BLM

United States Department of the Interior
Bureau of Land Management

Statutory 390
Categorical Exclusion
DOI-BLM-CO-SO50-2014-0022 CX (390)

April 2014

Two Gunnison Energy Corporation Deadman Gulch Unit APDs on the existing HKF 12-89-18-43 well pad

Location: *Northwest Gunnison County, Colorado*

U.S. Department of the Interior
Bureau of Land Management
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CATEGORICAL EXCLUSION

NUMBER: DOI-BLM-CO-S050-2014-0022 CX (390)

PROJECT NAME: Two Gunnison Energy Corporation APDs on the Hotchkiss Federal (HKF) 12-89-18-43 well pad.

PLANNING UNIT: Uncompahgre Basin Resource Area

LEGAL DESCRIPTION:

Surface Location of all proposed well heads:
T. 12S., R. 89W., Sec. 18, NESE, 6th PM; Federal Lease COC-65106

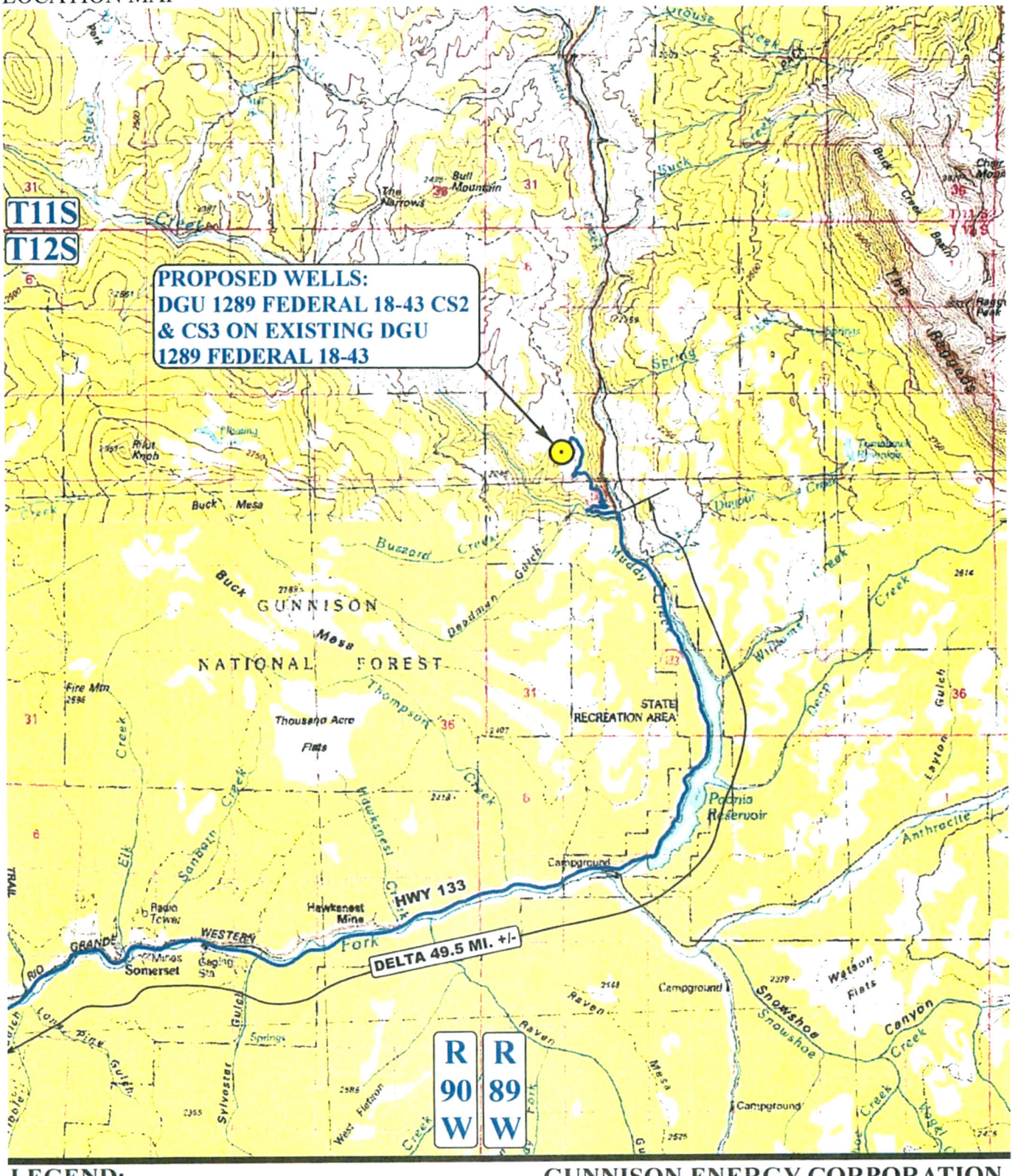
APPLICANT: Gunnison Energy Corporation (GEC)

