

**THE SEMINOE ROAD COALBED METHANE NATURAL
GAS GATHERING PIPELINE AND ACCESS ROAD
PROJECT**

RIGHT OF WAY APPLICATION

PLAN OF DEVELOPMENT

**Submitted to:
The U.S. Bureau of Land Management
Rawlins, Wyoming**

**Submitted By:
Dudley & Associates, LLC
1776 Lincoln Street, Room 904
Denver, Colorado 80203-1026**

April 2002

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RIGHT-OF-WAY PLAN OF DEVELOPMENT

- I. **APPLICANT:** Dudley & Associates, LLC
1776 Lincoln Street, Room 904
Denver, Colorado 80203-1026
303-861-0800
- II. **PROJECT NAME:** Seminole Road Coalbed Methane Natural Gas Gathering Pipeline and Access Roads Project, Carbon County, Wyoming

III. **LEGAL DESCRIPTION OF LANDS TO BE CROSSED - PIPELINE - 20.3 Miles (see Exhibit 1)**

PUBLIC LANDS:

T21N-R84W

Sec. 6: NW⁴ and S²

Sec. 8: S²

Sec. 16: NW⁴ and S²

Sec. 22: W²

Sec. 34: NE⁴NW⁴, N²NE⁴

T22N-R85W

Sec. 4: W² and SW⁴SE⁴

Sec. 14: SW⁴

Sec. 16: NE⁴NE⁴

Sec. 24: SW⁴SW⁴

T23N-R85W

Sec. 10: NW⁴

Sec. 16: W²W²

Sec. 28: W²W²

PRIVATE/STATE OF WYOMING LANDS:

T21N-R84W

Sec. 7: NE⁴NE⁴

Sec. 8: NW⁴

Sec. 17: NE⁴NE⁴

Sec. 21: NE⁴NE⁴

Sec. 27: W²

Sec. 35: N²NW⁴

T22N-R85W

Sec. 9: E²

Sec. 15: N² and NE⁴SE⁴

Sec. 23: N² and SE⁴

Sec. 25: W²

Sec. 31: SW⁴SW⁴

Sec. 36: N² and SE⁴

T23N-R85W

Sec. 9: NE⁴ and S²

Sec. 21: W²W²

Sec. 33: W²W²

IV. LEGAL DESCRIPTION OF LANDS TO BE CROSSED - ACCESS ROADS (See Exhibit 1)

Access Road #1 - 1.68 Miles (Existing Road ROW WYW-147569):

PUBLIC LANDS:

T23N-R85W

Sec. 4: S²SE⁴

Sec. 8: NE⁴NE⁴

Sec. 10: NW⁴

PRIVATE/STATE OF WYOMING LANDS:

T23N-R85W

Sec. 9: N²N²

Access Road #2 – 1.92 Miles

PUBLIC LANDS:

T22N-R85W

Sec. 4: W²

T23N-R85W

Sec. 32: SW⁴SW⁴

PRIVATE/STATE OF WYOMING LANDS:

T22N-R85W

Sec 5: N²

T23N-R85W

Sec. 31: S²

Access Road #3 – 8.11 Miles

PUBLIC LANDS:

T21N-R84W

Sec. 6: S²SW⁴

Sec. 8: SW⁴ and SW⁴SE⁴

Sec. 16: S² and NW⁴

Sec. 22: SE⁴ and W²

Sec. 26: NW⁴SW⁴ and NW⁴NW⁴

PRIVATE/STATE OF WYOMING LANDS:

T21N-R84W

Sec. 7: N² and NE⁴SE⁴

Sec. 17: NE⁴

Sec. 21: NE⁴NE⁴

Sec. 26: SW⁴NW⁴

Sec. 27: NE⁴NE⁴

T21N-R85W

Sec. 1: SE⁴ and N²

T22N-R85W

Sec. 25: SW⁴

Sec. 36: W²

ACCESS ROAD #4 – 0.53 Miles

PRIVATE/STATE OF WYOMING LANDS:

T21N-R84W

Sec. 35: N²

1.0 PROJECT PURPOSE AND NEED

The purpose of the Seminoe Road Coalbed Methane (CBM) Gas Gathering Pipeline and Access Roads Project (**Proposed Project**) is to construct and operate a 16-inch diameter buried natural gas pipeline for delivery and sale of compressed and dehydrated natural gas from the Seminoe Road CBM Pilot Project (**Pilot Project**) Compressor Station (A ROW permit application is pending with the US Bureau of Land Management (**BLM**) in Rawlins, Wyoming). The Compressor Station will be located in the NW¼ of Sec.10, T23N, R85W, approximately 18 miles north of Sinclair in Carbon County, Wyoming. The proposed gas gathering pipeline will travel south to the Colorado Interstate Gas (CIG) pipeline, located approximately ½ mile south of Walcott, Wyoming in the NW ¼ of Section 35, T21N, R84W. Please refer to **Exhibit 1** for a map presenting key project features and locations.

U.S. demand for natural gas continues to steadily rise and official Energy Information Administration estimates project a 30% increase in domestic consumption of natural gas by 2010. Natural gas is an essential part of the present and future U.S. energy supply due to its general availability across a well developed infrastructure and its unusually clean combustion properties as compared with other fuels. Moreover, the development of abundant domestic reserves of natural gas reduces this country's dependence on foreign sources of energy, thereby improving the U.S. international balance of payments and contributing to the economic stability required for industrial production, efficient power generation, and national security. The environmental advantages of natural gas combustion versus other conventional fuels are set out in the *Clean Air Act Amendments of 1990*.

