provides the principal means of purifying the liquor solution for the production of high purity anhydrous sodium carbonate. The precipitated crystals will be centrifuged, to separate them from the mother liquor, and then melted to provide the sodium carbonate solution that will be fed to the facility's existing monohydrate crystallizers.

Final Processing

Final production of soda ash product involves formation of sodium carbonate monohydrate crystals and subsequent conversion to anhydrous sodium carbonate.





| Task | Timeline |
|---|--------------|
| Start Environmental Permitting | October 2011 |
| ISD Jurisdictional Meeting | January 2012 |
| Start Detailed Engineering Design | March 2012 |
| Submit ISA Permit Application | June 2012 |
| FMC Board Project Review | July 2012 |
| Complete Detailed Engineering Design | May 2013 |
| Environmental Permits In Place for Construction * | May 2013 |
| Commence Construction * | May 2013 |
| Full Commercial Operation * | October 2015 |

*Or sooner pending permit approval process

Business Need

FMC has operated two major production facilities in Southwest Wyoming for many decades. Our 930 employees solution mine and dry mine trona from approximately 1,600 feet underground and then process the mineral into natural soda ash, sodium bicarbonate, and caustic soda using modern progressive technologies. Soda ash is essential to the production of all forms of glass, namely: flat glass, for autos, homes and buildings, container glass for consumer products as well as fiberglass, tableware, lighting and screens for consumer electronics. Soda ash is also a key ingredient in detergents and a building block for other chemicals such as sodium bicarbonate, sodium silicate, sodium phosphates and sodium citrates.

Natural soda ash is considerably less energy intensive and has a lower production cost than its primary competition – synthetic sodas produced in China. As a result, over 50% of U.S. natural soda ash production is exported, providing a significant positive trade balance for the U.S. Our operations depend on the safe and efficient extraction of trona to maintain our worldwide competitiveness. Natural soda ash production from the Wyoming trona basin uses 40% less energy and produces about 40% less greenhouse gas than the worldwide alternative, synthetic soda ash.

The purpose of the Granger Optimization Project is to restore the production capacity of the FMC Granger facility to a nominal 1.3 million tons per year of refined soda ash. The Project will enable FMC to maintain the ability to meet market demands for soda ash by leveraging existing ore resources and its supporting infrastructure.

Community Benefits

New Investment

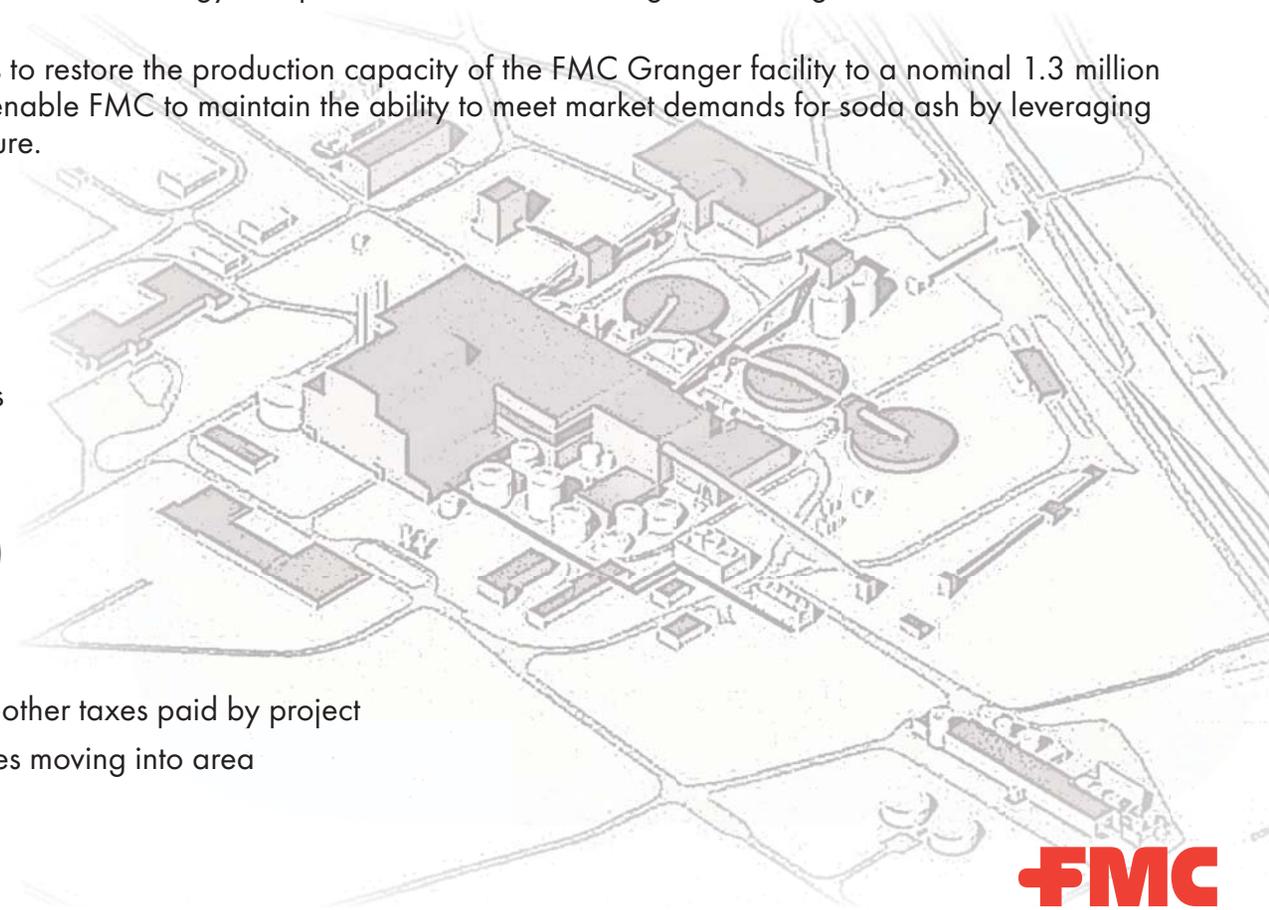
- project cost in excess of \$200 million
- millions of dollars to be spent on local purchases
- local service industry expanded

Employment

- approximately 193 construction jobs (310 peak)
- 26 additional permanent positions

Expanded Tax Base

- additional property, ad valorem, severance and other taxes paid by project
- additional property taxes paid by new employees moving into area



Environmental Permits

Major environmental permits required for the project include:

- Wyoming Industrial Development Information and Siting Act (ISA) permit
- Prevention of Significant Deterioration (PSD) Air Construction modification permit
- Greenhouse Gas (GHG) PSD Construction permit
- Amendment to existing Title V Operating permit
- Bureau of Land Management (BLM) lease authorization for federal mineral
- Wyoming Land Quality permit

Industrial Siting Permit Application

FMC Corporation is required to obtain an ISA permit from the Wyoming Department of Environmental Quality, Industrial Siting Division (ISD) due to the source category and the estimated construction cost of the project is above the current regulatory threshold of \$186.7 million. The application is expected to be filed in June 2012.

The Wyoming ISA permit requirements focus on four main issues:

1. Confirmation from the Wyoming State Engineer's Office (SEO), via a formal opinion letter, that any water consumed by the project would be appropriately used and that such use will not adversely affect other water users in the vicinity.
2. Review of the social and economic impacts of the construction and operation of the project, with identification and mitigation strategies for any predicted impacts.
3. Review of any environmental impacts of the project that are not under the specific jurisdiction of any other state agency.
4. Based on review of the applicant's application and socioeconomic analysis, and input from local agencies, the Industrial Siting Division will make a recommendation to the Industrial Siting Council on the distribution of impact assistance funds.

Current Activities:

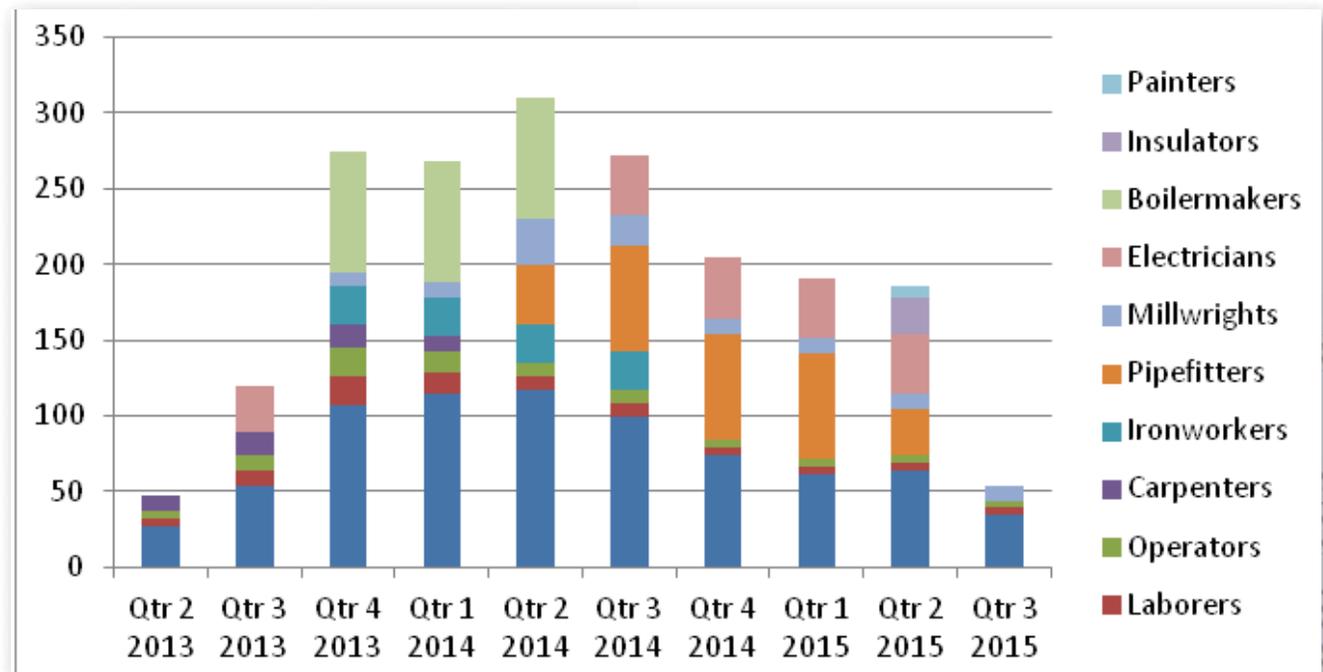
- The project team met with the SEO on January 9, 2012 to discuss estimated water use for the project and a subsequent report was submitted to the SEO.
- Work on the socioeconomic analysis and preparation of the Industrial Siting Permit Application is in progress.
- The project team currently has studies underway analyzing the housing needs for both the construction and permanent operations workforce.
- Transportation route and traffic studies are currently underway for both construction/operation personnel and equipment deliveries.
- The project team is currently working on preparing a PSD air construction modification permit application for submittal to WDEQ and a GHG air construction permit application for submittal to EPA. Both of these applications are expected to be submitted by June 2012.

Construction Workforce

Construction at the site is expected to start in May 2013. The average construction workforce is estimated at 193 for the 26-month construction duration. The peak is estimated at 310 on-site workers in the second quarter of 2014.

Construction crafts will include:

- Painters
- Insulators
- Boilermakers
- Electricians
- Millwrights
- Pipefitters
- Ironworkers
- Carpenters
- Equipment Operators
- Laborers
- Construction Management



Operations Workforce

It is estimated that there will be a need for 26 additional permanent positions as a result of the Granger Optimization Project.

Appendix D-5
Public Open House Sign-In Sheet

Appendix D-6
Public Open House Comment Form

Appendix D-7

Public Open House Attendance Green River May 8, 2012



FMC Granger Optimization Project Public Meeting - May 8, 2012, 2:30 to 7:00 pm
 Chamber of Commerce Building
 1155 West Flaming Gorge Way
 Green River, Wyoming
Sign-in Sheet - Please Print Clearly

| Name | Representing | Title | Address |
|--------------------|----------------------|-----------------------------------|------------------------------------|
| Todd Johnson | OCF | Engineer Environmental | P.O. Box 513 Green River, WY 82935 |
| Dini Rajaravivarma | Tata | | |
| Terry Leigh | Retired | | 465 Faith Drive G. A. |
| Nelle Johnson | — | — | Box 1343 RS, WY 82902 |
| PAT ROBBINS | WY. BUSINESS COUNCIL | REG. DIRECTOR | 1400 DEWAR DR Suite 208, RS 82901 |
| Lop Jurgason | RETIRED FR | | RC, SD 57702 |
| Vicki Severson | RETIRED | | RAPID CITY, SD 57702 |
| Cory Murray | GR / Gorge Rock | G.M. | 1350 Doe Dr. GR WY |
| Tim Brown | Solvay | Environmental Services Supervisor | P.O. Box 1167 Green River, WY |
| Quisha Townes | Solvay | Environmental Engineer | P.O. Box 1167 Green River, WY |
| Lenore & Perry | Town of Granger | Mayor | P.O. Box 42 Granger 82934 |
| | | | |
| | | | |

Appendix D-8

Public Open House Attendance Rock Springs May 9, 2012

Appendix D-9

Green River Star Newspaper Article March 14, 2012



Wednesday, March 14, 2012

121st Year, 46th Issue

Green River, WY 82935

Address Service Requested

75 cents

2011 MEMBER



THE GREEN RIVER STAR

FMC plans Granger plant expansion

By DAVID MARTIN
Regional Editor

A major construction project at the FMC's facility in Granger will bring hundreds of workers to Sweetwater County.

The soda ash producer plans to begin its Granger Optimization Project in May, 2013, which will result in the facility being capable of producing 1.3 million tons of refined soda ash per year. A work force of 204 workers during a 26-month period will add new brine processing equipment designed to give FMC's existing facilities a soda ash liquor

concentration similar to dry ore processing. A total of 25 full time, permanent jobs will be added once the renovation is completed.

According to Jim Pearce, venture director for FMC's Alkali Chemicals Division, the company's Granger facility has been in operation for the last 18 months and is producing about 500,000 tons of soda ash per year. Originally, the facility was a dry ore mine, but mining was suspended in 2005 as a result of decreasing ore quality and higher production costs.

The plant originally was able to produce 1.3 million tons per year through creating

brine by dissolving dry ore. However the company switched to using less concentrated mine water to process soda ash, which cut the amount the facility was capable of producing.

Pearce said the company started the engineering design this month and expects to submit of its Industrial Siting Application to the Wyoming Department of Environmental Quality in June. He said major equipment purchases will be made during the end of 2012 and beginning 2013. FMC expects full commercial operation will begin by the end of 2015.

While speaking to the Green River City

Council, Pearce told them the process utilized at FMC Granger would result in 40 percent less greenhouse gas and 40 percent less energy than synthetic soda ash produced in China. Pearce also said natural soda ash is less energy intensive than the synthetic variety and has lower production costs. As such, more than 50 percent of natural soda ash produced in the U.S. is exported.

Soda ash is used in all forms of glass and is an important ingredient in the creation of laundry detergent and other chemicals. Pearce said the project will result in additional tax revenue for the county as well.

ROCKET MINER



Volume CXXXIII - No. 69

www.rocketminer.com

Thursday, March 22, 2012

75¢

YOUR LOCAL NEWS SOURCE SINCE 1881

aspect and comments will be deleted within the specified period. All comments will be moderated within the specified period.

FMC working to improve its soda ash plant near Granger

JOEL GALLOB
Rocket Miner Staff Reporter

GREEN RIVER — FMC Corporation's Venture Director Jim Pearce described the company's plans to improve its soda ash operation in the Granger area at the Green River City Council meeting on March 20.

Pearce said the optimization project would create an estimated 204 jobs during its 26-month construction period and then add 25 full-time positions.

He said FMC is the world's largest producer of soda ash and the Granger facility produces soda ash and caustic soda using weak alkaline brine.

"From the start of operations in 1976 until 2005, the feedstock for the soda ash production came from dry ore produced from the on-site underground trona mine," he said. "Under this operating mode, the soda ash plant had a permitted production capacity of 1.3 million tons of refined soda ash per year."

However, he said dry ore mining was discontinued due to declining ore quality and higher production costs. In 2005, he said the feedstock for the soda ash plant was switched to mine water, a weak

brine taken from the underground trona mine. He said that cut production from 1.3 million tons per year to 650,000, and the plant is now operating at 500,000 tons per year.

To remedy that, the optimization project is working to return to the previous 1.3 million tons per year of soda ash rate.

Pearce said detailed engineering design work began in March, the company will submit a permit to the Wyoming Department of Environmental Protection in June 2012 and major equipment will be ordered in late 2012 or early 2013. He said they hope to start construction in the second quarter of 2013 and resume full commercial operations on or before the end of 2012.

He said soda ash is essential to the production of all forms of glass and is also a key ingredient in detergents and other chemicals with industrial uses. Natural soda ash has a lower production cost than synthetic soda ash, which is produced in China, Pearce said. As a result, he said FMC exports soda ash to many places, including China, which is good not only for Sweetwater County but also for the United States' balance of payments in international trade.

Appendix E-1
Housing Commitment Summary Table

Appendix E – Temporary Housing Commitments

TABLE 1
Non-Local Temporary Housing Needs and Housing Commitments by Quarter

| | | Qtr 2 2013 | Qtr 3 2013 | Qtr 4 2013 | Qtr 1 2014 | Qtr 2 2014 | Qtr 3 2014 | Qtr 4 2014 | Qtr 1 2015 | Qtr 2 2015 | Qtr 3 2015 |
|---|------------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|
| Non-Local Workforce | | 34 | 90 | 183 | 194 | 254 | 199 | 181 | 143 | 154 | 68 |
| Non-Local Workforce Allocated to Rental Apts / Houses (Up to 5) | | 1 | 2 | 4 | 4 | 5 | 4 | 4 | 3 | 3 | 1 |
| Non-Local Workforce Allocated to RV / Campsites (15%) | | 5 | 13 | 27 | 29 | 37 | 29 | 27 | 21 | 23 | 10 |
| Non-Local Workforce Allocated to Hotel / Motels (85%) | | 28 | 75 | 152 | 162 | 212 | 166 | 151 | 119 | 128 | 57 |
| Workforce Count in Double Occupancy | | 7 | 19 | 38 | 40 | 53 | 41 | 38 | 30 | 32 | 14 |
| Number of Single-bed Rooms | | 21 | 56 | 114 | 121 | 159 | 124 | 113 | 89 | 96 | 42 |
| Number of Double-bed Rooms | | 4 | 9 | 19 | 20 | 26 | 21 | 19 | 15 | 16 | 7 |
| Total Number of Hotel Units | | 25 | 66 | 133 | 141 | 185 | 145 | 132 | 104 | 112 | 50 |
| | | | | | | | | | | | |
| Temporary Housing Facility | Community | | | | | | | | | | |
| Comfort Inn & Suites | Rock Springs | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 |
| Hampton Inn & Suites | Rock Springs | 20 | 20 | 20 | 20 | 20 | 20 | 20 | 20 | 20 | 20 |
| Holiday Inn Express | Rock Springs | 60 | 60 | 60 | 60 | 60 | 60 | 60 | 60 | 60 | 60 |
| LaQuinta Inn | Rock Springs | 40 | 40 | 40 | 40 | 40 | 40 | 40 | 40 | 40 | 40 |
| Motel 6 | Rock Springs | 45 | 45 | 70 | 70 | 45 | 45 | 70 | 70 | 45 | 45 |
| Quality Inn | Rock Springs | 80 | 80 | 80 | 80 | 80 | 80 | 80 | 80 | 80 | 80 |
| Motel 8 | Rock Springs | 30 | 30 | 40 | 55 | 35 | 30 | 40 | 55 | 40 | 30 |
| Skyline Village (RV) | Rock Springs | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 |
| Sweet Dreams Inn | Green River | 26 | 26 | 26 | 26 | 26 | 26 | 26 | 26 | 26 | 26 |
| Tex's Travel Camp (RV) | Green River | 50 | 50 | 50 | 50 | 50 | 50 | 50 | 50 | 50 | 50 |
| Motel 6 | Evanston | 55 | 55 | 55 | 80 | 80 | 80 | 80 | 80 | 80 | 80 |
| Hampton Inn | Evanston | 20 | 20 | 20 | 20 | 20 | 20 | 20 | 20 | 20 | 20 |

TABLE 1
Non-Local Temporary Housing Needs and Housing Commitments by Quarter

| | | Qtr 2 2013 | Qtr 3 2013 | Qtr 4 2013 | Qtr 1 2014 | Qtr 2 2014 | Qtr 3 2014 | Qtr 4 2014 | Qtr 1 2015 | Qtr 2 2015 | Qtr 3 2015 |
|---|----------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|
| Howard Johnson Inn Hotel | Evanston | 137 | 137 | 137 | 137 | 137 | 137 | 137 | 137 | 137 | 137 |
| Best Western Dunmar Inn | Evanston | 40 | 40 | 85 | 85 | 85 | 80 | 85 | 40 | 40 | 40 |
| Phillips RV Park (RV) | Evanston | 20 | 20 | 0 | 0 | 20 | 20 | 0 | 0 | 20 | 20 |
| Antler's Motel | Kemmerer | 50 | 50 | 50 | 50 | 50 | 50 | 50 | 50 | 50 | 50 |
| Best Western Plus Fossil Country Inn & Suites | Kemmerer | 50 | 50 | 60 | 60 | 50 | 50 | 60 | 60 | 50 | 50 |
| Fossil Butte Motel | Kemmerer | 6 | 6 | 13 | 13 | 6 | 13 | 13 | 13 | 13 | 13 |
| Fairview Motel | Kemmerer | 45 | 45 | 45 | 45 | 45 | 45 | 45 | 45 | 45 | 45 |
| Foothills Mobile Home & RV Park | Kemmerer | 72 | 72 | 72 | 72 | 72 | 72 | 72 | 72 | 72 | 72 |
| The Hams Fork Grill and RV Park | Kemmerer | 17 | 17 | 17 | 17 | 17 | 17 | 17 | 17 | 17 | 17 |
| SUM (Hotel rooms / RV sites) | | 851 | 851 | 918 | 958 | 926 | 923 | 943 | 913 | 893 | 853 |
| Surplus (non-local workforce) | | 826 | 785 | 785 | 817 | 741 | 778 | 811 | 809 | 781 | 803 |

TABLE 2
Additional Temporary Housing Units (Partial Commitments) by Quarter

| Temporary Housing Facility | Community | Qtr 2 2013 | Qtr 3 2013 | Qtr 4 2013 | Qtr 1 2014 | Qtr 2 2014 | Qtr 3 2014 | Qtr 4 2014 | Qtr 1 2015 | Qtr 2 2015 | Qtr 3 2015 |
|-----------------------------------|--------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|
| America's Best Value Inn & Suites | Rock Springs | 49 | 34 | 67 | 77 | 49 | 34 | 67 | 77 | 49 | 34 |
| Best Western Outlaw Inn | Rock Springs | 33 | 23 | 45 | 52 | 33 | 23 | 45 | 52 | 33 | 23 |
| Cody Motel | Rock Springs | 14 | 10 | 18 | 21 | 14 | 10 | 18 | 21 | 14 | 10 |
| Days Inn | Rock Springs | 37 | 26 | 50 | 58 | 37 | 26 | 50 | 58 | 37 | 26 |
| Economy Guest Village | Rock Springs | 37 | 26 | 50 | 58 | 37 | 26 | 50 | 58 | 37 | 26 |
| Elk Motel | Rock Springs | 6 | 5 | 9 | 10 | 6 | 5 | 9 | 10 | 6 | 5 |
| Sands Inn | Rock Springs | 7 | 5 | 9 | 11 | 7 | 5 | 9 | 11 | 7 | 5 |
| Springs Motel | Rock Springs | 8 | 6 | 11 | 12 | 8 | 6 | 11 | 12 | 8 | 6 |
| Super 8 | Rock Springs | 17 | 12 | 23 | 26 | 17 | 12 | 23 | 26 | 17 | 12 |

TABLE 2
Additional Temporary Housing Units (Partial Commitments) by Quarter

| Temporary Housing Facility | Community | Qtr 2 2013 | Qtr 3 2013 | Qtr 4 2013 | Qtr 1 2014 | Qtr 2 2014 | Qtr 3 2014 | Qtr 4 2014 | Qtr 1 2015 | Qtr 2 2015 | Qtr 3 2015 |
|--------------------------------------|--------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|
| Rock Springs/Green River KOA | Rock Springs | 14 | 10 | 18 | 21 | 14 | 10 | 18 | 21 | 14 | 10 |
| Oak Tree Inn | Green River | 64 | 44 | 86 | 100 | 64 | 44 | 86 | 100 | 64 | 44 |
| Hampton Inn & Suites | Green River | 35 | 25 | 48 | 56 | 35 | 25 | 48 | 56 | 35 | 25 |
| Coachman Inn | Green River | 6 | 5 | 9 | 10 | 6 | 5 | 9 | 10 | 6 | 5 |
| Flaming Gorge Motel | Green River | 6 | 5 | 9 | 10 | 6 | 5 | 9 | 10 | 6 | 5 |
| Super 8 | Green River | 13 | 9 | 18 | 20 | 13 | 9 | 18 | 20 | 13 | 9 |
| Western Inn | Green River | 11 | 8 | 15 | 17 | 11 | 8 | 15 | 17 | 11 | 8 |
| Holiday Inn Express | Evanston | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 | 30 |
| Days Inn | Evanston | 32 | 22 | 43 | 49 | 32 | 22 | 43 | 49 | 32 | 22 |
| Super 8 | Evanston | 28 | 19 | 37 | 43 | 28 | 19 | 37 | 43 | 28 | 19 |
| Comfort Inn | Evanston | 19 | 13 | 26 | 30 | 19 | 13 | 26 | 30 | 19 | 13 |
| EconoLodge | Evanston | 29 | 21 | 40 | 46 | 29 | 21 | 40 | 46 | 29 | 21 |
| High Country Inn | Evanston | 14 | 10 | 18 | 21 | 14 | 10 | 18 | 21 | 14 | 10 |
| Prarie Inn Motel | Evanston | 10 | 7 | 14 | 16 | 10 | 7 | 14 | 16 | 10 | 7 |
| Riverside RV & Mobilehome Park (RV) | Kemmerer | 12 | 8 | 16 | 18 | 12 | 8 | 16 | 18 | 12 | 8 |
| Firehole Canyon Campground Ashley NF | | 13 | 9 | 17 | 20 | 13 | 9 | 17 | 20 | 13 | 9 |
| SUM (Hotel rooms / RV sites) | | 544 | 392 | 726 | 832 | 544 | 392 | 726 | 832 | 544 | 392 |

Notes: ^a The facilities in this table indicated their willingness to work with FMC to accommodate its temporary housing needs but did not provide a firm commitment of rooms / sites. Available units were calculated by multiplying the total number of rooms at the facility by the average quarterly vacancy rate from the past 5 years (2006 through 2012) from the Smith Reports.