BACKGROUND:

The proposed project would utilize the surface of the existing HKF 12-89-18-43 well pad previously constructed upon split estate (Hotchkiss Ranch private surface) lands overlaying the Federal mineral lease COC-65106. The primary uses of the private surface lands are currently a combination of livestock grazing, oil and gas development and recreational hunting. The location may be reached by following Colorado Highway 133 approximately 10 miles northeast of Somerset, Colorado to the Hotchkiss Ranch gate on the west side of the highway in T.12S., R89W., Sec. 20, SWNE, 6th PM (See location map below).

The regional environmental setting of the proposed project is located at elevations ranging from approximately 6,600 feet above mean sea level (msl) to 7,250 feet above msl within the West Muddy Creek area of northwest Gunnison County, Colorado. The average winter temperatures range from the high-20s to mid-30s degrees Fahrenheit (°F); average summer temperatures range between 60 and 75°F. The project area contains deciduous forests, pastureland, mixed scrub, various grasslands, and shrublands.

LOCATION MAP



LEGEND:

PROPOSED WELLS ON EXISTING LOCATION

N

GUNNISON ENERGY CORPORATION

DGU 1289 FEDERAL 18-43 CS2 & CS3 ON EXISTING DGU 1289 FEDERAL 18-43
SECTION 18, T12S, R89W, 6th P.M.
NE 1/4 SE 1/4

DESCRIPTION OF PROPOSED ACTION:

GEC proposes to drill the Deadman Gulch Unit (DGU) 12-89-18-43 CS2 and the DGU 12-89-18-43 CS3, Coalbed Methane (CBM) gas wells in Gunnison County, Colorado. Both wells proposed are to be accessed by existing roads and drilled off the existing HKF 12-89-18-43 well pad. Production of which will be conveyed into the existing field pipelines.

The entire project is located on private surface estate with the underlying fluid mineral estate administered by the Bureau of Land Management (BLM). The maps and illustrations attached to each APD graphically display the location and layout of the proposed access route and well locations.

The proposal is designed in conformance with all bureau standards and incorporates appropriate best management practices, as well as required and designed mitigation measures determined to reduce the effects on the environment (see attached Appendices A, B & C). Each APD with Conditions of Approval (COAs) contain a complete description of the proposal and is considered an integral part of this CX by reference.

According to the drill plats submitted with the APDs:

Both proposed CBM wells will extend directionally drilled off this well pad. Each well bore will pass thru lease COC-65106 with the intention to complete at one or two intervals in lease COC-65108.

The location of the end point of each well bore (Bottom Hole Target) proposed is described below:
DGU 12-89-18-43 CS2: T. 12S., R. 89W., Sec. 19, SWNE, 6th PM; Federal Lease COC-65108
DGU 12-89-18-43 CS3: T. 12S., R. 89W., Sec. 20, NWNW, 6th PM; Federal Lease COC-65108

Access:
The operator proposes to utilize the existing gas field road serving the Gunnison Energy Hotchkiss Ranch/Deadman Gulch Unit oil and gas operations. There are no additional acres of disturbance proposed in order to provide access to develop these two APDs.

Well Sites:
The total disturbance area (*working surface of well pad, cut/fill slopes, subsoil and topsoil storage sites*) required to construct, drill, and conduct fracture stimulation operations for the proposed wells can be accommodated within the existing working surface of the HKF 12-89-18-43 Federal well pad, therefore requiring no additional surface disturbance.