Dudley & Associates, LLC (**Dudley**) anticipates that the Seminoe Road CBM Pilot Project could reasonably begin producing natural gas in late 2002. The **Proposed Project** will therefore be needed for gathering natural gas for delivery to the CIG interstate gas transmission lines near Walcott, Wyoming. The proposed pipeline will be constructed with new pipeline materials and with a special emphasis on safety. It has been routed to avoid sensitive areas. Presently, there are no natural gas pipelines in the vicinity of the **Proposed Project**.

2.0 PROJECT CHARACTERISTICS

2.1 General

The **Proposed Project** consists of constructing a pipeline, two pigging stations (one pig launcher and one pig receiver), two block valves, and a cathodic protection system, as well as making various road improvements along two existing routes. The pipeline trench will be excavated with customary earth moving equipment to conform with standard pipeline construction practices. The proposed pipeline is designed to gather approximately 200 million cubic feet per day (mmcf) of natural gas for delivery to the existing interstate pipeline system. The operating pressure of the pipeline will vary based on throughput but will not exceed the maximum allowable operating pressure of 1170 pounds per square inch gauge (psig). This will ensure pipeline integrity is preserved and that the CIG line can accommodate the natural gas gathered by the **Proposed Project**. Natural gas will be distributed by CIG to consumers throughout the United States via existing pipeline systems.

Dudley considered several alternative pipeline and access road routes during project planning. The pipeline and access road routes proposed in this document reflect **Dudley's** efforts to reduce and/or eliminate potential project impacts to wetlands, riparian areas, wildlife and cultural resources. The **Proposed Project** is considered optimal because it parallels existing linear features (roads, two-track routes, pipelines) for a significant portion of its length, disturbs no additional land surface along access roads and avoids all known environmentally and culturally sensitive areas, where practical.

Dudley will comply with all applicable federal, state, and local laws and regulations as they relate to public health, safety and environmental protection during construction, operation and maintenance of the **Proposed Project**. See Section 8.0 for further details.

2.2 Pipeline and Access Road Rights of Way and Total Surface Disturbance

2.2.1 Pipeline

In all cases except as described in the following paragraph, a 100-ft wide temporary construction right-of-way (ROW) and a 50-ft wide permanent (30-year) operating ROW will be required for the 20.3 mile pipeline route.

The temporary construction ROW width for the pipeline will be sufficient for all boring and staging activities at the Union Pacific Railroad/Saint Marys Creek crossing, where the pipeline will travel underground for approximately 335 feet (See **Exhibit 2**). However, directional drilling operations designed to avoid disturbing wetlands, riparian areas, and cultural resources at the North Platte River will require additional temporary work space on both sides of the 100-ft construction ROW on both the north and south sides of the river (See **Exhibit 3**). **Dudley** will need a 150-ft wide by 250-ft long temporary (3 week) construction ROW on the south side of the river (50-ft X 250 ft area outside the 100-ft pipeline construction ROW), and a 200-ft wide by 200-ft long temporary construction ROW on the north side of the river (100 ft X 200 ft area outside the 100-ft pipeline construction ROW) to allow for directional drilling operations and related storage and staging activities.

2.2.2 Access Roads

The four access roads will require temporary construction and permanent ROWs of 50 feet. All access roads will be used during pipeline construction and permanent access needs will be as follows: Access Road 1 - pigging station/launcher access; Access Road 2 - block valve access; Access Road 3 - block valve access; and Access Road 4 - CIG interconnect and pigging station/receiver access (See **Exhibit 1**). Travel frequency along Access Roads 2 and 3 will be significantly less (monthly) than that for Access Roads 1 and 4 which may be used several times a week.

The proposed pipeline will terminate at the CIG interconnect facility, near Walcott, Wyoming . At this terminus, located on private land, **Dudley** proposes to construct the pig receiving station, including up to four small (approximately 100 bbl) storage tanks.

All access during pipeline construction and operations will be from existing improved routes or will occur along the proposed pipeline ROW to minimize the amount of land disturbance associated with the **Proposed Project** (see **Exhibit 1**). No new roads will be constructed and all improvements (see below) to existing roads will occur within already disturbed areas. The total mileage of all access roads will be 12.24 miles, with 4.29 miles of these roads requiring some level of improvement on previously disturbed federal lands.

Access roads and the proposed pipeline ROW will be used to transport crews and equipment needed for project construction. Temporary equipment storage and staging areas will also be needed (see Section 4.2).

No improvements will be necessary for Access Roads 1 (Existing **ROW** WYW-147569) and 4. Access Road 2 will require approximately 1,500 feet of improvements, consisting of blading within an already disturbed area (See **Exhibits 1 and 4**). Access Road 3 will require varying degrees of improvement in three sections along the road (Sections A, B and C), occurring entirely within the previously disturbed road ROW area (See **Exhibits 1 and 5**).

All equipment and vehicular traffic will be confined to existing roads and established ROWs. As mentioned earlier, all improvements to existing roads will occur within already disturbed areas. Roads used for the project will be maintained and/or repaired as necessary to conditions equal to or better than that which existed before project-related use.

Table 1, on the following page, summarizes the estimated total disturbance and access road improvements for the **Proposed Project**.