Appendix E-2
Housing Commitment Correspondence

**BEST WESTERN
EVANSTON, WY**

May 18, 2012

CH2M Hill
9193 South Jamaica Street
Englewood, CO 80112-5946

Attention: CH2M HILL

Dear Ms. ,

Thank you for the opportunity to tell you about our Hotel. The Best Western Dunmar Inn is a 165 room Hotel, spread out over 15 acres. All but 8 of our rooms are ground level access.

Our room rates change seasonally and annually. Our regular rate from now until 2015 will vary depending on the time of year, but will be from \$99.99 to \$129.99 per year. However, we offer great discounts for Corporations.

This year our Corporate rate was \$69.99 per night in the off season, and \$79.99 during the summer months. I would expect that the Corporate rate will run anywhere from \$69.99 per night through \$89.99 in the upcoming 3 years. We do offer weekly rates that reduce the rate. We have a "Stay for 7, pay for 6" plan for our Corporate clientele. What this means is this.....with once a week housekeeping service, our guests can stay for 7 nights, but only pay for 6 nights, which results in GETTING ONE NIGHT FREE EACH WEEK.

Or we have a "Monthly Plan" available. This plan also offers once a week housekeeping services, but reduces the rate even more. Once our guest has stayed for 30 nights, a rate adjustment is applied to the Hotel bill. This rate adjustment is equivalent to approximately \$13.00 per night. In addition to this savings, the 30-night stay is also eligible to an adjustment of all sales and lodging taxes that had been included from the first night rented. The monthly stay must be consecutive in order to have these two discounts applied. This is a huge saving not only in the nightly rate, but also a savings of 8% in taxes.

Our Hotel is the only place in Evanston that is full service. We have a wonderful restaurant that serves breakfast, lunch and dinner. We also have a great lounge that also offers food and beverage services. In addition, our restaurant has 3 private meeting rooms for your business needs.

All of our Hotel rooms have king or queen size beds, topped with a 7-layer bedding and feather pillows. Each room has a 37" flat screen t.v., a hairdryer, a microwave and a refrigerator. Every room has "drive to the door" access.

We currently have rooms available and would love to work with your company. Information about our Hotel can be found at www.bestwestern.com/dunmarinn. If you do not find all the information you need there, please do not hesitate to email or call me.

Sincerely,

Sandra Lowe
General Manager

**HAMPTON INN
EVANSTON, WY**

Dear CH2M HILL ,

For our total number rooms available: 10 non smoking two queen rooms and 10 non smoking single kings.

Typical occupancy rates: \$80.00 plus taxes for winter time and \$99.00 plus taxes for summer time.

Weekly rate: \$604.80 a week for October to April. \$748.44 a week for May to September.

Please let me know if you have any other questions.

Thank You,
Sherry Wallick
Front Office Manager

From: [CH2M HILL . @ch2m.com](mailto:CH2M.HILL.@ch2m.com) [CH2M HILL . @ch2m.com]
Sent: Tuesday, May 01, 2012 4:23 PM
To: Sherry Wallick
Subject: Room Availability Request for FMC Granger Project 2013-2015

Hello Sherry,

I reached out to you by phone today concerning details and accommodations of Hampton Inn Evanston . On behalf of FMC Corporation, I am contacting you to determine room availability for the construction workforce slated for the FMC Granger Mining Project, located just north of Little America, WY. We are looking to secure housing for approximately 40% of the construction workforce slated to work on the over an approximately 3-year period, from the second quarter of 2013 through the end of 2015. Construction will begin with approximately 40 workers in spring 2013, rising monthly to a peak of approximately 200 workers in spring of 2014, and falling monthly afterward to approximately 30 workers by year's end 2015.

I was hoping you could provide the following information for your hotel regarding availability of rooms and rates during this period. Here is a summary of the information we are requesting:

Total number of rooms:

Number of single-occupancy, double-occupancy, suites (if appropriate):

Typical occupancy rates (seasonal, special events, etc.):

Rates by room type:

Weekly rates:

Negotiated rates for companies (general or specific to this Project):

Room availability (Q2 2013 to Q4 2015):

Please respond by email or letter with the above information using the contact information provided below. Please note our largest priority is covering the peak construction season from roughly October 2013 to March 2014, when we will have the largest number of workers on site.

Please also note that we are not looking for Letters of Commitment at this time, however this information will be used at a later date to determine housing commitments, so again any information you can provide would be greatly appreciated.

If you have any additional questions, please feel free to contact me. I look forward to your quick response, and appreciate your assistance.

Thanks,
CH2M HILL

CH2M HILL ; E.I.T. & LEED-AP
Environmental Engineer, Denver
Environmental Services

CH2M HILL
9193 South Jamaica Street
Englewood, CO 80112-5946
Direct 720. 555.0226
Fax 720. 555.8142
Email CH2M_HILL_@ch2m.com
www.ch2mhill.com

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HOWARD JOHNSON – EVANSTON

339 Wasatch Road
Evanston, WY 82930
307-789-2220
Fax 307-789-4122

May 22, 2012

CH2M HILL
9193 South Jamaica Street
Englewood, CO 80112-5946

Dear CH2M HILL,

Thank you for contacting us regarding this opportunity to assist you in housing your construction workforce. Our owners and the entire staff are dedicated to making the Howard Johnson – Evanston the most affordable quality hotel in the area and would be delighted to help you meet your needs. We are the property of choice for many long-term guests similar to your work force and have considerable experience in dealing with their unique needs.

Listed below are some of the amenities we feature:

- ✓ Clean, comfortable rooms
- ✓ The Rendezvous Lounge, a sports bar, with numerous tvs, pool tables, and dart boards
- ✓ The Lodge, a full-service restaurant, including the ability to host BBQs
- ✓ Free daily continental breakfast
- ✓ On site guest laundry facilities and laundry service
- ✓ Flexible room cleaning hours to accommodate alternate work schedules
- ✓ Free High Speed Internet Access
- ✓ Banquet space for up to 60 people to accommodate training or social needs

In response to your email of May 1, 2012, here are specific responses to the questions you posed:

- 1) *Total Number of Rooms* - We are one of the largest properties in the region with a total of 137 guest rooms. See below for a list of types of rooms we offer. Considering double occupancy, we can comfortably accommodate over 200 guests.

| | |
|---------------------------------|------------|
| Standard Rooms | 121 |
| Standard Rooms with Kichenettes | 6 |
| Two Room Kitchenette Suites | 8 |
| Supervisor Apartment | 1 |
| Jacuzzi Suite | 1 |
| Total | 137 |

- 2) *Typical Rates* – Our standard rates per night are listed below.

| | |
|------------------|----------------|
| Single Occupancy | \$56.99/night |
| Double Occupancy | \$64.99/night |
| Suites | \$119.99/night |

For long term stays, we would be happy to offer a **25% discount** on our typical rates as listed under Weekly Rates/Negotiated Rates for Companies below.

- 3) *Weekly Rates/Negotiated Rates for Companies* – Under our Weekly Rate Plan, we offer room cleaning at least two times per week. In addition, we provide weekly specials to our long-term guests, such as complimentary drink coupons for the The Rendezvous Lounge and food discounts at The Lodge.

Under our Weekly Rate Plan, we would offer you the following weekly rates for our standard rooms:

Single Occupancy \$299 per week
Double Occupancy \$349 per week

In addition, any time your work force is occupying eight or more rooms, we would offer you one suite free of charge for you to house Management, Supervisorial, or other Staff.

- 4) *Room Availability by Quarter* – With sufficient advance notice, we are prepared to make available to you the entire 137 rooms at the property. As one of the largest properties in the region, we offer you the unique opportunity to house your entire workforce. This will provide a real benefit to you that it will limit the administrative difficulties associated with using multiple sites, simplifying the work required to place workers and handle billing. In addition, using the Howard Johnson Evanston as the host property will allow you to provide other services to your work force including using the on-site facilities for training and employee recognition activities, as well as allowing you to facilitate efficient transportation to the work site.

Thank you again for contacting us regarding your room needs. My staff and I are at your disposal to answer any questions you might have.

Misty McWain
General Manager



MOTEL 6
EVANSTON, WY

As per your request;

Single smoking – 10 rooms (1 handicap)

Double smoking – 12 rooms (1 handicap)

Single non-smoking – 20 rooms (1 handicap)

Double non-smoking – 45 rooms (1 handicap)

Single occupancy - \$264.53 per week (no refunds for early departure)

Double occupancy - \$302.55 per week (no refunds for early departure)

These rates will remain the same for the length of your stay.

Our regular rates are as follows;

Daily single \$49.99 + tax = \$53.99 – Oct - Mar

Daily double \$55.99 + tax = \$60.47

Daily single \$39.99 + tax = \$43.19 – Apr – Sept

Daily double \$45.99 + tax = \$48.59

For pictures and questions regarding our amenities, please visit our website at; www.motel6.com

We offer a small fridge and microwave in every room. We also offer free internet.
We have coffee, tea and hot chocolate at all times, free, in the front lobby.

We have coin operated washers and dryers on site, for guest laundry.

Please feel free to contact us again with any more questions or concerns.

Thank You

From: [CH2M HILL . @ch2m.com](mailto:CH2M_HILL_.@ch2m.com) [[mailto:CH2M_HILL . @ch2m.com](mailto:CH2M_HILL_.@ch2m.com)]
Sent: Tuesday, May 01, 2012 4:16 PM
To: M64026BO@motel6.com
Subject: Room Availability Request for FMC Granger Project 2013-2015

Hello,

I reached out to one of your staff in April concerning details and accommodations of Motel 6 Evanston and received this email address.

On behalf of FMC Corporation, I am contacting you to determine room availability for the construction workforce slated for the FMC Granger Mining Project, located just north of Little America, WY. We are looking to secure housing for approximately 40% of the construction workforce slated to work on the over an approximately 3-year period, from the second quarter of 2013 through the end of 2015. Construction will begin with approximately 40 workers in spring 2013, rising monthly to a peak of approximately 200 workers in spring of 2014, and falling monthly afterward to approximately 30 workers by year's end 2015.

I was hoping you could provide the following information for your hotel regarding availability of rooms and rates during this period. Here is a summary of the information we are requesting:

Total number of rooms:

Number of single-occupancy, double-occupancy, suites (if appropriate):

Typical occupancy rates (seasonal, special events, etc.):

Rates by room type:

Weekly rates:

Negotiated rates for companies (general or specific to this Project):

Room availability (Q2 2013 to Q4 2015):

Please respond by email or letter with the above information using the contact information provided below. Please note our largest priority is covering the peak construction season from roughly October 2013 to March 2014, when we will have the largest number of workers on site.

Please also note that we are not looking for Letters of Commitment at this time, however this information will be used at a later date to determine housing commitments, so again any information you can provide would be greatly appreciated.

If you have any additional questions, please feel free to contact me. I look forward to your quick response, and appreciate your assistance.

Thanks,
CH2M HILL

CH2M HILL ; E.I.T. & LEED-AP
Environmental Engineer, Denver
Environmental Services

CH2M HILL
9193 South Jamaica Street
Englewood, CO 80112-5946
Direct 720. 555.0226
Fax 720. 555.8142
Email CH2M HILL . @ch2m.com
www.ch2mhill.com

**PHILLIPS RV PARK
EVANSTON, WY**

From: , CH2M HILL /DEN
Sent: Tuesday, May 01, 2012 4:16 PM
To: 'phillipsrvpark@nglconnection.net'
Subject: Lot Availability Request for FMC Granger Project 2013-2015

Hello,

I spoke with one of your staff in April concerning details and accommodations of the Phillips RV Park in Evanston.

On behalf of FMC Corporation, I am contacting you to determine room availability for the construction workforce slated for the FMC Granger Mining Project, located just north of Little America, WY. We are looking to secure housing for approximately 40% of the construction workforce slated to work on the over an approximately 3-year period, from the second quarter of 2013 through the end of 2015. Construction will begin with approximately 40 workers in spring 2013, rising monthly to a peak of approximately 200 workers in spring of 2014, and falling monthly afterward to approximately 30 workers by year's end 2015.

I was hoping you could provide the following information for your location regarding availability of hookups and rates during this period. Here is a summary of the information we are requesting:

Total number of hookups: 20 monthly

Typical occupancy rates (seasonal, special events, etc.): seasonal - open April 1st thru Oct 15

Weekly rates: \$140 plus tax for water, sewer and electricity

Negotiated rates for companies (general or specific to this Project): 15% off weekly rates, 10% off monthly rates if you rent 10 or more spaces

Hookup availability (Q2 2013 to Q4 2015): water, sewer and electric 30 and 50 amp

Other Accommodations: laundromat is available, (restrooms are for my overnight guests only)

Please respond by email or letter with the above information using the contact information provided below. Please note our largest priority is covering the peak construction season from roughly October 2013 to March 2014, when we will have the largest number of workers on site.

Please also note that we are not looking for Letters of Commitment at this time, however this information will be used at a later date to determine housing commitments, so again any information you can provide would be greatly appreciated.

If you have any additional questions, please feel free to contact me. I look forward to your quick response, and appreciate your assistance.

Thanks,

CH2M HILL

CH2M HILL ; E.I.T. & LEED-AP
Environmental Engineer, Denver
Environmental Services

CH2M HILL
9193 South Jamaica Street
Englewood, CO 80112-5946
Direct [720.555.0226](tel:720.555.0226)

Fax [720.555.8142](tel:720.555.8142)
Email CH2M_HILL@ch2m.com
www.ch2mhill.com

**ANTLERS MOTEL
KEMMERER, WY**

Hello CH2M HILL,

At this point in time we currently have 50 rooms. However we have recently purchased another property which we hope to have up and going by the end of this summer. Which will give us an additional 9 to 12 rooms. Below is the break down of the 50 that we have right now as far as size and rates.

19 Singles
Nightly-\$52.27 Weekly-\$250.70

29 Doubles
Nightly-\$70.80 Weekly-\$396.76

2 Triples-\$84.97 Weekly-\$482.87

If you have any additional questions please feel free to contact at any time.

Thanks, Tiffany Fagan

From: "CH2M HILL . @ch2m.com" <CH2M HILL . @ch2m.com>

To: tiffanyfagan93@yahoo.com

Sent: Tuesday, May 1, 2012 3:58 PM

Subject: Room Availability Request for FMC Granger Project 2013-2015

Hello Tiffany,

I spoke with you today concerning details and accommodations of the Antler's Motel.

On behalf of FMC Corporation, I am contacting you to determine room availability for the construction workforce slated for the FMC Granger Mining Project, located just north of Little America, WY. We are looking to secure housing for approximately 40% of the construction workforce slated to work on the over an approximately 3-year period, from the second quarter of 2013 through the end of 2015. Construction will begin with approximately 40 workers in spring 2013, rising monthly to a peak of approximately 200 workers in spring of 2014, and falling monthly afterward to approximately 30 workers by year's end 2015.

I was hoping you could provide the following information for your hotel regarding availability of rooms and rates during this period. Here is a summary of the information we are requesting:

Total number of rooms:

Number of single-occupancy, double-occupancy, suites (if appropriate):

Typical occupancy rates (seasonal, special events, etc.):

Rates by room type:

Weekly rates:

Negotiated rates for companies (general or specific to this Project):

Room availability (Q2 2013 to Q4 2015):

Please respond by email or letter with the above information using the contact information provided below. Please note our largest priority is covering the peak construction season from roughly October 2013 to March 2014, when we will have the largest number of workers on site.

Please also note that we are not looking for Letters of Commitment at this time, however this information will be used at a later date to determine housing commitments, so again any information you can provide would be greatly appreciated.

If you have any additional questions, please feel free to contact me. I look forward to your quick response, and appreciate your assistance.

Thanks,
CH2M HILL

CH2M HILL ; E.I.T. & LEED-AP
Environmental Engineer, Denver
Environmental Services

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Direct 720. 555.0226
Fax 720. 555.8142
Email CH2M_HILL@ch2m.com
www.ch2mhill.com

**BEST WESTERN PLUS FOSSIL COUNTRY INN & SUITES
KEMMERER, WY**

From: **Sherry Black** <bwfossil@gmail.com>

Date: Wed, May 2, 2012 at 8:23 AM

Subject: Re: Room Availability Request for FMC Granger Project 2013-2015

To: CH2M HILL . @ch2m.com

Good morning CH2M HILL,

Thank you for your interest in our hotel. We have 80 rooms in the hotel. This breaks down to 26 rooms with one King bed, 38 rooms with 2 Queen beds, 6 rooms that are King Suites and 10 rooms that are Double Queen Suites. The suites each have a queen-sized sofa sleeper.

We do stay fairly busy from May until October typically, but we will always do our best to accommodate long-term stays. Winter time is usually slower and we have more flexibility. Your predicted peak constructions falls during our slower season, so this works very well for us. The only special event that presents a problem is the Oyster Ridge Music Festival which falls the last weekend in July. Typically, it is better to book rooms as early as possible and to extend them as long as possible. It is much easier to check a room out early than it is to extend a room if we are busy. We do not charge an early checkout fee.

We currently do not run weekly rates, but do reduce our rates to \$80/night double occupancy for long-term stays. Our normal negotiated rate for companies is \$88.19/night double occupancy. Our rates do include a free hot breakfast that runs from 6:00 am until 9:00 am. We also put out Breakfast To Go bags for the guests who leave before breakfast begins. The pool/spa/fitness center/business center are all open 24 hours to accommodate our shift workers.

We have a conference room and board room available should one be necessary during this time as well.

If you have any other questions, I will be glad to answer them. I look forward to working with you in the future.

Thank you,

Sherry Black
General Manager
Best Western Fossil Country Inn & Suites
760 Hwy 189/30
Kemmerer, WY 83101
[307-877-3388](tel:307-877-3388)
[307-877-3983](tel:307-877-3983) (fax)

On Tue, May 1, 2012 at 3:49 PM, <CH2M HILL . @ch2m.com> wrote:

Hi Sherry,

I spoke with one of your staff today concerning details and accommodations of Best Western Plus Fossil Country Inn & Suites.

On behalf of FMC Corporation, I am contacting you to determine room availability for the construction workforce slated for the FMC Granger Mining Project, located just north of Little America, WY. We are looking to secure housing for approximately 40% of the construction workforce slated to work on the over an approximately 3-year period, from the second quarter of 2013 through the end of 2015. Construction will begin with approximately 40 workers in spring 2013, rising monthly to a peak of approximately 200 workers in spring of 2014, and falling monthly afterward to approximately 30 workers by year's end 2015.

I was hoping you could provide the following information for your hotel regarding availability of rooms and rates during this period. Here is a summary of the information we are requesting:

Total number of rooms:

Number of single-occupancy, double-occupancy, suites (if appropriate):

Typical occupancy rates (seasonal, special events, etc.):

Rates by room type:

Weekly rates:

Negotiated rates for companies (general or specific to this Project):

Room availability (Q2 2013 to Q4 2015):

Please respond by email or letter with the above information using the contact information provided below. Please note our largest priority is covering the peak construction season from roughly October 2013 to March 2014, when we will have the largest number of workers on site.

Please also note that we are not looking for Letters of Commitment at this time, however this information will be used at a later date to determine housing commitments, so again any information you can provide would be greatly appreciated.

If you have any additional questions, please feel free to contact me. I look forward to your quick response, and appreciate your assistance.

Thanks,

CH2M HILL

CH2M HILL ; E.I.T. & LEED-AP
Environmental Engineer, Denver
Environmental Services

CH2M HILL
9193 South Jamaica Street
Englewood, CO 80112-5946
Direct [720.555.0226](tel:720.555.0226)

Fax [720.555.8142](tel:720.555.8142)
Email CH2M_HILL_@ch2m.com
www.ch2mhill.com

Sherry Black
General Manager
Best Western Fossil Country Inn & Suites
760 Hwy 189/30
Kemmerer, WY 83101
307-877-3388
307-877-3983 (fax)

**FOOTHILLS MOBILE HOME & RV PARK
KEMMERER, WY**

CH2M HILL

Thank You for your E-Mail, at present I have a total of 72 RV sites. All sites have 30 and 50 AMP service. Our weekly rate is \$175.00 and our Monthly Rate is \$500.00, this rate includes all electric, water, sewer, trash pick up and cable TV. We are open year round. Please let me know if there is anything else I can help you with.

Connie McMillan, Manager

On Tue, May 1, 2012 at 4:07 PM, <[CH2MHILLh . @ch2m.com](mailto:CH2MHILLh.@ch2m.com)> wrote:

Hello Connie,

I spoke with you today concerning details and accommodations of the Foothills Mobile Home & RV Park.

On behalf of FMC Corporation, I am contacting you to determine room availability for the construction workforce slated for the FMC Granger Mining Project, located just north of Little America, WY. We are looking to secure housing for approximately 40% of the construction workforce slated to work on the over an approximately 3-year period, from the second quarter of 2013 through the end of 2015. Construction will begin with approximately 40 workers in spring 2013, rising monthly to a peak of approximately 200 workers in spring of 2014, and falling monthly afterward to approximately 30 workers by year's end 2015.

I was hoping you could provide the following information for your location regarding availability of hookups and rates during this period. Here is a summary of the information we are requesting:

Total number of hookups:

Typical occupancy rates (seasonal, special events, etc.):

Weekly rates:

Negotiated rates for companies (general or specific to this Project):

Hookup availability (Q2 2013 to Q4 2015):

Other Accomodations:

Please respond by email or letter with the above information using the contact information provided below. Please note our largest priority is covering the peak construction season from roughly October 2013 to March 2014, when we will have the largest number of workers on site.

Please also note that we are not looking for Letters of Commitment at this time, however this information will be used at a later date to determine housing commitments, so again any information you can provide would be greatly appreciated.

If you have any additional questions, please feel free to contact me. I look forward to your quick response, and appreciate your assistance.

Thanks,

CH2M HILLh

CH2M HILLh ; E.I.T. & LEED-AP
Environmental Engineer, Denver
Environmental Services

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Englewood, CO 80112-5946
Direct [720.555.0226](tel:720.555.0226)

Fax [720.555.8142](tel:720.555.8142)
Email CH2M_HILLh.@ch2m.com
www.ch2mhill.com

**FOSSIL BUTTE MOTEL
KEMMERER, WY**

As per your request, I have 13 rooms available. Eight doubles with 2 and 3 beds in each room, and four single rooms with 1 bed per room. Each room has microwave, fridge, coffee pot, ac, individual heat, sat tv, wireless internet, and a patio with 3 gas grills for our guests. We are one level. The rate is \$68 to 98 per room depending on how many in the room, plus 9% tax. The weekly rate varies from 375 to 575 depending on the time of year, because of the heat. We also have a large conference room available for our guests. Thank you for your inquire. Jean Gray,owner Fossil Butte Motel

----- Original Message -----

From: CH2M HILL . @ch2m.com

To: fbm@kdis.net

Sent: Tuesday, May 01, 2012 3:53 PM

Subject: Room Availability Request for FMC Granger Project 2013-2015

Hello Jean,

I spoke with one of your staff today concerning details and accommodations of Fossil Butte Motel.

On behalf of FMC Corporation, I am contacting you to determine room availability for the construction workforce slated for the FMC Granger Mining Project, located just north of Little America, WY. We are looking to secure housing for approximately 40% of the construction workforce slated to work on the over an approximately 3-year period, from the second quarter of 2013 through the end of 2015. Construction will begin with approximately 40 workers in spring 2013, rising monthly to a peak of approximately 200 workers in spring of 2014, and falling monthly afterward to approximately 30 workers by year's end 2015.

I was hoping you could provide the following information for your hotel regarding availability of rooms and rates during this period. Here is a summary of the information we are requesting:

Total number of rooms:

Number of single-occupancy, double-occupancy, suites (if appropriate):

Typical occupancy rates (seasonal, special events, etc.):

Rates by room type:

Weekly rates:

Negotiated rates for companies (general or specific to this Project):

Room availability (Q2 2013 to Q4 2015):

Please respond by email or letter with the above information using the contact information provided below. Please note our largest priority is covering the peak construction season from roughly October 2013 to March 2014, when we will have the largest number of workers on site.

Please also note that we are not looking for Letters of Commitment at this time, however this information will be used at a later date to determine housing commitments, so again any information you can provide would be greatly appreciated.

If you have any additional questions, please feel free to contact me. I look forward to your quick response, and appreciate your assistance.

Thanks,
CH2M HILL

CH2M HILL ; E.I.T. & LEED-AP
Environmental Engineer, Denver
Environmental Services

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www.ch2mhill.com

**HAMS FORK GRILL RV PARK
KEMMERER, WY**

CH2M HILL:

To answer your questions regarding the Ham's Fork Grill and RV Park.

1. We have Full service Bar/Restaurant and laundromat on property.
2. We offer seventeen full hook-up sites with 50 amp service.
3. The area often fills by mid May - October. with workers on assorted projects. Winter months occupancy drops greatly.
4. At this time we have no reserved sites for your time period.
5. We currently charge \$475. per month per site plus some power. based on that number it represents about \$8,500 for all sites per month. If reserved on an annual basis, we would discount 25% for a total of \$76,500.
6. We also have a property in Opal which is about fifteen mile from Granger. By Spring of 2013 we feel we should be offering two lodging rooms and four RV sites.
7. Parking a bus or vans to transport employees would be no problem.
8. We also offer catering services to many of the businesses in the area.

Thanks Kevin
Cell (435) 640-5406

-----Original Message-----

From: CH2M HILL . <[CH2M_HILL . @ch2m.com](mailto:CH2M_HILL.@ch2m.com)>

To: pigpen84098 <pigpen84098@aol.com>

Sent: Tue, May 1, 2012 4:14 pm

Subject: Lot Availability Request for FMC Granger Project 2013-2015

Hello Kevin,

I spoke with you today concerning details and accommodations of the Hams Fork Grill & RV Park in Kemmerer.

On behalf of FMC Corporation, I am contacting you to determine room availability for the construction workforce slated for the FMC Granger Mining Project, located just north of Little America, WY. We are looking to secure housing for approximately 40% of the construction workforce slated to work on the over an approximately 3-year period, from the second quarter of 2013 through the end of 2015. Construction will begin with approximately 40 workers in spring 2013, rising monthly to a peak of approximately 200 workers in spring of 2014, and falling monthly afterward to approximately 30 workers by year's end 2015.

I was hoping you could provide the following information for your location regarding availability of hookups and rates during this period. Here is a summary of the information we are requesting:

Total number of hookups:

Typical occupancy rates (seasonal, special events, etc.):

Weekly rates:

Negotiated rates for companies (general or specific to this Project):

Hookup availability (Q2 2013 to Q4 2015):

Other Accommodations:

Please respond by email or letter with the above information using the contact information provided below. Please note our largest priority is covering the peak construction season from roughly October 2013 to March 2014, when we will have the largest number of workers on site.