Location and type of water supply:
Fresh water will be utilized for dust abatement purposes on the access roads and mixed with the drilling mud (spud mud) for each of the wells during the drilling of the surface and conductor casing phase in order to protect any subsurface sources of fresh water which may be encountered.

The fresh water will be obtained from Farnsworth Quarry, Bear Ranch, Oxbow Mine, and/or West Muddy Creek. GEC intends to collect the amount of fresh water necessary from these supply areas both during free-flow periods when the water resource is not under a call and, in the event of a call, will purchase fresh water from individuals whom have water rights on the areas mentioned above. GEC will also collect the fresh water from these available locations as approved by the Colorado Division of Water Resources.

For dust abatement purposes, GEC will apply fresh water via water truck to all the road surfaces GEC utilizes for oil and gas development operations within the Hotchkiss Ranch area. In order to accomplish the drilling of these two wells, GEC expects to apply a total of approximately 1,800bbl (0.23 ac/ft) of fresh water for dust abatement on all the necessary access roads in the Hotchkiss Ranch area. This includes the average application of up to 100bbl (0.0123 ac/ft) per day for an anticipated 18 days of the year (9 days per well) in which dust isn't already being suppressed by natural events such as periodic rainfall or when elevated soil moisture levels are present as is typical in the late spring and early summer months.

For drilling, fresh water usage per well is approximately 200bbl (0.0256ac/ft.). In total, for these two wells, GEC anticipates the fresh water usage for spud mud to be 400bbl (0.052ac/ft.). Depending on the well, drilling could continue to use spud mud for up to 2000 feet in length before changing to a different mud program.

Beyond setting of the surface and conductor casing, up to 3,000bbl total of additional water is necessary to drill casing strings into the proposed production zones. This additional water will be obtained from GEC's permitted non-tributary Coal Bed Methane (CBM) wells described as the HK Federal 12-89-18-31 (SEO Permit # 68075); HK Federal 12-89-17-13 (SEO Permit #68076); HK Federal 12-89-18-43 (SEO Permit #68074) and; Fee HK 12-90-1-34 (SEO Permit #68073).

The combined water production from these wells averages approximately 2,000 to 2,500bbl per day of non-tributary fresh water (less than 10,000mg/l TDS) resulting in availability of between 730,000 and 912,000bbl per year. Water from these locations will be transported via buried steel water lines and deposited in the Hotchkiss Water Storage Facility (HWSF) which has a 450,000bbl capacity and is on private surface adjacent (northeast) to GEC's DGU 12-89-18-H Federal well pad.

Completion operations in the proposed production zones could require up to 5,000bbl per well from the HWSF. This water will be delivered to a manifold on the well pad via an existing buried steel underground pipeline from the HWSF where it would be placed in several surface tanks in order to be prepared for use in drilling and completion efforts.

Water returns from drilling and completion may be filtered and returned to the HWSF via an existing buried steel pipeline for possible reuse if needed prior to downhole disposal via GEC's existing permitted Class II, HK 18-22 water disposal well. Water reuse will be conducted only if water is not available due to well inactivity or if decreased volumes available from the CBM wells are encountered.

Hydrology/Water Quality information:
Baseline water sampling of wells, ponds and streams within one mile of the pad has been conducted by GEC since 2004. An annual Watershed Monitoring Report prepared by SWCA Environmental Consultants is on file with the Colorado Oil and Gas Conservation Commission and provided to the applicable surface owners. Most recent sampling was conducted in September/October 2013.

Direct Emissions
In order to facilitate the drilling of the proposed wells, the use of nonroad compression-ignition engines would be necessary. To facilitate drilling of the two proposed CBM wells (DGU 12-89-18-43 CS2 and DGU 12-89-18-43 CS3), GEC anticipates using a drill rig and mud pump engines which meet with the EPA Tier 2 requirements.