**Table 1 – Summary of Temporary and Permanent Project
Disturbance and Improvements**

INSERT EXCEL SPREADSHEET

3.0 ADDITIONAL PROJECT COMPONENTS

Besides the natural gas gathering pipeline, the **PROPOSED PROJECT** will contain two block valves, two pigging stations (one launching and one receiving station), a temporary (three week) staging and equipment storage area, a temporary (one week) staging and storage area, surface equipment at the CIG interconnect, pipeline markers along the pipeline route, and a cathodic protection system. **Exhibit 1** shows the planned location of these additional project components (except for the cathodic protection station, since it cannot be located until the pipeline has been constructed).

Dudley will install two mainline **block valves** along the pipeline in accordance with U.S. Department of Transportation requirements. Each of the two block valve stations will be located above ground and will be contained entirely within the permanent pipeline ROW and will not be visible from Seminole Road.

As soon as pipeline construction is complete, **Dudley** will require two **pigging stations**; one for launching pigs and one for receiving them. **Dudley** will run pigs through the pipeline to remove any debris left in it from new construction and to remove mill scale or welding icicles from the line. When the pipeline is in service, **Dudley** will need to remove any free liquids by “pigging the line” regularly. This will maintain line efficiency and control corrosion. The pig launching station will likely be sited within the compressor station storage area at the northern terminus of the pipeline and the pig receiving station will be sited within the CIG interconnect area, at the southern terminus of the pipeline. **Surface equipment**, to be located at the CIG interconnect location, is needed for capturing fluids and solids removed from the pipe during pigging operations. This equipment includes 1-2 storage tanks (approximately 100 bbl capacity each) to hold the pigged liquid captured during pipeline cleaning and 1-2 storage tanks (approximately 100 bbl capacity each) to hold pigging sludge.

Cathodic protection is an anti-corrosion technique in which weak electrical current is induced via a rectifier in the pipeline to offset the current associated with metal corrosion. **Dudley** will employ a qualified corrosion contractor to determine the best design for the cathodic protection system. A deep groundbed of anodes will be required in the general vicinity of the rectifier and their location will be determined after the corrosion contractor can survey the pipeline ROW and determine the area of lowest soil resistivity. This system will be designed and constructed (within the permanent ROW for the proposed pipeline after completion of pipeline construction. It will likely be sighted within the compressor station ROW at the northern terminus of the pipeline or at the CIG interconnect, located at the southern terminus of the pipeline. This system will be underground.

After construction is completed, **pipeline markers** will be installed within the permanent **ROW** at a line of sight interval and at road crossings to identify the approximate pipeline location within the **ROW**.

4.0 PROJECT CONSTRUCTION

4.1 Schedule and General Design

Dudley plans to begin construction of the **Proposed Project** in July 2002 and expects construction to end no later than October 2002. **DUDLEY** will notify BLM at least 5 days prior to the anticipated start of construction and/or surface disturbing activities. The design, engineering, construction, maintenance, and inspection of the **PROPOSED PROJECT** will be performed by **DUDLEY** and its contractors and subcontractors in accordance with safe and proven engineering practices and in compliance with all applicable rules and regulations. Drawings (pipeline plans and specifications, alignment maps, road profiles, cross sections) for the **PROPOSED PROJECT** are attached in **Exhibits 6a and 6b**. Additional details will be provided to BLM as requested. The proposed pipeline will have an outside diameter of 16-inches, a wall thickness of 0.250 inch and be made from Grade X-52 steel pipe with a maximum operating pressure commensurate with pipe grade and wall thickness.

Dudley will install the pipeline in a single spread using approximately 50 workers. **Dudley** expects pipeline construction will occur at a rate of 1-2 miles per day in most areas, with slower progress in areas where existing underground facilities will need to be crossed near the CIG gas pipeline. Additional field personnel may be working at the river directional drill and railroad bore sites.

4.2 Equipment Staging and Storage

Dudley will bring pipe to the vicinity of the proposed **ROW** by rail or truck, with any pipe storage occurring on private lands or along rail sidings that are already disturbed (See **Exhibit 1** for locations.) Pipe and other materials will be hauled by truck and strung along the **ROW**. The compressor site storage yard (for which a permanent ROW application is pending) will be used for pipeline construction staging and equipment storage. As mentioned, temporary staging areas will also be needed during directional drilling of the North Platte River and boring of the Railroad (see Sections 4.4 and 4.5 for details). Any additional temporary equipment staging will be located within the proposed pipeline corridor as the trench is being dug and the pipe is being laid.

4.3 Pipeline Corridor Preparation and Trenching

Dudley will clear the construction corridor of vegetation and obstacles, ensuring that topsoil is preserved so that it can be replaced. For the purposes of this ROW application, **Dudley** has assumed conservatively that the entire 100-ft wide construction **ROW** will be disturbed along the entire pipeline length. Nonetheless, all efforts will be made to disturb only that area necessary for safe and efficient pipeline construction. Schematic of typical pipeline construction are provided in **Exhibits 6a and 6b**

Blading will be necessary to clear a safe and suitable working area along the pipeline ROW. Once the **ROW** is graded, **Dudley** will dig a 2-3 ft wide trench with a trencher. In rocky areas or locations where the pipeline changes directions digging will be accomplished with a backhoe. A bending machine will be used to bend the pipe to fit the trench. The pipe will be welded together and the joints will be coated. Side boom tractors will lower the pipe into the trench. The trench will be padded as necessary with sand or soil to prevent damage to the pipes external coating. After the pipe has been placed in the trench, it will be backfilled and the soil will be compacted to prevent subsidence. Any excavated material that cannot be placed in the trench will be disposed of in compliance with landowner or government requirements (e.g., feathered out over the disturbed area prior to topsoil replacement). The pipeline will be buried to depths of 3.5 to 4.5 ft.

