

Chapter 1

PURPOSE OF AND NEED FOR ACTION

1.0 INTRODUCTION

Fidelity Exploration & Production Company (Fidelity) proposes development of coal bed natural gas (CBNG) in its Tongue River-Deer Creek North project area, including the Deer Creek North and Deer Creek North Amended Plans of Development (PODs). The project area is located within the CX Field (approved by the Montana Board of Oil & Gas Conservation), Big Horn County of southeastern Montana, T. 9 S., R. 41 E., (Map 1.3-1, Map 1.3-2, Map 1.3-3). Fidelity's proposal includes the development, operation and reclamation of CBNG wells and various facilities on leased lands (surface and /or oil and gas mineral estate) in the Deer Creek North PODs area. The proposed project is located on private, state and BLM administered surface. A more detailed description of the Plans of Development and Proposed Action are found in Chapter 2.

This Environmental Assessment (EA) was prepared by the Bureau of Land Management (BLM), in cooperation with the Montana Department of Environmental Quality (MDEQ). The EA analysis tiers to and incorporates by reference the information and analyses contained in the *Montana Statewide Oil and Gas Final Environmental Impact Statement and Amendment of the Powder River and Billings RMPs* (MT FEIS) approved by the MBOGC on March 26, 2003, by the BLM on April 30, 2003, and the MDEQ on August 7, 2003. The EA addresses site-specific impacts and mitigation measures that are not covered in the MT FEIS. The EA completes the environmental review requirements of NEPA for BLM.

Additionally, interim management measures were ordered by the United States District Court for the District of Montana Billings Division, April 5, 2005. The Miles City Field Office will use specific procedures to process individual APDs and PODs for coal bed natural gas wells in accordance with the District Court Order dated April 5, 2005 until the Record of Decision is signed for the Supplemental EIS. These procedures will apply to the entire BLM planning area covered by the 2003 Statewide Final EIS/Amendment (Powder River and Billings RMP Areas). All Onshore Oil and Gas Order Number 1 processing times and applicant notification requirements will be followed. After completion of the NEPA analysis for individual APDs or PODs, MCFO will approve, approve with modifications, or deny the APDs or PODs. The NEPA analysis will be tiered to the 2003 Statewide Final EIS/Amendment and include review to insure proposed actions are processed consistent with the management objectives of the Preferred Alternative being considered in the *Supplement to Montana Statewide Oil and Gas Final Environmental Impact Statement and Amendment of the Powder River and Billings RMPs* (SEIS) and the *Interim Procedures for Processing Coal Bed Natural Gas Applications for Permit to Drill (APDs)/Plans of Development (PODs) Prior to the Record of Decision for the Supplement to the Montana Statewide Oil and Gas Environmental Impact Statement (SEIS) and Amendment of the Powder River and Billings Resource Management Plans January 2008*, found in Appendix E.

1.1 PURPOSE OF AND NEED FOR ACTION

The purpose of the Proposed Action is to develop the CBNG resources that may be found in coal seams on federal leases within the project area, consistent with the MT FEIS, the April 5, 2005 District Court Order, and the Interim Procedures for Processing Coal Bed Natural Gas. The need for Fidelity's Plans of Development is to ensure that CBNG development of its leases occurs in an orderly, efficient and environmentally responsible manner that provides measures to protect the environment and surface owner assets.

1.2 CONFORMANCE WITH THE APPLICABLE LAND USE PLAN

BLM considers this proposed action under the requirements of the Mineral Leasing Act (MLA), the Federal Land Policy Management Act (FLPMA) and the BLM regulations at 43 CFR 3160 and other applicable laws and regulations, including Onshore Order #1.

As required by 43 CFR 1610.5, the Proposed Action is in conformance with the terms and the conditions of the BLM 1984 *Powder River Resource Management Plan (RMP)*, as amended by the Miles City District Oil and Gas FEIS/Amendment (BLM, 1994) and the *Montana Statewide Oil and Gas FEIS/Amendment of the Powder River and Billings RMPs* (BLM, 2003).

This site-specific EA tiers to and incorporates by reference the information and analyses contained in the *Montana Statewide Oil and Gas Final Environmental Impact Statement and Amendment of the Powder River and Billings RMPs* (MT FEIS) approved April 30, 2003, pursuant to 40 CFR 1508.28 and 1502.21. This project EA addresses site-specific resources and/or effects that are not covered in the MT FEIS, due to its programmatic nature.

