



U.S. DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT
RAWLINS FIELD OFFICE



DECEMBER 4, 2008

TIERED EA, FONSI, AND DR FORM

Tiered to & Referencing the Atlantic Rim Natural Gas Development Project Environmental Impact Statement

ENVIRONMENTAL ASSESSMENT

EA NUMBER: WY-030-08-EA-222

Lease Numbers: WYC-075344A, WYW-136729, WYW-137698, WYW-149299, WYW-149300, WYW-154169, WYW-155529, WYW-161911, WYW-163520

Proposed Action:

Catalina PODs E & F: Natural Gas Wells, Water Reinjection Wells, Access Roads, Pipeline/Utility Corridors, Central Delivery Points, and associated Infrastructure

Rawlins Field Office (RFO) Interdisciplinary Team (IDT)

| IDT Member | Title |
|-----------------------------------|---------------------------------|
| John Ahlbrandt (Travis Bargsten*) | Natural Resource Specialist |
| Andy Stone | Hydrologist |
| Patrick Lionberger | Fisheries Biologist |
| TJ Murry | Rangeland Management Specialist |
| Paul Rau | Recreation Planner |
| Frank Blomquist | Wildlife Biologist |
| Mary Read | Wildlife Biologist |
| Nina Trapp (Pam Murdock*) | Archaeologist |
| Mark Newman | Geologist |
| Susan Foley | Soil Scientist |
| Bruce Estvold (Hilaire Peck*) | Civil Engineer |
| Diane Schurman | Realty Specialist |
| Jerry Dickinson | Petroleum Engineer |

(*) original IDT member

Prepared By:

John P. Ahlbrandt

John Ahlbrandt, Natural Resource Specialist;
Pod ID Team Lead

12/4/08

Date

Location of Proposed Action

Catalina Unit POD E

| Well # | T | R | Sec | Aliquot |
|-----------|-----|-----|-----|---------|
| 11-30 | 16N | 91W | 30 | NWNW |
| 13-30 | 16N | 91W | 30 | NWSW |
| 22-30 | 16N | 91W | 30 | SENW |
| 24-30 | 16N | 91W | 30 | SESW |
| * 31-30 | 16N | 91W | 30 | NWNE |
| 33-30 | 16N | 91W | 30 | NWSE |
| 34-30 | 16N | 91W | 30 | SWSE |
| 42-30 | 16N | 91W | 30 | SENE |
| 30I | 16N | 91W | 30 | SENE |
| 11-31 | 16N | 91W | 31 | NWNW |
| 13-31 | 16N | 91W | 31 | NWSW |
| 22-31 | 16N | 91W | 31 | SENW |
| 24-31 | 16N | 91W | 31 | NESW |
| 24-31I | 16N | 91W | 31 | NESW |
| 31-31 | 16N | 91W | 31 | NWNE |
| 31-31I | 16N | 91W | 31 | NWNE |
| 33-31 | 16N | 91W | 31 | NWSE |
| 42-31 | 16N | 91W | 31 | SENE |
| * 44-31 | 16N | 91W | 31 | SESE |
| 11-36(St) | 16N | 92W | 36 | NWNW |
| 13-36(St) | 16N | 92W | 36 | NWSW |
| 36I(St) | 16N | 92W | 36 | NWSW |
| 22-36(St) | 16N | 92W | 36 | SENW |
| 24-36(St) | 16N | 92W | 36 | SESW |
| 33-36(St) | 16N | 92W | 36 | NWSE |
| 41-36(St) | 16N | 92W | 36 | NENE |
| 42-36(St) | 16N | 92W | 36 | SENE |
| 44-36(St) | 16N | 92W | 36 | SESE |

Catalina Unit POD F

| Well # | T | R | Sec | Aliquot |
|--------|-----|-----|-----|---------|
| 42-10 | 16N | 92W | 10 | SENE |
| 44-10 | 16N | 92W | 10 | SESE |
| 13-11 | 16N | 92W | 11 | NWSW |
| 21-11 | 16N | 92W | 11 | NENW |
| 22-11 | 16N | 92W | 11 | SENW |
| 11I | 16N | 92W | 11 | SENW |
| 24-11 | 16N | 92W | 11 | SESW |
| 31-11 | 16N | 92W | 11 | NWNE |
| 33-11 | 16N | 92W | 11 | NWSE |
| 42-11 | 16N | 92W | 11 | SENE |
| 11-14 | 16N | 92W | 14 | NWNW |
| 13-14 | 16N | 92W | 14 | NWSW |
| 22-14 | 16N | 92W | 14 | SENW |
| 24-14 | 16N | 92W | 14 | SESW |
| 31-14 | 16N | 92W | 14 | NWNE |
| 14I | 16N | 92W | 14 | NWNE |
| 33-14 | 16N | 92W | 14 | NWSE |
| 42-14 | 16N | 92W | 14 | SENE |
| 44-14 | 16N | 92W | 14 | SESE |
| 42-15 | 16N | 92W | 15 | SENE |
| 11-23 | 16N | 92W | 23 | NWNW |
| 23I | 16N | 92W | 23 | NWNW |
| 13-23 | 16N | 92W | 23 | NWSW |
| 22-23 | 16N | 92W | 23 | SENW |
| 24-23 | 16N | 92W | 23 | SESW |
| 31-23 | 16N | 92W | 23 | NWNE |
| 33-23 | 16N | 92W | 23 | NWSE |

* indicates a well which is pending tribal and/or SHPO consultation/concurrence, and is not presently being approved until the applicable requirements are met (see discussion under the Cultural Section below)

"I" indicates an injection well, co-located with the preceding well listed in the table.

(St) indicates a State well (State minerals) underlying Federal (BLM) Surface. However, these wells are within the Catalina Federal Unit, and the surface use associated with them will be authorized with this POD package, and not as separate Right(s)-of-Way. These wells and associated infrastructure are also subject to the overall Atlantic Rim disturbance cap, described in the "Remarks" section below. Also see POD Master Surface Use Plan and project maps.

Applicant/Proponent: Double Eagle Petroleum Company (Double Eagle)

Conformance with Land Use Plan

This proposed action is in conformance with the Great Divide Resource Management Plan (RMP) that was approved on November 8, 1990. The RMP has been reviewed to determine if the proposed action conforms to the land use plan terms and conditions as required by 43 CFR 1610.5. Development of oil and gas reserves is in conformance with the RMP. On page 30, the RMP states "The entire planning area [Great Divide Resource Area] is open to oil and gas leasing".