See Sections 4.4 and 4.5 for pipeline depths under the railroad and under the North Platte River.

Portions of the trench will be open for no more than 20 days and the maximum unfilled trench length will be 10 miles. As discussed in more detail in Section 8.2, **Dudley** will use trench bridges to ensure wildlife and livestock will remain able to migrate and will monitor the open trench regularly for any trapped wildlife or livestock. **DUDLEY** will notify appropriate landowners when trenching will occur in their allotments or properties.

4.4 Railroad/St. Mary's Creek Crossing

The pipeline will be placed under the Union Pacific Railroad/St. Mary's Creek at a depth of 16.6 feet (See **Exhibit 2**) using a horizontal bore. The length of this crossing will be 335 feet to minimize disturbance and to ensure no wetlands, riparian areas, cultural resources, or railroad operations are affected (See Section 8.0 for more details on **Dudley's** efforts to mitigate project impacts and **Exhibit 1** for a map detailing the crossing and bore pit locations).

4.5 North Platte River Crossing

The pipeline will travel beneath the North Platte River. A directional drilling method will be used for this crossing. The pipeline will travel under the riverbed at a maximum depth of 15 feet. The directional drill pads will be located far enough away from the river to ensure that no wetlands, riparian areas or cultural resources are affected (See **Exhibits 1 and 3**); thus causing the total length of the directional drill to be approximately 1,500 feet. Drill muds used at the directional drill site will be disposed of at approved off-site locations, at the discretion of the BLM and/or landowner.

4.6 Water Use

Dudley will use water as needed for dust control during construction. The pipeline will be pressure tested with water once it is in place. The pipeline will be filled with water and pressurized to no less than 125% of its designated operating pressure for 8 hours to verify integrity. **Dudley** will acquire test water and water for dust control either from the Sinclair municipality or from its Seminole CBM Pilot Project operations. A total of approximately 950,000 gallons of water will be required for dust control and pressure testing.

Dudley will discharge hydrostatic test water into ephemeral drainages at a rate commensurate with drainage capacity. Prior to doing so, **Dudley** will obtain all required discharge permits from the Wyoming Department of Environmental Quality and will ensure that appropriate erosion control equipment (e.g. energy dissipaters) is installed.

4.7 Construction Practices

Dudley will replace or repair to at least as good as pre-project conditions all existing roads, fences, structures, or culverts damaged during construction. Fences crossed during construction will remain down during daylight hours while construction operations are occurring. When daily construction operations are concluded fences will be reinstalled in a manner to prevent livestock passage. Some existing access roads will require upgrading prior to construction and permission will be obtained from the BLM or appropriate landowner prior to upgrading.

Equipment used to construct the proposed pipeline will include but not be limited to trenchers, tractor-trailers, fuel trucks, lowboy trucks, buses, pickup trucks, tractors, backhoes, track-hoes, cats, side-booms, welding trucks, and boring and directional drilling equipment.

5.0 PIPELINE OPERATION AND MAINTENANCE

Prior to using the pipeline, **DUDLEY** will verify with the BLM that the pipeline has been constructed and tested in accordance with the terms of the applicable **ROW**. Additionally, **DUDLEY** will submit as-built maps to the BLM within 6 months of construction.

DUDLEY will routinely inspect the pipeline route to check for problems such as erosion, pipe exposure, **ROW** condition, unauthorized encroachment on the **ROW**, and any other conditions that may result in a safety hazard or require preventative maintenance. **DUDLEY** will notify the BLM prior to any maintenance or repairs to the line to determine if there are any resource concerns in these areas and obtain the necessary approval. Inspections will be conducted on foot, or by vehicle along the proposed **ROW**. Vehicles will be restricted to designated access roads and the **ROW**. If pipeline damage is noted from external sources, repair and/or replacement will be immediately completed. **DUDLEY** will develop an emergency response procedure which will be implemented in the unlikely event of an emergency.

6.0 PIPELINE TERMINATION and ABANDONMENT

At the end of the anticipated useful life of the pipeline (30 years), **DUDLEY** will obtain the necessary authorizations from the BLM to abandon the facility. **DUDLEY** will contact the BLM to arrange a pre-termination conference and a joint inspection of the **ROW** to agree on an acceptable plan.

Abandonment of the pipeline will be accomplished in accordance with the policies and standards employed by the BLM at the time of abandonment. The pipeline will be purged of all combustible materials and retired in place. **DUDLEY** will remove all above ground facilities and dispose of unsalvageable material at authorized sites. Regrading and revegetation of disturbed areas will be completed according to BLM or reasonable private landowner standards, and the abandoned **ROW** generally will revert to the control of the BLM or private landowner (See Section 8.8 for further discussion on reclamation).

7.0 GOVERNMENT AGENCY AND DUDLEY PERSONNEL INVOLVEMENT

BLM issues **ROW** grants for pipelines under the authority of the *Mineral Leasing Act of 1920*. BLM issues **ROWS** for access roads on public lands pursuant to *Federal Land Policy and Management Act of 1976*. The **ROW** grant application for the **PROPOSED PROJECT** will be subject to the standard approval procedures as outlined in **ROW** grant regulations (43 C.F.R. 2800). The **PROPOSED PROJECT** lies within areas covered by the BLM Great Divide Resource Management Plan ("**RMP**"). This plan provides for the development of pipelines and associated facilities with stipulations to protect natural resources.