Please also note that we are not looking for Letters of Commitment at this time, however this information will be used at a later date to determine housing commitments, so again any information you can provide would be greatly appreciated.

If you have any additional questions, please feel free to contact me. I look forward to your quick response, and appreciate your assistance.

Thanks,
CH2M HILL

CH2M HILL ; E.I.T. & LEED-AP
Environmental Engineer, Denver
Environmental Services

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www.ch2mhill.com

**AMERICA'S BEST VALUE INN
ROCK SPRINGS, WY**

CH2M HILL,

It was pleasure to talk to you, and very glad to hear from to that you have wonderful project coming up and we will be gladly happy to answer all your questions and provide you the best lodging needs you need.

At our hotel, guest satisfaction and highest possible customer service is at highest priority. Our hotel offers all the amenities that you asked for including complementary hot breakfast bar. Also we have on site authentic Mexican Restaurant and Bar helps the guest to have one stop shop. Also we have great meeting place that can accommodate up to 125 people for all your meeting needs.

Our hotel is located within walking distance to groceries, gas and all the necessities. Also with plenty of parking it is very convenient to park all the big construction vehicles with easy access to interstate I-80.

Our rates does varies by the season and I would be happy to offer you a guaranteed rate of \$79.00 for all rooms without any increase of rate and highest priority to you for the available rooms. As you know we have proven record of outstanding reputation with other companies in town like Baker Hughes and Schlumberger. I will be very happy to provide you recommendation latter from those companies.

If you do need the rooms based on weekly rates please let me know because we have only 20% rooms we use for that and some time we may or may not be able to accommodate all the guest because Rock Springs area has high demand of hotel rooms in summer months.

Please call me to discuss further as your project moves. I will be very happy to answer any question.

Piyush Patel

Americas Best Value Inn
"Exceding Expectation"

2518 Foothill Blvd
Rock Springs, WY 82901

(307)371-0809 (C)

This email and any attached files are confidential and intended solely for the use of the intended addressee. If you have received this email in error, please notify the sender and delete it immediately, without disclosing or using its contents for any purpose. Laxmi Hospitality LLC. accepts no liability for any damage caused by any virus transmitted by this email.

From: "CH2M HILL . @ch2m.com" <CH2M HILL . @ch2m.com>

To: patelpi@yahoo.com

Sent: Wednesday, May 9, 2012 4:01 PM

Subject: Room Availability Request for FMC Granger Project

Hello,

I spoke with you or one of your staff yesterday concerning details and accommodations of America's Best Value Inn Rock Springs. On behalf of FMC Corporation, I am contacting you to determine room availability for the construction workforce slated for the FMC Granger Mining Project, located just north of Little America, WY. We are looking to secure housing for approximately 40% of the construction workforce slated to work on the over an approximately 3-year period, from the second quarter of 2013 through the end of 2015. Construction will begin with approximately 40 workers in spring 2013, rising monthly to a peak of approximately 200 workers in spring of 2014, and falling monthly afterward to approximately 30 workers by year's end 2015.

I was hoping you could provide the following information for your hotel regarding availability of rooms and rates during this period. Here is a summary of the information we are requesting:

Total number of rooms:

Number of single-occupancy, double-occupancy, suites (if appropriate):

Typical occupancy rates (seasonal, special events, etc.):

Rates by room type:

Weekly rates:

Negotiated rates for companies (general or specific to this Project):

Room availability (Q2 2013 to Q4 2015):

Please respond by email or letter with the above information using the contact information provided below. Please note our largest priority is covering the peak construction season from roughly October 2013 to March 2014, when we will have the largest number of workers on site.

Please also note that we are not looking for Letters of Commitment at this time, however this information will be used at a later date to determine housing commitments, so again any information you can provide would be greatly appreciated.

If you have any additional questions, please feel free to contact me. I look forward to your quick response, and appreciate your assistance.

Thanks,
CH2M HILL

CH2M HILL ; E.I.T. & LEED-AP
Environmental Engineer, Denver
Environmental Services

CH2M HILL
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Fax 720. 555.8142
Email CH2M_HILL_@ch2m.com
www.ch2mhill.com

**BEST WESTERN OUTLAW INN
ROCK SPRINGS, WY**

CH2M HILL,

Thank you for your interest in the Best Western Outlaw Inn. Our property has 35 rooms with 1 queen bed, 15 rooms with 1 king bed and 50 rooms with 2 queen beds. The rates at this time are 114.99, 134.99 and 124.99.

We do not have availability during the National High School Finals Rodeo, held the 2nd & 3rd weeks of July. The finals are being held in Rock Springs, 2012, 2013, 2014, & 2015.

If I can be of further assistance, please call me at 307-362-6623

Debbie Leisch
Front Desk Manager
Best Western Outlaw Inn

> Hello,
> I spoke with one of your staff yesterday concerning details and
> accommodations of the Best Western Outlaw Inn. On behalf of FMC
> Corporation, I am contacting you to determine room availability for
> the construction workforce slated for the FMC Granger Mining Project,
> located just north of Little America, WY. We are looking to secure
> housing for approximately 40% of the construction workforce slated to
> work on the over an approximately 3-year period, from the second
> quarter of 2013 through the end of 2015. Construction will begin with
> approximately 40 workers in spring 2013, rising monthly to a peak of
> approximately 200 workers in spring of 2014, and falling monthly
> afterward to approximately 30 workers by year's end 2015.
>
> I was hoping you could provide the following information for your
> hotel regarding availability of rooms and rates during this period.
> Here is a summary of the information we are requesting:
>
> Total number of rooms:
> Number of single-occupancy, double-occupancy, suites (if appropriate):
>
> Typical occupancy rates (seasonal, special events, etc.):
> Rates by room type:
>
> Weekly rates:
>
> Negotiated rates for companies (general or specific to this Project):
>
> Room availability (Q2 2013 to Q4 2015):
>
> Please respond by email or letter with the above information using the
> contact information provided below. Please note our largest priority
> is covering the peak construction season from roughly October 2013 to
> March 2014, when we will have the largest number of workers on site.

>
> Please also note that we are not looking for Letters of Commitment at
> this time, however this information will be used at a later date to
> determine housing commitments, so again any information you can
> provide would be greatly appreciated.
>
> If you have any additional questions, please feel free to contact me.
> I look forward to your quick response, and appreciate your assistance.
>
> Thanks,
> CH2M HILL
>
>
> CH2M HILL ; E.I.T. & LEED-AP
> Environmental Engineer, Denver
> Environmental Services
>
> CH2M HILL
> 9193 South Jamaica Street
> Englewood, CO 80112-5946
> Direct 720. 555.0226
> Fax 720. 555.8142
> Email CH2M_HILL_.@ch2m.com<<mailto:joe.hammond@ch2m.com>>
> www.ch2mhill.com<<http://www.ch2mhill.com/>>
>
>

Debbie Leisch Front Desk Manager
Best Western Outlaw Inn
1630 Elk Street
Rock Springs, WY 82901
307-362-6623

**CODY MOTEL
ROCK SPRINGS, WY**

Dear CH2M HILL, Hi my name is Lisa Andicoechea with the Cody Motel in Rock Springs, Wy. The FMC Granger Project sounds like a huge job. That will be great for our economy. We have 40 rooms. As of right now our rates are \$45.00 per night. Our weekly rates for a room with a refrigerator and microwave is a total of \$225.00 for 7 days. We also have kitchenettes and the weekly rate is \$250.00 or we offer a \$800.00 monthly rate for these if paid in full. Included with these rates is daily housekeeping, wireless internet, faxing and a coin operated public laundry. I hope to here from your company. Thank you.

From: CH2M HILL . @ch2m.com

To: landicoechea@msn.com

Subject: RE: CODY MOTEL Availability Request for FMC Granger Project

Date: Fri, 25 May 2012 21:23:26 +0000

Hello,

I wanted to check in with you and your hotel to see if you had the information we requested and could submit these details by the end of next week (June 1st)? We are closing out this stage of the project and will not be reaching out to hotels in the area starting in June. Any details you can provide would be greatly appreciated.

Cheers

CH2M HILL

CH2M HILL ; E.I.T. & LEED-AP
*Environmental Engineer, Denver
Environmental Services*

CH2M HILL
9193 South Jamaica Street
Englewood, CO 80112-5946
Direct 720.555.0226
Fax 720.555.8142
Email CH2M HILL . @ch2m.com
www.ch2mhill.com

From: , CH2M HILL /DEN

Sent: Wednesday, May 09, 2012 4:07 PM

To: 'landicoechea@msn.com'

Subject: Room Availability Request for FMC Granger Project

Hello Lisa,

I spoke with one of your staff yesterday concerning details and accommodations of the Cody Motel. On behalf of FMC Corporation, I am contacting you to determine room availability for the construction workforce slated for the FMC Granger Mining Project, located just north of Little America, WY. We are looking to secure housing for approximately 40% of the construction workforce slated to work on the over an approximately 3-year period, from the second quarter of 2013 through the end of 2015. Construction will begin with approximately 40 workers in spring 2013, rising monthly to a peak of approximately 200 workers in spring of 2014, and falling monthly afterward to approximately 30 workers by year's end 2015.

I was hoping you could provide the following information for your hotel regarding availability of rooms and rates during this period. Here is a summary of the information we are requesting:

Total number of rooms:

Number of single-occupancy, double-occupancy, suites (if appropriate):

Typical occupancy rates (seasonal, special events, etc.):

Rates by room type:

Weekly rates:

Negotiated rates for companies (general or specific to this Project):

Room availability (Q2 2013 to Q4 2015):

Please respond by email or letter with the above information using the contact information provided below. Please note our largest priority is covering the peak construction season from roughly October 2013 to March 2014, when we will have the largest number of workers on site.

Please also note that we are not looking for Letters of Commitment at this time, however this information will be used at a later date to determine housing commitments, so again any information you can provide would be greatly appreciated.

If you have any additional questions, please feel free to contact me. I look forward to your quick response, and appreciate your assistance.

Thanks,
CH2M HILL

CH2M HILL ; E.I.T. & LEED-AP
Environmental Engineer, Denver
Environmental Services

CH2M HILL
9193 South Jamaica Street
Englewood, CO 80112-5946
Direct 720.555.0226
Fax 720.555.8142
Email CH2M HILL . @ch2m.com
www.ch2mhill.com

**COMFORT INN & SUITES
ROCK SPRINGS, WY**

CH2M HILL :

Thank you for your inquiry of our hotel.

We can give you 30 rooms.. Winter months from October 1 - Feb 28th... a \$79.00 rate September ...March.. April and May the rate of \$89.00...

June.. July.. August.. rates will be at \$99.00 for queens and \$109.00 rate for any of the suites.

We have a laundry room, indoor pool / hot tub and fitness center / we also have 1 day laundry service / and hot cookies in the afternoon.

We have a very friendly staff and will try our best to accomodate your guests needs. We will however make this there home away from home..

Let me know if you need any further information.

Thank you
Pamela Jackson CHA
307-362-9100

On 05/25/12, CH2M HILL . @ch2m.com wrote:

> Hello,

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> I wanted to check in with you and your hotel to see if you had the
> information we requested and could submit these details by the end of
> next week (June 1st)? We are closing out this stage of the project
> and will not be reaching out to

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> hotels in the area starting in June. Any details you can provide would be greatly appreciated.

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> Cheers

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> CH2M HILL

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> I was hoping you could provide the following information for your
> hotel regarding availability of rooms and rates during this period.
> Here is a summary of the information we are

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> requesting:

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> Total number of rooms:

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> Number of single-occupancy, double-occupancy, suites (if appropriate):

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> Typical occupancy rates (seasonal, special events, etc.):

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> Rates by room type:

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> Weekly rates:

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> If you have any additional questions, please feel free to contact me. I look forward to your quick response,
> and appreciate your assistance.
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> Thanks,
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> CH2M HILL
> CH2M HILL ; E.I.T. &
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> Environmental Engineer, Denver
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> Environmental Services
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> CH2M HILL
>
>
> 9193 South Jamaica Street
>
>
> Englewood, CO 80112-5946
>
>
> Direct 720. 555.0226
>
>
>
> Fax 720. 555.8142
>
>
> Email CH2M HILL . @ch2m.com
>

**DAYS INN
ROCK SPRINGS, WY**

Hi CH2M HILL,

I spoke with our corporate office and they allowed me to quote you \$37.95 for singles and \$40.95 for doubles for your project. We do have plenty (110) of rooms available for that time period. If you need any further from me please call me direct (307)362-5646. Thank you for your time.

Sincerely,

Heidi Harvey
General Manager

From: heidi halstead <blondyseven@yahoo.com>

To: "CH2M HILL . @ch2m.com" <CH2M HILL . @ch2m.com>

Sent: Monday, May 14, 2012 1:22 PM

Subject: Re: Room Availability Request for FMC Granger Project

Hi CH2M HILL,

I am notifying you that we do have rooms available for that amount of time period. I will let you know on Wednesday the rate I can quote for that amount of rooms and the time period. I will be meeting with my corporate office to be discussing this. Thank you for considering us for your rooming requirements. I will be in touch.

Thank You,

Heidi Harvey
General Manager

Days Inn

1545 Elk Street

Rock Springs, WY 82901

(307)362-5646

(307)382-9440 Fax

blondyseven@yahoo.com

From: "CH2M HILL . @ch2m.com" <CH2M HILL . @ch2m.com>

To: blondyseven@yahoo.com

Sent: Wednesday, May 9, 2012 4:09 PM

Subject: Room Availability Request for FMC Granger Project

Hello Heidi,

I spoke with one of your staff yesterday concerning details and accommodations of Days Inn Rock Springs. On behalf of FMC Corporation, I am contacting you to determine room availability for the construction workforce slated for the FMC Granger Mining Project, located just north of Little America, WY. We are looking to secure housing for approximately 40% of

the construction workforce slated to work on the over an approximately 3-year period, from the second quarter of 2013 through the end of 2015. Construction will begin with approximately 40 workers in spring 2013, rising monthly to a peak of approximately 200 workers in spring of 2014, and falling monthly afterward to approximately 30 workers by year's end 2015.

I was hoping you could provide the following information for your hotel regarding availability of rooms and rates during this period. Here is a summary of the information we are requesting:

Total number of rooms:

Number of single-occupancy, double-occupancy, suites (if appropriate):

Typical occupancy rates (seasonal, special events, etc.):

Rates by room type:

Weekly rates:

Negotiated rates for companies (general or specific to this Project):

Room availability (Q2 2013 to Q4 2015):

Please respond by email or letter with the above information using the contact information provided below. Please note our largest priority is covering the peak construction season from roughly October 2013 to March 2014, when we will have the largest number of workers on site.

Please also note that we are not looking for Letters of Commitment at this time, however this information will be used at a later date to determine housing commitments, so again any information you can provide would be greatly appreciated.

If you have any additional questions, please feel free to contact me. I look forward to your quick response, and appreciate your assistance.

Thanks,
CH2M HILL

CH2M HILL ; E.I.T. & LEED-AP
Environmental Engineer, Denver
Environmental Services

CH2M HILL
9193 South Jamaica Street
Englewood, CO 80112-5946
Direct 720. 555.0226
Fax 720. 555.8142
Email CH2M_HILL_@ch2m.com
www.ch2mhill.com

**ECONOLODGE
ROCK SPRINGS, WY**

Hello CH2M HILL

Here is the info that you have requested

Rooms in Hotel---97 Mainly double queen rooms, 10 single king, 8 single queens.

Typical rates at that time period--\$72.00 to \$78.00

Negotiated rates for 2 people per room (weekly rate w/safe fee is \$336.21--w/o safe fee 325.08)

The rate is \$43.00 per night.

We offer free continental breakfast, free wifi, restaurants & lounges within walking distance.

If anything else is needed please contact me. Thanks

Douglas Spatz

General Manager

Econo Lodge

1635 Elk Street

Rock Spring, WY 82901

Telephone #: (307) 382-4217

Fax #: (307) 362-4150

From: "CH2M HILL . @ch2m.com" <CH2M HILL . @ch2m.com>

To: rseconolodge@yahoo.com

Sent: Wednesday, May 9, 2012 5:11 PM

Subject: Room Availability Request for FMC Granger Project

Hello Douglas,

I spoke with one of your staff yesterday concerning details and accommodations of EconoLodge Rock Springs. On behalf of FMC Corporation, I am contacting you to determine room availability for the construction workforce slated for the FMC Granger Mining Project, located just north of Little America, WY. We are looking to secure housing for approximately 40% of the construction workforce slated to work on the over an approximately 3-year period, from the second quarter of 2013 through the end of 2015. Construction will begin with approximately 40 workers in spring 2013, rising monthly to a peak of approximately 200 workers in spring of 2014, and falling monthly afterward to approximately 30 workers by year's end 2015.

I was hoping you could provide the following information for your hotel regarding availability of rooms and rates during this period. Here is a summary of the information we are requesting:

Total number of rooms:

Number of single-occupancy, double-occupancy, suites (if appropriate):

Typical occupancy rates (seasonal, special events, etc.):

Rates by room type:

Weekly rates:

Negotiated rates for companies (general or specific to this Project):

Room availability (Q2 2013 to Q4 2015):

Please respond by email or letter with the above information using the contact information provided below. Please note our largest priority is covering the peak construction season from roughly October 2013 to March 2014, when we will have the largest number of workers on site.

Please also note that we are not looking for Letters of Commitment at this time, however this information will be used at a later date to determine housing commitments, so again any information you can provide would be greatly appreciated.

If you have any additional questions, please feel free to contact me. I look forward to your quick response, and appreciate your assistance.

Thanks,
CH2M HILL

CH2M HILL ; E.I.T. & LEED-AP
Environmental Engineer, Denver
Environmental Services

CH2M HILL
9193 South Jamaica Street
Englewood, CO 80112-5946
Direct 720. 555.0226
Fax 720. 555.8142
Email CH2M_HILL@ch2m.com
www.ch2mhill.com



Come stay with us at the Hampton Inn in Rock Springs, Wyoming
I-80 Exit 102/Dewar Drive
1901 Dewar Drive, Rock Springs, WY 82901

Discount for 2012 and 2013 for CH2M HILL
\$119 per room, per night
(rates will not increase more than 5% per year for 2014 and 2015)



- **70 Guest Rooms (We are able to block up to 20 rooms for CH2M HILL)**
- **Complimentary Breakfast Bar**
- **Complimentary Cookies every night**
- **Complimentary High Speed Internet**
- **Discount is valid on standard room types only**
- **Indoor Pool, Hot tub and On-site Fitness Center**
- **All rooms have microwave and refrigerator**
- **On-site coin operated laundry facility**
- **Hilton Honors Guest Loyalty Program**

*Bridget Renteria, General Manager, (307) 382-9222 or brenteria@timberlinehotels.com
Christine Hill, Director of Revenue and Sales, (307) 266-4733 or chill@timberlinehotels.com*

www.timberlinehotels.com



I-80 and Dewar Drive

Discount for CH2M Hill

\$84 per room, per night for 2012 and 2013

(not more than a 5% increase per year for 2014 and 2015)

- **129 Guest Rooms (We are able to block up to 40 rooms for CH2M Hill)**
- **Complimentary Breakfast Bar**
- **Complimentary popcorn every evening**
- **Complimentary High Speed Internet**
- **Outdoor Pool (Seasonal)**
- **On-site Fitness Center**
- **All rooms have a microwave and refrigerator**
- **On-site coin operated laundry facility**



Lisa Carrillo, General Manager at 307-362-1770 or lq0729@laquinta.com

Christine Hill, Director of Revenue, Sales and Marketing at 307-266-4733 or chill@timberlinehotels.com

2717 Dewar Drive, Rock Springs, WY 82901

www.timberlinehotels.com

**HOLIDAY INN + HOLIDAY INN EXPRESS + QUALITY INN
ROCK SPRINGS, WY**

To: Sarah Nell Compton
Re: FMC Granger Project

Thank you for requesting information from our hotels for your upcoming project. We would love to work with you in housing the workforce. As we discussed, the Holiday Inn, the Holiday Inn Express and the Quality Inn are all owned by us. We also have 41 apartments behind the Quality Inn that are 1, 2 and 3 bedroom units. I have summarized your requested information with respect to each of these properties below. The rates quoted are based on a non-commissionable basis. Please let me know if you have further questions once you review this summary. Thanks!



1675 SUNSET DR.
ROCK SPRINGS, WYOMING 82901
307-382-9200

HOLIDAY INN

Total Number of Rooms: 170 rooms divided into our original section and an executive section. The original section has 113 rooms; 48 two queen bedded rooms, 21 single queen rooms (2 handicapped accessible), and 44 king rooms. The executive section has 57 rooms: 23 two queen rooms, 23 king rooms, 11 premium king rooms.

Typical occupancy rates: Our weekday rates Monday, Tuesday and Wednesdays are the high demand days throughout the year. Summer has peak occupancy due to both the corporate / industry use as well as tourists/traveller demand. Our usual rate in high demand periods is \$129 for our original section rooms and \$139 or more for the executive section.

For a one-night stay, M-W stay or summer stays, we offer FMC a rate of \$99 (original) and \$109 (executive non premium rooms).

Weekly Rates: For weekly stays, we could offer an extended stay rate of \$89. We could discuss a lower rate for long term stays in October through March (30 days or more). Please note that any stay over 30 days is tax exempt. The tax rate is usually around 8%.

Negotiated rates for companies (specific to this Project): The FMC rate indicated above would be honored for companies working with FMC on the project.

Room Availability (Q2 2013 to Q4 2015): 50-70 rooms, potentially more in October through March. National High School Rodeo is in July of 2013 and 2014 and this books up the whole city in general. We would be willing to give them a lesser commitment if we can determine your needs soon enough.

Our Holiday Inn hotel is proud to offer excellent service and amenities. We consider ourselves the best full service hotel in Rock Springs. All of our rooms have free internet, 37" flat screen tv's, mini fridges and microwaves. In addition to our in-house restaurant, Wingers, a casual sports bar, many restaurants are within walking distance. Our salt system pool and hot tub are open 24 hours for the guest's convenience, as is our expanded exercise room. We can accommodate some truck parking in our lot or next door at our adjacent property.

To view photos of our hotel, look at www.holiday-inn.com/rocksprings.



HOLIDAY INN EXPRESS

Total Number of Rooms: 79 rooms.

Typical occupancy rates: Same as Holiday Inn. Our usual rate in high demand periods is \$139 for our standard rooms and \$149 or more for the premium room types.

For a one night stay, M-W stay or summer stays, we offer FMC a rate of \$109 (standard) and \$119 (premium rooms).

Weekly Rates: For weekly stays, we could offer an extended stay rate of \$89. We could discuss a lower rate for long term stays in October through March (30 days or more). Please note that any stay over 30 days is tax exempt. The tax rate is usually around 8%.

Negotiated rates for companies (specific to this Project): The FMC rate indicated above would be honored for companies working with FMC on the project.

Room Availability (Q2 2013 to Q4 2015): 20 rooms, potentially more in October through March.

QUALITY INN, 1670 Sunset Dr., Rock Springs, WY 82901
307-382-9490

Total Number of Rooms: 103 rooms. Due to pre-booked tours, we could try to offer 80

rooms at this hotel: 39 double queens, 15 non smoking doubles, 19 non smoking kings, 4 smoking doubles, 3 smoking kings. The smoking rooms could be converted to non-smoking if this is an issue.

Typical occupancy rates: Again, our weekday rates Monday, Tuesday and Wednesdays and then summer days are the high demand days throughout the year. Our usual rate in high demand periods is \$99.99 and \$89.99 in lesser demand periods.

For a one night stay, M-W stay or summer stays, we offer FMC a rate of \$79.

Weekly Rates: For weekly stays, we could offer an extended stay rate of \$69. We could discuss a lower rate for long term stays in October through March (30 days or more). Please note that any stay over 30 days is tax exempt. The tax rate is usually around 8%.

Negotiated rates for companies (specific to this Project): The FMC rate indicated above would be honored for companies working with FMC on the project.

Room Availability (Q2 2013 to Q4 2015): 80 rooms, potentially more in October through March.

The rooms at the Quality Inn are all ground floor drive up. At the Quality Inn, there is an extended continental breakfast included in the morning and a manager's social hour every night from 5 p.m. to 7 p.m. All of the rooms have free wireless high speed internet access, flat panel tv's and irons and ironing boards. There is an indoor hot tub and exercise room for your use. There is a business area available for your use in the Fireside Room off the lobby.

SUNSET SUITE APARTMENTS

Total Number of Apartments: 41 apartments with a mix of 1, 2 and 3 bedroom units.

Typical occupancy rates: The apartments are usually rented out by companies doing larger projects here, such as Halliburton, Schlumberger or construction companies. For winter long terms stays, we can offer a lower rate. Summer rates are usually \$75 (3 bed), \$70 (2 bed apt.) and \$60 for a 1 bedroom apartment.

Weekly Rates: For weekly stays, we could offer an extended stay rate of \$50 a day for a one bedroom, \$55 for a two bedroom and \$60 for a three bedroom. We could discuss a lower rate for long term stays in October through March (30 days or more). Please note that any stay over 30 days is tax exempt. The tax rate is usually around 8%.

Negotiated rates for companies (specific to this Project): The FMC rate indicated above would be honored for companies working with FMC on the project.

Room Availability (Q2 2013 to Q4 2015): 20 apartments, potentially more in October through March.

The apartments were formerly part of Imperial Apartments, but were converted to short/long term rental apartments for companies not wanting to sign a year lease, hook up tv, phone and utilities which are all included in the quoted rate. Guests in the apartments can also utilize the Quality Inn's extended continental breakfast and manager's social hour every night from 5 p.m. to 7 p.m. as well as other amenities at the hotel.

.....

We look forward to working with you as FMC pursues its upcoming project.
Sincerely,

Sincerely,

Liisa Anselmi
Owner & General Manager, Holiday Inn
liisa@sweetwaterhsa.com

Trish Green
General Manager, Quality Inn & Holiday Inn Express
trishg@sweetwaterhsa.com

**HOMEWOOD SUITES
ROCK SPRINGS, WY**

Hi CH2M HILL,

Thank you for contacting our hotel, I believe you spoke with Desari regard your future lodging needs. Currently your group has a negotiated rate of \$109 per night, that will run until the end of 2012. We have not looked at what the 2013 rate is going to look like but I do know there is likely to be an increase some where in the area of \$119-\$125. When looking at our rate please keep in mind that all of our suites have full kitchens and part of the Homewood Suite complimentary services is a full hot breakfast everyday of the week and then dinner on Monday-Thursday.

I hope this answers some of your questions.