The development of this project will not affect the achievement of the Wyoming Standards for Healthy Rangelands (August 1997).

Remarks:

Upon receipt, all NOS or APD included in the proposed action were posted for 30 days (beginning May 5, 2006) in the Rawlins Field Office Information Access Center (Public Room) for review. Notification of preparation of this EA was also provided on the Wyoming BLM internet NEPA register (<http://www.wy.blm.gov/nepa/search>).

The Atlantic Rim Area Natural Gas Field Development Project Environmental Impact Statement (AREIS) was written to assess the potential foreseeable and cumulative effects of drilling operations and associated activities in the Project area. The Record of Decision (ROD) for this project was approved on March 23, 2007. The proposed action is in conformance with the AREIS.

The AREIS ROD provides for the drilling of natural gas wells and associated infrastructure, limiting total surface disturbance to 7,600 acres at any one time (not including surface disturbance that occurred prior to implementation of the Interim Drilling Policy). The ROD establishes a goal for per-well surface disturbance of 6.5 acres of short-term disturbance (less in "Category A" areas).

The surface disturbance cap is allocated to operators "...on a prorated mineral leasehold basis." (AR ROD, Page 2), and development is limited to no more than 8 well sites per 640-acre section. If in the event an Operator reaches the surface disturbance cap allocation, then "...further disturbance on federal minerals will not be permitted." (AR ROD, Page 3). The RFO will monitor and track disturbance areas for future proposals, in order to ascertain whether the disturbance cap would be exceeded by any future authorizations.

Note: The State wells identified in the well list above are subject to the overall project disturbance cap, and are therefore included in the disturbance table within this document. The well pads, access roads, and associated infrastructure for these wells lie on or cross BLM administered surface and are included within the analysis herein, and are also included in the Decision Record for the project.

The APD's, Master Drilling Plan and Master Surface Use Plan with Water Management Plan and Conditions of Approval, contain a complete description of the proposed action. These components are considered an integral part of this Environmental Assessment and are incorporated by reference.

Modifications, or alternatives, to the original proposal received from the operator were identified as the result of the pre-approval onsite inspections. At the on-sites, all areas of proposed surface disturbance were inspected to ensure that potential impacts to resources would be reduced. In some cases, access roads were re-routed, and well locations, pipelines, and other water management control structures were moved, modified, or dropped from further consideration to alleviate or reduce environmental impacts. In addition, site specific mitigation and/or Conditions of Approval have been applied to alleviate or reduce environmental effects of the operator's proposal. Onsite changes, implementation of committed mitigation measures contained in the Master Surface Use Plan, Drilling Program and Water Management Plan, and site specific and Standard COAs are incorporated and analyzed in the Proposed Action Alternative.

All Catalina POD E and F wells are located entirely within the Catalina (CBNG) Federal Unit, and as a result, no additional rights-of-way are required as part of the proposed action.

Purpose and Need for Proposed Action

Domestic natural gas production is an integral part of U.S. energy development and conservation plans due to its availability and the presence of existing market delivery infrastructure. Domestic production reduces immediate dependence upon foreign sources of energy, and maintains an adequate and stable supply of fuel to maintain economic well-being, industrial production, and national security. The environmental advantages of burning natural gas are emphasized in the Clean Air Act amendments of 1990.

In addition, the proposed action would allow Double Eagle, as leaseholder, to exercise lease rights to explore and develop oil and gas resources within the project lease areas.

For these particular wells, the production is primarily natural gas and produced water from coal seams.

Development of Alternatives

In reviewing the proponent's submitted proposal (APDs, Master Surface Use Plan, Master Drilling Plan, Water Management Plan, etc.), the BLM conducted onsite reviews and considered known and potentially-occurring resources and conditions in the project area. As a result of this review, project components were moved, added, or eliminated in order to reduce potential environmental impacts, and in accordance with BLM policy and accepted Best Management Practices (BMPs). This resulted in the alteration of the proponent's submitted proposal to yield the Proposed Action, which incorporates the changes from the onsite inspections, BLM review, and mandated BLM mitigations (Conditions of Approval).

The AREIS considered several alternatives to development of the oil & gas resources in the project area (see DEIS, Pages S2-S3 and FEIS Page 1-20).

The BLM interdisciplinary team, in review of this Proposed Action (as modified during onsite inspections and subsequent review), identified no unresolved resource conflicts that would necessitate development of additional alternatives.

Description of Proposed Action Alternative

The proposed action includes the construction of access roads and well pads for the purpose of drilling 48 CBNG wells (24 in POD E and 24 in POD F) and 7 produced water re-injection wells (4 in POD E and 3 in POD F) for a total of 55 wells. Forty-six of these are federal wells (APDs), while 9 are State wells (located on federal surface within POD E.) The proposed action also includes the construction, operation and reclamation of associated underground gas gathering/sales pipelines, produced water-gathering pipelines, underground power-lines and utility corridors. To minimize surface disturbance, the pipeline/utility corridors are located adjacent and parallel to the proposed or existing access roads and existing pipeline disturbances, except where not feasible or applicable.

A Central Delivery Point (CDP) facility is also proposed in each POD. These facilities would contain the centrally-located POD facilities to pump & reinject produced water, compress gas, and provide storage and measurement components within each POD. The maps and illustrations attached to the EA, APDs, and Master Surface Use Plan display the locations of all these components of the proposed action.

Any additional facilities later determined to be necessary would be proposed and applied for via a Sundry Notice.

Water for drilling would be obtained from the pond located in NWSE of Section 12 (T16N/R92W), which collects flow from coalbed wells in the area under an approved WDEQ WYPDES permit. Water would be hauled by truck to each drill site over existing and proposed roads within the POD. Any changes in the water source or method of transportation would first require written approval by the BLM. To protect any shallow, fresh water aquifers or sources, drilling of surface casing for each well would use either air drilling techniques, or use non-produced (fresh) water from a State permitted local source.

Onsite inspections of the POD wells, well pads, access roads and pipeline/utility corridors and CDPs were conducted on March 7-9, 2007 (POD F) and September 26-27, 2007 (POD E). Potential impacts to resources from the location of the well pads, access roads, utility corridors, and associated facilities were reviewed and assessed. As a result, numerous project components were relocated to reduce potential impacts to soils, vegetation, water, wildlife, cultural, and recreational resources.