The contacts at **DUDLEY** for this **ROW** application are:

- | | | |
|------------------|---|--------------|
| 1. Kate Fay | Environmental & Regulatory Specialist | 303-910-2830 |
| 2. Ken Morr | Operations & Compliance Specialist | 303-863-4488 |
| 3. Don Schroeder | Land Manager | 303-863-4483 |
| 4. David Jensen | Operating Manager/Chief Operating Officer | 816-842-5671 |
| 5. David Dudley | Operating Manager/Chief Executive Officer | 303-863-4480 |

BLM Rawlins Field Office staff who have offered guidance on this **ROW** application and the related pre-application site visit are:

- | | |
|--------------------|-----------------------------|
| 1. Gay Seay | Pipeline ROW Team Leader |
| 2. Krystal Clair | Recreation/Visual Resources |
| 3. Janelle Wrigley | Realty |
| 4. Frank Blomquist | Wildlife and T&E |
| 5. Larry Jackson | Project Inspector |
| 6. Brenda Newman | EA Team Leader |
| 7. Clare Miller | Project Advisor |

The Rawlins Field Office staff can be reached at 307-328-4200.

Construction and operation of the proposed pipeline will also require authorizations from several federal, state, and local agencies. **DUDLEY** will obtain applicable authorizations and comply with all the applicable rules and regulations contained in them.

8.0 RESOURCE VALUES AND ENVIRONMENTAL CONSIDERATIONS

This section addresses measures **DUDLEY** and its contractors will take to avoid, minimize, or mitigate potential impacts from development of the **PROPOSED PROJECT**. **DUDLEY** understands that BLM may consider exceptions to these measures on a case-by-case basis if a thorough analysis determines the resource for which the measure was developed will not be affected by the **PROPOSED PROJECT**. **DUDLEY**, or a designated contractor approved by BLM, will ensure that qualified individuals will be available during project construction, as needed, so that all mitigation measures discussed in this **Plan of Development (POD)** are followed. BLM will be consulted on a case-by-case basis as necessary to establish alternative plans in the event unanticipated protection measures are necessary due to the discovery of protected resources.

The northernmost end of the **Proposed Project** is located adjacent to and south of the **Pilot Project** area for which BLM issued the “*Decision Record and Finding of No Significant Impact for the Seminoe Road Coalbed Methane Pilot Project, Carbon Country Wyoming*” (**DR/FONSI**) in July 2001. Most **Proposed Project** environmental and natural resource background data requirements established by BLM to date have been gathered by BLM-approved consultants hired by **DUDLEY**. These consultants have completed all recommended investigations in all affected areas, with the exception of approximately one mile along the northernmost section of the pipeline and along Access Road 4. These investigations will be in April 2002 provided acceptable field conditions exist at the time. **Appendix B**, *Class III Cultural Resources Inventories: Alternative Pipeline, Abandoned Pipeline Route and Wetlands Avoidance Routes*, prepared by High Country Archeology, **Appendix C**, “*The Report on Jurisdictional Wetlands and Other Waters of the U.S for the Seminoe Road Gas Gathering Pipeline and Access Roads*”, prepared by TRC Mariah Associates Inc. and **Appendix D**, “*Seminoe Road Gas Gathering Pipeline and Access Road Project Biological Investigations Letter Report*”, prepared by TRC Mariah Associates Inc. constitute these investigation reports and are discussed further below.

As part of this **ROW** application, **DUDLEY** will fully adhere to all applicable and appropriate environmental practices and protection measures. Any additional (completed or ongoing) environmental/resource investigations (e.g. cultural, biological, wetlands, etc.) described below are a result of recommendations made by BLM staff after conducting an investigation of portions of the **PROPOSED PROJECT** route in 2001.

8.1 SURVEY MONUMENTS

DUDLEY will protect all survey monuments, benchmarks, witness corners and other monuments within the **ROW** that exist to delineate property boundaries and characteristics. In the event any such monument is destroyed or damaged during project construction or operations, **DUDLEY** will arrange for a registered land surveyor to restore it in accordance with the Manual of Surveying Instruction for the Survey of Public Lands of the United States, 1973 Edition. **DUDLEY** will record the survey with Carbon County and send a copy to the BLM Rawlins field office.

8.2 FIRE CONTROL

Dudley will notify the BLM of any fires observed during project construction and will comply with all rules and regulations administered by the BLM concerning the use, prevention, and suppression of fires. In the event of a fire, **Dudley** or its contractors will initiate fire suppression actions immediately until the fire is out or until relieved by an authorized representative of the agency or landowner on whose land the fire occurred. In the event heavy equipment is needed for fire suppression, it will be used outside of authorized **ROWS** only after prior approval of the

BLM or private landowner unless there is imminent danger to life or property. **Dudley** will be responsible for all costs associated with the suppression (and subsequent rehabilitation) of fires resulting from its operations.

8.3 PERMITTING AND CONSTRUCTION

DUDLEY and its contractors will adhere to all construction plans identified in this **POD**. All necessary permits, plans, and arrangements for access will be acquired prior to construction.

DUDLEY will confine all construction and reclamation actions to a width commensurate with best operating practices. **Dudley** will not allow disturbance to occur beyond authorized **ROWS**.