Ginny Wagner

General Manager
Homewood Suites by Hilton
60 Winston Drive
Rock Springs, Wyoming 82901
307-382-0764.Office
307-382-0765.Fax
ginny.wagner@hilton.com

From: [CH2M HILL . @ch2m.com](mailto:CH2M_HILL_.@ch2m.com) [CH2M HILL . @ch2m.com]
Sent: Wednesday, May 09, 2012 6:14 PM
To: Ginny Wagner
Subject: Room Availability Request for FMC Granger Project

Hello Ginny,

I spoke with you yesterday concerning details and accommodations of the Homewood Suites in Rock Springs. On behalf of FMC Corporation, I am contacting you to determine room availability for the construction workforce slated for the FMC Granger Mining Project, located just north of Little America, WY. We are looking to secure housing for approximately 40% of the construction workforce slated to work on the over an approximately 3-year period, from the second quarter of 2013 through the end of 2015. Construction will begin with approximately 40 workers in spring 2013, rising monthly to a peak of approximately 200 workers in spring of 2014, and falling monthly afterward to approximately 30 workers by year's end 2015.

I was hoping you could provide the following information for your hotel regarding availability of rooms and rates during this period. Here is a summary of the information we are requesting:

Total number of rooms:

Number of single-occupancy, double-occupancy, suites (if appropriate):

Typical occupancy rates (seasonal, special events, etc.):

Rates by room type:

Weekly rates:

Negotiated rates for companies (general or specific to this Project):

Room availability (Q2 2013 to Q4 2015):

Please respond by email or letter with the above information using the contact information provided below. Please note our largest priority is covering the peak construction season from roughly October 2013 to March 2014, when we will have the largest number of workers on site.

Please also note that we are not looking for Letters of Commitment at this time, however this information will be used at a later date to determine housing commitments, so again any information you can provide would be greatly appreciated.

If you have any additional questions, please feel free to contact me. I look forward to your quick response, and appreciate your assistance.

Thanks,
CH2M HILL

CH2M HILL ; E.I.T. & LEED-AP
Environmental Engineer, Denver
Environmental Services

CH2M HILL
9193 South Jamaica Street
Englewood, CO 80112-5946
Direct 720. 555.0226
Fax 720. 555.8142
Email CH2M_HILL_.@ch2m.com
www.ch2mhill.com

**KOA CAMPGROUND
ROCK SPRINGS, WY**

CH2M HILL we do have 85 long term sites in our campground. I don't know how many sites will be available at that time. The rate is 550-650 a month right now. We do charge for electricity used also. There is a \$200 security deposit. We do have a nice laundry room, we have wifi and we can dispense propane.

Thank you
Brandon

Sent from my iPhone

On May 9, 2012, at 5:38 PM, <CH2M_HILL.@ch2m.com> wrote:

Hello,

I spoke with one of your staff yesterday concerning details and accommodations of the Rock Springs/Green River KOA.

On behalf of FMC Corporation, I am contacting you to determine room availability for the construction workforce slated for the FMC Granger Mining Project, located just north of Little America, WY. We are looking to secure housing for approximately 40% of the construction workforce slated to work on the over an approximately 3-year period, from the second quarter of 2013 through the end of 2015. Construction will begin with approximately 40 workers in spring 2013, rising monthly to a peak of approximately 200 workers in spring of 2014, and falling monthly afterward to approximately 30 workers by year's end 2015.

I was hoping you could provide the following information for your location regarding availability of hookups and rates during this period. Here is a summary of the information we are requesting:

Total number of hookups:

Typical occupancy rates (seasonal, special events, etc.):

Weekly rates:

Negotiated rates for companies (general or specific to this Project):

Hookup availability (Q2 2013 to Q4 2015):

Other Accommodations:

Please respond by email or letter with the above information using the contact information provided below. Please note our largest priority is covering the peak construction season from roughly October 2013 to March 2014, when we will have the largest number of workers on site.

Please also note that we are not looking for Letters of Commitment at this time, however this information will be used at a later date to determine housing commitments, so again any information you can provide would be greatly appreciated.

If you have any additional questions, please feel free to contact me. I look forward to your quick response, and appreciate your assistance.

Thanks,
CH2M HILL

CH2M HILL ; E.I.T. & LEED-AP
Environmental Engineer, Denver
Environmental Services

CH2M HILL
9193 South Jamaica Street
Englewood, CO 80112-5946
Direct 720. 555.0226
Fax 720. 555.8142
Email CH2M_HILL@ch2m.com
www.ch2mhill.com

**MOTEL 6
ROCK SPRINGS, WY**

Hi CH2M HILL:

Motel 6 –Rock Springs

25 – queen beds
74 – double/double beds

We also have smoking and non-smoking rooms available. Several of our rooms do have microfridge units in them for an additional cost of 3.00 per day.

Our rates for this time frame will be:

49.99+ tax single occupancy
55.99 + tax double occupancy

We are unable to show room availability this far out (2013 to 2015), thus it is showing 100% availability.

CH2M HILL, if you have any additional questions or concerns, please feel free to contact me direct.

**Motel 6
Jo Ann Sauvageau
General Manager**

Property #0395
Phone: 307-362-1850
Fax: 307-362-5998
2615 Commercial Way
Rock Springs, WY 82901
www.motel6.com
"We Make Great Happen"

From: CH2M HILL . @ch2m.com [<mailto:CH2M HILL . @ch2m.com>]

Sent: Wednesday, May 09, 2012 5:21 PM

To: m60395bo@motel6.com

Subject: Room Availability Request for FMC Granger Project

Hello Jo Ann,

I spoke with one of your staff yesterday concerning details and accommodations of Motel 6 Rock Springs. On behalf of FMC Corporation, I am contacting you to determine room availability for the construction workforce slated for the FMC Granger Mining Project, located just north of Little America, WY. We are looking to secure housing for approximately 40% of the construction workforce slated to work on the over an approximately 3-year period, from the second quarter of 2013 through the end of 2015. Construction will begin with approximately 40 workers in spring 2013, rising monthly to a peak of approximately 200 workers in spring of 2014, and falling monthly afterward to approximately 30 workers by year's end 2015.

I was hoping you could provide the following information for your hotel regarding availability of rooms and rates during this period. Here is a summary of the information we are requesting:

Total number of rooms:

Number of single-occupancy, double-occupancy, suites (if appropriate):

Typical occupancy rates (seasonal, special events, etc.):

Rates by room type:

Weekly rates:

Negotiated rates for companies (general or specific to this Project):

Room availability (Q2 2013 to Q4 2015):

Please respond by email or letter with the above information using the contact information provided below. Please note our largest priority is covering the peak construction season from roughly October 2013 to March 2014, when we will have the largest number of workers on site.

Please also note that we are not looking for Letters of Commitment at this time, however this information will be used at a later date to determine housing commitments, so again any information you can provide would be greatly appreciated.

If you have any additional questions, please feel free to contact me. I look forward to your quick response, and appreciate your assistance.

Thanks,
CH2M HILL

CH2M HILL ; E.I.T. & LEED-AP
Environmental Engineer, Denver
Environmental Services

CH2M HILL
9193 South Jamaica Street
Englewood, CO 80112-5946
Direct 720.555.0226
Fax 720.555.8142
Email CH2M_HILL_@ch2m.com
www.ch2mhill.com

MOTEL 8
ROCK SPRINGS, WY

Hello CH2M HILL,

Sorry that I have been a little slow responding but I want you to know that I needed time to correspond with members of corporate so we were all on the same page---not that we were disinterested.

Our motel consists of 91 rooms on two levels. The rooms all have outside access and outside staircases. We have 18 King nonsmoking rooms, 10 King smoking, 41 nonsmoking rooms with 2 queen beds and 16 double queen smoking rooms. There are also 6 rooms set aside for pets.

All of our rooms have a microwave, fridge and coffeepot and the king rooms all have flat screen TVs. Our motel is older but the rooms are updated and furniture only a couple of years old. We strive to constantly maintain and update and our housekeeping staff is second to none.

There is a laundry room on site for convenience, free wireless internet access, cable with HBO and a huge parking lot that can accommodate up to 22 semi trucks. We also have a small garden area with patio that provides seating and a grilling area. Pictures can be provided if you would like.

We deal mostly with companies, both large and small, that need reasonable housing for their crews. Many have been with us for 5 or more years.

When dealing with companies or projects we usually negotiate rates based on number of rooms and we offer a single rate that is maintained for the entire project rather than a seasonal rate.

I would be most happy to accommodate your company and your sub-contractors.

Any further information or pictures will be provided upon request. Please feel free to call or email at any time.

I hope to be one of the facilities that you choose to do business.

Hoping to hear from you again.

Jessie

From: CH2M HILL . @ch2m.com
To: jwhotel@hotmail.com
Subject: Room Availability Request for FMC Granger Project
Date: Wed, 9 May 2012 23:21:35 +0000

Hello Jessy,

I spoke with you yesterday concerning details and accommodations of Motel 8 Rock Springs. On behalf of FMC Corporation, I am contacting you to determine room availability for the construction workforce slated for the FMC Granger Mining Project, located just north of Little

America, WY. We are looking to secure housing for approximately 40% of the construction workforce slated to work on the over an approximately 3-year period, from the second quarter of 2013 through the end of 2015. Construction will begin with approximately 40 workers in spring 2013, rising monthly to a peak of approximately 200 workers in spring of 2014, and falling monthly afterward to approximately 30 workers by year's end 2015.

I was hoping you could provide the following information for your hotel regarding availability of rooms and rates during this period. Here is a summary of the information we are requesting:

Total number of rooms:

Number of single-occupancy, double-occupancy, suites (if appropriate):

Typical occupancy rates (seasonal, special events, etc.):

Rates by room type:

Weekly rates:

Negotiated rates for companies (general or specific to this Project):

Room availability (Q2 2013 to Q4 2015):

Please respond by email or letter with the above information using the contact information provided below. Please note our largest priority is covering the peak construction season from roughly October 2013 to March 2014, when we will have the largest number of workers on site.

Please also note that we are not looking for Letters of Commitment at this time, however this information will be used at a later date to determine housing commitments, so again any information you can provide would be greatly appreciated.

If you have any additional questions, please feel free to contact me. I look forward to your quick response, and appreciate your assistance.

Thanks,
CH2M HILL

CH2M HILL ; E.I.T. & LEED-AP
Environmental Engineer, Denver
Environmental Services

CH2M HILL
9193 South Jamaica Street
Englewood, CO 80112-5946
Direct 720.555.0226

Fax 720.555.8142
Email CH2M HILL . @ch2m.com
www.ch2mhill.com

**OAK TREE INN
GREEN RIVER, WY**

Hello CH2M HILL,

As per our conversation yesterday afternoon; we went over the room types and rates. Here is another run down on those and the Eye Opener Breakfast Coupon is attached.

There are 26 Single Queen beds at the rate of \$50.00 plus tax per night.
24 rooms with 2 Full sized beds in each, at the rate of \$55.00 plus tax per night
10 rooms with 2 Queen beds in them, at the rate of \$60.00 plus tax per night.

If there are any questions or concerns that you may have, please don't hesitate to ask.
I can also be reached at 307-875-3500.

Thank you for inquiring about us and we hope you and your team chooses to stay with us.

Sincerely,

Trish Gregory
Oak Tree Inn

Hello Trish,

I spoke with one of your staff yesterday concerning details and accommodations of the Oak Tree Inn. On behalf of FMC Corporation, I am contacting you to determine room availability for the construction workforce slated for the FMC Granger Mining Project, located just north of Little America, WY. We are looking to secure housing for approximately 40% of the construction workforce slated to work on the over an approximately 3-year period, from the second quarter of 2013 through the end of 2015. Construction will begin with approximately 40 workers in spring 2013, rising monthly to a peak of approximately 200 workers in spring of 2014, and falling monthly afterward to approximately 30 workers by year's end 2015.

I was hoping you could provide the following information for your hotel regarding availability of rooms and rates during this period. Here is a summary of the information we are requesting:

Total number of rooms:

Number of single-occupancy, double-occupancy, suites (if appropriate):

Typical occupancy rates (seasonal, special events, etc.):

Rates by room type:

Weekly rates:

Negotiated rates for companies (general or specific to this Project):

Room availability (Q2 2013 to Q4 2015):

Please respond by email or letter with the above information using the contact information provided below. Please note our largest priority is covering the peak construction season from roughly October 2013 to March 2014, when we will have the largest number of workers on site.

Please also note that we are not looking for Letters of Commitment at this time, however this information will be used at a later date to determine housing commitments, so again any information you can provide would be greatly appreciated.

If you have any additional questions, please feel free to contact me. I look forward to your quick response, and appreciate your assistance.

Thanks,
CH2M HILL

CH2M HILL ; E.I.T. & LEED-AP
Environmental Engineer, Denver
Environmental Services

CH2M HILL
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Englewood, CO 80112-5946
Direct 720. 555.0226
Fax 720. 555.8142
Email CH2M HILL . @ch2m.com
www.ch2mhill.com

**SKYLINE VILLAGE MOBILE HOME COMMUNITY
ROCK SPRINGS, WY**

CH2M HILL,

I appologize for the delay in my response, however I wanted to let you Skyline Village is a Mobile Home Community. I currently do not have any home rentals I do have R.V rentals I currenty have 3 available they are 1 br 1 ba with a set of bunk beds the rent on them is \$500.00 a month and a deposit of \$350.00and that includes water, trash, sewer and electric the only utility you would have to pay is propane. Please let me know if you are interested.

Thank You,
Candace

On Fri, May 25, 2012 at 3:33 PM, <CH2M HILL . @ch2m.com> wrote:

Hello Candace,

I wanted to check in with you and your park to see if you had the information we requested and could submit these details by the end of next week (June 1st)? We are closing out this stage of the project and will not be reaching out to hotels in the area starting in June. Any details you can provide would be greatly appreciated.

Cheers

CH2M HILL

CH2M HILL ; E.I.T. & LEED-AP
*Environmental Engineer, Denver
Environmental Services*

CH2M HILL
9193 South Jamaica Street
Englewood, CO 80112-5946
Direct [720. 555.0226](tel:720.555.0226)

Fax [720. 555.8142](tel:720.555.8142)
Email CH2M HILL . @ch2m.com
www.ch2mhill.com

From: , CH2M HILL /DEN
Sent: Wednesday, May 09, 2012 5:40 PM
To: 'candacec@ascentia.us'
Subject: Lot Availability Request for FMC Granger Project 2013-2015

Hello Candace,

I spoke with you yesterday concerning details and accommodations of Skyline Village.

On behalf of FMC Corporation, I am contacting you to determine accommodations availability for the construction workforce slated for the FMC Granger Mining Project, located just north of Little America, WY. We are looking to secure housing for approximately 40% of the construction workforce slated to work on the over an approximately 3-year period, from the second quarter of 2013 through the end of 2015. Construction will begin with approximately 40 workers in spring 2013, rising monthly to a peak of approximately 200 workers in spring of 2014, and falling monthly afterward to approximately 30 workers by year's end 2015.

I was hoping you could provide the following information for your location regarding availability of hookups and rates during this period. Here is a summary of the information we are requesting:

Total number of hookups:

Typical occupancy rates (seasonal, special events, etc.):

Weekly rates:

Negotiated rates for companies (general or specific to this Project):

Hookup availability (Q2 2013 to Q4 2015):

Other Accommodations:

Please respond by email or letter with the above information using the contact information provided below. Please note our largest priority is covering the peak construction season from roughly October 2013 to March 2014, when we will have the largest number of workers on site.

Please also note that we are not looking for Letters of Commitment at this time, however this information will be used at a later date to determine housing commitments, so again any information you can provide would be greatly appreciated.

If you have any additional questions, please feel free to contact me. I look forward to your quick response, and appreciate your assistance.

Thanks,

CH2M HILL

CH2M HILL ; E.I.T. & LEED-AP
Environmental Engineer, Denver
Environmental Services

CH2M HILL
9193 South Jamaica Street
Englewood, CO 80112-5946
Direct [720. 555.0226](tel:720.555.0226)

Fax [720. 555.8142](tel:720.555.8142)
Email CH2M HILL . @ch2m.com
www.ch2mhill.com

--

Candace Cordova

Community Manager
1700 Swanson Dr. #1 Rock Springs Wy. 82901
307-382-7482 (Office) 307-362-1982 (Fax)
candacec@ascentia.us
www.ascentia.us

**TEX'S TRAVEL CAMP
GREEN RIVER, WY**

Hello CH2M HILL

This Is Delaina Smith Form The Travel Camp

Our rates are

600.00 Per month with a 100.00 deposit that is refunded when you leave and if your sites taken care of. Weekly rate is 200.00 with a 50.00 deposit and that is refunded when you leave and your site is taken care of. All rates includes all utilies witch are water. sewer, electricity, Driect TV, Wifi.

Our facility has a total of 73 full hook up sites, 2 bathhouses, a laundry mat, and a small convenient store for campers.

As far as availability I have no reservations thus far on the dates you have mentioned and would be happy to have your workers stay with us. As soon as you know when they will be comming in and how many sites you will need please let me know so we can reserve sites for you.

Thank you

Delaina Smith

The Travel Camp

307-875-2630

--- On Wed, 5/9/12, [CH2M HILL . @ch2m.com](mailto:CH2M_HILL.@ch2m.com) <[CH2M HILL . @ch2m.com](mailto:CH2M_HILL.@ch2m.com)> wrote:

From: [CH2M HILL . @ch2m.com](mailto:CH2M_HILL.@ch2m.com) <[CH2M HILL . @ch2m.com](mailto:CH2M_HILL.@ch2m.com)>

Subject: Lot Availability Request for FMC Granger Project 2013-2015

To: smithracing7@yahoo.com

Date: Wednesday, May 9, 2012, 5:40 PM

Hello Delaina,

I spoke with you yesterday concerning details and accommodations of Tex's Travel Camp.

On behalf of FMC Corporation, I am contacting you to determine accomodations availability for the construction workforce slated for the FMC Granger Mining Project, located just north of Little America, WY. We are looking to secure housing for approximately 40% of the construction workforce slated to work on the over an approximately 3-year period, from the second quarter of 2013 through the end of 2015. Construction will begin with approximately 40 workers in spring 2013, rising monthly to a peak of approximately 200 workers in spring of 2014, and falling monthly

afterward to approximately 30 workers by year's end 2015.

I was hoping you could provide the following information for your location regarding availability of hookups and rates during this period. Here is a summary of the information we are requesting:

Total number of hookups:

Typical occupancy rates (seasonal, special events, etc.):

Weekly rates:

Negotiated rates for companies (general or specific to this Project):

Hookup availability (Q2 2013 to Q4 2015):

Other Accommodations:

Please respond by email or letter with the above information using the contact information provided below. Please note our largest priority is covering the peak construction season from roughly October 2013 to March 2014, when we will have the largest number of workers on site.

Please also note that we are not looking for Letters of Commitment at this time, however this information will be used at a later date to determine housing

commitments, so again any information you can provide would be greatly appreciated.

If you have any additional questions, please feel free to contact me. I look forward to your quick response, and appreciate your assistance.

Thanks,

CH2M HILL

CH2M HILL ; E.I.T. & LEED-AP
Environmental Engineer, Denver
Environmental Services

CH2M HILL
9193 South Jamaica Street
Englewood, CO 80112-5946
Direct 720.555.0226

Fax 720.555.8142
Email CH2M.HILL@ch2m.com
www.ch2mhill.com

Wyoming Industrial Siting Application - State Agency Contact List - March 2012

| Name | | | Title | Wyoming State Agency | Address | City | State | Zip | |
|-------------|--------------|-----|-------------------------|---|-----------------------------------|--------------------------|----------|-------|-------|
| John | Cox | Mr. | Director | Department of Transportation | 5300 Bishop Avenue | Cheyenne | WY | 82009 | |
| Christopher | Petrie | Mr. | Chief Counsel | Public Service Commission | 2515 Warren Avenue Suite 300 | Cheyenne | WY | 82002 | |
| Scott | Talbott | Mr. | Director | Game & Fish Department | 5400 Bishop Avenue | Cheyenne | WY | 82009 | |
| Thomas | Forslund | Mr. | Director | Department of Health | 2300 Capitol Avenue | Hathaway Building | Cheyenne | WY | 82002 |
| Cindy | Hill | Ms. | Superintendent | Department of Education | 2300 Capitol Avenue | Hathaway Building | Cheyenne | WY | 82002 |
| Patrick | Tyrrell | Mr. | State Engineer | Office of State Engineer | 122 West 25 Street | Hershler Building | Cheyenne | WY | 82002 |
| Wallace | Ulrich | Mr. | State Geologist | Geological Survey | PO Box 1347 | Laramie | WY | 82073 | |
| Jason | Fearneyhough | Mr. | Director | Department of Agriculture | 2219 Carey Avenue | Cheyenne | WY | 82002 | |
| John | Corra | Mr. | Director | Department of Environmental Quality | 122 West 25 Street | Hershler Building 4 West | Cheyenne | WY | 82002 |
| William | Gern | Mr. | Research & Development | University of Wyoming | 1000 E. University Ave. Dept 3355 | Laramie | WY | 82071 | |
| Ed | Schmidt | Mr. | Director | Department of Revenue | 122 West 25 Street | Hershler Building 2 East | Cheyenne | WY | 82002 |
| Robert | Jensen | Mr. | Chief Executive Officer | Wyoming Business Council | 214 West 15 Street | Cheyenne | WY | 82002 | |
| Joan | Evans | Ms. | Director | Department of Workforce Services and Employment | 122 West 25 Street | Hershler Building 2 East | Cheyenne | WY | 82002 |
| Susan | Child | Ms. | Deputy Director | State Lands & Investments | 122 West 25 Street | Hershler Building 1 West | Cheyenne | WY | 82002 |
| Milward | Simpson | Mr. | Director | State Parks & Cultural Resources | 2301 Central Avenue | Cheyenne | WY | 82002 | |
| Lanny | Applegate | Mr. | Fire Marshal | Department of Fire Prevention & Electrical Safety | 122 West 25 St. | Hershler Building 1 West | Cheyenne | WY | 82002 |
| Steve | Corsi | Mr. | Director | Department of Family Services | 2300 Capitol Ave | Hathaway Building 3 West | Cheyenne | WY | 82002 |
| Thomas | Doll | Mr. | Supervisor | Oil & Gas Conservation Commission | 2211 King Boulevard, PO Box 2640 | Casper | WY | 82602 | |
| Steve | Dietrich | Mr. | Administrator | Air Quality Division | 122 West 25 Street | Hershler Building 2 East | Cheyenne | WY | 82002 |
| John | Wagner | Mr. | Administrator | Water Quality Division | 122 West 25 Street | Hershler Building 4 West | Cheyenne | WY | 82002 |
| Carl | Anderson | Mr. | Administrator | Solid & Hazardous Waste Division | 122 West 25 Street | Hershler Building 4 West | Cheyenne | WY | 82002 |
| Nancy | Nuttbrock | Ms. | Administrator | Land Quality Division | 122 West 25 Street | Hershler Building 3 West | Cheyenne | WY | 82002 |

FMC Alkali Chemicals

FMC Granger Facility

FMC Corporation
PO Box 872
Green River, WY 82935

307.875.2580 phone
www.fmc.com

May 29, 2012

State Agency (Excel file list)

Address 1

Address2

Address 3

Address 4

Subject: FMC Corporation Granger Optimization Project
Wyoming Industrial Siting Permit Application

Dear Mr./Ms. _____:

FMC Corporation has begun the regulatory process to undertake the Granger Optimization Project (the Project). When completed, the Project will restore the production capacity of the FMC Granger facility to permitted levels. The Project will enable FMC to maintain the ability to meet market demands for soda ash by leveraging existing ore resources and its supporting infrastructure.

The FMC Granger facility currently produces soda ash and caustic soda using weak alkaline brine. The facility presently consists of a flooded underground trona mine used for recovery of brine, soda ash plant, caustic plant, and ancillary utilities (e.g., boilers, water treatment). From the start of operations in 1976 and until 2005, the feedstock for soda ash production came from dry ore produced from the on-site underground trona mine. Under this operating mode, the soda ash plant had a permitted production capacity of 1.3 million tons per year of refined soda ash based on the alkaline liquor concentration achievable from dry ore processing. Dry ore mining was eventually discontinued due to declining ore quality and associated higher production costs, and in 2005 the feedstock for the soda ash plant was switched to mine water (the weak alkaline brine extracted from the underground flooded trona mine).

With the diluted mine water as the feedstock, the production capacity of the plant was effectively reduced from 1.3 million tons per year to 650,000 tons per year of refined soda ash. Restoration of production capacity is necessary in order to meet the soda ash product needs of FMC's customers. To meet that demand, the optimized facilities need to be in place by the second quarter of 2015. The Granger Optimization Project (the Project) will accomplish this through the addition of new brine processing equipment designed to provide the existing facilities with a soda ash liquor concentration similar to that which was obtainable from dry ore processing.



ISA Statute and Cost

A meeting was held with the Wyoming Department of Environmental Quality Industrial Siting Division (ISD) on January 10, 2012. The ISD staff determined that the estimated capital cost of construction for the Project meets or exceeds the current statutory jurisdictional capital construction cost threshold of \$186.7 million (W.S. § 35-12-102).

Location

The Project site is located in Sweetwater County, Wyoming, approximately 26 miles west of Green River. Specifically, the Project would be located within the existing Granger plant by adding solution processing equipment to the existing facilities. The Project site will be accessed using County Road 11 from the east and Granger Road from the west to reach the existing facility's road network. The Project site is located near an unnamed tributary to Sevenmile Gulch, which is in turn tributary to Blacks Fork of the Green River. A project location map is shown in Attachment 1.

Land Use

The entire Project will be located on private lands in Sweetwater County. The Project site is zoned for and is in industrial use as the Granger facility. The surrounding landscape is a checkerboard of BLM- and privately-managed lands. A parcel of state land is located immediately east of the Project. The area is generally undeveloped except for wells and pipelines supporting the Granger plant. No residences are located within six miles of the Project.

Components

The primary components of the Project involve processing equipment that concentrates the mine water, crystallizes and purifies the desired components, and then dries and finally processes the soda ash. Additional infrastructure will include control equipment, storage tanks, clarifiers, and a new cooling tower. The ongoing program of installing injection wells, extraction wells, and mine water pipelines will continue. The continuing mine water program will enhance the recovery of the leased trona resource.

Project Schedule

Permitting is currently underway for the project. Currently, the plan is to submit the ISA permit application in July 2012 with a public hearing anticipated in October 2012. Major equipment is expected to be ordered in early 2013. FMC anticipates an approximate 26 month construction period commencing in May 2013. Commercial operation of the facility is anticipated for October 2015.

Construction and Operations Workforce Requirements

Construction Workforce

Site preparation and clearing would begin in May 2013. Construction activities and the corresponding workforce will ramp-up over the following several months. The construction workforce is estimated to peak at approximately 310 during the height of construction activities in the second quarter of 2014.



Operations Workforce

During the operations phase, an estimated additional workforce of approximately 26 full-time positions will be needed to fully staff the Granger facility.