Fugitive Emissions
GEC gas exploration and production operations procedures would be designed and implemented to minimize leakage (fugitive leaks) to the atmosphere to the extent reasonably practicable. Sites are routinely monitored for fugitive emissions by GEC personnel and procedures for on-site visits include conducting an audio, visual and olfactory (AVO) inspection and arranging for leaking equipment to be repaired.

GEC would comply with Federal New Source Performance Standards (NSPS) 40 CFR Part 60, Subpart OOOO which is applicable to each well completion operation with hydraulic fracturing occurring after August 23, 2011, and prior to January 1, 2015. GEC is required to capture and direct flowback emissions to a completion combustion device, except in conditions that may result in a fire hazard or explosion, or where high heat emission may negatively impact tundra, permafrost or waterways. GEC ensures all connections are checked immediately prior to and after production equipment is put into operations.

As both State and Federal regulations require natural gas pneumatic controllers to be "low-bleed", GEC would use low bleed valves on production equipment which are pneumatic controllers (the snap controllers on separator dumps) with a natural gas bleed rate of less than 6 scfh.

Vapor recovery systems are not currently used on production equipment because wells at the Hotchkiss Ranch are dry gas wells that do not produce condensate, and the two that have shown condensate do not consistently produce condensate and have not done so at a sellable quantity. However, if emissions from the production equipment (storage vessels) exceed established state thresholds, a vapor recovery system would be employed by GEC to reduce emissions. If emission thresholds are exceeded at the time the proposed wells are drilled and control requirements are triggered, a vapor recovery system would be an option for reducing emissions.

If any flaring is necessary, GEC anticipates it would only occur immediately following a completion while connections are being made in order to send any produced gas directly into the production lines.

GEC would encourage carpooling by rig crews during travel to and from the well site during the drilling phase. In order to reduce daily travel to and from the well sites to retrieve production data, remote telemetry would be used on all wells. Electricity for production equipment is produced on site by natural gas fired generators.

PLAN CONFORMANCE REVIEW:

The Proposed Action is subject to and has been reviewed for conformance with (43 CFR 1610.5, BLM 1617.3) the following plan:

> Name of Plan: Uncompahgre Basin Resource Management Plan
> Date Approved: July 1989
> Decision Number/Page: Management Unit 16, P. 28
> Decision Language: Federal oil and gas estate will be open to leasing. Seasonal restrictions are required on crucial deer and elk winter range and on bald eagle hunting habitat to protect crucial deer and elk winter range and bald eagle hunting habitat from disturbance.

COMPLIANCE WITH NEPA

The Proposed Action is categorically excluded from further documentation in accordance with statutory NEPA categorical exclusion 390, Number 1, as granted in Section 390(b)(1) of the Energy Policy Act of 2005, for oil and gas exploration and development. The Proposed Action qualifies as a CX under Section 390 based on the qualifying criteria explained below.

Project Screening Questions	
1. Will the proposed action disturb less than 5 acres?	**Yes**
2. Is the current amount of surface disturbance on the entire leasehold, plus the proposed action, less than 150 acres?	**Yes**
3. Was there a site-specific NEPA document that analyzed exploration and/or development of oil and gas, and is the proposed action within the boundaries of the area analyzed in the EA? The NEPA document need not have addressed the specific permit/application being considered.	**Yes**

The project is located within the area covered by the GEC 16 well plan of development environmental assessment (EA) which was written to assess drilling and the activities associated with drilling in the project area.

> NEPA Document: CO150-2008-035 EA. An Environmental Assessment for APDs to drill 16 natural gas wells, install fluid gathering lines, and construct ancillary facilities on Federal oil and gas leases COC-65106, COC-65108, and COC-65523.
>
> Date approved: February 10, 2009

Construction and drilling of the APDs as proposed would not result in any new disturbance on the well pad. The HKF 12-89-18-43 well pad is currently constructed large enough to accommodate additional wells and infrastructure. The proposal will also utilize existing access

roads and existing pipelines in the area and would not contribute to any additional disturbance on the lease. Currently, lease COC-65106 includes approximately 21 total acres of unreclaimed disturbance related to Federal oil and gas development, well below the 150-acre limit cited above. The approximately 21 acres of disturbance includes:

- 6 existing well pads with 5 Federal wells and 1 water disposal well which are in various stages of interim reclamation and currently consist of approximately 14 acres of disturbance.
- Approximately 2 miles of access roads which are typically upgraded ranch roads and currently consist of approximately 6.67 acres of disturbance.
- All pipelines have been reclaimed, and are therefore currently contributing no net additional acres of disturbance.