8.4 AIR QUALITY, NOISE AND ODOR

Dudley will adhere to all applicable Wyoming Ambient Air Quality Standards (WAAQS) and National Ambient Air Quality Standards (NAAQS). As directed by the BLM and/or Wyoming Department of Environmental Quality-Air Quality Division, **Dudley** will use dust suppression techniques on disturbed areas (e.g., access roads, cleared pipeline ROW, spoil piles). **Dudley** will also reclaim all disturbed areas as soon as practical to facilitate soil stabilization, dust control and to minimize wind erosion (See Section 8.8 for further discussion on reclamation).

Dudley will minimize noise and odor associated with the project construction by keeping all internal combustion engines muffled and well maintained. Vehicle speeds also will be restricted to 35 miles per hour to minimize noise and dust on project required **ROWS**.

8.5 GEOLOGY AND GEOLOGIC HAZARDS

Given the nature of the **Proposed Project** and the terrain it crosses, **Dudley** believes no extensive geologic investigation appears warranted and therefore has not conducted one. However, extensive investigations completed for the nearby **Pilot Project** demonstrate the potential for seismic activity in the region to be low and found no known or suspected active faults. For more information, please refer to the "*Environmental Assessment for the Seminoe Road Coalbed Methane Project, Carbon, County, Wyoming*" (EA), BLM. April 2001.

8.6 MINERAL RESOURCES

While the **Proposed Project** does not directly involve leasing and locating mineral resources, it is designed to deliver such resources to the CIG natural gas pipeline interconnect, located along Interstate 80, near Walcott. The movement of produced natural gas from the **PILOT PROJECT** would result in a depletion of Coalbed Methane (CBM) resources in the area, but would not interfere with the potential recovery of other minerals. CBM production will be a net gain for the economy of Carbon County, the state of Wyoming, and the U.S. due to the creation of stable jobs and tax revenues associated with oil and gas production. No other mineral resources are known to occur beneath project-affected areas, therefore mineral resources recovery would not be precluded by the **Proposed Project**.

8.7 PALEONTOLOGY

No significant fossil localities are known to be in the area of the **Proposed Project**. However, **Dudley** will monitor construction activities closely. If paleontological resources are uncovered during ground disturbing activities, **Dudley** will immediately suspend operations and contact the BLM. **Dudley** will not resume surface disturbing activities until BLM determines the significance of the resource and recommends appropriate action.

8.8 SOILS, RECLAMATION, REHABILITATION and STABILIZATION

DUDLEY will ensure that topsoil sufficient to facilitate revegetation will be segregated from subsoils during all construction operations and returned to the surface upon completion of operations.

DUDLEY will also keep the area of disturbance to the minimum necessary for construction and operation of the **PROPOSED PROJECT**. **Dudley** will further mitigate impacts to soils by avoiding construction activity during particularly periods when spoils are saturated and excessive road rutting (e.g., >4 inches) may occur and by using the practices identified in the SWPPP (See **Appendix A**) developed for the **Proposed Project**. **Dudley** will also ensure that construction activities occur prior to soil freezing or after soils have thawed.

All disturbed areas along the pipeline corridor will be reseeded to landowner or BLM specifications. Seeding will take place as soon as possible and appropriate after completion of construction. If conditions permit, the **ROW** will be seeded immediately after construction. Seeding will be repeated until a satisfactory stand is established as determined by the BLM or private landowner.

DUDLEY will be responsible for weed control on the disturbed areas within the **ROW** and will consult with the BLM and/or local authorities for acceptable weed control methods.

8.9 WATER RESOURCES

Dudley will protect and mitigate impacts to water resources by: 1) adhering to the mitigation measures identified in the SWPPP (see **Appendix A**); 2) complying with the recommendations contained in **Appendix C**; and, 3) complying with all applicable federal and state requirements. **Dudley** will also:

- Follow all practical alternatives and designs to limit disturbance within drainage channels, including ephemeral and intermittent draws.
- Avoid surface disturbance within 500 feet of perennial surface water and/or wetland and riparian areas, where practical.
- Avoid surface disturbance within 100 feet of ephemeral drainage channels, where practical.
- Not cross surface wetlands.

Finally, **Dudley** will ensure that all project activities are conducted in compliance with the Clean Water Act.

8.10 LIVESTOCK AND CROPLAND

There is no cropland in the area of the **PROPOSED PROJECT**, although, livestock grazing does occur. **DUDLEY** will coordinate project activities with local ranching operations to minimize conflicts with livestock movement or other ranch operations and will maintain all fences, cattle guards, and other livestock-related structures damaged during construction. In areas of high livestock use and where practical, **DUDLEY** may fence reclaimed federal land to ensure successful revegetation. During pipeline construction, **Dudley** will employ trench bridges at appropriate intervals to facilitate safe and easy access by livestock and wildlife across open trenches. **Dudley** will also regularly monitor and, in the unlikely event livestock or wildlife become trapped in the trench, remove the animal(s) as soon as practical.

8.11 WILDLIFE RESOURCES

Using a qualified biologist, **Dudley** has conducted a biological investigation along the majority of the proposed natural gas gathering pipeline route and along most access roads (Note: Approximately 1 mile of the northernmost portion of the pipeline route and Access Road 4 have not been investigated, due to route changes. This investigation will occur in April 2002, provided field conditions are acceptable. Soon thereafter an addendum report will be provided to **BLM**.) **Appendix D** contained the results and recommendations of the biological investigation. **Dudley** has used the findings associated with this investigation to re-align certain portions of the access and pipeline routes to avoid, where possible and practical, impacts to wildlife.