The location of the proposed development is approximately 28 miles north/northeast of Baggs, Wyoming. Access to the area will be from Wyoming Highway 789, easterly on Carbon County Road 608.

A discussion of the actions generally associated with drilling a well, including (1) a plan of operations, (2) construction of the access road and drilling pad, and (3) pipeline installation, can be located in the following portions of the AREIS or ROD:

- Chapter 2, Proposed Action and Alternatives (AREIS)
- Chapter 4, Analysis of Environmental Consequences (AREIS)
- Appendix A, Project Reclamation Plan (ROD)

- Appendix C, Operator-Committed Practices (ROD)

Mitigation and reclamation measures are described in Chapter 4 and Appendix B of the ROD (Project Performance-Based Monitoring and Best Management Practices). The following narratives summarize elements specific to the proposed action for this EA.

Construction

Well access roads, drill pads and pipeline/utility corridors must be constructed and or re-constructed in order to drill, complete, and produce coal bed natural gas wells, and is considered a short-term disturbance. Upon completion of a well and placing it into production, portions of the well (drill) pad not needed for production operations will be reclaimed. The pipeline/utility corridors will be finally reclaimed upon construction/installation of the pipelines/utility lines. Upon the successful interim reclamation of the areas of the well pad and access/utility corridors not needed for production operations, the remaining surface disturbance in these areas is considered long-term. The entire well pad, access road and pipeline/utility corridor will be totally reclaimed (final reclamation) following well plugging and abandonment.

Overall short-term surface disturbance estimates for POD E and F, including the well pads and access road/utility/pipeline corridors and CDPs are presented in the following tables.

POD E Estimated Surface Disturbance (includes 9 State wells on Federal surface)

| Project Component | Number (quantity) | Average Disturbance | Cumulative Acreage |
|---------------------------------------------------------|-------------------------------------------------|------------------------|--------------------|
| Single CBNG wellpad | 20 | 2.1 acres ¹ | 42.0 acres |
| CBNG wellpad co-located with an injection well | 4 (=8 individual wells, including injectors) | 3.2 acres ² | 12.8 acres |
| Central Delivery Point (CDP) | 1 | 2.5 acres ³ | 2.5 acres |
| Access Roads w/ adjacent utility lines (gas/water/elec) | 34,123 Linear ft. | 80 ft. width | 62.7 acres |
| Access Roads only | 3237 Linear ft. | 50 ft. width | 3.7 acres |
| Utility Lines only | 14,200 Linear ft. | 30 ft. width | 9.8 acres |
| Total | N/A | N/A | 133.5 acres |

POD F Estimated Surface Disturbance

| Project Component | Number (quantity) | Average Disturbance | Cumulative Acreage |
|---------------------------------------------------------|-------------------------------------------------|------------------------|--------------------|
| Single CBNG wellpad | 21 | 2.1 acres ¹ | 44.1 acres |
| CBNG wellpad co-located with an injection well | 3 (=6 individual wells, including injectors) | 3.2 acres ² | 9.6 acres |
| Central Delivery Point (CDP) | 1 | 3.7 acres ³ | 3.7 acres |
| Access Roads w/ adjacent utility lines (gas/water/elec) | 40,460 Linear ft. | 80 ft. width | 74.3 acres |
| Access Roads only | 4753 Linear ft. | 50 ft. width | 5.5 acres |
| Utility Lines only | 15,987 Linear ft. | 30 ft. width | 11.0 acres |
| Total | N/A | N/A | 148.2 acres |

¹ Individual well pad disturbance areas are approximately equal to 300' x 300' (2.1 acres), including stockpiles and cut & fill slopes for all single-well locations.

² For wells co-located with an injection well, disturbance areas are approximately equal to 400' x 350' (3.2 acres), including stockpiles and cut & fill slopes.

³ The Central Delivery Point (CDP) overall disturbance area is approximately equal to 500' X 500' (5.7 acres) for POD E, and 500' X 600' (6.9 acres) for POD F. However, each CDP includes a single CBNG well pad and an injection well of approximately 3.2 acres (see ² above). Since that acreage is already accounted for, it is not included in the CDP disturbance figure.

The proposed action (for both POD E and Pod F) will result in approximately 281.7 acres of short-term disturbance, comprised of new or reconstructed access roads and adjacent & parallel pipelines, utilities, and infrastructure, as detailed above. The average overall per-well disturbance for POD E is 4.8 acres (133.5 acres/28wells), and similarly for POD F is 5.5 acres (148.2 acres/27 wells). The proposed action is located outside of "Category A" areas, and thus is subject to a "disturbance goal" of 6.5 acres per well. Both PODs, then, meet the disturbance goal provided in the AREIS ROD.

Access

The operator proposes to construct new access roads to the proposed well locations. The access roads will be constructed to meet BLM specifications for a "Resource Road", as specified in BLM Manual Section 9113. Proper drainage structures will be constructed/installed along the access roads. The width of the roadway (travel surface) will be a minimum of 14 feet within an average right-of-way width of 50 feet. To minimize surface disturbance, wherever possible, the access road right-of-way will be combined with the pipeline/utility right-of-way into a road/utility corridor that will be 80 feet or less in width. Some local connector or collector roads between multiple well locations, or where engineering design dictates, will be constructed to a minimum 16-20 feet wide travel width within the 80 feet wide corridor.

To minimize surface disturbance, the majority of pipeline/utility corridors are located adjacent and parallel to the proposed or existing access roads and existing pipeline disturbances, except where not feasible or applicable.

The access roads including utility corridors would be reclaimed during production operations to the maintenance width of approximately 30 to 40 feet. Utility corridors upon completion of pipeline/power-line installation along with any unneeded access road would be recontoured, ripped, seeded, and revegetated.

Well Sites

In order to drill and complete the coalbed natural gas (CBNG) wells, an approximate 300' by 300' (2.1 acre) drill pad will be constructed for each well location (including spoil and topsoil stockpiles and cut/fill slopes.) Some well locations will be co-located with an adjacent water injection well (indicated by an "I" at the end of the well number), and these locations will require a drill pad of approximately 400' by 350' (3.2 acres). In the event the wells become producers, cut and fill portions of the well site will be brought back to the approximate original contour and reclaimed along with any other unneeded portions of the well site. Soil stockpiles will be re-spread or stabilized, and reseeded with native vegetation. The well pad will be reduced to less than one-half acre for the duration of production operations. Unless otherwise authorized, and in conjunction with interim pad reclamation, the reserve pits will have been dried and backfilled within 180 days of well completion or plugging and abandonment. The entire well pad will be recontoured, ripped, seeded, and revegetated during final reclamation upon final plugging and abandonment.