1.2.1 Other Relevant Documents

- Draft Supplement to the Montana Statewide Oil and Gas Environmental Impact Statement and Amendment of the Powder River and Billings Resource Management Plans, December 2006
- Final Environmental Impact Statement and Proposed Plan Amendment for the Powder River Basin Oil and Gas Project (WY FEIS), April, 2003.
- EAs prepared by DNRC for beneficial use of produced water at the Spring Creek and Decker Coal Mines, December, 2002 and June, 2003 respectively.
- EA prepared by BLM for the Fidelity Badger Hills Plan of Development, approved February 9, 2004 (MT-020-2004-134).
- EA prepared by BLM, MDEQ and MBOGC for the Powder River Gas – Coal Creek Plan of Development, approved November 19, 2004 (MT-020-2004-58).
- EA prepared by BLM for the Fidelity Dry Creek Plan of Development, approved December 16, 2004 (MT-020-2004-298).
- EA prepared by BLM, MDEQ and MBOGC for the Fidelity Coal Creek Plan of Development, approved January 19, 2005 (MT-020-2004-297).
- EAs prepared by MDEQ for the MPDES permits for discharge of treated and untreated produced water into the Tongue River (MPDES Permits MT 0030724 and MT0030457), approved February 3, 2006.
- EAs prepared by MDEQ for the Montana Air Quality Permits (MAQP) Rancholme 14 Battery (MAQP #3383), Rancholme #2 Battery (MAQP #3388), Montana Royalty #3 Battery (MAQP #3386), and Decker #6 Battery (MAQP #3389). In addition, an existing sales battery, BCPL Symons Central Compressor Station (MAQP #3250).
- EA prepared by MBOGC, MDEQ and BLM for the Deer Creek North and Pond Creek Plans of Development, approved by MBOGC in August 2005.
- EA prepared by MBOGC for the Deer Creek North Amendment Plan of Development, approved January 2006.

1.3 DECISIONS REQUIRED

1.3.1 Bureau of Land Management

BLM must determine whether to:

- approve the proposed action,
- approve selected federal components of the proposed action (as presented in Table 2.5-1)
- modify the proposed action with mitigation measures and monitoring , in addition to those measures proposed by the operator, that may be necessary to ensure that undue environmental effects will not result from Federal actions, or
- deny approval of the POD and APDs

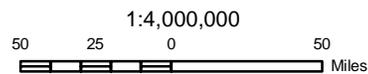
The project maps (1.3-1,1.3-2, & 1.3-3) show the project boundary, existing and proposed wells, access roads, pipelines (water and gas), power lines, and the central gathering/metering/water processing facilities within the POD area.