The CO150-2008-035 EA analyzed all resources that would be impacted by developing its proposed action. The impacts from the two wells proposed in this CX would be similar to impacts analyzed in the EA, and the proposed impacts would not add incrementally to impacts analyzed in the EA. Applicable conditions of approval from the EA are carried forward. For instance:

- The EA disclosed air quality impacts would be short term and low to moderate during construction; low and long-term during operations; and are considered to be minimal given the small scope of the project. The potential impacts from the wells proposed in this CX are anticipated to be similar to the impacts described in the EA and in fact are likely to be even less because there would be no additional surface disturbance. The CX would have the same applicable conditions of approval as the EA.
- The EA analyzed impacts to wildlife, which are greater than the impacts that would result from the proposal in this CX (i.e. this proposal would not cause surface disturbance or construction of pipelines or roads). Timing restrictions from the EA are in the COAs for this CX.
- Impacts to soils, vegetation and many other resources would be less than those disclosed in the EA because there would not be additional surface disturbance.

INTERDISCIPLINARY REVIEW:

A BLM interdisciplinary team has reviewed the proposal, and all identified concerns and/or required mitigation measures have been addressed and incorporated into the APDs with attendant COAs.

Persons and/or Agencies Consulted:

Individual	Discipline	Organization
Thane Stranathan	Natural Resource Specialist	BLM
Teresa Pfifer	Lands/Minerals Staff Supervisor	BLM
Glade Hadden	Archaeologist	BLM
Ken Holsinger	Wildlife Biologist	BLM
Jedd Sondergard	Hydrologist	BLM

Cultural Resources: The proposed project is contained entirely within a previously inventoried area, and the current work will be completed from the existing well pad. The project is exempted from additional cultural resource work under the provision of BLM Manual 8110.23B2 and 8110.23B3, and no further work is required.

Native American Religious Concerns: There are none known or anticipated for the project area. The Ute Tribal Historic Preservation Office has been contacted and has declined further consultation.

Threatened and Endangered Species: Given that the proposed action would result in the depletion of 0.282ac/ft. of water from within the Colorado River Basin, this project falls under BLM Colorado's Programmatic Biological Assessment (PBA) for water depleting activities associated with BLM's fluid minerals program in the Colorado River Basin in Colorado (BLM 2008).

In response to BLM's PBA, the U. S. Fish and Wildlife Service (FWS) issued a Programmatic Biological Opinion (PBO)(ES/GJ-6-CO-08-F-0006) on December 19, 2008, which concurred with BLM's determination that water depletions are "Likely to Adversely Affect" the Colorado pikeminnow, humpback chub, bonytail, and razorback sucker. Likewise, the project is also likely to adversely affect designated critical habitats for these endangered fish along the Green, Yampa, White, Colorado, and Gunnison Rivers. However, the FWS also determined that BLM water depletions from the Colorado River Basin are not likely to jeopardize the continued existence of the Colorado pikeminnow, humpback chub, bonytail, or razorback sucker, and that BLM water depletions are not likely to destroy or adversely modify designated critical habitat.

A Recovery Implementation Program for Endangered Fish Species in the Upper Colorado River Basin was initiated in January 1988. The Recovery Program serves as the reasonable and prudent alternative to avoid jeopardy and aid in recovery efforts for these endangered fishes resulting from water depletions from the Colorado River Basin. The PBO addresses water depletions associated with fluid minerals development on BLM lands, including water used for well drilling, hydrostatic testing of pipelines, and dust abatement on roads. The PBO includes reasonable and prudent alternatives developed by the FWS which allow BLM to authorize oil and gas wells that result in water depletion while avoiding the likelihood of jeopardy to the endangered fishes and avoiding destruction or adverse modification of their critical habitat. As a reasonable and prudent alternative in the PBO, FWS authorized BLM to solicit a one-time monetary contribution to the Recovery Implementation Program for Endangered Fish Species in the Upper Colorado River Basin (Recovery Program) in the amount equal to the average annual acre-feet depleted by fluid minerals activities on BLM lands.