Pipeline/Utility Corridors

The produced water and gas sales and gathering pipelines and power-lines would be buried upon completion of construction and installation, and the surface disturbed areas reclaimed soon thereafter. Upon well plugging and abandonment and or pipeline/power-line abandonment, the pipelines/power-lines would be properly abandoned in accordance with BLM procedures for abandonment and the right-of-ways and corridors appropriately reclaimed. Any major crossings of drainages have been engineered to insure design/construction adequacy and erosion protection. All channel crossings will comply with current BLM policies and mitigation measures appropriate to the crossings (see "Hydraulic Considerations for Pipelines Crossing Stream Channels," BLM Technical Note 423, April 2007).

Produced Water Disposal

Underground re-injection into the Deep Creek and/or Trout Creek Members of the Haystack Mountains Formation is the primary method of water disposal proposed in both POD E and F. Produced water from wells within each POD would be gathered and transported via buried pipelines to a Central Delivery Point (CDP) within the POD, and then piped to the water re-injection wells within the POD. Additional injection capacity will also be available at other permitted injection wells in adjacent PODs within the Unit, and would be used as needed. Should the underground re-injection system shut down, Double Eagle is currently allowed to discharge untreated CBNG produced water from these and other PODs to an on-channel reservoir via an ephemeral drainage under WDEQ's Wyoming Pollutant Discharge Elimination System (WPDES) permit #

WY0042145. Another WPDES permit (# WY0054038) has also been approved by WDEQ for discharge of treated CBNG water. In conjunction with BLM's approval of the project (EA# WY-030-EA07-244, DR 03/03/08), this would provide an additional method of produced water disposal for PODs E and F. Please note that the extent to which Double Eagle can utilize either of these permits will be limited by water volume and salt load restrictions imposed by WDEQ on both permits.

Produced water collection, transport and disposal, is addressed in further detail in the MSUP and Water Management Plan (WMP).

No Action Alternative

NEPA regulations require that alternative analyses in NEPA documents "include the alternative of no action" (40 CFR 1502.14(d)). For this analysis, "no action" means that the BLM would reject the proponent's proposal and "the proposed activity would not take place."

Potential Environmental Impacts of the "Proposed Action" Alternative

| Environmental Element | Affected | | Environmental Element | Affected | |
|----------------------------|----------|----|-----------------------------|----------|----|
| | Yes | No | | Yes | No |
| Air Quality | X | | T / E Species | | X |
| ACEC's | | X | Wastes, Hazardous/Solid | X | |
| Cultural Resources | X | | Water Quality | | X |
| Prime/Unique Farmlands | | X | Wetlands/Riparian Zones | | X |
| Floodplains | | X | Wild and Scenic Rivers | | X |
| Native Amer. Rel. Concerns | | X | Wilderness | | X |
| Environmental Justice | | X | Invasive, Nonnative Species | X | |

In addition to the environmental elements referenced above, reviews of potential effects upon paleontological, visual and recreational, soil, vegetation, and wildlife resources were conducted. The affected environment and analysis of environmental impacts are discussed in the AREIS to which this EA is tiered.

Invasive/Nonnative Species

Halogeton and other invasive and/or noxious weeds are a significant concern for this project area. COAs have been added to control the spread, establishment, and plant community changes associated with weed infestation.

Air Quality

Air quality impacts are disclosed and analyzed in the AREIS; potential air quality impacts from the Proposed Action discussed herein are not expected to exceed air quality standards.

A cooperative working group, including operators and regulatory agencies (WY DEQ, WOGCC, WSGS, and the BLM) formed in March 2007 with the goals, in part, of surveying the project area for methane seep presence; understanding methane seep risks; considering actions (where applicable) to address the welfare, health and public safety of human and wildlife activity in the area; developing geological models to characterize seeps (including consideration of differing survey and gas and water sampling methodologies); ensuring methane seeps are not present prior to location construction; and monitoring methane seep activity during development of the field. There are no known methane seeps within the project area.

Methane (which is a greenhouse gas) emissions are not regulated (nor are there any national or state standards) by either the EPA or Wyoming DEQ. Currently the EPA has not established emissions thresholds for methane (or any other greenhouse gas). Without a method or meaningful metric established by EPA there are no jurisdictional or compliance responsibilities for the EPA or the State of Wyoming.

Methane seeps are disclosed and addressed in the AREIS and Record of Decision (ROD), including: FEIS, Chapter 4, Pages 4-32, 4-33, 4-49 and 4-52; and in the Record of Decision, Appendix B, Pages B-10 and B-11.

Hazardous Materials

Double Eagle has indicated that some hazardous materials could be used during drilling, completion, and production of their proposed wells. The term "hazardous material" as used here means: 1) any substance, pollutant, or contaminant (regardless of quantity) listed as hazardous under the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) of 1980, as amended, 42 U.S.C. 9601 et seq., and the regulations issued under CERCLA, 2) any hazardous waste as defined in the Resource Conservation and Recovery Act (RCRA) of 1976, as amended, and 3) any nuclear or nuclear byproduct as defined by the Atomic Energy Act of 1954, as amended, 42 U.S.C. 2011 et seq.

It is possible that wastes created or transported during implementation of the proposed action (i.e., waste motor oils, drilling/completion additives) could be accidentally released to the environment. The operator will be required to comply with the Hazardous Materials Management Plan provided in Appendix C of the AREIS. Numerous State and Federal rules and regulations also apply that govern the handling, storage, and disposal of hazardous substances.

Double Eagle or any contracted company working for Double Eagle will have Material Data Safety Sheets available for all chemicals, compounds, or substances which are used during the course of construction, drilling, completion, and production operations for this project. Additionally, all chemicals will be handled in an appropriate manner to minimize the potential for leaks or spills to the environment.