In response to this investigation, **Dudley** will employ a number of measures to further ensure the **Proposed Project** will minimize significant impacts to wildlife. Specifically, **Dudley** will:

- Implement and communicate to field staff policies designed to control poaching and littering and convey that any intentional poaching or littering may result in dismissal.
- Enforce existing drug, alcohol, and firearms policies.
- Curtail construction activities on crucial big game winter range from November 15 – April 30, unless BLM grants an exception pursuant to its rules and regulations.
- Install trench bridges at appropriate intervals over open trenches during pipeline construction to allow wildlife to cross the trench.
- Regularly monitor the open trench for trapped wildlife.
- Where required, implement the raptor protection measures identified in **Appendix D**.
- If project construction occurs prior to June 30, implement the sage grouse protection measures identified in **Appendix D**.
- Continue efforts to locate proposed project facilities and design them to minimize disturbances to areas of high wildlife habitat value.
- Advise project personnel of appropriate speed limits (35 mph) on project access roads, educate them about wildlife laws to prevent mortality and prohibit firearms and dogs from the project area.
- Protect areas potentially hazardous to wildlife by netting and fencing them, where appropriate.
- Use erosion control techniques (See **Appendix A**) that minimize impacts to fisheries and, where channel crossings require trenching, construct project facilities when flows are not expected (summer and fall).
- Comply with the recommendations contained **Appendices A and D**.

8.12 THREATENED, ENDANGERED, PROPOSED AND BLM-SENSITIVE SPECIES.

Using a qualified biologist, **Dudley** conducted a biological investigation along the proposed natural gas gathering pipeline route and most access roads that surveys these areas for suitability as threatened, endangered, or proposed (**TE&P**) species habitat (**See Appendix D**). (Note: Approximately 1 mile of the northernmost portion of the pipeline route and Access Road 4 have not been investigated, due to route changes. This investigation will occur during April 2002, provided field conditions are acceptable. Soon thereafter an addendum report will be provided to **BLM**.) **Dudley** has used the findings associated with this investigation to re-align certain portions of the access and pipeline routes to avoid, where possible and practical, impacts to protected wildlife and wildlife habitats.

Dudley will comply with any decisions related to the **Proposed Project** made regarding Threatened, Endangered, Proposed and BLM- Sensitive Species reached during informal consultation between the BLM and the U.S Fish and Wildlife Service (**USFWS**). **Dudley** will implement additional surveys for **TE&P** species as required by BLM and the USFWS and has included a description of those which are anticipated in **Appendix D**. If **TE&P** species are found, consultation with the USFWS will be initiated, as necessary, and construction activities will be relocated or curtailed until the BLM, USFWS, and **Dudley** concur on appropriate actions to avoid adverse effects.

Also in response to the investigation mentioned above, **Dudley** will employ (or in some cases has employed) a number of measures to ensure the **Proposed Project** does not present significant impacts to **TE&P** and BLM-Sensitive Species. Specifically, **Dudley** will:

- For all **TE&P and BLM Sensitive species**:
 - Have a BLM-approved biologist on-site during construction, as deemed appropriate by the BLM.
 - Apply herbicide greater than 500 feet from known sensitive plant populations, where necessary.
 - Using a BLM approved biologist, support and conduct all required site-specific surveys for **TE&P** and submit the results to the BLM.
- For **Mountain Plover**:
 - Obtain information about how to identify mountain plover, its habitat, status as a **TE&P**, and possible impacts of pipeline construction projects and convey this information to all project staff.
 - Survey for mountain plover if construction activity in mountain plover habitat will occur between April 10 and July 10. If an active mountain plover nest is found within 0.25 miles of proposed facilities, delay construction activities for 37 days, or for one-week after chicks hatch, or for at least one week if a brood of flightless chicks is observed (**See Appendix D**).
 - Construct project facilities at least 0.25 miles from known mountain plover concentration areas, where practical.

- Report immediately to Wyoming Game and Fish Department (**WGFD**) any road-killed animal from areas within 0.25 miles of identified mountain plover concentration areas and request its removal by authorized personnel. Limit project features that attract mountain plover predators, and use approved perch inhibitors where practical.
- Report all suspected observations of plover adults, eggs, chicks, or carcasses within 24 hours to the BLM Wildlife Biologist and the **USFWS** AND notify WGFD immediately.
- For **Black-footed Ferret**:
 - Obtain information about how to identify black footed ferret, its habitat, status as a **TE&P**, and possible impacts of pipeline construction projects and convey this information to all project staff.
 - Map prairie dog towns along the project pipeline corridor and access roads; if prairie dog towns suitable for ferret habitat (colonies greater than 200 acres and having more than eight open burrows per acre) are found, locate project components at least 164 feet from these towns and ensure that surface disturbing activities will not be conducted unless a survey of black-footed ferrets has occurred within the past 12 months. (See **Appendix D**); **NOTE**: Prairie dog mapping has been completed for all but the northernmost 1 mile of the pipeline route and for Access Road 4. To date, no prairie dog colonies meeting potential black-footed ferret habitat criteria were located within 0.5 miles of proposed disturbance.
 - Report to BLM any sign of a black footed ferret within 24 hours. If a ferret its sign is found, BLM will request that **Dudley** stop project activity and initiate Section 7 review with the USFWS and no project activities that could affect black footed ferret will occur until the USFWS issues a Biological Opinion.