Tongue River - Deer Creek North POD Vicinity Map



Legend

-  Tongue River - Deer Creek North POD
-  Native American Reservations



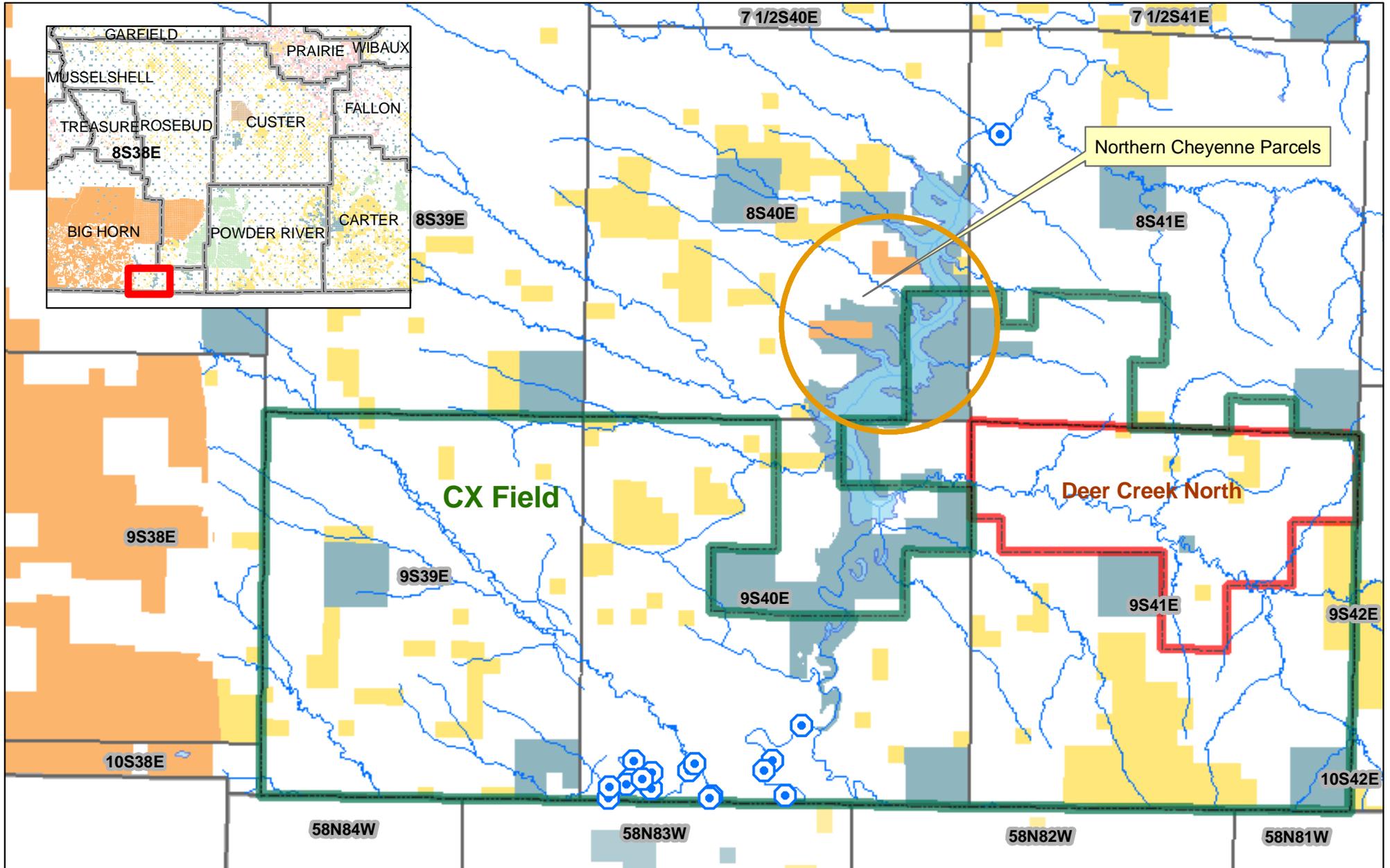
1.3-2 DCN Map

see attached map



CBM Area Map

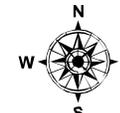
September 2008



-  MPDES Outfalls
-  CX FIELD
-  Tribal Lands
-  Streams
-  Deer Creek North
-  Bureau Of Land Management
-  Private Lands
-  State of Montana

Projected Coordinate System: NAD 1983 Albers
 Geographic Coordinate System: GCS North American 1983
 Datum: D North American 1983

1:130,000



UNITED STATES DEPARTMENT OF THE INTERIOR
 BUREAU OF LAND MANAGEMENT
 MILES CITY FIELD OFFICE

CAUTION:
 Land ownership data is derived from less accurate data than the 1:24000 scale base map. Therefore, land ownership may not be shown for parcels smaller than 40 acres, and land ownership lines may have plotting errors due to source data.

No warranty is made by the Bureau of Land Management for the use of the data for purposes not intended by the BLM.

1.4 ISSUE IDENTIFICATION

Relevant issues were identified through a project scoping letter dated February 9 and 15, 2005; technical staff review based on issues highlighted during the 2003 MT FEIS & 2006 Draft SEIS, the 2004 Tongue River-Badger Hills POD EA, the 2004 Powder River Gas-Coal Creek POD EA, the 2004 Tongue River-Dry Creek POD EA and the 2005 Tongue River-Coal Creek EA; from landowner, agency and tribal consultation; and site inspections of the project area. Relevant issues include the following:

- Air quality effects from CBNG development activities including drill rig emissions (exhaust emissions as well as dust generated by drilling the wells) and fugitive dust (construction activities as well as road dust) and compliance with all applicable air quality rules and standards, including ambient air quality standards
- Cumulative Impacts of this action when considered with past, present and reasonably foreseeable future actions
- Noxious weed introduction and proliferation
- Effects to springs and wells due to groundwater drawdown (pumping water out of coal seams) and effectiveness of Water Mitigation Agreements
- Habitat fragmentation and disturbance effects to wildlife habitat, particularly sage grouse
- Public Health and Safety
- Potential for methane migration and methane drainage
- Disturbance and reclamation activities associated with the PODs
- Surface water quality degradation
- Cultural Resource impacts
- Coal Mine/CBNG conflicts (ground water recovery and overlap in development areas)