Impacts to soils, surface and groundwater resources, wildlife, vegetation, and human health could result from the accidental exposure of hazardous materials. However, since the project operations will strictly comply with all applicable federal and state laws concerning hazardous materials, the Hazardous Materials Management Plan for this project, and the operator's Spill Prevention Control and Countermeasure Plan, no significant impacts are anticipated.

Visual Resources

The proposed project will introduce new elements of form, line, color, and texture which will contrast with the surrounding existing elements. Impacts to visual resources can be found in the AREIS, Section 4.10 Visual Resources, pages 4-105. Mitigation to address the impacts will follow the best management practices listed in Appendix H: Required Best Management Practices page H-6, Visual Resources. Every attempt has been made to minimize the impact of these activities through careful location, minimal disturbance, and repeating the basic elements of form, line, color, and texture found in the predominant natural features of the characteristic landscape. **For all wells, other than the exceptions (*) listed in the following table, all above-ground structures, production equipment, tanks, transformers, and insulators not subject to coloring requirements for safety shall be painted the color of "Shale Green" (5Y 4/2).**

*** Special Coloring Requirements**

| Well # | POD | Color |
|---------------|------------|----------------------------|
| 24-30 | E | Covert Green (18-0617 TPX) |
| 11-31 | E | Covert Green (18-0617 TPX) |
| 13-31 | E | Covert Green (18-0617 TPX) |
| 22-31 | E | Covert Green (18-0617 TPX) |
| 24-31 | E | Covert Green (18-0617 TPX) |
| 24-311 | E | Covert Green (18-0617 TPX) |
| 31-31 | E | Covert Green (18-0617 TPX) |
| 31-311 | E | Covert Green (18-0617 TPX) |
| 33-31 | E | Covert Green (18-0617 TPX) |
| 33-36(St) | E | Covert Green (18-0617 TPX) |
| 42-36(St) | E | Covert Green (18-0617 TPX) |
| 44-36(St) | E | Covert Green (18-0617 TPX) |

Recreation

Direct impacts to recreation from the proposed project will be an alteration of recreational settings from a physical middle country and social back country to rural and industrial settings. The recreational settings are the foundation for most recreational activities, experiences, and benefits. The alteration of the settings will displace recreationists to alternative areas with the desired settings. A thorough description of the impacts to recreation can be found in the AREIS, Section 4.9 Recreation Resources, pages 4-98.

Cultural Resources

A discussion of the affected environment for cultural resources, including the historic trails, can be found in the final AREIS at Section 3.11 Cultural and Historical Resources, page 3-122. Potential impacts to cultural resources are described in the final AREIS at Section 4.11 Cultural Resources, page 4-116.

Class III cultural resources inventories were conducted for the project areas. Archaeological resources identified will be avoided or, as necessary, a monitor will review construction to ensure no cultural artifacts are disturbed. All of the POD E (but none of the POD F) wells and/or infrastructure are located inside of the two-mile buffer of contributing segments of a historic trail ("Rawlins to Baggs Road"). As a result, SHPO consultation was necessary and a visibility analysis required on those well locations/components and related infrastructure which were within the two-mile buffer. As some project components will be visible from contributing segments of the historic trail/road, certain measures were taken during field onsite inspections to relocate well pads, roads and utility corridors to less visible areas where possible and practical.

The AREIS also required a "Programmatic Agreement" or "Memorandum of Agreement" between the affected parties, i.e. landowner (BLM), operator and SHPO to address the necessary mitigation to minimize impact to the trail view-shed from these wells and associated disturbances. As a result, restrictions or stipulations in the form of COA were added to the MSUP APD authorizations as appropriate. These, and additional cultural stipulations are summarized below.

Note: Please note that the Catalina POD E 31-30 well, access road and utility corridor lie within ¼ mile of a known Native American sensitive site. Therefore, tribal consultation is currently underway to determine potential effects of this well and its associated utilities, as proposed, and whether a move will be required to avoid the site. Consequently, although the surface disturbance (acreage) and location of the proposed well, access road, and utility corridor is being considered and analyzed herein; neither the well nor its associated utilities will be approved until all necessary tribal concurrence is attained.

Similarly, the Catalina POD E 44-31 well, access road, and utility corridor lie within the ¼ mile historic trail buffer of the Rawlins to Baggs Road. Therefore, to comply with the AR Programmatic Agreement, a visual contrast rating of the specific project is being completed to confirm a preliminary "no-effect" determination by BLM. Consequently, although the surface disturbance (acreage) and location of the proposed well, access road, and utility corridor is being considered and analyzed herein, neither the well nor its associated utilities will be approved until all necessary SHPO concurrence is attained.

Cultural Stipulations:

POD E and POD F (all wells and associated infrastructure in both POD E and F):

- 1) Standard cultural stipulation (under general permitting requirements)
- 2) All surface facilities will be painted a color compatible with the local environment (see Visual Resources Section above.)
- 3) The Operator shall select and use a seed mix most applicable to each disturbed location, with the goal of restoring individual sites to closely resemble the pre-disturbance native plant communities, as provided in Appendix A of the ROD, "Project Reclamation Plan."

POD E (specific to those wells and associated infrastructure in POD E):

- 1) Unless otherwise authorized, the pipelines/utilities will be plowed or ripped into the un-bladed surface (using technology that does not require trenching). If such techniques are infeasible due to safety, terrain, or geology, the surface will be brush-hogged rather than bladed. Where trenching is required, to every extent possible the intact vegetation root base shall not be disturbed during spoil replacement.
- 2) No blading will be allowed outside the staked well location for placement or removal of the topsoil or spoil stockpile.
- 3) The access road will be surfaced with material compatible with the local environment.

Other, site-specific Conditions of Approval (such as archaeological monitor, barrier fencing, etc.), are also applied, as applicable.

POD F (specific to those wells and associated infrastructure in POD F):

Other, site-specific Conditions of Approval (such as archaeological monitor, barrier fencing, etc.), are also applied, as applicable.

Wildlife Resources

Summarized in the tables below are the seasonal wildlife timing restrictions which will be applied to the subject wells.