Transportation

The Project is expected to generate additional personnel and equipment traffic during both the construction and operations stages. The workforce and delivery vehicles will primarily use Interstate 80 to US 30 or WY 372 to access the site. The Project is contained within the current Granger facility, so the traffic would all be routed on the existing roadway network.

All deliveries will be trucked directly to the Project site using semi-tractor trailers. It is anticipated that the truck deliveries to the site will be scheduled during the off-peak periods. Transportation routes associated with oversized loads, if necessary, will be finalized with WYDOT.

A study has been completed that analyzed the potential impacts of construction and operation traffic on local roadway systems. The study evaluated both worker traffic and construction delivery truck traffic. Impacts are expected to be minor with only slight changes in level of service during the peak construction period.

Water Use

The water balance for the Project estimates a maximum annual water use of approximately 5,000 acre-feet/year. This use is less than the adjudicated water right equivalent to 5,419 acre-feet/year. The water source for the Project will be the existing 7.5 cubic feet per second (cfs) Green River water right FMC currently holds. This water right is sufficient to supply the Project during both construction and operation.

Public Involvement Activities

FMC is in the process of holding meetings and presentations with potentially affected municipalities, counties, state agencies, and other stakeholders. The meetings will be a venue to discuss potential environmental, social, and economic issues and identify mitigation recommendations and solutions to incorporate into the planning and design of the Project. The Project area of study, as identified by ISD staff during the Jurisdictional Meeting, determined the local governments where informational meetings were held.

FMC met with elected government officials in Sweetwater, Lincoln, and Uinta Counties as part of the pre-application process to inform them of the Project, receive comments and input, and address concerns. On March 20, FMC met with the Sweetwater County Commissioners, Green River City Council, and Uinta County Commissioners, and on April 3 met with the Rock Springs City Council and the Lincoln County Commissioners. All three counties and the cities of Rock Springs and Green River have submitted letters of support to the ISD.

FMC held two public open house meetings to ensure the public has the opportunity to discuss the project and ensure any concerns were identified and addressed. The meetings were held on May 8 in Green River and May 9 in Rock Springs.

The purpose of this letter is to notify all relevant State of Wyoming agencies of the Project and invite their input and involvement. An information handout on the Project is included as Attachment 2.

Socioeconomic Impacts

A detailed analysis of social and economic impacts will be submitted as part of the ISA permit application to evaluate the benefits and impacts to the social and economic resources in the area of study and primary area of site influence. To measure potential impacts, the socioeconomic analysis will compare the expected future conditions in the area of study with and without the Project. The counties included in the area of study were determined in consultation with ISD staff and has been defined as Sweetwater, Lincoln, and Uinta Counties.

Both local communities and the state will realize benefits from the Project. Wyoming will gain economic benefits including permanent job creation and tax revenues. Locally, the Project may result in allocation and distribution of impact assistance payment funds, local spending on goods and services, additional local economic activity, and tax revenues.

Construction of the Project is expected to place minimal demands on water, sewer, roads, electrical lines, or other local infrastructure. Therefore, construction and operation of the Project is not expected to significantly affect the various public and nonpublic facilities and municipal services as a result of in-migration of workers for non-basic employment opportunities.

Environmental Resources

FMC has reviewed the data and reports from independent consultants that indicate there would be no significant environmental impacts as a result of the project. All baseline resource information will be used to design Project components to avoid or minimize the potential for environmental and natural resource impacts. Because of the Project's location within the remote Granger facility and the overall disturbed nature of the area, minimal environmental impacts are expected. It is anticipated operation of the Project will be indiscernible from current facility operations.

Invitation to Participate

FMC invites you to express your agency's comments and provide feedback so that issues may be considered and addressed directly with your agency, as well as incorporated directly into the ISA permitting application and construction planning process.

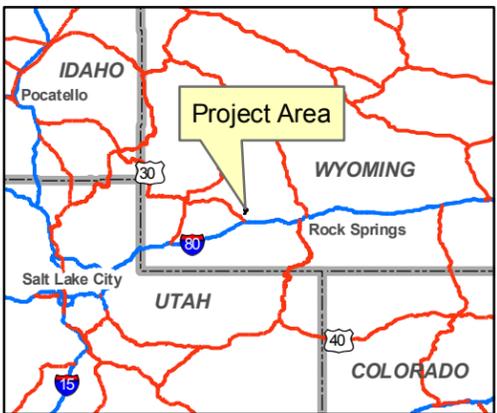
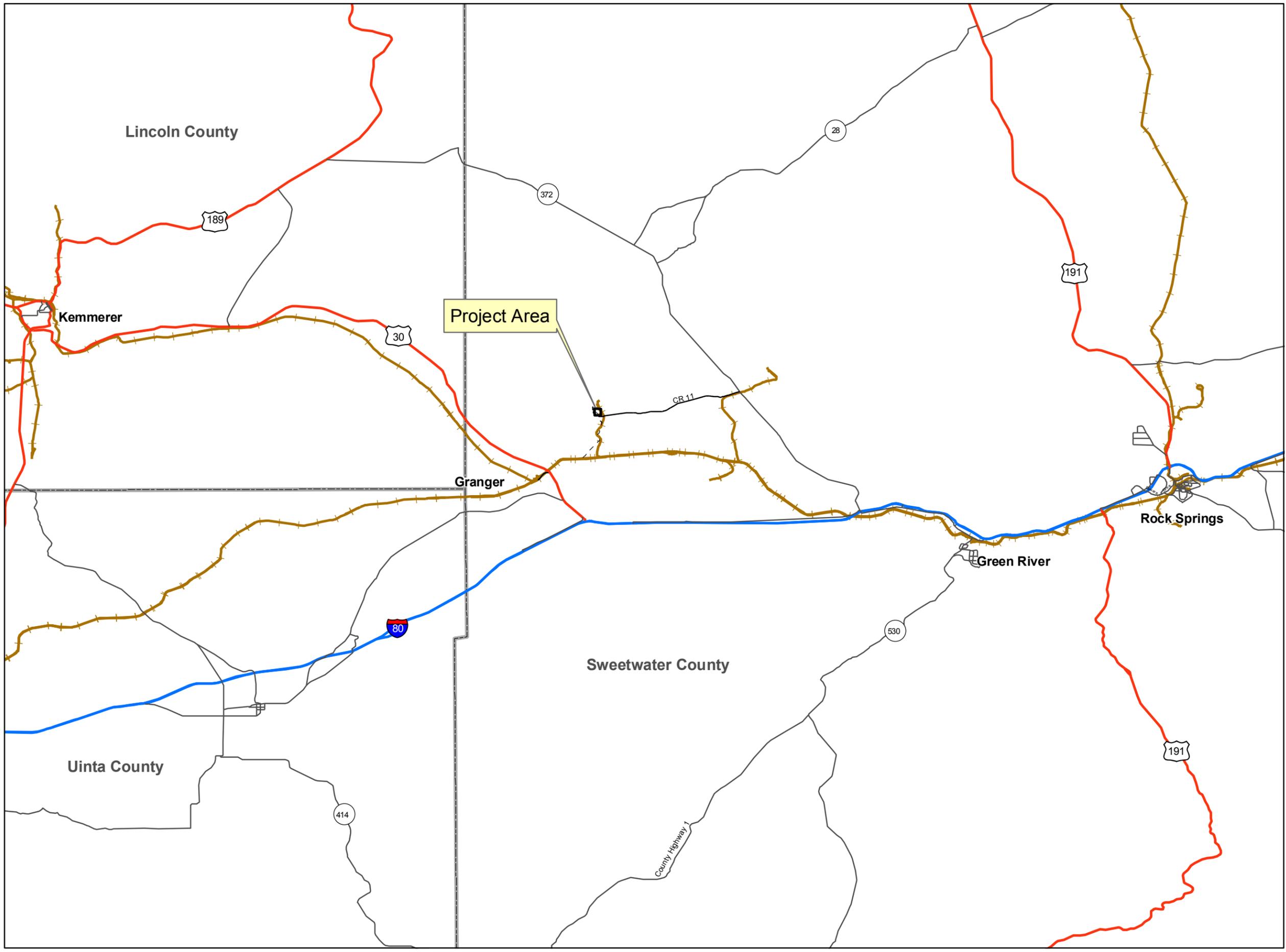
You may provide input by sending an e-mail to john.lucas@fmc.com, or by mailing your comments to us at FMC Granger Optimization Project – c/o John Lucas, PO Box 872, Green River, WY 82935. Please be sure to include your name and contact info with your comments so that we may follow-up with you effectively. Likewise, if you prefer to discuss the Project further, FMC is available to meet in person or via phone upon your request.

We look forward to working with you on this Project, and look forward to your input.

Sincerely,

Fred von Ahrens
Manufacturing Director, Green River Operations
FMC Corporation

Attachments: 1) Project Location Map
2) Project information Handout



- Legend**
- Interstate
 - US Highway
 - State Highway
 - County Road
 - - - Dirt Road
 - Railroad
 - Project Area
 - County Boundary

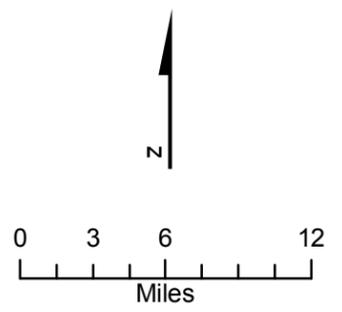


Figure 1
 Granger Optimization
 Project Location
 FMC Corporation
 Sweetwater County, Wyoming



Project Description

FMC Corporation's Alkali Chemicals division is the world's largest producer of natural soda ash and the market leader in North America. FMC is also the leader in mining and production of natural soda ash, having developed and implemented multiple proprietary, low-cost mining and processing technologies. The purpose of the Granger Optimization Project is to restore the production capacity of the FMC Granger facility to a nominal 1.3 million tons per year of refined soda ash. The Project will enable FMC to maintain the ability to meet market demands for soda ash by leveraging existing ore resources and its supporting infrastructure.

Restoration of production capacity is necessary in order to meet the soda ash product needs of FMC's worldwide customers. Restoration of production capacity will be accomplished in the Granger Optimization Project through the addition of new brine processing equipment designed to provide the existing facilities with a soda ash liquor concentration similar to that which was obtainable from dry ore processing. Construction of the project is scheduled to begin by May 2013.

The FMC Granger facility currently produces soda ash and caustic soda using weak alkaline brine. The facility presently consists of a flooded underground trona mine used for recovery of brine, soda ash plant, caustic plant, and ancillary utilities (e.g., boilers, water treatment). From the start of operations in 1976 and until 2005 the feedstock for soda ash production came from dry ore produced from the on-site underground trona mine. Under this operating mode the soda ash plant had a permitted production capacity of 1.3 million tons of refined soda ash based on the alkaline liquor concentration achievable from dissolving dry ore. Dry ore mining was eventually discontinued (due to declining ore quality and associated higher production costs) and in 2005 the feedstock for the soda ash plant was switched to mine water (the weak alkaline brine extracted from the underground trona mine). With the less concentrated mine water as the feedstock, the permitted production capacity of the plant was effectively reduced to half of the original 1.3 million tons per year to 650,000 tons per year of refined soda ash; the plant is currently operating at 500,000 tons per year. After completion of the Granger Optimization Project, the production capacity of the plant will be restored to 1.3 million tons per year of soda ash using mine water as the feedstock.

Schedule

Permitting is currently underway for the project. Detailed engineering design began in March 2012. The submittal of the Industrial Siting Application to Wyoming DEQ is planned for July 2012. Major equipment would be ordered in late 2012/early 2013, construction would start in the second quarter of 2013 and full commercial operation would commence on or before the end of 2015.

Construction and Operations Workforce

Construction at the site is expected to start in May 2013. The average construction workforce is estimated at 193 for the 26-month construction duration. The peak construction workforce is estimated at 310 on-site workers. The Operations and Maintenance Workforce for the Granger facility is estimated to be an additional 26 full time permanent positions.

Benefits and Sustainability

FMC has operated two major production facilities in Southwest Wyoming for many decades. Our 930 employees solution mine and dry mine trona from approximately 1,600 feet underground and then process the mineral into natural soda ash, sodium bicarbonate, and caustic soda using modern progressive



technologies. Soda ash is essential to the production of all forms of glass, namely: flat glass, for autos, homes and buildings, container glass for consumer products as well as fiberglass, tableware, lighting and screens for consumer electronics. Soda ash is also a key ingredient in detergents and a building block for other chemicals such as sodium bicarbonate, sodium silicate, sodium phosphates and sodium citrates.

Natural soda ash is considerably less energy intensive and has a lower production cost than its primary competition – synthetic sodas produced in China. As a result, over 50% of U.S. natural soda ash production is exported, providing a significant positive trade balance for the U.S. Our operations depend on the safe and efficient extraction of trona to maintain our worldwide competitiveness. Natural soda ash production from the Wyoming trona basin uses 40% less energy and produces about 40% less greenhouse gas than the worldwide alternative, synthetic soda ash.

The construction and operation of the Granger Optimization Project will provide investment in the local community, employment and expanded tax base with minimal new infrastructure needed. There will be new jobs for both construction and long-term operation. The project will result in additional property, ad valorem, severance and other taxes paid by the project.

Environment

Major environmental permits required for the project include:

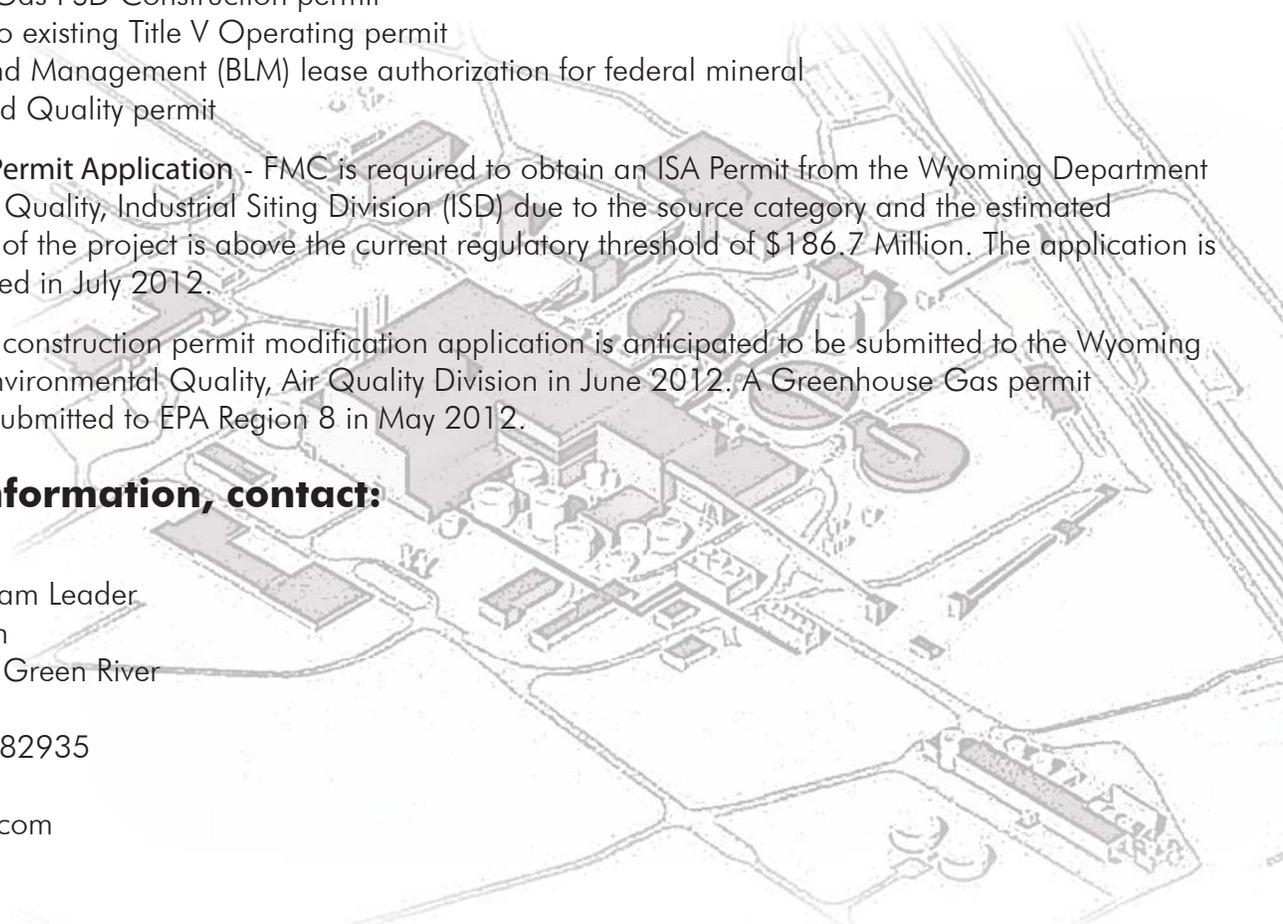
- Wyoming Industrial Development Information and Siting Act (ISA) permit
- Prevention of Significant Deterioration (PSD) Air Construction modification permit
- Greenhouse Gas PSD Construction permit
- Amendment to existing Title V Operating permit
- Bureau of Land Management (BLM) lease authorization for federal mineral
- Wyoming Land Quality permit

Industrial Siting Permit Application - FMC is required to obtain an ISA Permit from the Wyoming Department of Environmental Quality, Industrial Siting Division (ISD) due to the source category and the estimated construction cost of the project is above the current regulatory threshold of \$186.7 Million. The application is expected to be filed in July 2012.

Air - The PSD air construction permit modification application is anticipated to be submitted to the Wyoming Department of Environmental Quality, Air Quality Division in June 2012. A Greenhouse Gas permit application was submitted to EPA Region 8 in May 2012.

For more information, contact:

John Lucas
Environmental Team Leader
FMC Corporation
26 Miles West of Green River
P.O. Box 872
Green River, WY 82935
307-872-2195
john.lucas@fmc.com



Appendix F-3

Local Joint Powers Boards Contact List May 2012

| Name | | Title | Joint Power Board | Address | | City | State | Zip |
|------|--|--|--|--------------|--|--------------|-------|-------|
| | | City of Rock Springs/City of Green River | Fiber Optic Joint Powers Board | 212 D Street | | Rock Springs | WY | 82901 |
| | | Green River/Rock Springs | JPB - Water Board | PO Box 1299 | | Green River | WY | 82935 |
| | | | Sweetwater County Joint Travel Tourism Board | PO Box 38 | | Rock Springs | WY | 82902 |
| | | Rock Springs/Green River/Sweetwater County | Combined Communication JPB | 212 D Street | | Rock Springs | WY | 82901 |

FMC Alkali Chemicals

FMC Granger Facility

FMC Corporation
PO Box 872
Green River, WY 82935

307.875.2580 phone
www.fmc.com

May 29, 2012

Local Joint Powers Boards (Excel file list)

Address 1

Address2

Address 3

Address 4

Subject: FMC Corporation Granger Optimization Project
Wyoming Industrial Siting Permit Application

To Whom It May Concern:

FMC Corporation has begun the regulatory process to undertake the Granger Optimization Project (the Project). When completed, the Project will restore the production capacity of the FMC Granger facility to permitted levels. The Project will enable FMC to maintain the ability to meet market demands for soda ash by leveraging existing ore resources and its supporting infrastructure.

The FMC Granger facility currently produces soda ash and caustic soda using weak alkaline brine. The facility presently consists of a flooded underground trona mine used for recovery of brine, soda ash plant, caustic plant, and ancillary utilities (e.g., boilers, water treatment). From the start of operations in 1976 and until 2005, the feedstock for soda ash production came from dry ore produced from the on-site underground trona mine. Under this operating mode, the soda ash plant had a permitted production capacity of 1.3 million tons per year of refined soda ash based on the alkaline liquor concentration achievable from dry ore processing. Dry ore mining was eventually discontinued due to declining ore quality and associated higher production costs, and in 2005 the feedstock for the soda ash plant was switched to mine water (the weak alkaline brine extracted from the underground flooded trona mine).

With the diluted mine water as the feedstock, the production capacity of the plant was effectively reduced from 1.3 million tons per year to 650,000 tons per year of refined soda ash. Restoration of production capacity is necessary in order to meet the soda ash product needs of FMC's customers. To meet that demand, the optimized facilities need to be in place by the second quarter of 2015. The Granger Optimization Project (the Project) will accomplish this through the addition of new brine processing equipment designed to provide the existing facilities with a soda ash liquor concentration similar to that which was obtainable from dry ore processing.



ISA Statute and Cost

A meeting was held with the Wyoming Department of Environmental Quality Industrial Siting Division (ISD) on January 10, 2012. The ISD staff determined that the estimated capital cost of construction for the Project meets or exceeds the current statutory jurisdictional capital construction cost threshold of \$186.7 million (W.S. § 35-12-102).

Location

The Project site is located in Sweetwater County, Wyoming, approximately 26 miles west of Green River. Specifically, the Project would be located within the existing Granger plant by adding solution processing equipment to the existing facilities. The Project site will be accessed using County Road 11 from the east and Granger Road from the west to reach the existing facility's road network. The Project site is located near an unnamed tributary to Sevenmile Gulch, which is in turn tributary to Blacks Fork of the Green River. A project location map is shown in Attachment 1.

Land Use

The entire Project will be located on private lands in Sweetwater County. The Project site is zoned for and is in industrial use as the Granger facility. The surrounding landscape is a checkerboard of BLM- and privately-managed lands. A parcel of state land is located immediately east of the Project. The area is generally undeveloped except for wells and pipelines supporting the Granger plant. No residences are located within six miles of the Project.

Components

The primary components of the Project involve processing equipment that concentrates the mine water, crystallizes and purifies the desired components, and then dries and finally processes the soda ash. Additional infrastructure will include control equipment, storage tanks, clarifiers, and a new cooling tower. The ongoing program of installing injection wells, extraction wells, and mine water pipelines will continue. The continuing mine water program will enhance the recovery of the leased trona resource.

Project Schedule

Permitting is currently underway for the project. Currently, the plan is to submit the ISA permit application in July 2012 with a public hearing anticipated in October 2012. Major equipment is expected to be ordered in early 2013. FMC anticipates an approximate 26 month construction period commencing in May 2013. Commercial operation of the facility is anticipated for October 2015.

Construction and Operations Workforce Requirements

Construction Workforce

Site preparation and clearing would begin in May 2013. Construction activities and the corresponding workforce will ramp-up over the following several months. The construction workforce is estimated to peak at approximately 310 during the height of construction activities in the second quarter of 2014.



Operations Workforce

During the operations phase, an estimated additional workforce of approximately 26 full-time positions will be needed to fully staff the Granger facility.

Transportation

The Project is expected to generate additional personnel and equipment traffic during both the construction and operations stages. The workforce and delivery vehicles will primarily use Interstate 80 to US 30 or WY 372 to access the site. The Project is contained within the current Granger facility, so the traffic would all be routed on the existing roadway network.

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A study has been completed that analyzed the potential impacts of construction and operation traffic on local roadway systems. The study evaluated both worker traffic and construction delivery truck traffic. Impacts are expected to be minor with only slight changes in level of service during the peak construction period.

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The water balance for the Project estimates a maximum annual water use of approximately 5,000 acre-feet/year. This use is less than the adjudicated water right equivalent to 5,419 acre-feet/year. The water source for the Project will be the existing 7.5 cubic feet per second (cfs) Green River water right FMC currently holds. This water right is sufficient to supply the Project during both construction and operation.

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FMC met with elected government officials in Sweetwater, Lincoln, and Uinta Counties as part of the pre-application process to inform them of the Project, receive comments and input, and address concerns. On March 20, FMC met with the Sweetwater County Commissioners, Green River City Council, and Uinta County Commissioners, and on April 3 met with the Rock Springs City Council and the Lincoln County Commissioners. All three counties and the cities of Rock Springs and Green River have submitted letters of support to the ISD.

FMC held two public open house meetings to ensure the public has the opportunity to discuss the project and ensure any concerns were identified and addressed. The meetings were held on May 8 in Green River and May 9 in Rock Springs.

The purpose of this letter is to notify all potentially affected Joint Power Boards in Sweetwater County of the Project and invite their input and involvement. An information handout on the Project is included as Attachment 2.

Socioeconomic Impacts

A detailed analysis of social and economic impacts will be submitted as part of the ISA permit application to evaluate the benefits and impacts to the social and economic resources in the area of study and primary area of site influence. To measure potential impacts, the socioeconomic analysis will compare the expected future conditions in the area of study with and without the Project. The counties included in the area of study were determined in consultation with ISD staff and has been defined as Sweetwater, Lincoln, and Uinta Counties.

Both local communities and the state will realize benefits from the Project. Wyoming will gain economic benefits including permanent job creation and tax revenues. Locally, the Project may result in allocation and distribution of impact assistance payment funds, local spending on goods and services, additional local economic activity, and tax revenues.

Construction of the Project is expected to place minimal demands on water, sewer, roads, electrical lines, or other local infrastructure. Therefore, construction and operation of the Project is not expected to significantly affect the various public and nonpublic facilities and municipal services as a result of in-migration of workers for non-basic employment opportunities.

Environmental Resources

FMC has reviewed the data and reports from independent consultants that indicate there would be no significant environmental impacts as a result of the project. All baseline resource information will be used to design Project components to avoid or minimize the potential for environmental and natural resource impacts. Because of the Project's location within the remote Granger facility and the overall disturbed nature of the area, minimal environmental impacts are expected. It is anticipated operation of the Project will be indiscernible from current facility operations.

Invitation to Participate

FMC invites you to express your comments and provide feedback so that issues may be considered and addressed directly with your organization, as well as incorporated directly into the ISA permitting application and construction planning process.