1.5 FEDERAL, STATE AND LOCAL PERMITS OR REQUIRED CONSULTATION

Montana Air Quality Permits

This Environmental Assessment (EA) is being prepared in conjunction with the Montana Department of Environmental Quality (MDEQ), which has jurisdiction over sources of air pollution in the State of Montana, except those areas considered tribal lands. Therefore, the Air Resources Management Bureau must be consulted to make permit determinations regarding the use of air contaminant sources that would be used as part of the proposed coal bed natural gas (CBNG) exploration and development (drill rigs, emergency flares, etc.), as well as installation of compressor engines/turbines.

Based on information provided by Fidelity, the drill rig proposed to be used would utilize a 400 horsepower (hp) diesel engine. The MDEQ completed an emission inventory using the information provided by Fidelity and emission factors obtained from the United States Environmental Protection Agency's (EPA) Compilation of Air Pollutant Emission Factors, AP-42, Fifth Edition, Volume I. The MDEQ determined that a Montana Air Quality Permit (MAQP) is not required for the exploration portion of the Deer Creek North Project because the potential to emit (PTE) of the entire project is well below the MAQP threshold of 25 tons per year, except for nitrogen oxides (NO_x) emissions from the drill rig stationary engine. However, ARM 17.8.744(1)(i) exempts drill rigs that have a PTE less than 100 tons per year and that do not operate in the same location for more than 12 months from the need to obtain an MAQP. MDEQ's permit determination is conservative because drilling activities were calculated based on 8,760 hours per year and the entire drilling/exploration portion of the project will be completed within approximately 3-4 months. Technically, for an MAQP determination, each hole would be considered a separate project. Considering emissions from the entire project ensures that the analysis used to make the MAQP determination for exploration is conservative. The emission potential of the proposed exploration project is summarized in Table 1.5-1.

1.5-1 Emission Inventory – MAQP Determination – Exploration

<i>Emission Source</i>	Tons/Project						
	TSP	PM ₁₀	PM _{2.5}	NO _x	VOC	CO	SO _x
Drill Rig(s) – (Engine Emissions)	3.85	0.00	3.85	54.31	4.33	11.70	3.59
Drill Rig(s) – (Drilling Emissions)	0.55	0.55	0.55	0.00	0.00	0.00	0.00
Well Testing (Gas Flaring)	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Fugitive Dust – (Disturbed Acres)	32.37	32.37	32.37	0.00	0.00	0.00	0.00
Vehicle Traffic – (non-paved roads)	6.71	3.02	3.02	0.00	0.00	0.00	0.00
TOTAL	43.48	35.94	39.80	54.31	4.33	11.70	3.59

Although MDEQ determined that an MAQP is not required for the proposed development project, MDEQ would need to be contacted to determine whether an MAQP would be required for any future development, such as installing compressor engines, turbines, or any other sources of air contaminants that are outside the scope of the proposed project or that do not already have a valid MAQP.

All facilities that would be used to extract and transport the CBNG have already received MAQPs from MDEQ. Based on information provided by Fidelity, for Deer Creek North, five permitted batteries would be used to extract the gas. The batteries that would be used for Fidelity’s Deer Creek North POD are the Bitter Creek Pipelines, LLC (BCPL) Holmes 21 Battery (MAQP #3334, formerly named Rancholme 21 Battery), Deer Creek Central – Holmes 14 Complex (MAQP #3383, formerly named Deer Creek North – Rancholme 14 Complex), Montana Royalty #3 Battery (MAQP #3386), Holmes 2 Battery (MAQP #3388, formerly named Rancholme #2 Battery), Decker #6 Battery (MAQP #3389). In addition, an existing sales battery, BCPL Symons Central Compressor Station (MAQP #3250), would also be used for Fidelity’s Deer Creek North PODs. MDEQ has issued final MAQPs for all batteries associated with this project.

Montana Pollutant Discharge Elimination System Permits (MPDES permits)

The MDEQ has been granted primacy from the United States Environmental Protection Agency (EPA) for issuing waste water discharge permits for discharges into state waters. Fidelity’s existing MPDES permits (MT0030724 and MT0030457) would be used to manage water produced by this project. MT0030457 allows for the discharge of untreated CBNG water at rates that vary by season from 1,600 gallons per minute (gpm) to 2,500 gpm to the Tongue River. MT0030724 allows for the discharge of treated CBNG water at up to 1,700 gpm to the Tongue River.