Catalina POD E Wildlife Stipulations

| Well # | Raptor ¹ | Grouse ² | WSG ³ | CWR ⁴ | Plover ⁵ |
|-----------|---------------------|---------------------|------------------|------------------|---------------------|
| 11-30 | X | X | X | X | |
| 13-30 | X | X | X | X | |
| 22-30 | X | X | | X | |
| 24-30 | X | X | | X | |
| 31-30 | X | X | X | X | |
| 33-30 | X | X | X | X | |
| 34-30 | X | X | | X | |
| 42-30 | X | X | X | X | |
| 30I | X | X | X | X | |
| 11-31 | X | X | | X | |
| 13-31 | X | X | | X | |
| 22-31 | X | X | | X | |
| 24-31 | X | X | | X | |
| 24-31I | X | X | | X | |
| 31-31 | X | X | | X | |
| 31-31I | X | X | | X | |
| 33-31 | X | X | | X | |
| 42-31 | X | X | | X | |
| 44-31 | X | X | | X | |
| 11-36(St) | X | X | | X | |
| 13-36(St) | X | X | | X | |
| 36I(St) | X | X | | X | |
| 22-36(St) | X | X | | X | |
| 24-36(St) | X | Rd only* | | X | |
| 33-36(St) | X | X | | X | |
| 41-36(St) | X | X | | X | |
| 42-36(St) | X | X | | X | |
| 44-36(St) | X | Rd only* | | X | |

*see wildlife map

Catalina POD F Wildlife Stipulations

| Well # | Raptor ¹ | Grouse ² | WSG ³ | CWR ⁴ | Plover ⁵ |
|--------|---------------------|---------------------|------------------|------------------|---------------------|
| 42-10 | X | X | | X | |
| 44-10 | X | X | | X | |

| | | | | | |
|-------|-----|---|--|---|---|
| 13-11 | X | X | | X | |
| 21-11 | X | X | | X | |
| 22-11 | X | X | | X | |
| 11I | X | X | | X | |
| 24-11 | X | X | | X | |
| 31-11 | X | X | | X | X |
| 33-11 | X | X | | X | X |
| 42-11 | X | X | | X | X |
| 11-14 | X | X | | X | |
| 13-14 | X | X | | X | |
| 22-14 | X | X | | X | |
| 24-14 | X | X | | X | |
| 31-14 | X | X | | X | X |
| 14I | X | X | | X | X |
| 33-14 | X | X | | X | |
| 42-14 | X | X | | X | X |
| 44-14 | X | X | | X | |
| 42-15 | X | X | | X | |
| 11-23 | X | X | | X | |
| 23I | X | X | | X | |
| 13-23 | X | X | | X | |
| 22-23 | X | X | | X | |
| 24-23 | X | X | | X | |
| 31-23 | X | X | | X | |
| 33-23 | X** | X | | X | |

** Applies only to the portion of pipeline between the 33-23 and 24-33 within the raptor nesting stipulation area (see wildlife map)

¹Construction, drilling, reclamation and other activities potentially disruptive to nesting raptors are prohibited during the period of February 1 to July 31 for the protection of raptor nesting areas.

²Construction, drilling, reclamation and other potentially disruptive activities are prohibited during the period of March 1 to July 15 for the protection of strutting and nesting sage-grouse.

³Construction, drilling, reclamation and other activities potentially disruptive to wintering sage-grouse are prohibited during the period of November 15 to March 14 for the protection of sage-grouse winter concentration areas.

⁴Construction, drilling, reclamation and other activities potentially disruptive to wintering wildlife are prohibited during the period of November 15 to April 30 for the protection of big game crucial winter habitat.

⁵Construction, drilling, reclamation and other potentially disruptive activities are prohibited during the period of April 10 to July 10 for the protection of nesting plover. Additional protection measures may be applied if this area is later determined to be within occupied plover habitat.

Exceptions to Stipulations: In some instances, the operator may request consideration of a temporary exception to wildlife seasonal restrictions or stipulations. Such exceptions may be granted on a limited individual case by case basis if a determination is made by a BLM wildlife biologist that the wildlife resource will not be adversely impacted.

Mule Deer Migration: Eight wells in POD F are located within preliminarily identified mule deer migration routes. Analysis of the proposed action included site-specific review of potential impacts to sensitive species and habitats, using the experience and expertise of the BLM biologists. BLM also considered recently obtained data (including *Sawyer 2006 Progress Report for the Atlantic Rim Mule Deer Study*; *Sawyer 2007 "Final Report for the Atlantic Rim Mule Deer Study"*; and *Sawyer and Kauffman 2008 "Identifying Mule Deer Migration Routes in the Atlantic Rim Project Area"*) regarding mule deer migration routes in the project area, which was incorporated into the wildlife review of the project.

At this time the BLM is considering common migration routes (Sawyer 2007) when conducting project reviews along with application of Best Management Practices (BMPs) to maintain the functionality of mule deer migration routes and habitats. In addition, an interagency working group initiated by the adaptive management direction in the Atlantic Rim ROD is evaluating activities and infrastructure in areas identified as mule deer migration habitat. The objective is to use ongoing studies and monitoring to determine whether, where and how development places attainment of the performance goal for migration habitats at risk, and if so, how to mitigate those risks. The working group is evaluating current and exiting data to identify any potential impacts to migrating deer from current POD development. As a result, additional preventative stipulations or other mitigation measures for migration habitats potentially affected by this project have not been approved.

In accordance with the Rawlins RMP and the AR EIS, the wintering sage-grouse timing stipulation was applied to projects within areas identified as wintering sage grouse habitat. Several years data compiled by BLM and WGFD was used to identify wintering sage grouse locations and their associated wintering habitat. This information was then used to delineate the specific areas in which to apply the stipulation. The project does not lie within identified greater sage-grouse core areas, as identified by the Wyoming Governor's sage grouse implementation team.

In some instances, the proponent may request consideration of a temporary exception to wildlife seasonal restrictions. Such an exception may be granted if a determination is made that the wildlife resource will not be adversely impacted.

The BLMs analysis of the proposed action also included site-specific review of potential impacts to sensitive species, using the experience and expertise of the BLM biologists, including fisheries specialists, as well as data and knowledge collected by the BLM, Wyoming Department of Game and Fish, U.S. Fish & Wildlife Service, and other organizations. All actions that result in a water depletion to the Colorado River basin require consultation with the U.S. Fish & Wildlife Service. Section 7 consultation for this project is covered under the Biological Opinion for the Atlantic Rim EIS.

An overall project map, as well as maps representing the known wildlife resources in the project vicinity are attached.

Other site-specific findings by the interdisciplinary review team are provided on the attached review documents, and are incorporated into Conditions of Approval, as applicable.