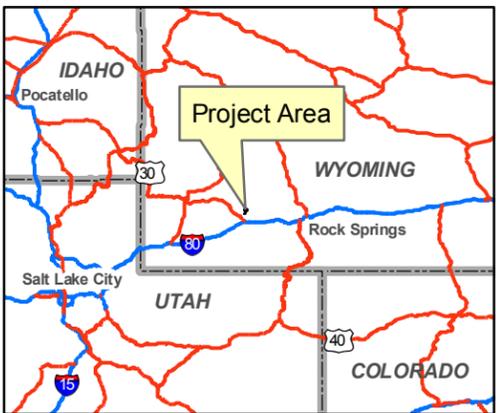
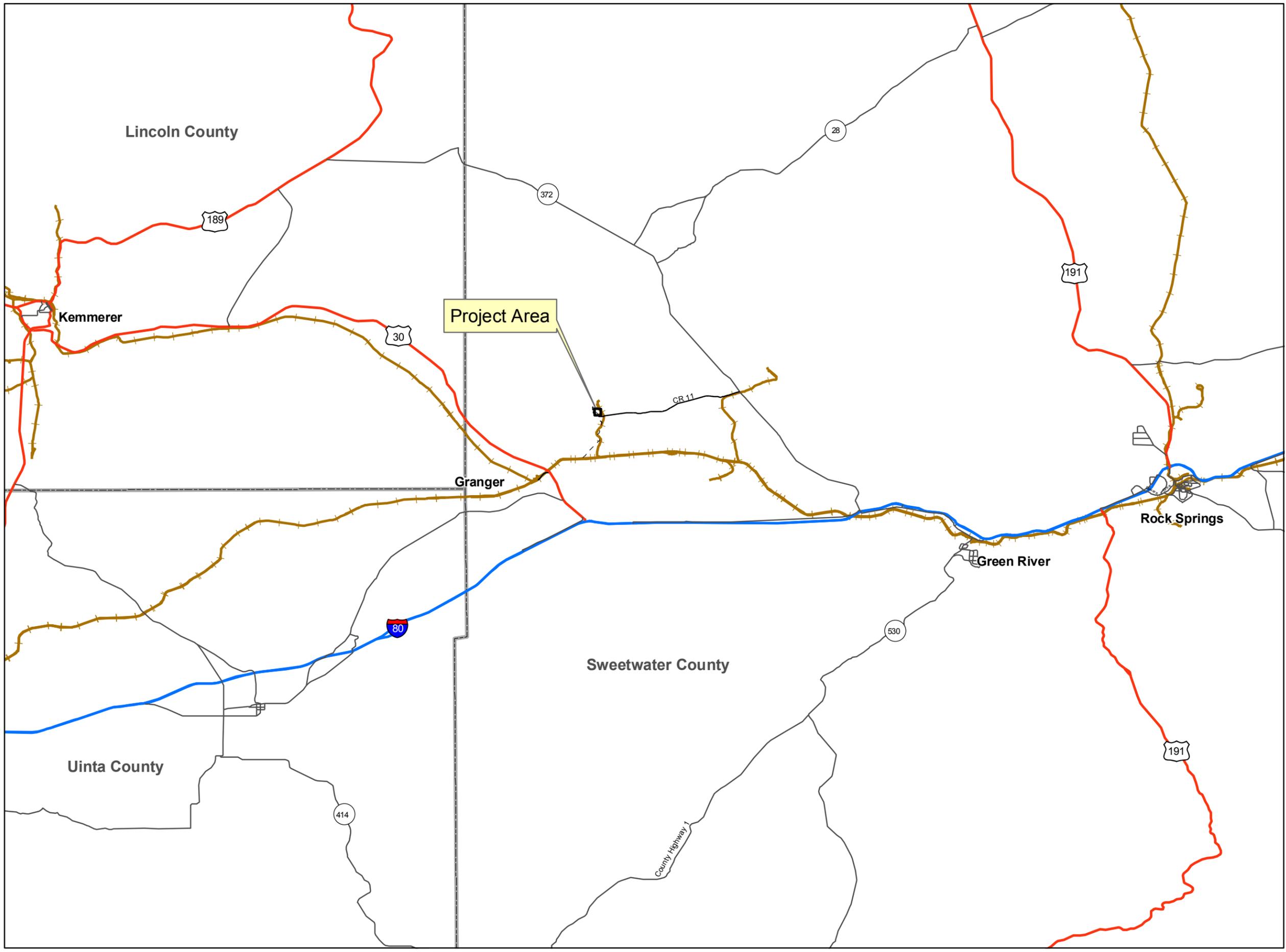
You may provide input by sending an e-mail to john.lucas@fmc.com, or by mailing your comments to us at FMC Granger Optimization Project – c/o John Lucas, PO Box 872, Green River, WY 82935. Please be sure to include your name and contact info with your comments so that we may follow-up with you effectively. Likewise, if you prefer to discuss the Project further, FMC is available to meet in person or via phone upon your request.

We look forward to working with you on this Project, and look forward to your input.

Sincerely,

Fred von Ahrens
Manufacturing Director, Green River Operations
FMC Corporation

Attachments: 1) Project Location Map
2) Project information Handout



- Legend**
- Interstate
 - US Highway
 - State Highway
 - County Road
 - - - Dirt Road
 - Railroad
 - Project Area
 - County Boundary

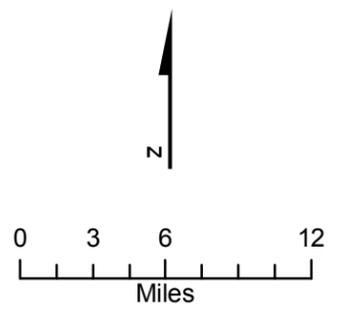


Figure 1
 Granger Optimization
 Project Location
 FMC Corporation
 Sweetwater County, Wyoming



Project Description

FMC Corporation's Alkali Chemicals division is the world's largest producer of natural soda ash and the market leader in North America. FMC is also the leader in mining and production of natural soda ash, having developed and implemented multiple proprietary, low-cost mining and processing technologies. The purpose of the Granger Optimization Project is to restore the production capacity of the FMC Granger facility to a nominal 1.3 million tons per year of refined soda ash. The Project will enable FMC to maintain the ability to meet market demands for soda ash by leveraging existing ore resources and its supporting infrastructure.

Restoration of production capacity is necessary in order to meet the soda ash product needs of FMC's worldwide customers. Restoration of production capacity will be accomplished in the Granger Optimization Project through the addition of new brine processing equipment designed to provide the existing facilities with a soda ash liquor concentration similar to that which was obtainable from dry ore processing. Construction of the project is scheduled to begin by May 2013.

The FMC Granger facility currently produces soda ash and caustic soda using weak alkaline brine. The facility presently consists of a flooded underground trona mine used for recovery of brine, soda ash plant, caustic plant, and ancillary utilities (e.g., boilers, water treatment). From the start of operations in 1976 and until 2005 the feedstock for soda ash production came from dry ore produced from the on-site underground trona mine. Under this operating mode the soda ash plant had a permitted production capacity of 1.3 million tons of refined soda ash based on the alkaline liquor concentration achievable from dissolving dry ore. Dry ore mining was eventually discontinued (due to declining ore quality and associated higher production costs) and in 2005 the feedstock for the soda ash plant was switched to mine water (the weak alkaline brine extracted from the underground trona mine). With the less concentrated mine water as the feedstock, the permitted production capacity of the plant was effectively reduced to half of the original 1.3 million tons per year to 650,000 tons per year of refined soda ash; the plant is currently operating at 500,000 tons per year. After completion of the Granger Optimization Project, the production capacity of the plant will be restored to 1.3 million tons per year of soda ash using mine water as the feedstock.

Schedule

Permitting is currently underway for the project. Detailed engineering design began in March 2012. The submittal of the Industrial Siting Application to Wyoming DEQ is planned for July 2012. Major equipment would be ordered in late 2012/early 2013, construction would start in the second quarter of 2013 and full commercial operation would commence on or before the end of 2015.

Construction and Operations Workforce

Construction at the site is expected to start in May 2013. The average construction workforce is estimated at 193 for the 26-month construction duration. The peak construction workforce is estimated at 310 on-site workers. The Operations and Maintenance Workforce for the Granger facility is estimated to be an additional 26 full time permanent positions.

Benefits and Sustainability

FMC has operated two major production facilities in Southwest Wyoming for many decades. Our 930 employees solution mine and dry mine trona from approximately 1,600 feet underground and then process the mineral into natural soda ash, sodium bicarbonate, and caustic soda using modern progressive



technologies. Soda ash is essential to the production of all forms of glass, namely: flat glass, for autos, homes and buildings, container glass for consumer products as well as fiberglass, tableware, lighting and screens for consumer electronics. Soda ash is also a key ingredient in detergents and a building block for other chemicals such as sodium bicarbonate, sodium silicate, sodium phosphates and sodium citrates.

Natural soda ash is considerably less energy intensive and has a lower production cost than its primary competition – synthetic sodas produced in China. As a result, over 50% of U.S. natural soda ash production is exported, providing a significant positive trade balance for the U.S. Our operations depend on the safe and efficient extraction of trona to maintain our worldwide competitiveness. Natural soda ash production from the Wyoming trona basin uses 40% less energy and produces about 40% less greenhouse gas than the worldwide alternative, synthetic soda ash.

The construction and operation of the Granger Optimization Project will provide investment in the local community, employment and expanded tax base with minimal new infrastructure needed. There will be new jobs for both construction and long-term operation. The project will result in additional property, ad valorem, severance and other taxes paid by the project.

Environment

Major environmental permits required for the project include:

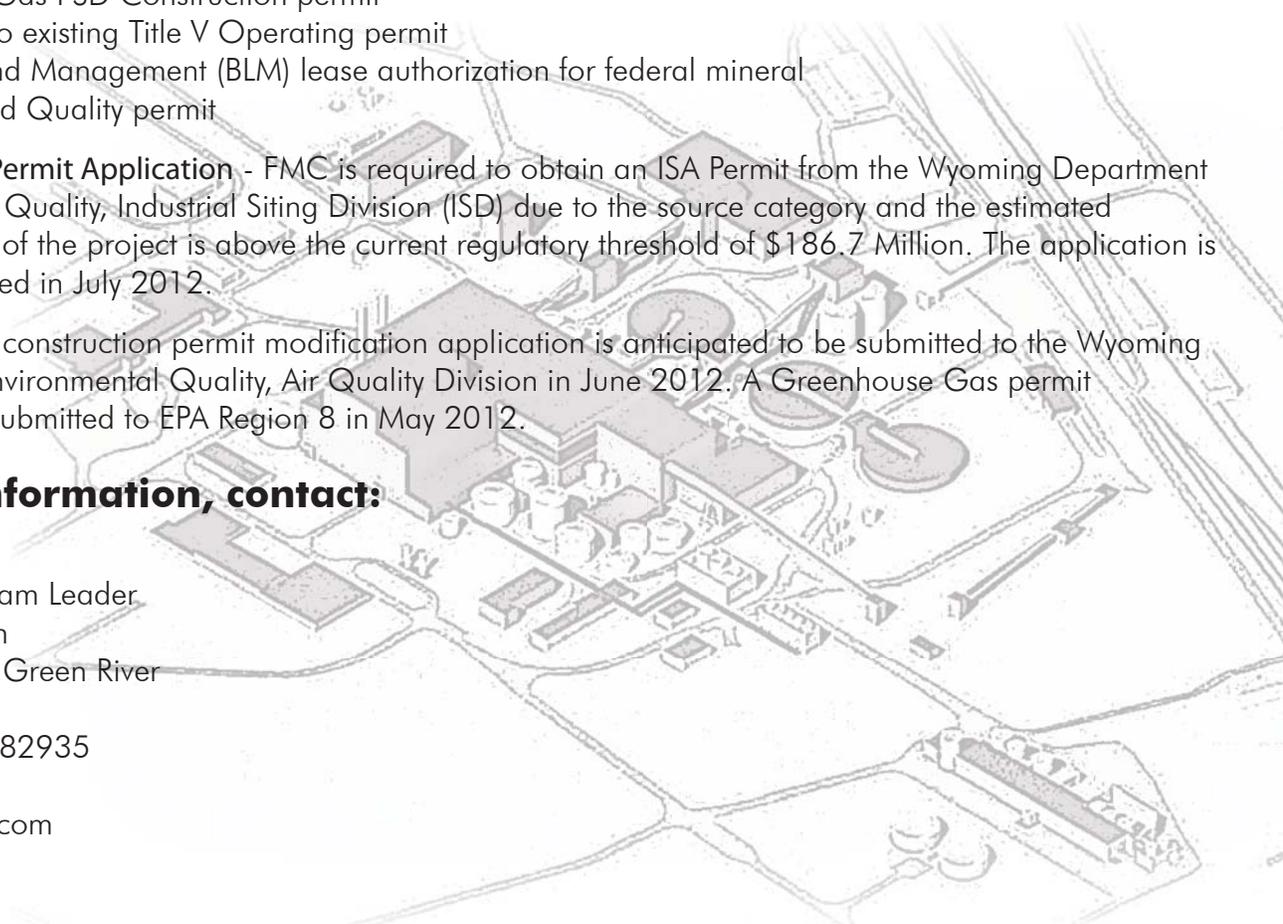
- Wyoming Industrial Development Information and Siting Act (ISA) permit
- Prevention of Significant Deterioration (PSD) Air Construction modification permit
- Greenhouse Gas PSD Construction permit
- Amendment to existing Title V Operating permit
- Bureau of Land Management (BLM) lease authorization for federal mineral
- Wyoming Land Quality permit

Industrial Siting Permit Application - FMC is required to obtain an ISA Permit from the Wyoming Department of Environmental Quality, Industrial Siting Division (ISD) due to the source category and the estimated construction cost of the project is above the current regulatory threshold of \$186.7 Million. The application is expected to be filed in July 2012.

Air - The PSD air construction permit modification application is anticipated to be submitted to the Wyoming Department of Environmental Quality, Air Quality Division in June 2012. A Greenhouse Gas permit application was submitted to EPA Region 8 in May 2012.

For more information, contact:

John Lucas
Environmental Team Leader
FMC Corporation
26 Miles West of Green River
P.O. Box 872
Green River, WY 82935
307-872-2195
john.lucas@fmc.com



FMC Alkali Chemicals

FMC Granger Facility

FMC Corporation
PO Box 872
Green River, WY 82935

307.875.2580 phone
www.fmc.com

May 29, 2012

Mr. John Cox
Director
Wyoming Department of Transportation
5300 Bishop Avenue
Cheyenne, WY 82009

Subject: FMC Corporation Granger Optimization Project
Wyoming Industrial Siting Permit Application

Dear Mr. Cox:

FMC Corporation has begun the regulatory process to undertake the Granger Optimization Project (the Project). When completed, the Project will restore the production capacity of the FMC Granger facility to permitted levels. The Project will enable FMC to maintain the ability to meet market demands for soda ash by leveraging existing ore resources and its supporting infrastructure.

The FMC Granger facility currently produces soda ash and caustic soda using weak alkaline brine. The facility presently consists of a flooded underground trona mine used for recovery of brine, soda ash plant, caustic plant, and ancillary utilities (e.g., boilers, water treatment). From the start of operations in 1976 and until 2005, the feedstock for soda ash production came from dry ore produced from the on-site underground trona mine. Under this operating mode, the soda ash plant had a permitted production capacity of 1.3 million tons per year of refined soda ash based on the alkaline liquor concentration achievable from dry ore processing. Dry ore mining was eventually discontinued due to declining ore quality and associated higher production costs, and in 2005 the feedstock for the soda ash plant was switched to mine water (the weak alkaline brine extracted from the underground flooded trona mine).

With the diluted mine water as the feedstock, the production capacity of the plant was effectively reduced from 1.3 million tons per year to 650,000 tons per year of refined soda ash. Restoration of production capacity is necessary in order to meet the soda ash product needs of FMC's customers. To meet that demand, the optimized facilities need to be in place by the second quarter of 2015. The Granger Optimization Project (the Project) will accomplish this through the addition of new brine processing equipment designed to provide the existing facilities with a soda ash liquor concentration similar to that which was obtainable from dry ore processing.



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Location

The Project site is located in Sweetwater County, Wyoming, approximately 26 miles west of Green River. Specifically, the Project would be located within the existing Granger plant by adding solution processing equipment to the existing facilities. The Project site will be accessed using County Road 11 from the east and Granger Road from the west to reach the existing facility's road network. The Project site is located near an unnamed tributary to Sevenmile Gulch, which is in turn tributary to Blacks Fork of the Green River. A project location map is shown in Attachment 1.

Land Use

The entire Project will be located on private lands in Sweetwater County. The Project site is zoned for and is in industrial use as the Granger facility. The surrounding landscape is a checkerboard of BLM- and privately-managed lands. A parcel of state land is located immediately east of the Project. The area is generally undeveloped except for wells and pipelines supporting the Granger plant. No residences are located within six miles of the Project.

Components

The primary components of the Project involve processing equipment that concentrates the mine water, crystallizes and purifies the desired components, and then dries and finally processes the soda ash. Additional infrastructure will include control equipment, storage tanks, clarifiers, and a new cooling tower. The ongoing program of installing injection wells, extraction wells, and mine water pipelines will continue. The continuing mine water program will enhance the recovery of the leased trona resource.

Project Schedule

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Construction and Operations Workforce Requirements

Construction Workforce

Site preparation and clearing would begin in May 2013. Construction activities and the corresponding workforce will ramp-up over the following several months. The construction workforce is estimated to peak at approximately 310 during the height of construction activities in the second quarter of 2014.



Operations Workforce

During the operations phase, an estimated additional workforce of approximately 26 full-time positions will be needed to fully staff the Granger facility.

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The Project is expected to generate additional personnel and equipment traffic during both the construction and operations stages. The workforce and delivery vehicles will primarily use Interstate 80 to US 30 or WY 372 to access the site. The Project is contained within the current Granger facility, so the traffic would all be routed on the existing roadway network.

All deliveries will be trucked directly to the Project site using semi-tractor trailers. It is anticipated that the truck deliveries to the site will be scheduled during the off-peak periods. Transportation routes associated with oversized loads, if necessary, will be finalized with WYDOT.

A study has been completed that analyzed the potential impacts of construction and operation traffic on local roadway systems. The study evaluated both worker traffic and construction delivery truck traffic. Impacts are expected to be minor with only slight changes in level of service during the peak construction period. A memorandum presenting the study is enclosed for your review as Attachment 3.

Water Use

The water balance for the Project estimates a maximum annual water use of approximately 5,000 acre-feet/year. This use is less than the adjudicated water right equivalent to 5,419 acre-feet/year. The water source for the Project will be the existing 7.5 cubic feet per second (cfs) Green River water right FMC currently holds. This water right is sufficient to supply the Project during both construction and operation.

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FMC is in the process of holding meetings and presentations with potentially affected municipalities, counties, state agencies, and other stakeholders. The meetings will be a venue to discuss potential environmental, social, and economic issues and identify mitigation recommendations and solutions to incorporate into the planning and design of the Project. The Project area of study, as identified by ISD staff during the Jurisdictional Meeting, determined the local governments where informational meetings were held.

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The purpose of this letter is to notify all relevant State of Wyoming agencies of the Project and invite their input and involvement. An information handout on the Project is included as Attachment 2.

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Environmental Resources

FMC has reviewed the data and reports from independent consultants that indicate there would be no significant environmental impacts as a result of the project. All baseline resource information will be used to design Project components to avoid or minimize the potential for environmental and natural resource impacts. Because of the Project's location within the remote Granger facility and the overall disturbed nature of the area, minimal environmental impacts are expected. It is anticipated operation of the Project will be indiscernible from current facility operations.

Invitation to Participate

FMC invites you to express your agency's comments and provide feedback so that issues may be considered and addressed directly with your agency, as well as incorporated directly into the ISA permitting application and construction planning process.

You may provide input by sending an e-mail to john.lucas@fmc.com, or by mailing your comments to us at FMC Granger Optimization Project – c/o John Lucas, PO Box 872, Green River, WY 82935. Please be sure to include your name and contact info with your comments so that we may follow-up with you effectively. Likewise, if you prefer to discuss the Project further, FMC is available to meet in person or via phone upon your request.

We look forward to working with you on this Project, and look forward to your input.

Sincerely,

Fred von Ahrens
Manufacturing Director, Green River Operations
FMC Corporation

Attachments: 1) Project Location Map
2) Project information Handout
3) CH2M HILL Memorandum on FMC Granger Traffic Study

FMC Alkali Chemicals

FMC Granger Facility

FMC Corporation
PO Box 872
Green River, WY 82935

307.875.2580 phone
www.fmc.com

May 29, 2012

Mr. Milward Simpson
Director
State Parks and Cultural Resources
2301 Central Avenue
Cheyenne, WY 82002

Subject: FMC Corporation Granger Optimization Project
Wyoming Industrial Siting Permit Application

Dear Mr. Simpson:

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Cultural and Historic Resource Inventory

Documentation on cultural resource studies for the project area has been included as Attachment 3. The proposed FMC Granger Optimization Project is located on land that is entirely contained within the plant footprint and has been previously disturbed. A field inspection conducted on March 27, 2012 by Western Archaeological Services confirmed that all proposed improvements are contained within the FMC Granger plant site. Most of the ground has been paved. As presently designed, the proposed FMC Granger Optimization Project will have no effect on known cultural resources. Cultural resource clearance is recommended.

Invitation to Participate

FMC invites you to express your agency's comments and provide feedback so that issues may be considered and addressed directly with your agency, as well as incorporated directly into the ISA permitting application and construction planning process.

You may provide input by sending an e-mail to john.lucas@fmc.com, or by mailing your comments to us at FMC Granger Optimization Project – c/o John Lucas, PO Box 872, Green River, WY 82935. Please be sure to include your name and contact info with your comments so that we may follow-up with you effectively. Likewise, if you prefer to discuss the Project further, FMC is available to meet in person or via phone upon your request.

We look forward to working with you on this Project, and look forward to your input.

Sincerely,

Fred von Ahrens
Manufacturing Director, Green River Operations
FMC Corporation

Attachments: 1) Project Location Map
2) Project information Handout
3) Cultural Resource Studies Documentation

FMC Alkali Chemicals

FMC Granger Facility

FMC Corporation
PO Box 872
Green River, WY 82935

307.875.2580 phone
www.fmc.com

May 29, 2012

Mr. Scott Talbott
Director
Wyoming Game & Fish Department
5400 Bishop Avenue
Cheyenne, WY 82009

Subject: FMC Corporation Granger Optimization Project
Wyoming Industrial Siting Permit Application

Dear Mr. Talbott:

FMC Corporation has begun the regulatory process to undertake the Granger Optimization Project (the Project). When completed, the Project will restore the production capacity of the FMC Granger facility to permitted levels. The Project will enable FMC to maintain the ability to meet market demands for soda ash by leveraging existing ore resources and its supporting infrastructure.

The FMC Granger facility currently produces soda ash and caustic soda using weak alkaline brine. The facility presently consists of a flooded underground trona mine used for recovery of brine, soda ash plant, caustic plant, and ancillary utilities (e.g., boilers, water treatment). From the start of operations in 1976 and until 2005, the feedstock for soda ash production came from dry ore produced from the on-site underground trona mine. Under this operating mode, the soda ash plant had a permitted production capacity of 1.3 million tons per year of refined soda ash based on the alkaline liquor concentration achievable from dry ore processing. Dry ore mining was eventually discontinued due to declining ore quality and associated higher production costs, and in 2005 the feedstock for the soda ash plant was switched to mine water (the weak alkaline brine extracted from the underground flooded trona mine).

With the diluted mine water as the feedstock, the production capacity of the plant was effectively reduced from 1.3 million tons per year to 650,000 tons per year of refined soda ash. Restoration of production capacity is necessary in order to meet the soda ash product needs of FMC's customers. To meet that demand, the optimized facilities need to be in place by the second quarter of 2015. The Granger Optimization Project (the Project) will accomplish this through the addition of new brine processing equipment designed to provide the existing facilities with a soda ash liquor concentration similar to that which was obtainable from dry ore processing.



ISA Statute and Cost

A meeting was held with the Wyoming Department of Environmental Quality Industrial Siting Division (ISD) on January 10, 2012. The ISD staff determined that the estimated capital cost of construction for the Project meets or exceeds the current statutory jurisdictional capital construction cost threshold of \$186.7 million (W.S. § 35-12-102).

Location

The Project site is located in Sweetwater County, Wyoming, approximately 26 miles west of Green River. Specifically, the Project would be located within the existing Granger plant by adding solution processing equipment to the existing facilities. The Project site will be accessed using County Road 11 from the east and Granger Road from the west to reach the existing facility's road network. The Project site is located near an unnamed tributary to Sevenmile Gulch, which is in turn tributary to Blacks Fork of the Green River. A project location map is shown in Attachment 1.

Land Use

The entire Project will be located on private lands in Sweetwater County. The Project site is zoned for and is in industrial use as the Granger facility. The surrounding landscape is a checkerboard of BLM- and privately-managed lands. A parcel of state land is located immediately east of the Project. The area is generally undeveloped except for wells and pipelines supporting the Granger plant. No residences are located within six miles of the Project.

Components

The primary components of the Project involve processing equipment that concentrates the mine water, crystallizes and purifies the desired components, and then dries and finally processes the soda ash. Additional infrastructure will include control equipment, storage tanks, clarifiers, and a new cooling tower. The ongoing program of installing injection wells, extraction wells, and mine water pipelines will continue. The continuing mine water program will enhance the recovery of the leased trona resource.

Project Schedule

Permitting is currently underway for the project. Currently, the plan is to submit the ISA permit application in July 2012 with a public hearing anticipated in October 2012. Major equipment is expected to be ordered in early 2013. FMC anticipates an approximate 26 month construction period commencing in May 2013. Commercial operation of the facility is anticipated for October 2015.

Construction and Operations Workforce Requirements

Construction Workforce

Site preparation and clearing would begin in May 2013. Construction activities and the corresponding workforce will ramp-up over the following several months. The construction workforce is estimated to peak at approximately 310 during the height of construction activities in the second quarter of 2014.



Operations Workforce

During the operations phase, an estimated additional workforce of approximately 26 full-time positions will be needed to fully staff the Granger facility.

Transportation

The Project is expected to generate additional personnel and equipment traffic during both the construction and operations stages. The workforce and delivery vehicles will primarily use Interstate 80 to US 30 or WY 372 to access the site. The Project is contained within the current Granger facility, so the traffic would all be routed on the existing roadway network.

All deliveries will be trucked directly to the Project site using semi-tractor trailers. It is anticipated that the truck deliveries to the site will be scheduled during the off-peak periods. Transportation routes associated with oversized loads, if necessary, will be finalized with WYDOT.

A study has been completed that analyzed the potential impacts of construction and operation traffic on local roadway systems. The study evaluated both worker traffic and construction delivery truck traffic. Impacts are expected to be minor with only slight changes in level of service during the peak construction period.

Water Use

The water balance for the Project estimates a maximum annual water use of approximately 5,000 acre-feet/year. This use is less than the adjudicated water right equivalent to 5,419 acre-feet/year. The water source for the Project will be the existing 7.5 cubic feet per second (cfs) Green River water right FMC currently holds. This water right is sufficient to supply the Project during both construction and operation.

Public Involvement Activities

FMC is in the process of holding meetings and presentations with potentially affected municipalities, counties, state agencies, and other stakeholders. The meetings will be a venue to discuss potential environmental, social, and economic issues and identify mitigation recommendations and solutions to incorporate into the planning and design of the Project. The Project area of study, as identified by ISD staff during the Jurisdictional Meeting, determined the local governments where informational meetings were held.

FMC met with elected government officials in Sweetwater, Lincoln, and Uinta Counties as part of the pre-application process to inform them of the Project, receive comments and input, and address concerns. On March 20, FMC met with the Sweetwater County Commissioners, Green River City Council, and Uinta County Commissioners, and on April 3 met with the Rock Springs City Council and the Lincoln County Commissioners. All three counties and the cities of Rock Springs and Green River have submitted letters of support to the ISD.