Federal 401 Certification

§401 of the Federal Clean Water Act (CWA) states that "Any applicant for a Federal license or permit to conduct any activity including, but not limited to, the construction or operation of facilities, which may result in any discharge into the navigable waters, shall provide the licensing or permitting agency a certification from the State in which the discharge originates or will originate... that any such discharge will comply with the applicable provisions of Sections 301, 302, 303, 306, and 307 of this Act... If the State... fails or refuses to act on a request for certification, within a reasonable period of time (which shall not exceed one year) after receipt of such request, the certification requirements of this subsection shall be waived with respect to such Federal application. No license or permit shall be granted until the certification required by this section has been obtained or has been waived as provided in the preceding sentence." (CWA §401.a.1)

According to Montana's 401 Certification procedures (ARM 17.30, Sub-Chapter 1), an application is deemed complete if the department has not made a determination within 30 days after receipt of the application or, subsequent to receipt of the initial application, within 30 days of receipt of materials submitted by the applicant that supplement the application (ARM 17.30.103.6). These procedures also specify that "If the department does not notify the applicant of a tentative determination within 30 days after the application is deemed to be complete, the department is deemed to have waived certification." (ARM 17.30.106.1).

Submitted on March 18, 2005, and supplemented June 17, 2005, the Department received requests for 401 certification for the Deer Creek North POD. The Department has now indicated that it intends to waive certification for these PODs since the activities are now covered by MPDES permits (T. Reid, personal communication, 6/23/08).

Storm Water Discharge Permit

The owner or operator of any activity, which disturbs greater than one acre of land and has the potential to discharge storm water runoff to state waters, including ephemeral drainages or intermittent tributaries, must submit a Notice of Intent (NOI) under the “General Permit for Storm Water Discharges Associated with Construction Activity” (“General Permit” – MTR100000). The General Permit requires that the owner or operator develop a Storm Water Pollution Prevention Plan (SWPPP), including BMP’s, maintenance, self inspection and record keeping procedures in order to prevent significant sediment from entering state waters and causing a violation of any state water quality standard. The NOI is effective upon receipt by the MDEQ provided that the NOI package is complete. The MDEQ may deny coverage under the General Permit if the project does not comply with terms and conditions of the permit or based on the criteria of ARM 17.30.1341(4). The operator may terminate coverage under the General Permit after the site has achieved 70 percent of the pre-disturbance vegetative coverage. Storm water authorization MTR101771 was issued on April 25, 2005 for the Deer Creek North POD.

MBOGC Earthen Pit or Pond Permit

MBOGC approves permits for the construction and operation of reservoirs/pits designed to store water produced in association with the CBNG wells. This POD would utilize two existing lined off-channel impoundments associated with the water treatment plant (34E-3490 & 12-3490). A permit to construct 34E-3490 as an unlined impoundment was approved by MBOGC on April 21, 2006. A sundry for modification of 34E-3490 to a lined impoundment was approved by MBOGC on May 22, 2006. A permit for the construction of 12-3490 as a lined impoundment was approved by MBOGC on June 25, 2007. These impoundments, along with their groundwater monitoring plans, have also been approved by MDEQ as part of the treatment works for MPDES permit MT0030724.

Surface Use Agreement

The operator must certify that an agreement with the private surface owners exists or, in lieu of an agreement, that the requirements of Federal Oil and Gas Onshore Order No. 1 have been met. Fidelity has provided certification of these surface use agreements.

Water Mitigation Agreements

MCA 82-11-175 (3) requires that CBNG operators “...shall notify and offer a reasonable mitigation agreement to each appropriator of water who holds an appropriation right or a permit to appropriate under Title 85, chapter 2, that is for ground water and for which the point of diversion is within 1 mile of the coal bed methane well; or one-half mile of a well that is adversely affected by the coal bed methane well. The mitigation agreement must address the reduction or loss of water resources and must provide for prompt supplementation or replacement of water from any natural spring or water well adversely affected by the coal bed methane well. The mitigation agreement is not required to address a loss of water well productivity that does not result from a reduction in the amount of available water because of production of ground water from the coal bed methane well.”