Description of Impacts:

A discussion of the actions generally associated with drilling projects and their associated impacts may be found in the Atlantic Rim Environmental Impact Statement and Record of Decision.

Reclamation

Interim reclamation is typically initiated and completed within 6 months of drilling completion. The drill pads will be reduced to a less than one-half acre production well site at each location. Total reclamation of all new disturbances will take place as the wells and facilities are no longer productive or needed and are plugged and abandoned. Appendix A of the ROD contains the reclamation success criteria by which the reclamation status will be evaluated. The approved Master Surface Use Plan and Conditions of Approval also contain reclamation measures pertaining to reclamation standards.

Description of Mitigation Measures and Residual Impacts:

Mitigation of potential effects is part of the proposed action, and specific mitigation details can be found in the Master Plan Elements including the Conditions of Approval. Residual impacts resulting from the proposed action would include permanent loss of oil and/or gas reserves should the wells become productive. In addition, the well pads, production equipment, and the access roads could remain in place for 30 years or more (until plugging and abandonment, and final reclamation).

Potential Environmental Impacts- No Action Alternative

Under the No-Action Alternative, the proposed action would not be authorized. The 46 federal wells and 9 State wells would not be constructed or drilled, and gas production from the proponent's lease(s) would not occur, nor would water be re-injected via the proposed injection wells. Existing development would continue to occupy the project area, along with impacts associated from the development on nearby private (fee) and or state leases.

Residual Impacts/Cumulative Impacts:

The potential residual and cumulative impacts are discussed in the AREIS, Chapter 5, and Cumulative Impacts Analysis. The proposed action entails the addition of 40 federal CBNG wells and 6 injection wells, and 8 State CBNG wells and 1 injection well (all on federal surface), and associated facilities and infrastructure.

Standard mitigation guidelines are addressed in the ROD's Appendix A, Project Reclamation Plan. Additional mitigation measures are also provided in Appendix B, Performance-Based Monitoring and Best Management Practices, and Appendix C, Operator-Committed Practices. All needed mitigation, for that portion of the proposed action on public land, is part of the proposed action.

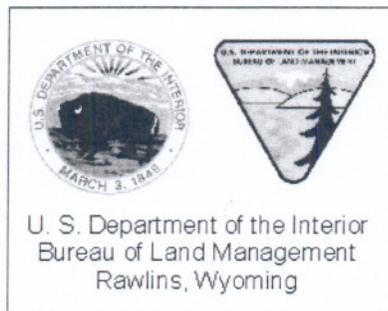
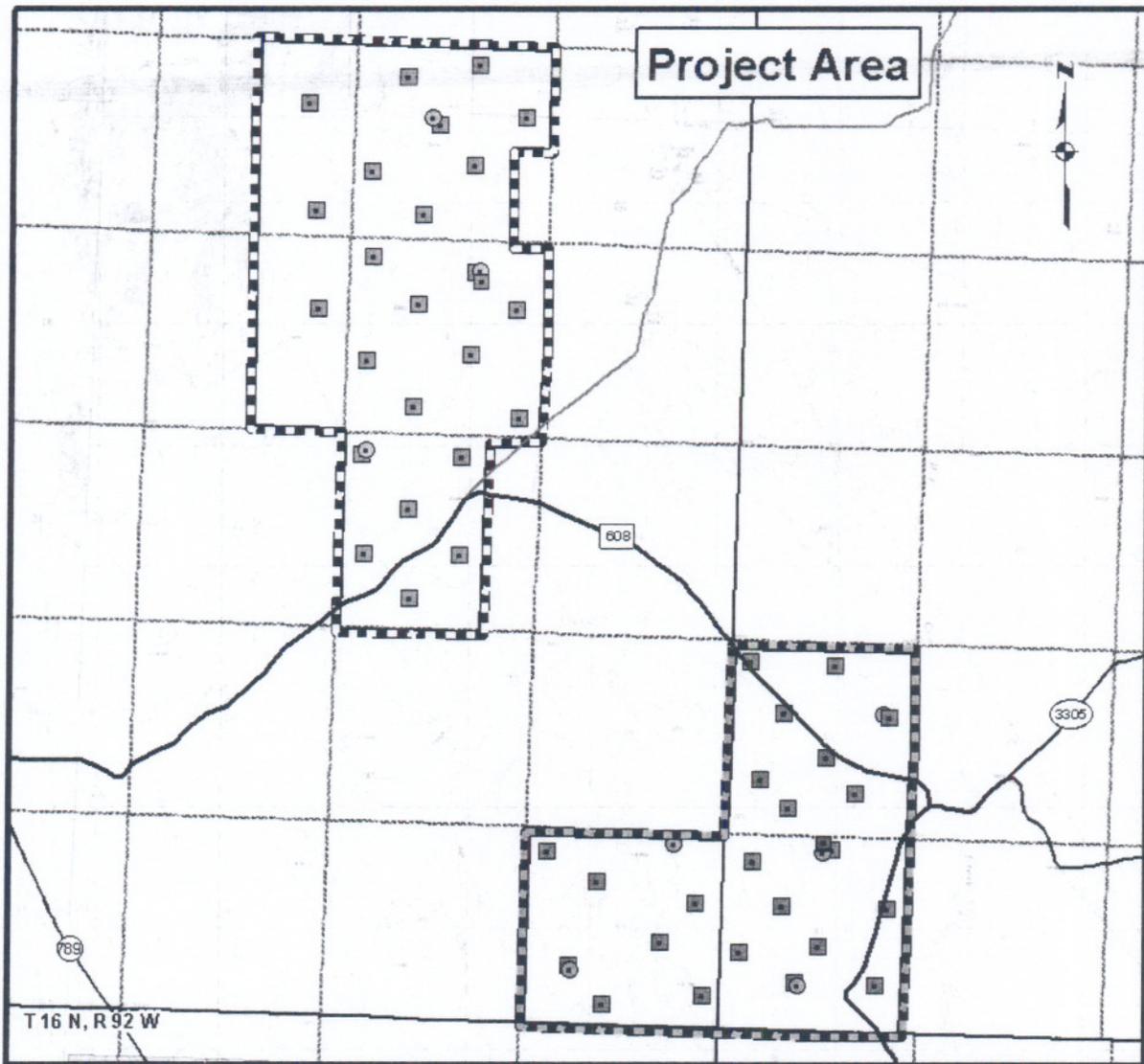
The access roads and well/production pads may remain visible for a period of approximately 20 to 30 years after they are abandoned and reclaimed. The oil and gas resource will be permanently lost. All needed mitigation is part of the proposed action.