This project has been entered into the Uncompahgre Field Office fluid minerals water depletion log which will be submitted to the Colorado State Office at the end of the Fiscal Year.

Hydrology/Water Quality: BLM reviewed the water quality report provided by GEC regarding baseline sampling and subsequent annual collection of water samples (thru 2012) and find that the results indicate parameters are still within baseline conditions. Within the report it was also found that aquatic habitat and macroinvertebrate monitoring conducted by SWCA

Environmental Consultants (SWCA, 2012) indicate increased sedimentation since 2008 in two segments of West Muddy Creek.[1] The cause of the increased sedimentation may be due to disturbance associated with development in the watershed. However, drought conditions may have contributed to less basal production and increased runoff as well. The following feature has been added to APD Conditions of Approval in Appendix C: Continue annual collection and report results of macroinvertebrate samples and Wolman pebble counts at established sites in order to better characterize annual variation in sedimentation within the watershed.

REMARKS: Onshore Oil and Gas Order No. 1 (43 CFR 3164.1) requires that an APD/Sundry Notice (Sundry) provide sufficient detail to permit a complete appraisal of the technical adequacy of and environmental effects associated with the proposed project. The APD/Sundry must be developed in conformity with the provisions of the lease, including the lease stipulations. The APD/Sundry must provide for safe operations, adequate protection of surface resources and uses, and other environmental components, and must include adequate measures for reclamation of disturbed lands. If the APD/Sundry is inadequate or incomplete, the applicant must modify or amend the APD/Sundry and/or BLM can set forth COAs that are necessary for the protection of the surface resources, uses, and the environment and for the reclamation of the disturbed lands. For this proposal, the APDs submitted by GEC with the EA and APD COAs contain a complete description of the Proposed Action and includes all needed mitigation.

The onsite review of the proposed APDs on the HKF 12-89-18-43 well pad was organized and conducted by BLM in compliance with Onshore Oil and Gas Order No. 1 (43 CFR 3164.1) on November 19, 2013. In attendance were BLM specialists, the private landowner, GEC personnel, Gunnison County energy liaison, and members of the Colorado Division of Parks and Wildlife.

No additional environmental concerns were brought up by the group as a result of the onsite. However, GEC was asked to further clarify their practices of handling snow which accumulates on the pad during winter, (potentially heavy amounts at times). In response, GEC explained that no more than three inches of snow is allowed to remain on the surface of the well pad throughout the winter season. Typically, to maintain access to the well pad, a snowcat mounted with a snowplow is employed to blow or push all but the two or three inches of snow closest to the well pad surface off the location. The remaining few inches of snow is left behind on the well pad to be driven on, eventually absorbed into the surrounding location or slowly evaporates away throughout the season.

[1]SWCA Environmental Consultants. (2012). *North Fork Gunnison River and Surface Creek Watershed Monitoring 2012 Annual Report, Gunnison and Delta Counties, Colorado.* Broomfield, CO: SWCA.

NAME OF PREPARER: Thane Stranathan

NAME OF ENVIRONMENTAL COORDINATOR: DATE:_____

SIGNATURE

The Proposed Action is statutorily categorically excluded from further NEPA documentation in accordance with Section 390 (b)(1) of the Energy Policy Act of 2005, which provides for such exclusion of:

> Individual surface disturbances of less than 5 acres so long as the total surface disturbance on the lease is not greater than 150 acres and site-specific analysis in a document prepared pursuant to NEPA has been previously completed.

Authorizing Official: _____ Date: _____

Barbara Sharrow
Field Manager

NAME OF PREPARER: Thane Stranathan

NAME OF ENVIRONMENTAL COORDINATOR: DATE: 4-9-14

SIGNATURE

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Authorizing Official: Barbara Sharrow Date: 4-21-14

Barbara Sharrow
Field Manager