8.13 VEGETATION

Plant communities in the **Project Area** are described in **Appendix D** and the previously referred to forthcoming addendum report). **Dudley** will protect vegetation using the measures identified in **Appendix D**, including:

- Controlling noxious weeds along the **ROWS**.
- Ensuring that herbicide applications, if necessary, are kept at least 500 feet from known special status plant populations.
- Keeping to a minimum the removal or disturbance of vegetation by using previously disturbed areas and existing **ROWS** for project construction and access roads and by clearly designating equipment/materials storage yards and staging areas.
- Seeding and stabilizing disturbed areas in accordance with BLM-approved reclamation guidance.

- Beginning revegetation operations in the first appropriate season after completion of construction.
- Recontouring and using BLM-approved native species during reclamation to aid in soil stabilization.
- Restricting project-related travel only to designated access roads unless there is an emergency, in which case travel may occur off-road.
- Avoiding areas with high erosion potential and/or rugged topography where practical.
- Implementing reclamation plans that include stabilizing and revegetating disturbed areas and ensuring that reclamation activities include the use of wildlife-proof fencing when wildlife species are impeding successful vegetation growth.

Dudley will also employ vegetation protection measures identified in the SWPPP (See **Appendix A**).

8.14 CULTURAL RESOURCES

A BLM-approved archeologist, hired by Dudley, has completed Class III cultural resources inventories and file searches for all proposed disturbance areas associated with the **Proposed Project**. In most cases, no cultural resources were found. However, in those few areas where they were found, **Dudley** has already relocated proposed surface disturbing activities to avoid them (See **Appendix B** and forthcoming addendum report to be provided by High Country Archeology). Thus, no known cultural resources lie within proposed pipeline disturbance areas or will be affected by the **Proposed Project**.

To ensure further that the proposed project presents no impacts to cultural resources, **DUDLEY** and its contractors will inform their employees about relevant federal regulations protecting cultural resources. If any cultural remains, monument sites, objects, or antiquities subject to “The National Historic Preservation Act of 1966” or the “Archeological Protection Act of 1979” are discovered during construction, construction activities shall immediately cease, and the BLM will be notified. If this occurs, **DUDLEY** will comply with all resulting recommendations made by the BLM and Wyoming State Historical Preservation Office (**WSHPO**).

8.15 VISUAL RESOURCES

The **Proposed Project** is located within a Visual Resource Management Area (**VRM**) Class III area. In a Class III area, changes in the basic elements of the characteristic landscape may be evident while remaining subordinate to the visual strength of the existing character of the landscape.

With the exception of the additional project components (2 block valves, pipeline markers, 2 pigging stations and 4 storage tanks) described in Section 3.0 there are no permanent surface facilities associated with the **Proposed Project**. **Dudley** has designed these small surface facilities to minimize disturbance, to preserve protected viewsheds and to conform to the standards of applicable **VRM** class areas. The majority of the **PROPOSED PROJECT** will be well away from Seminoe Road and is temporary in nature, since it is a pipeline construction project. **DUDLEY** will paint all surface facilities with colors prescribed by BLM to blend with the surrounding landscape.

8.16 SANITATION

DUDLEY will maintain all construction and operation sites in a sanitary condition at all times. Waste materials, including human waste, trash, garbage, refuse, etc., will be disposed of promptly at an appropriate waste disposal site and in accordance with all applicable BLM rules and regulations and the SWPPP (See **Appendix A**).

8.17 FLOODPLAINS AND COASTAL ZONES

No permanent above ground project features associated with the **PROPOSED PROJECT** will be located in any floodplain or a coastal zone.

8.18 PROXIMITY TO HAZARDOUS WASTE SITES

The **PROPOSED PROJECT** site is not located near any known hazardous waste site.

8.19 HAZARDOUS MATERIALS

Certain materials identified by the EPA as hazardous materials may be used for or produced by the **Proposed Project**. All contractors will be responsible for having the proper Material Safety Data Sheets (**MSDS**) for materials used in construction. All measures appropriate for the prevention and containment of accidental discharges will be taken. Fuel storage will not occur within 500 ft of stream channels, wetlands, or open water areas. **Dudley** will also develop and implement a Spill Prevention and Control Countermeasure Plan (**SPCCP**) for the **Proposed Project** prior to its construction.

8.20 TRANSPORTATION

Construction may cause minor transportation-related impacts such as increased truck traffic to and from the proposed pipeline **ROW**. Impacts will be temporary and limited. Construction, operation, and maintenance are not expected to cause safety hazards or to inconvenience notably motorists or other area users. Construction traffic will be limited to approved access routes and the pipeline ROW. All overflow and roadway ditches crossed by the pipeline will be cleared of any material, which could obstruct water flow. Work will be accomplished so that reasonable conformance to the previous line, grade, and cross section is achieved. If any culverts clog due to proposed project activities, the culvert will be cleared to provide unobstructed flow.

8.21 MISCELLANEOUS

DUDLEY will adhere to all other rules and regulations applicable to the **Proposed Project**. They include developing, distributing to personnel, and implementing a field-wide **SPCC**, applicable road design and maintenance requirements, applicable sewage and garbage disposal requirements, stormwater prevention planning (See **Appendix A**), and applicable noise and odor control requirements.

REFERENCES

“Environmental Assessment for the Seminoe Road Coalbed Methane Project, Carbon, County, Wyoming”. BLM. April 2001.

“Decision Record and Finding of No Significant Impact for the Seminoe Road Coalbed Methane Pilot Project, Carbon Country Wyoming” (DR/FONSI). BLM. July 2001.