FMC held two public open house meetings to ensure the public has the opportunity to discuss the project and ensure any concerns were identified and addressed. The meetings were held on May 8 in Green River and May 9 in Rock Springs.

The purpose of this letter is to notify all relevant State of Wyoming agencies of the Project and invite their input and involvement. An information handout on the Project is included as Attachment 2.

Socioeconomic Impacts

A detailed analysis of social and economic impacts will be submitted as part of the ISA permit application to evaluate the benefits and impacts to the social and economic resources in the area of study and primary area of site influence. To measure potential impacts, the socioeconomic analysis will compare the expected future conditions in the area of study with and without the Project. The counties included in the area of study were determined in consultation with ISD staff and has been defined as Sweetwater, Lincoln, and Uinta Counties.

Both local communities and the state will realize benefits from the Project. Wyoming will gain economic benefits including permanent job creation and tax revenues. Locally, the Project may result in allocation and distribution of impact assistance payment funds, local spending on goods and services, additional local economic activity, and tax revenues.

Construction of the Project is expected to place minimal demands on water, sewer, roads, electrical lines, or other local infrastructure. Therefore, construction and operation of the Project is not expected to significantly affect the various public and nonpublic facilities and municipal services as a result of in-migration of workers for non-basic employment opportunities.

Environmental Resources

FMC has reviewed the data and reports from independent consultants that indicate there would be no significant environmental impacts as a result of the project. All baseline resource information will be used to design Project components to avoid or minimize the potential for environmental and natural resource impacts. Because of the Project's location within the remote Granger facility and the overall disturbed nature of the area, minimal environmental impacts are expected. It is anticipated operation of the Project will be indiscernible from current facility operations.

Endangered Species Act

TRC Environmental Corporation (TRC) conducted a federal listed species assessment for the FMC Granger Optimization Project area and a summary report of their findings is included as Attachment 3. Based on the TRC findings, the greater sage-grouse is the only species with a federal status that occurs and will continue to occur in the search area. The large portion of the search area occurs in the Seedskaadee greater sage-grouse core area, and the search area contains greater sage-grouse habitat. Suitable habitat for the black-footed ferret occurs in the search area as white-tailed prairie dog colonies; however, the search area has been block cleared by the USFWS. The yellow-billed cuckoo may fly through the search area; however, no suitable habitat for this species occurs. No suitable habitat for Canada lynx, blowout penstemon, or Ute ladies'-tresses occurs in the search area. The Project is not expected to result in any depletion of water from the Colorado River system, thus there would be no impacts to Colorado River endangered fish species.

Invitation to Participate

FMC invites you to express your agency's comments and provide feedback so that issues may be considered and addressed directly with your agency, as well as incorporated directly into the ISA permitting application and construction planning process.

You may provide input by sending an e-mail to john.lucas@fmc.com, or by mailing your comments to us at FMC Granger Optimization Project – c/o John Lucas, PO Box 872, Green River, WY 82935. Please be sure to include your name and contact info with your comments so that we may follow-up with you effectively. Likewise, if you prefer to discuss the Project further, FMC is available to meet in person or via phone upon your request.

We look forward to working with you on this Project, and look forward to your input.

Sincerely,

Fred von Ahrens
Manufacturing Director, Green River Operations
FMC Corporation

Attachments: 1) Project Location Map
2) Project information Handout
3) TRC Federally Listed Species Assessment 04/18/12

Appendix F-8

Response Letter from State Engineer's Office May 22, 2012



State Engineer's Office

HERSCHLER BUILDING, 4-E CHEYENNE, WYOMING 82002
(307) 777-7354 FAX (307) 777-5451

MATTHEW H. MEAD
GOVERNOR

PATRICK TYRRELL
STATE ENGINEER

May 22, 2012

Mr. Tom Schroeder
Industrial Siting Division
Herschler Bldg, 4W
122 W. 25th St.
Cheyenne, WY 82002

Re: FMC Granger Optimization Project Water Use
Water Supply and Yield Analysis

Dear Mr. Schroeder,

This office has reviewed the information supplied on April 10, 2012, by FMC Alkali Chemicals – FMC Granger Facility. Water use for this facility is permitted under the following State Engineer permits:

1. Permit No. 22808D, Texasgulf Sulphur Water Pipeline, which is adjudicated for 5 cubic feet per second (cfs).
2. Permit No. 7032E, Tg Soda Ash Inc. Enlargement of the Texasgulf Sulphur Water Pipeline, which is adjudicated for 2.5 cfs.
3. Permit No. U.W.197597, FMC Granger Mine Extraction Well, is permitted for 1200 gallons per minute (gpm) and has an automatic cancellation date of December 31, 2038. FMC indicates, on average, they pump 300 gpm from this source.

All of these permits are in good standing. The report indicates that the FMC Granger Facility operates within the terms of the permits and the amounts of appropriation allowed under the permits.

This office hereby approves the water supply and yield analysis submitted by FMC Alkali Chemicals – FMC Granger Facility. Please let us know if you have any questions regarding this matter.

With regards,

A handwritten signature in black ink, appearing to read "Patrick T. Tyrrell", written in a cursive style.

Patrick T. Tyrrell
State Engineer

Cc: Lisa Lindemann, Groundwater Division Administrator

John R. Barnes, Surface Water Division Administrator

Harry LaBonde, Deputy State Engineer

Jade Henderson, Division 4 Superintendent

Mr. John Lucas

Environmental Team Leader

FMC Alkali Chemicals – FMC Granger Facility

PO Box 872

Green River, WY 82935

ARTS. PARKS. HISTORY.

Wyoming State Parks & Cultural Resources

Field Support Team
Division of State Parks, Historic
Sites & Trails
2301 Central Avenue
Cheyenne, WY 82002
307-777-6323
307-777-6005 (fax)

June 4, 2012

FMC Granger Optimization Project c/o John Lucas
P.O. Box 872
Green River, WY 82935

RE: FMC Corporation Granger Optimization Project
Wyoming Industrial Siting Permit Application

Dear Mr. Lucas:

I have reviewed the referenced permit application and I can find no existence or importance of public recreational opportunities located on within the project area.

Thank you for giving our Agency the opportunity to comment. Please feel free to contact me should you have any questions or concerns.

Sincerely,



Tracy J. Williams
Grant Specialist
State Parks, Historic Sites and Trails
2301 Central Avenue, 4th Floor Barrett Bldg.
Cheyenne, WY 82002

307-777-8681

Cc: Milward Simpson, Director
State Parks and Cultural Resources



Matthew H. Mead, Governor
Milward Simpson, Director



Matthew H. Mead
Governor

Department of Transportation

State of Wyoming

3200 Elk Street, P.O. Box 1260 Rock Springs, Wyoming 82902
(307) 352-3065 FAX (307) 352-3150



John F. Cox
Director

June 5, 2012

John Lucas
P.O. Box 872
Green River, Wyoming 82935

Re: FMC Granger Optimization Project

Dear Mr. Lucas,

The Wyoming Department of Transportation (WYDOT) is in receipt of the traffic study performed by CH2M HILL associated with the upcoming Granger Optimization Project. Review of the submittals shows that there should be relatively minimal impacts to the highways governed by WYDOT.

At this time, there is no concern with the proposed plan of operation regarding your project. As stated within the traffic study, coordinate overweight / oversized loads with the Port of Entries. If additional services are needed from the District, such as approach / utility permitting, during the project phases please feel free to contact my office for further information.

Thank you for your time regarding this matter. If there are any questions or concerns regarding these comments please feel free to contact me. Good luck with this project.

Sincerely,

John B. Eddins, P.E.
District Engineer

Enclosures

cc: John Cox, Director, WYDOT, Cheyenne
Wyoming Department of Environmental Quality – Industrial Siting Division
File

ARTS. PARKS. HISTORY.

Wyoming State Parks & Cultural Resources

State Historic Preservation Office
2301 Central Ave., Barrett Bldg. 3rd Floor
Cheyenne, WY 82002
307-777-5497
FAX: 307-777-6421
<http://wyoshpo.state.wy.us>

Jun 14, 2012

Fred von Ahrens
FMC Corporation
P.O. Box 872
Green River, WY 82935

re: FMC Alkali Chemicals, Granger Optimization Project (SHPO File # 0612BAB013)

Dear Mr. Ahrens:

Thank you for consulting with the Wyoming State Historic Preservation Office (SHPO) regarding the above referenced undertaking. We have reviewed the associated report and find the documentation meets the Secretary of the Interior's Standards for Archaeology and Historic Preservation (48 FR 44716-42). We concur with your finding that no historic properties, as defined in 36 CFR § 800.16(l)(1), will be affected by the undertaking as planned.

We recommend that the undertaking proceed in accordance with state and federal laws subject to the following stipulation:

If any cultural materials are discovered during construction, work in the area shall halt immediately, the federal agency must be contacted, and the materials evaluated by an archaeologist or historian meeting the Secretary of the Interior's Professional Qualification Standards (48 FR 22716, Sept. 1983).

This letter should be retained in your files as documentation of a SHPO concurrence on your finding of no historic properties affected. Please refer to SHPO project #0612BAB013 on any future correspondence regarding this undertaking. If you have any questions, please contact me at 307-777-8594.

Sincerely,



Brian Beadles
Historic Preservation Specialist



Matthew H. Mead, Governor
Milward Simpson, Director

Appendix F-12
School Districts, Joint Powers Boards and Local Agencies
Contact List July 2012

Wyoming Industrial Siting Application - School District and Joint Powers Boards Contact List - June 2012

| Name | | | Title | Agency | Address | City | State | Zip |
|--------|--------------|-----|----------------|---|--------------------|---------------|-------|-------|
| | | | | Afton-Lincoln Co. Airport JPB | P.O. Box 1181 | Afton | WY | 83110 |
| Jon | Abrams | Dr. | Superintendent | Lincoln County School District 2 | 222 East 4th Ave | Afton | WY | 83110 |
| Teresa | Chaulk | Dr. | Superintendent | Lincoln County School District 1 | P.O. Box 335 | Diamondville | WY | 83116 |
| | | | | Evanston-Uinta Human Services Building | 225 9th Street | Evanston | WY | 82930 |
| | | | | Evanston-Uinta Human Services Tri-Board | 225 9th Street | Evanston | WY | 82930 |
| | | | | Evanston-Uinta Co. Airport JPB | 1200 Main Street | Evanston | WY | 82930 |
| | | | | Uinta Co. Fire Protection JPB | P.O. Box 640 | Evanston | WY | 82930 |
| | | | | Evanston-Uinta Co. JPB | 350 City View Dr. | Evanston | WY | 82930 |
| Verna | Jeppesen | | | Uinta County Economic Development Council | 225 9th Street | Evanston | WY | 82930 |
| Garie | Henry | | | Uinta Protection & Emergency JPB | 225 9th Street | Evanston | WY | 82930 |
| James | Bailey | Dr. | Superintendent | Uinta County School District 1 | P.O. Box 6002 | Evanston | WY | 82931 |
| | | | | Green River-Rock Springs Water JPB | P.O. Drawer 1299 | Green River | WY | 82935 |
| Donna | Little-Kaumo | Dr. | Superintendent | Sweetwater County School District 2 | 320 Monroe | Green River | WY | 82935 |
| | | | | Kemmerer-Diamondville JPB | P.O. Box 1020 | Kemmerer | WY | 83101 |
| | | | | Lincoln-Uinta Assoc. of Gov't JPB | P.O. Box 389 | Kemmerer | WY | 83101 |
| Judd | Redden | | | Lincoln-Uinta Revolving Loan JPB | P.O. Box 389 | Kemmerer | WY | 83101 |
| | | | | Bridger Valley JPB | P.O. Box 615 | Mountain View | WY | 82939 |
| | | | | Fiber Optic JPB | 212 D Street | Rock Springs | WY | 82901 |
| | | | | Travel Tourism JPB | P.O. Box 38 | Rock Springs | WY | 82902 |
| | | | | Combined Communication JPB | 212 D Street | Rock Springs | WY | 82901 |
| | | | | Rock Springs-Sweetwater Co. Airport JPB | P.O. Box 1987 | Rock Springs | WY | 82902 |
| Paul | Grube | Dr. | Superintendent | Sweetwater County School District 1 | 3550 Foothill Blvd | Rock Springs | WY | 82901 |

Appendix F-13
Letter to School Districts, Joint Powers Boards and Local
Agencies July 6, 2012

FMC Alkali Chemicals

FMC Granger Facility

FMC Corporation
PO Box 872
Green River, WY 82935

307.875.2580 phone
www.fmc.com

July 6, 2012

Agency (Excel file list)

Address 1

Address2

Address 3

Address 4

Subject: FMC Corporation Granger Optimization Project
Wyoming Industrial Siting Permit Application

To Whom It May Concern:

FMC Corporation has begun the regulatory process to undertake the Granger Optimization Project (the Project). When completed, the Project will restore the production capacity of the FMC Granger facility to permitted levels. The Project will enable FMC to maintain the ability to meet market demands for soda ash by leveraging existing ore resources and its supporting infrastructure.

The FMC Granger facility currently produces soda ash and caustic soda using weak alkaline brine. The facility presently consists of a flooded underground trona mine used for recovery of brine, soda ash plant, caustic plant, and ancillary utilities (e.g., boilers, water treatment). From the start of operations in 1976 and until 2005, the feedstock for soda ash production came from dry ore produced from the on-site underground trona mine. Under this operating mode, the soda ash plant had a permitted production capacity of 1.3 million tons per year of refined soda ash based on the alkaline liquor concentration achievable from dry ore processing. Dry ore mining was eventually discontinued due to declining ore quality and associated higher production costs, and in 2005 the feedstock for the soda ash plant was switched to mine water (the weak alkaline brine extracted from the underground flooded trona mine).

With the diluted mine water as the feedstock, the production capacity of the plant was effectively reduced from 1.3 million tons per year to 650,000 tons per year of refined soda ash. Restoration of production capacity is necessary in order to meet the soda ash product needs of FMC's customers. To meet that demand, the optimized facilities need to be in place by the second quarter of 2015. The Granger Optimization Project (the Project) will accomplish this through the addition of new brine processing equipment designed to provide the existing facilities with a soda ash liquor concentration similar to that which was obtainable from dry ore processing.



ISA Statute and Cost

A meeting was held with the Wyoming Department of Environmental Quality Industrial Siting Division (ISD) on January 10, 2012. The ISD staff determined that the estimated capital cost of construction for the Project meets or exceeds the current statutory jurisdictional capital construction cost threshold of \$186.7 million (W.S. § 35-12-102).

Location

The Project site is located in Sweetwater County, Wyoming, approximately 26 miles west of Green River. Specifically, the Project would be located within the existing Granger plant by adding solution processing equipment to the existing facilities. The Project site will be accessed using County Road 11 from the east and Granger Road from the west to reach the existing facility's road network. The Project site is located near an unnamed tributary to Sevenmile Gulch, which is in turn tributary to Blacks Fork of the Green River. A project location map is shown in Attachment 1.

Land Use

The entire Project will be located on private lands in Sweetwater County. The Project site is zoned for and is in industrial use as the Granger facility. The surrounding landscape is a checkerboard of BLM- and privately-managed lands. A parcel of state land is located immediately east of the Project. The area is generally undeveloped except for wells and pipelines supporting the Granger plant. No residences are located within six miles of the Project.

Components

The primary components of the Project involve processing equipment that concentrates the mine water, crystallizes and purifies the desired components, and then dries and finally processes the soda ash. Additional infrastructure will include control equipment, storage tanks, clarifiers, and a new cooling tower. The ongoing program of installing injection wells, extraction wells, and mine water pipelines will continue. The continuing mine water program will enhance the recovery of the leased trona resource.

Project Schedule

Permitting is currently underway for the project. Currently, the plan is to submit the ISA permit application in August 2012 with a public hearing anticipated in November 2012. Major equipment is expected to be ordered in early 2013. FMC anticipates an approximate 26 month construction period commencing in May 2013. Commercial operation of the facility is anticipated for October 2015.

Construction and Operations Workforce Requirements

Construction Workforce

Site preparation and clearing would begin in May 2013. Construction activities and the corresponding workforce will ramp-up over the following several months. The construction workforce is estimated to peak at approximately 310 during the height of construction activities in the second quarter of 2014.



Operations Workforce

During the operations phase, an estimated additional workforce of approximately 26 full-time positions will be needed to fully staff the Granger facility.

Transportation

The Project is expected to generate additional personnel and equipment traffic during both the construction and operations stages. The workforce and delivery vehicles will primarily use Interstate 80 to US 30 or WY 372 to access the site. The Project is contained within the current Granger facility, so the traffic would all be routed on the existing roadway network.

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Public Involvement Activities

FMC is in the process of holding meetings and presentations with potentially affected municipalities, counties, state agencies, and other stakeholders. The meetings will be a venue to discuss potential environmental, social, and economic issues and identify mitigation recommendations and solutions to incorporate into the planning and design of the Project. The Project area of study, as identified by ISD staff during the Jurisdictional Meeting, determined the local governments where informational meetings were held.

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FMC held two public open house meetings to ensure the public has the opportunity to discuss the project and ensure any concerns were identified and addressed. The meetings were held on May 8 in Green River and May 9 in Rock Springs.

The purpose of this letter is to notify all potentially affected local municipalities, school districts and joint power boards in Sweetwater, Lincoln and Uinta counties of the Project and invite their input and involvement. An information handout on the Project is included as Attachment 2.

Socioeconomic Impacts

A detailed analysis of social and economic impacts will be submitted as part of the ISA permit application to evaluate the benefits and impacts to the social and economic resources in the area of study and primary area of site influence. To measure potential impacts, the socioeconomic analysis will compare the expected future conditions in the area of study with and without the Project. The counties included in the area of study were determined in consultation with ISD staff and has been defined as Sweetwater, Lincoln, and Uinta Counties.

Both local communities and the state will realize benefits from the Project. Wyoming will gain economic benefits including permanent job creation and tax revenues. Locally, the Project may result in allocation and distribution of impact assistance payment funds, local spending on goods and services, additional local economic activity, and tax revenues.

Construction of the Project is expected to place minimal demands on water, sewer, roads, electrical lines, or other local infrastructure. Therefore, construction and operation of the Project is not expected to significantly affect the various public and nonpublic facilities and municipal services as a result of in-migration of workers for non-basic employment opportunities.

Environmental Resources

FMC has reviewed the data and reports from independent consultants that indicate there would be no significant environmental impacts as a result of the project. All baseline resource information will be used to design Project components to avoid or minimize the potential for environmental and natural resource impacts. Because of the Project's location within the remote Granger facility and the overall disturbed nature of the area, minimal environmental impacts are expected. It is anticipated operation of the Project will be indiscernible from current facility operations.

Invitation to Participate

FMC invites you to express your comments and provide feedback so that issues may be considered and addressed directly with your organization, as well as incorporated directly into the ISA permitting application and construction planning process.

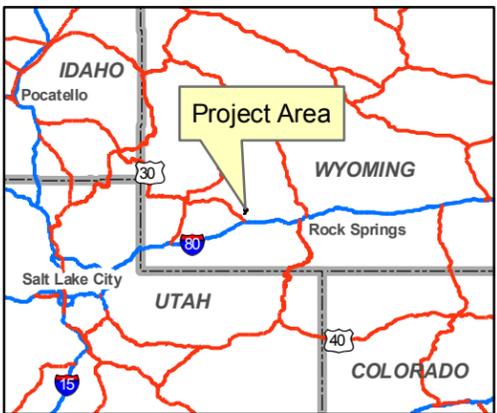
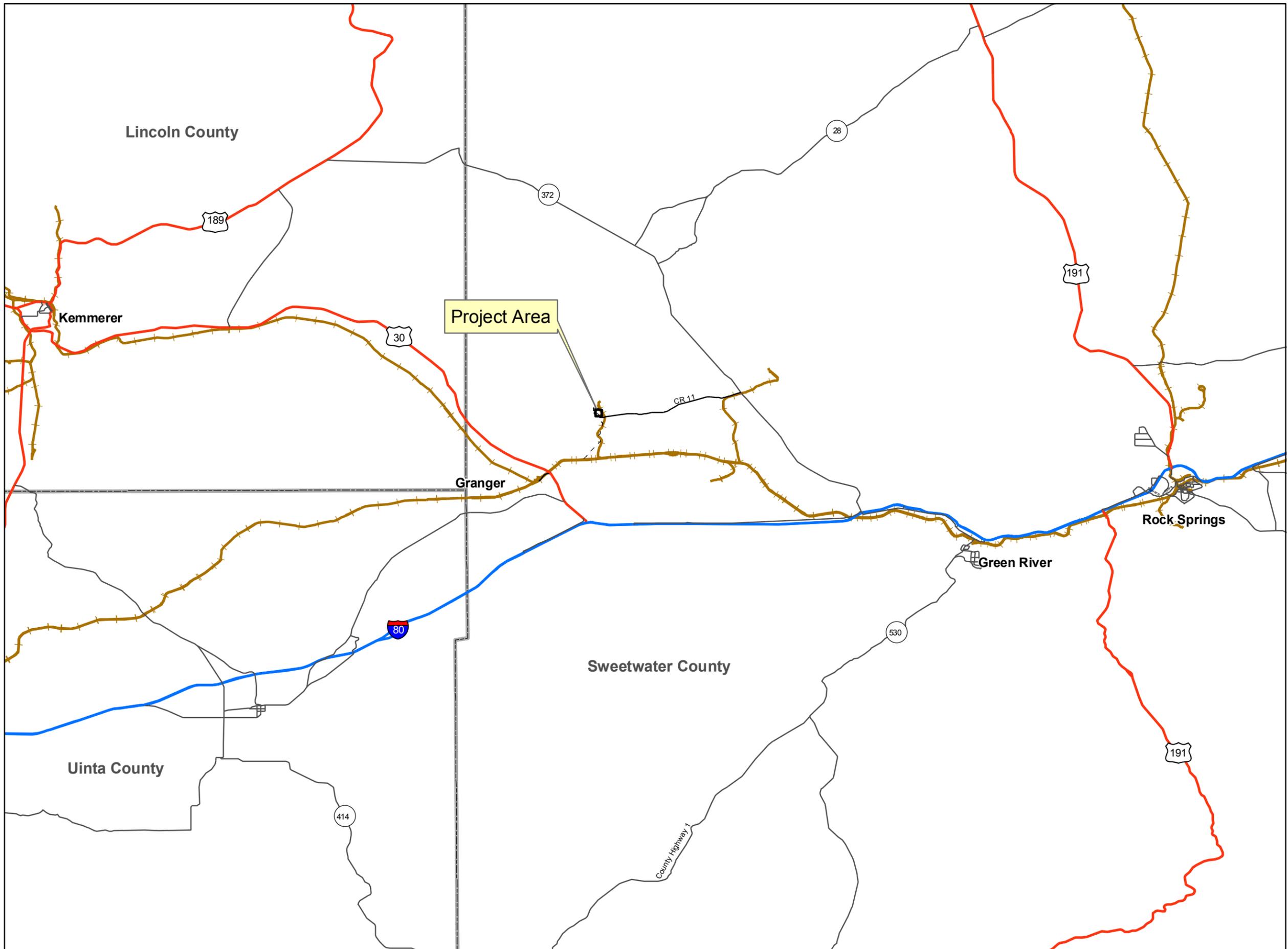
You may provide input by sending an e-mail to john.lucas@fmc.com, or by mailing your comments to us at FMC Granger Optimization Project – c/o John Lucas, PO Box 872, Green River, WY 82935. Please be sure to include your name and contact info with your comments so that we may follow-up with you effectively. Likewise, if you prefer to discuss the Project further, FMC is available to meet in person or via phone upon your request.

We look forward to working with you on this Project, and look forward to your input.

Sincerely,

Fred von Ahrens
Manufacturing Director, Green River Operations
FMC Corporation

Attachments: 1) Project Location Map
2) Project information Handout



- Legend**
- Interstate
 - US Highway
 - State Highway
 - County Road
 - - - Dirt Road
 - Railroad
 - Project Area
 - County Boundary

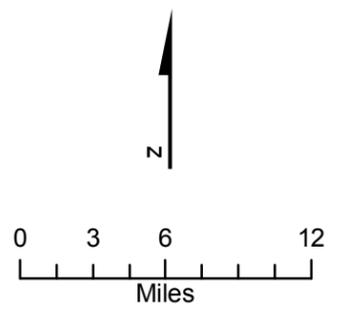


Figure 1
 Granger Optimization
 Project Location
 FMC Corporation
 Sweetwater County, Wyoming



Project Description

FMC Corporation's Alkali Chemicals division is the world's largest producer of natural soda ash and the market leader in North America. FMC is also the leader in mining and production of natural soda ash, having developed and implemented multiple proprietary, low-cost mining and processing technologies. The purpose of the Granger Optimization Project is to restore the production capacity of the FMC Granger facility to a nominal 1.3 million tons per year of refined soda ash. The Project will enable FMC to maintain the ability to meet market demands for soda ash by leveraging existing ore resources and its supporting infrastructure.

Restoration of production capacity is necessary in order to meet the soda ash product needs of FMC's worldwide customers. Restoration of production capacity will be accomplished in the Granger Optimization Project through the addition of new brine processing equipment designed to provide the existing facilities with a soda ash liquor concentration similar to that which was obtainable from dry ore processing. Construction of the project is scheduled to begin by May 2013.

The FMC Granger facility currently produces soda ash and caustic soda using weak alkaline brine. The facility presently consists of a flooded underground trona mine used for recovery of brine, soda ash plant, caustic plant, and ancillary utilities (e.g., boilers, water treatment). From the start of operations in 1976 and until 2005 the feedstock for soda ash production came from dry ore produced from the on-site underground trona mine. Under this operating mode the soda ash plant had a permitted production capacity of 1.3 million tons of refined soda ash based on the alkaline liquor concentration achievable from dissolving dry ore. Dry ore mining was eventually discontinued (due to declining ore quality and associated higher production costs) and in 2005 the feedstock for the soda ash plant was switched to mine water (the weak alkaline brine extracted from the underground trona mine). With the less concentrated mine water as the feedstock, the permitted production capacity of the plant was effectively reduced to half of the original 1.3 million tons per year to 650,000 tons per year of refined soda ash; the plant is currently operating at 500,000 tons per year. After completion of the Granger Optimization Project, the production capacity of the plant will be restored to 1.3 million tons per year of soda ash using mine water as the feedstock.

Schedule

Permitting is currently underway for the project. Detailed engineering design began in March 2012. The submittal of the Industrial Siting Application to Wyoming DEQ is planned for August 2012. Major equipment would be ordered in late 2012/early 2013, construction would start in the second quarter of 2013 and full commercial operation would commence on or before the end of 2015.