Additionally, in accordance with the April 5, 2005 District Court Order, “BLM shall not approve an APD unless the operator has certified that water mitigation agreements are in place for all wells and springs located within one mile of federal wells. BLM shall require each agreement to include measures to remedy methane-related impacts. BLM shall require operators to conduct baseline and periodic monitoring of all water wells and springs covered by the agreement.” Fidelity has provided certification that they have water mitigation agreements “...in place with all owners of water wells or springs of record within one mile of Federal wells. These agreements also include measure[s] to remedy methane-related impacts and baseline and periodic monitoring”.

SHPO Consultation

BLM's approval of the APDs and associated infrastructure developments is considered a Federal Undertaking as defined in Section 106 of the National Historic Preservation Act and its implementing regulations found in 36 CFR 800. BLM's Cultural Resource Program in Montana operates under a National Programmatic Agreement with an implementing protocol with the Montana SHPO. A provision in the protocol provides for case by case review for controversial projects. BLM has consulted with the Montana SHPO under this provision. The BLM has compiled and reviewed all of the cultural resource inventory information pertaining to both PODs and provided the information to the SHPO on May 5 and June 14, 2005. BLM has determined that the proposed Deer Creek North POD and Deer Creek North POD Amendment would have no adverse effect to historic properties. This determination was based on a lack of direct impacts to eligible historic properties or mitigation of those impacts and implementation of monitoring condition of approval. The SHPO concurred with BLM's Determination of No Adverse Effect for the Deer Creek North POD on May 18, 2005.

Since the 2005 concurrence, BLM has not approved the Deer Creek North POD and several changes have occurred. BLM's determination of no adverse effect to historic properties remains the same; based on a lack of direct impacts to eligible historic properties or mitigation of those impacts and implementation of conditions of approval. An additional letter to SHPO was sent on July 25, 2008, with SHPO concurrence with BLM's Determination of No Adverse Effect for the Deer Creek North POD on July 28, 2008.

Tribal Consultation

The Bureau of Land Management recognizes its responsibilities to consult with the Native Americans in accordance with Section 106 of the National Historic Preservation Act. To that end, 13 Tribal groups consisting of the Northern Cheyenne tribal historic preservation officer, the Crow Cultural Commission, Fort Peck Tribes, Lower Brule Sioux Tribe, Rosebud Sioux Tribe, Pine Ridge Sioux, Cheyenne River Sioux, Eastern Shoshone Tribe, Standing Rock Sioux, Northern Arapahoe Tribe, Blackfeet Tribe, Ft. Belknap Community Council and the Chippewa-Cree Tribe of the Rocky Boy's Reservation, were sent a letter dated February 9 and 15, 2005, seeking Native American input on the PODs. The letter summarized the proposed undertaking and solicited tribal input on the proposed development.

The Northern Cheyenne Tribe expressed an interest in CBNG development and wished to be consulted further on the projects. A field tour, with the Northern Cheyenne THPO, for the Deer Creek North POD was conducted on April 1, 2005. The Northern Cheyenne indicated the project would not adversely affect tribal cultural historic properties but recommended monitoring of land disturbing actions in Deer Creek North POD.

The BLM's Miles City Field Office believes it has made a good faith effort to consult by providing ample opportunity for consultation with the Northern Cheyenne and other Tribal interests for consultation on this undertaking.

FWS Consultation

BLM initiated Section 7 Consultation under the Endangered Species Act (50 CFR 402.14) with the U.S. Fish and Wildlife Service (FWS) on Fidelity's proposed PODs. BLM developed a Biological Assessment of impacts to Threatened/Endangered (T/E) species based upon a "may affect, likely to adversely affect" determination for the bald eagle. The FWS returned a Biological Opinion and Concurrence addressing the BLM Biological Assessment (letter dated 08/04/05) with recommendations for protection/mitigation to T/E species. Since the Biological Opinion was issued, the bald eagle has been de-listed from threatened and endangered status. However, bald eagles are still protected under the Bald and Golden Eagle Protection Act, as well as the Migratory Bird Treaty Act. Both acts prohibit the killing, selling or otherwise harming eagles, their nests or eggs. Subsequently, protection measures are required consisting of an ongoing monitoring program to determine activity status of nesting bald eagles and to assess if CBNG related activity affects that status. Additionally, raptor protection for the overhead power lines has been included in the Preferred Alternative.

A “no effect” determination was made for interior least tern, whooping crane, black-footed ferret, gray wolf, grizzly bear, pallid sturgeon, Ute ladies’ tresses, Montana arctic grayling, and warm spring zaitzavian beetle, and was concurred with by the FWS. No further discussion of these species will occur in this EA.