Construction and Operations Workforce

Construction at the site is expected to start in May 2013. The average construction workforce is estimated at 193 for the 26-month construction duration. The peak construction workforce is estimated at 310 on-site workers. The Operations and Maintenance Workforce for the Granger facility is estimated to be an additional 26 full time permanent positions.

Benefits and Sustainability

FMC has operated two major production facilities in Southwest Wyoming for many decades. Our 930 employees solution mine and dry mine trona from approximately 1,600 feet underground and then process the mineral into natural soda ash, sodium bicarbonate, and caustic soda using modern progressive



technologies. Soda ash is essential to the production of all forms of glass, namely: flat glass, for autos, homes and buildings, container glass for consumer products as well as fiberglass, tableware, lighting and screens for consumer electronics. Soda ash is also a key ingredient in detergents and a building block for other chemicals such as sodium bicarbonate, sodium silicate, sodium phosphates and sodium citrates.

Natural soda ash is considerably less energy intensive and has a lower production cost than its primary competition – synthetic sodas produced in China. As a result, over 50% of U.S. natural soda ash production is exported, providing a significant positive trade balance for the U.S. Our operations depend on the safe and efficient extraction of trona to maintain our worldwide competitiveness. Natural soda ash production from the Wyoming trona basin uses 40% less energy and produces about 40% less greenhouse gas than the worldwide alternative, synthetic soda ash.

The construction and operation of the Granger Optimization Project will provide investment in the local community, employment and expanded tax base with minimal new infrastructure needed. There will be new jobs for both construction and long-term operation. The project will result in additional property, ad valorem, severance and other taxes paid by the project.

Environment

Major environmental permits required for the project include:

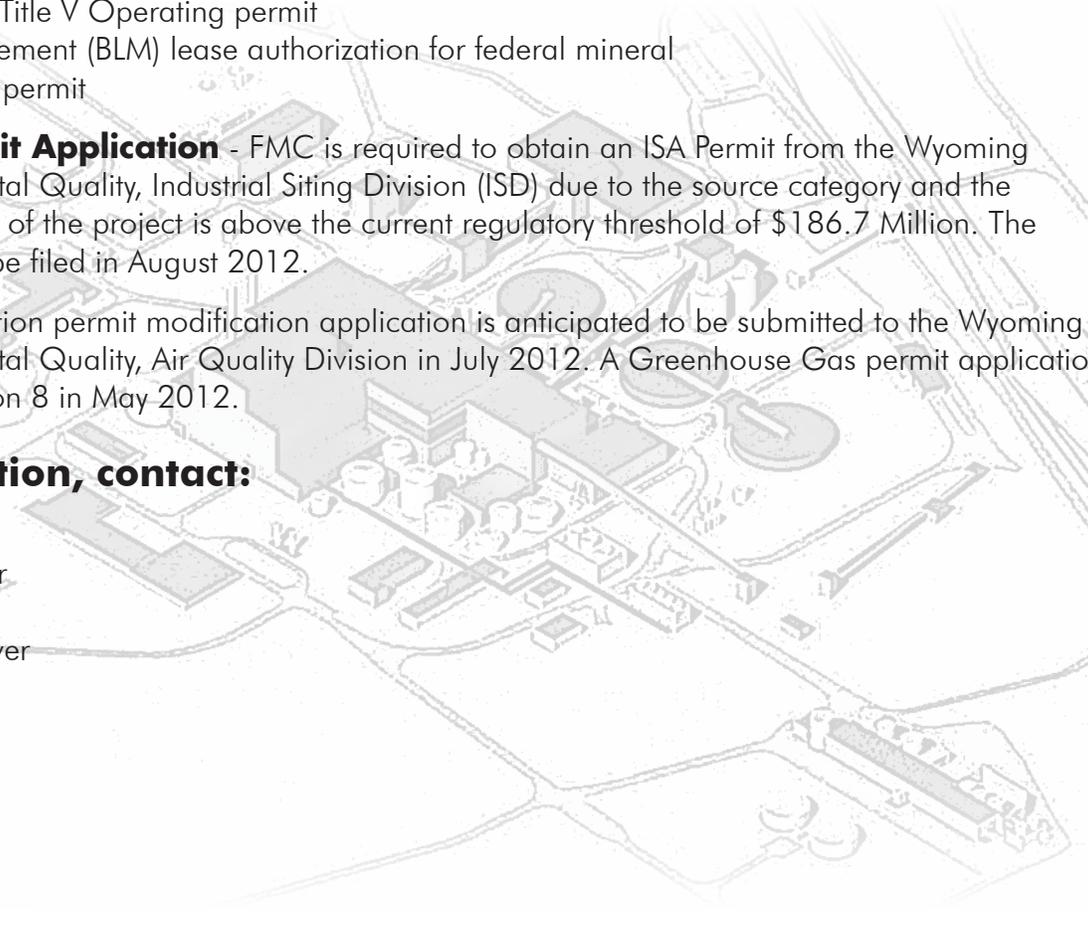
- Wyoming Industrial Development Information and Siting Act (ISA) permit
- Prevention of Significant Deterioration (PSD) Air Construction modification permit
- Greenhouse Gas PSD Construction permit
- Amendment to existing Title V Operating permit
- Bureau of Land Management (BLM) lease authorization for federal mineral
- Wyoming Land Quality permit

Industrial Siting Permit Application - FMC is required to obtain an ISA Permit from the Wyoming Department of Environmental Quality, Industrial Siting Division (ISD) due to the source category and the estimated construction cost of the project is above the current regulatory threshold of \$186.7 Million. The application is expected to be filed in August 2012.

Air - The PSD air construction permit modification application is anticipated to be submitted to the Wyoming Department of Environmental Quality, Air Quality Division in July 2012. A Greenhouse Gas permit application was submitted to EPA Region 8 in May 2012.

For more information, contact:

John Lucas
Environmental Team Leader
FMC Corporation
26 Miles West of Green River
P.O. Box 872
Green River, WY 82935
307-872-2195
john.lucas@fmc.com



Appendix F-14
Letter from WG&F August 1, 2012



WYOMING GAME AND FISH DEPARTMENT

5400 Bishop Blvd. Cheyenne, WY 82006

Phone: (307) 777-4600 Fax: (307) 777-4699

Web site: <http://wgfd.wyo.gov>

GOVERNOR
MATTHEW H. MEAD

DIRECTOR
SCOTT TALBOTT

COMMISSIONERS
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T. CARRIE LITTLE
ED MIGNERY
CHARLES PRICE

August 1, 2012

WER 1107
FMC Corporation
2012 Density Disturbance Calculation Tool Analysis
Wyoming Industrial Siting Permit Application
Granger Optimization Project
Sweetwater County

John Lucas
Environmental Team Leader
FMC Corporation
PO Box 872
Green River, WY 82935

Dear Mr. Lucas:

The staff of the Wyoming Game and Fish Department (WGFD) has reviewed the 2012 Density Disturbance Calculation Tool (DDCT) Analysis for the Wyoming Industrial Siting Permit Application for the FMC 2012 Projects and 2013 Granger Optimization Project submitted by FMC Corporation in Sweetwater County. We offer the following comments for your consideration.

In our review of the DDCT for the proposed FMC 2012 Projects, we found that:

- The DDCT boundary is correctly delineated and clipped to the Seedskaadee core area. The correct lek perimeter file was used in the DDCT delineation. Four leks occurred within the DDCT boundary: County Road 4, County Road 4 West, FMC Granger and Seven Mile Gulch 1.
- All existing disturbance and known permitted but not yet implemented activities have been accounted for and verified through the DDCT Web Application.
- The DDCT area does not include pre 2011 wildfire burn or habitat treatment areas.
- The entire DDCT area was considered suitable habitat.
- The DDCT area is overlapped by a pre-August 2008 federal oil and gas exploratory unit, Seven Mile Gulch operated by BP America. The unit is located in T21N, R111W, Section 25. There has been no activity in the unit and there is no development planned currently, so the unit portion was not considered as disturbed. The proponent should contact BP and/or the BLM in the future when additional DDCTs are planned to determine if any future development will occur within the Seven Mile Gulch Unit.

Mr. John Lucas
August 1, 2012
Page 2 - WER 1107

- The disturbance calculation does not exceed Sage Grouse Executive Order 2011-5 guidelines (SGEO) (3.74%).
- All surface occupancy will be >0.6mi from the perimeter of occupied leks.
- A lek by lek analysis was completed. Both the County Road 4 West and the Seven Mile Gulch Lek exceeded the 5% disturbance threshold for pre-percent and post-percent analysis. Most of the new disturbance is occurring as a result of the Tailings Pond #3 Dike Raise project. The proponent has indicated that relocating disturbance is not possible. The proponent is agreeable to reclaiming this new disturbance as quickly as possible thus returning the disturbance percentage to a reduced number.
- The proponent has agreed to the timing stipulations per the SGEO (March 15 – June 30).
- The proposed projects do not include the development of an additional haul road. There is a proposed access road which will be gated to prevent public use.
- The proposed projects include the development of one new 34.5 kV line to support the injection well. This line will be constructed with raptor prevention devices.
- Given the distance and nature of the projects to core area leks, the proposed projects will not contribute to an increase in ambient noise levels during the initiation of breeding (March 1 – May 15).
- The density calculation is within Executive Order 2011-5 1/640 guidelines (0.31/640).
- The proponent has agreed to monitor affected leks. They are coordinating with Mr. Mark Zornes, WGF D Wildlife Management Coordinator in Green River for their monitoring assignment.

In our review of the DDCT for the proposed 2013 Granger Optimization Project, we found that the project disturbance will occur within existing disturbance. No addition stipulations need to be added.

The attached SGEO Worksheet was completed for all projects. All projects comply with the SGEO. Any items agreed to in the SGEO Worksheet should be inserted into the Industrial Siting Permit Application for full compliance as a regulatory mechanism.

Mr. John Lucas
August 1, 2012
Page 3 - WER 1107

Thank you for the opportunity to comment. If you have any questions or concerns, please contact Mary Flanderka, 307-777-4587.

Sincerely,


for  John Emmerich
Deputy Director

JE/mf/gb

cc: USFWS
Mark Zornes, Green River Region
Jeff Short, Green River Region

Sage-Grouse Executive Order 2011-5 DDCT Worksheet

This worksheet is a tool for reviewers and preparers of the Greater Sage-Grouse (*Centrocercus urophasianus*) Core Area Protection Executive Order 2011-5 (SGEO) Density/Disturbance Calculation Tool (DDCT) (Attachment B-Permitting Process & Stipulations for Development) to help determine project compliance with the SGEO based on DDCT inputs and outputs, and other pertinent project information.

Please describe the following aspects of the proposed project (or provide a project narrative with this worksheet):

1. Who is the project proponent?
2. What is the proposed project? Please describe all aspects of the project, including proposed surface disturbance acreage, and actions related to the implementation of the project that may result in disturbance or disruption within sage-grouse core area.
3. Where will the proposed project occur? Please provide information such as county or locality, township/range/section(s), surface and/or mineral ownership, etc.
4. When will the development of the proposed project begin and end, and what is the expected life of the project?

Please provide answers to the following questions pertaining to Executive Order 2011-5 with appropriate detail:

| Part I | Item | Reference | Answer | Comments |
|--------|---|--------------|----------|--|
| 1. | Is the DDCT boundary correctly delineated using a 4mi buffer around the proposed disturbance (i.e., project) and 4mi buffers around the perimeter of occupied core area leks? | SGEO pg. 7 | Yes – No | Yes, completed by TRC Solutions |
| 2. | Is the disturbance in the DDCT area accurately accounted for? | SGEO pg. 7-8 | | Yes, completed by TRC Solutions |
| | a. Are all existing surface disturbances within the DDCT area accounted for? | | Yes – No | *including disturbances that may be difficult to see on the imagery such as utility corridors Yes - completed by TRC Solutions. |

Sage-Grouse Executive Order 2011-5 DDCT Worksheet

| | | | | |
|----|--|--------------------|----------|--|
| | b. Have permitted but not yet implemented activities been digitized and counted as disturbance and/or as disruptions? | | Yes – No | *proponent may check with permitting agencies to determine whether or not these types of activities exist in the DDCT area (i.e., BLM, DEQ, WOGCC) |
| | c. Is the proposed disturbance associated with the project accurately accounted for? | | Yes – No | <small>Yes - completed by TRC Solutions; all known permitted but not implemented activities have been digitized, included as disturbances and/or disruptions as applicable. Additionally, all know disturbances associated with this DDCT project have been accurately accounted for by TRC Solutions using data supplied by FMC Project Engineering Department. Note the disturbances shown in Section 21 reflect the 'as built' disturbances from the 2011 DDCT. *As built disturbances is much smaller than proposed in 2011.</small> |
| 3. | Is the project located in a northeast WY core area? (i.e., Buffalo, North Gillette, Thunder Basin, Newcastle, Douglas, North Glenrock, or Natrona north of Hwy 20/26 and north of Casper Mtn.) | SGEO pg. 11, 14-15 | Yes – No | NO |
| | a. If yes , has the pre-1994 habitat conversion/treatment disturbance been accurately accounted for and removed from the disturbance (i.e., counted as 0)? | | Yes – No | N/A |
| 4. | Were there any large sagebrush disturbing wildfires or treatments within the DDCT area? | SGEO pg. 14 | Yes – No | No |
| | a. If yes and included as disturbance, has a management plan been implemented to restore the area to functional sage-grouse habitat? | | Yes – No | *must provide documentation and/or land management agency contact |
| | b. Is the wildfire/treatment area (pre-2011) being considered transitional sage-grouse habitat? | | Yes – No | N/A |
| 5. | Was the entire DDCT area considered suitable habitat by the proponent for the purpose of the DDCT? | SGEO pg. 8 | Yes – No | Yes |
| | a. If no , was a habitat assessment completed? | | Yes – No | N/A |
| 6. | Is the project (proposed disturbance and the permit area) within a Wyoming Oil & | SGEO pg. 2, 12 | Yes – No | No |

There is an exploratory O&G unit within the DDCT? "Seven Mile Gulch". There is no planned development.

Sage-Grouse Executive Order 2011-5 DDCT Worksheet

| | | | | |
|----|---|------------|----------|----------------------------------|
| | Gas Conservation Commission drilling/spacing unit or within a Federal oil and gas unit established prior to August 1, 2008? | | | |
| | a. If yes , was the unit plan of development considered in the density/ disturbance calculations and how was it counted? | | Yes – No | N/A |
| 7. | Is the DDCT area overlapped by a pre-August 1, 2008 unit, but the project lies outside the unit? | | Yes – No | No |
| | a. If yes , was the unit plan of development considered in the density/disturbance calculations and how was it counted? | | Yes – No | N/A |
| 8. | Did the proponent use the correct lek perimeter file (updated annually by WGFD)? | | Yes – No | Yes - completed by TRC Solutions |
| 9. | Was an individual lek analysis completed/provided? | SGEO pg. 7 | Yes – No | Yes - completed by TRC Solutions |

| Part II | Item | Reference | Answer | Comments |
|----------------|--|------------------|---------------|--|
| 1. | Is the DDCT disturbance calculation output within the 5% surface disturbance threshold? | SGEO pg. 8-9 | Yes – No | Yes |
| 2. | Is all surface occupancy >0.6mi from the perimeter of occupied leks? | SGEO pg. 9 | Yes – No | Yes |
| 3. | Are seasonal stipulations for development activities (March 15 – June 30) being applied to the project? | SGEO pg. 9 | Yes – No | Yes |
| | a. Have sage-grouse winter concentration areas been identified in the project area and are seasonal stipulations (Dec. 1 – March 14) | | Yes – No | *proponent may check with BLM or WGFD No, the proponent is not aware of any designated Winter Concentration Areas within the DDCT Area. |

Sage-Grouse Executive Order 2011-5 DDCT Worksheet

| | | | | |
|----|---|-----------------|----------|---|
| | being applied to the project? | | | |
| 4. | Are main roads associated with the project located >1.9 miles and access/maintenance roads located >0.6mi from the perimeter of occupied leks? | SGEO pg. 9 | Yes – No | Yes. there is only one new main road being constructed for this project. Proponent plans to block access onto the road so it can not be used by the general public, therefore limiting general wildlife impacts from road travel. |
| 5. | Will there be new transmission or distribution lines constructed as a result of the project? | SGEO pg. 4, 9 | Yes – No | Yes |
| | a. If yes , have the right-of-way and all disturbance associated with construction been accurately counted in the disturbance calculation? | | Yes – No | Yes - completed by TRC Solutions |
| | b. Will new lines be co-located in existing corridors? | | Yes – No | The power line associated with this project is a short drop line off of an existing transmission line to the proposed IW 12 project. The drop line disturbances will be in an existing pipeline ROW. |
| | c. Will new lines be buried? | | Yes – No | No |
| | d. If no , will they be >0.6mi from perimeter of any occupied leks and raptor-proofed? | | Yes – No | Line will be > 0.6 mi from the perimeter of occupied leks. The power line will be installed, owned and maintained by BVEA and they will raptor proof the poles |
| 6. | March 1 – May 15: Will noise (activity) associated with the project occur between 6PM and 8AM? | SGEO pg. 9 | Yes – No | No - there are disturbances scheduled during this time frame |
| | a. If yes , were ambient noise level measurements taken at sunrise at lek perimeters to ensure that new noise is limited to 10 dBA above baseline? | | Yes – No | N/A |
| 7. | Is vegetation removal associated with the project planned between March 15 and June 30 within 4mi of an occupied lek? | SGEO pg. 9-10 | Yes – No | No |
| | a. If yes , what are the potential impacts if any? | | N/A | |
| 8. | Does the project include vegetation treatment? | SGEO pg. 10, 14 | Yes – No | No |

Sage-Grouse Executive Order 2011-5 DDCT Worksheet

| | | | | |
|-----|--|---------------------------------------|----------|---|
| | a. If yes , does the treatment comply with Executive Order 2011-5 and WGFD sagebrush treatment protocols? | WGFD Protocols for Treating Sagebrush | Yes – No | N/A |
| | b. What measuring protocols were used to assess the total sagebrush cover prior to treatment? | | N/A | |
| | c. If the treatment will not be counted as disturbance (i.e., treatment area will remain suitable habitat), what controls will be used to ensure that cover does not fall below protocol thresholds? | | N/A | |
| 9. | Has the proponent agreed to monitor affected and surrounding (control) leks? | SGEO pg. 10 | Yes – No | Yes |
| | a. If yes , will they coordinate with the permitting agency and local WGFD biologist to determine monitoring/data needs? | | Yes – No | Yes |
| | b. Does the proponent indicate a willingness to use adaptive management if there are declines on monitored leks determined to be caused by the project? | | Yes – No | Yes |
| | c. If yes , what actions could be taken? | | | |
| 10. | Does the reclamation plan comply with Executive Order 2011-5? | SGEO pg. 10 | Yes – No | Yes, the reclamation plan is approved by the Wyoming Department of Environmental Quality, Land quality Division for Mining Permit # 454 |

| Part III | Item | Reference | Answer | Comments |
|-----------------|--|------------------|---------------|---|
| 1. | If the project includes oil and gas development and/or mining activity, is the 1 /640 density calculation accurate and within Executive Order 2011-5 guidelines? | SGEO pg. 12 | Yes – No | Yes - TRC Solutions has calculated the density and it meets the guideline |

Sage-Grouse Executive Order 2011-5 DDCT Worksheet

| | | | | |
|----|---|----------------|----------|-----|
| 2. | Is the project located in a sage-grouse connectivity corridor? | SGEO pg. 12-13 | Yes – No | No |
| | a. If yes , is a 0.6mi Controlled Surface Use (CSU) buffer being applied around occupied lek perimeters? | | Yes – No | N/A |
| | b. Are timing stipulations (March 15 – June 30) being applied to the project within nesting habitat within 4mi of leks? | | Yes – No | N/A |

| Part IV | Item | Reference | Answer | Comments |
|---------|---|-------------------|----------|--|
| 1. | Are there any deviations from Executive Order 2011-5 process or stipulations? | SGEO pg. 4, 12-13 | Yes – No | No |
| | a. If yes , is there a likelihood that local sage-grouse populations will decline? | | Yes – No | N/A |
| 2. | Are there additional mitigation efforts being proposed by the proponent or recommended by the biologist that could be implemented to offset anticipated impacts to sage-grouse? | | Yes – No | None that we are aware of as of this submittal date. |

Project: FMC Projects 2012

DDCT Layers

Statewide Disturbances

(Density and Disturbance, Disturbance Only, Exempt)

   Used in Density and Disturbance Calculation

Preliminary Disturbances (User Created)

(Density and Disturbance, Disturbance Only, Exempt)

   To Be Used in Density and Disturbance Calculation

Proposed Disturbance

 Project Boundary

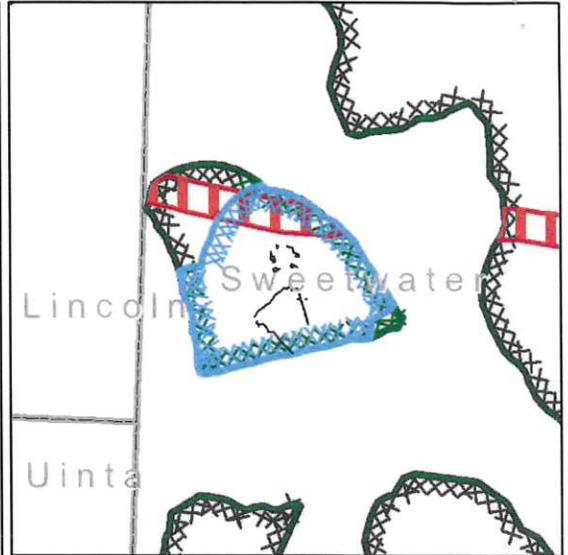
Additional DDCT Layers

 DDCT Examination Area

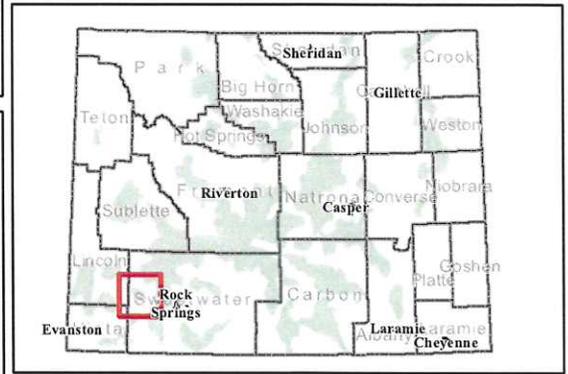
 Occupied Leaks NSO (Core Connect Only)

 Connectivity and Core Area (v3 - 06/29/10)

 Transmission Corridor



Project Area



Potential Disturbances and Additional Information

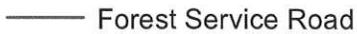
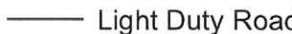
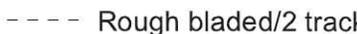
Oil and Gas Wells

- | | | | |
|--|-----------------------|---|---------------------------|
|  | Error |  | Expired APD CBM |
|  | Confidential |  | Denied CBM APD |
|  | Oil |  | Error CBM |
|  | ShutIn Oil |  | Injector |
|  | PA Oil Well |  | ShutIn Injector |
|  | APD Oil Well |  | PA Injection Well |
|  | Drilling Oil Well |  | APD Injector Well |
|  | Expired APD Oil |  | Drilling Injector Well |
|  | Denied Oil APD |  | Expired APD Injector Well |
|  | Error Oil |  | Denied Injector APD |
|  | Gas |  | Error Injector |
|  | ShutIn Gas |  | Disposal |
|  | PA Gas Well |  | ShutIn Disposal |
|  | APD Gas Well |  | Pa Disposal Well |
|  | Drilling Gas Well |  | APD Disposal Well |
|  | Expired APD Gas |  | Drilling Disposal Well |
|  | Denied Gas APD |  | Expired APD Disposal Well |
|  | Error Gas |  | Denied Disposal |
|  | CBM |  | Error Disposal |
|  | ShutIn CBM |  | Monitoring Well |
|  | PA CBM Well |  | Start Test |
|  | APD CoalBed Well |  | Class 05 |
|  | Drilling CoalBed Well | | |

Oil & Gas Units

- | | |
|---|-------------------|
|  | 0.0 |
|  | Explorator Unit |
|  | Secondary Unit |
|  | Api Unit |
|  | Subordinate State |

Transportation

- | | | | |
|---|---------------|---|----------------------|
|  | Railroads |  | BLM Road |
|  | Interstate |  | Forest Service Road |
|  | US Highway |  | Light Duty Road |
|  | State Highway |  | Rough bladed/2 track |
|  | County Road |  | Foot or Pack Trail |

Additional Layers

- | | |
|---|-------------------------------|
|  | Antenna Structure |
|  | Urban Area |
|  | Active Coal Permit Boundaries |

FMC Alkali Chemicals

FMC Granger Facility

FMC Wyoming Corporation
PO Box 872
Green River, WY 82935

August 6, 2012

307.875.2580 phone
www.fmc.com

Mr. John Cox
Director, Wyoming Department of Transportation
5300 Bishop Avenue
Cheyenne, WY 82009

Subject: FMC Granger Optimization Project
Updated Traffic and Transportation Information

Dear Mr. Cox:

On May 29, 2012, FMC Wyoming Corporation provided your office with information regarding the Granger Optimization Project. Included with the transmission was a transportation study titled *Granger Optimization Project Traffic and Transportation Study*. On June 5, 2012, Mr. John Eddins returned a letter indicating that WYDOT concurs with the study's determination that impacts to highways governed by WYDOT should be minimal.

The purpose of this letter is to provide WYDOT with an update to the traffic study. Further evaluation of the construction workforce has found that a larger proportion of the workforce will be non-local. The original non-local workforce was estimated at 40 percent, the new estimate is 25 percent. With a larger number of workers staying in temporary lodging, car traffic to and from the project site has slightly increased. There has been no change to the number or timing of truck deliveries.

At the peak construction workforce, the revised traffic study found an increase of twenty vehicles travelling to and from the east, ten each from Green River and Rock Springs. Vehicles travelling from the west (e.g., Evanston) increased by five. With these increases, the only Level Of Service change is at WY 372 and CR 11. In the afternoon, this intersection goes from LOS A to LOS B. The other two LOS changes noted in the original study remain. Therefore, though traffic is expected to increase slightly, no significant impacts to traffic or highways are expected.

The revised study will be incorporated into the Industrial Siting Act application for the project, which will be submitted August 13, 2012. FMC is writing to notify you of this change to avoid any confusion when your agency reviews the application and is requested to comment by the Industrial Siting Division. While it is not necessary to respond to this letter, should you have any questions, please feel free to e-mail me at john.lucas@fmc.com, or phone at 370.872.2195.

Sincerely,

John Lucas
FMC Wyoming Corporation



FMC Granger Optimization Project



FMC Wyoming Corporation
26 Miles West of Green River
P.O. Box 872
Green River, WY 82935