Additional mitigation measures are addressed in the AREIS, under; Appendix A: Reclamation Plan; Appendix C Hazardous Materials, and; Appendix D Wildlife Protection Plan. All recommended mitigation for that portion of the proposed action on public land, is part of the proposed action and plan of operation found in the well POD MSUP with COA and APD.

Other Persons/Agencies Contacted and or Consulted:

| | | |
|----------------------|-----------------------------------------|----------------------------|
| Steve Degenfelder | Vice President | Double Eagle Petroleum Co. |
| Steve Olsen | Draftsman | Siek Surveying Surface |
| Erik Norelius | Natural Resource Specialist | BLM, Rawlins Field Office |
| Skip Stonesifer | Reclamation Specialist | BLM, Rawlins Field Office |
| Laura Gianakos | Supervisory Natural Resource Specialist | BLM, Rawlins Field Office |
| Paula Guenther-Gloss | Supervisory Wildlife Biologist | BLM, Rawlins Field Office |

Catalina POD E and POD F Project Area Map



0 0.25 0.5 0.75 1 Miles

1:45,000

No warranty is made by the Bureau of Land Management as to the accuracy, completeness, or reliability of the information presented.

Drafted: 8/20/2008

Legend

Catalina_E

Pod_ID

- Catalina E
- Catalina E Injection
- Catalina E CDP

Catalina_F

Pod_ID

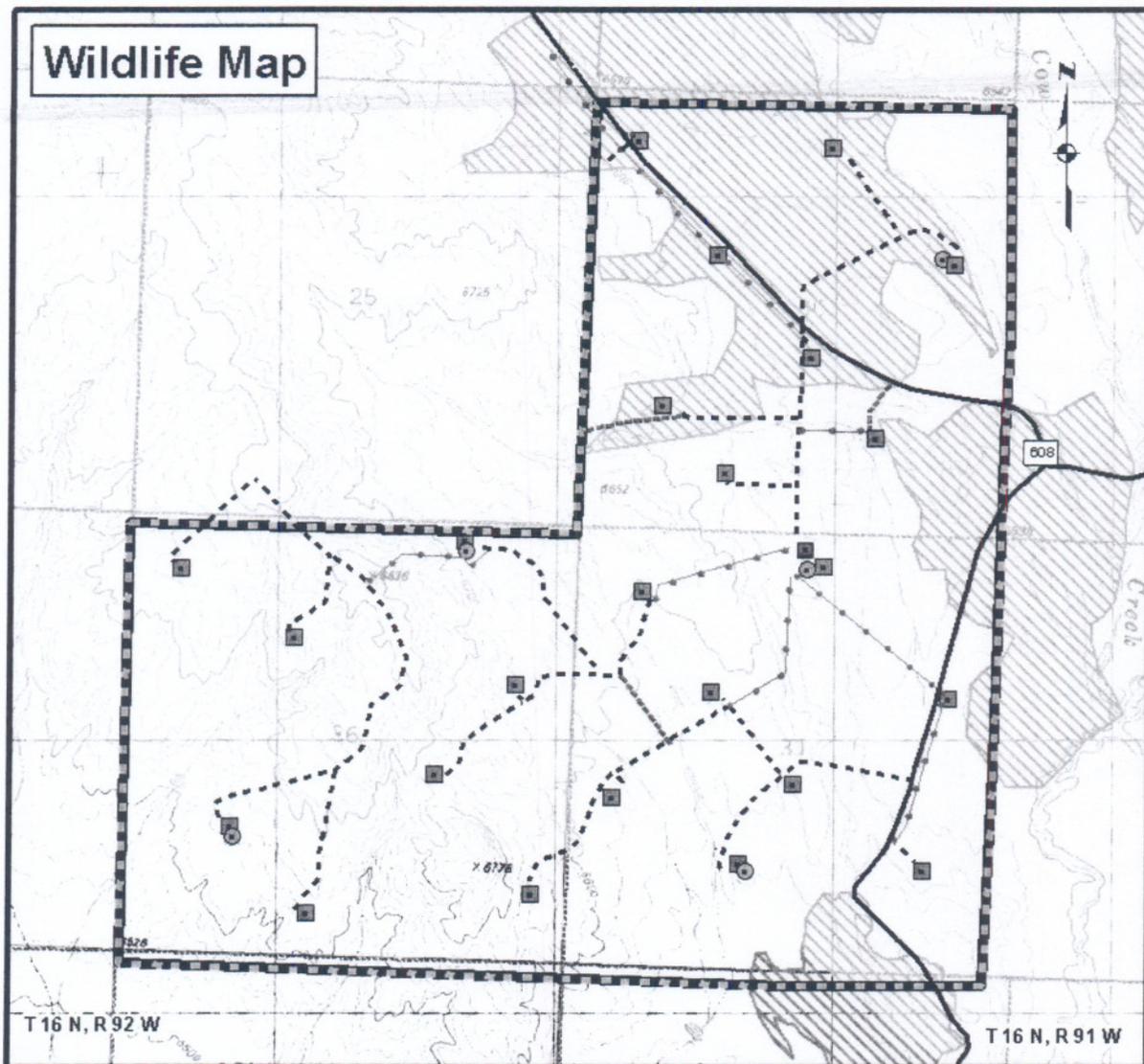
- Catalina F
- Catalina F CDP
- Catalina F Injector

Pod Boundaries

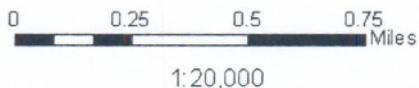
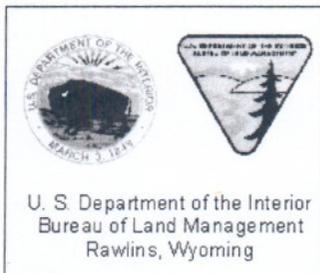
Pod_Name

- Catalina F
- Catalina E

Catalina POD E Wildlife Map



Note: The entire project area is subject to nesting Raptor Timing Stipulations (Feb. 1 - July 31) and Big Game Crucial Winter Range (Nov. 15 - Apr. 30).

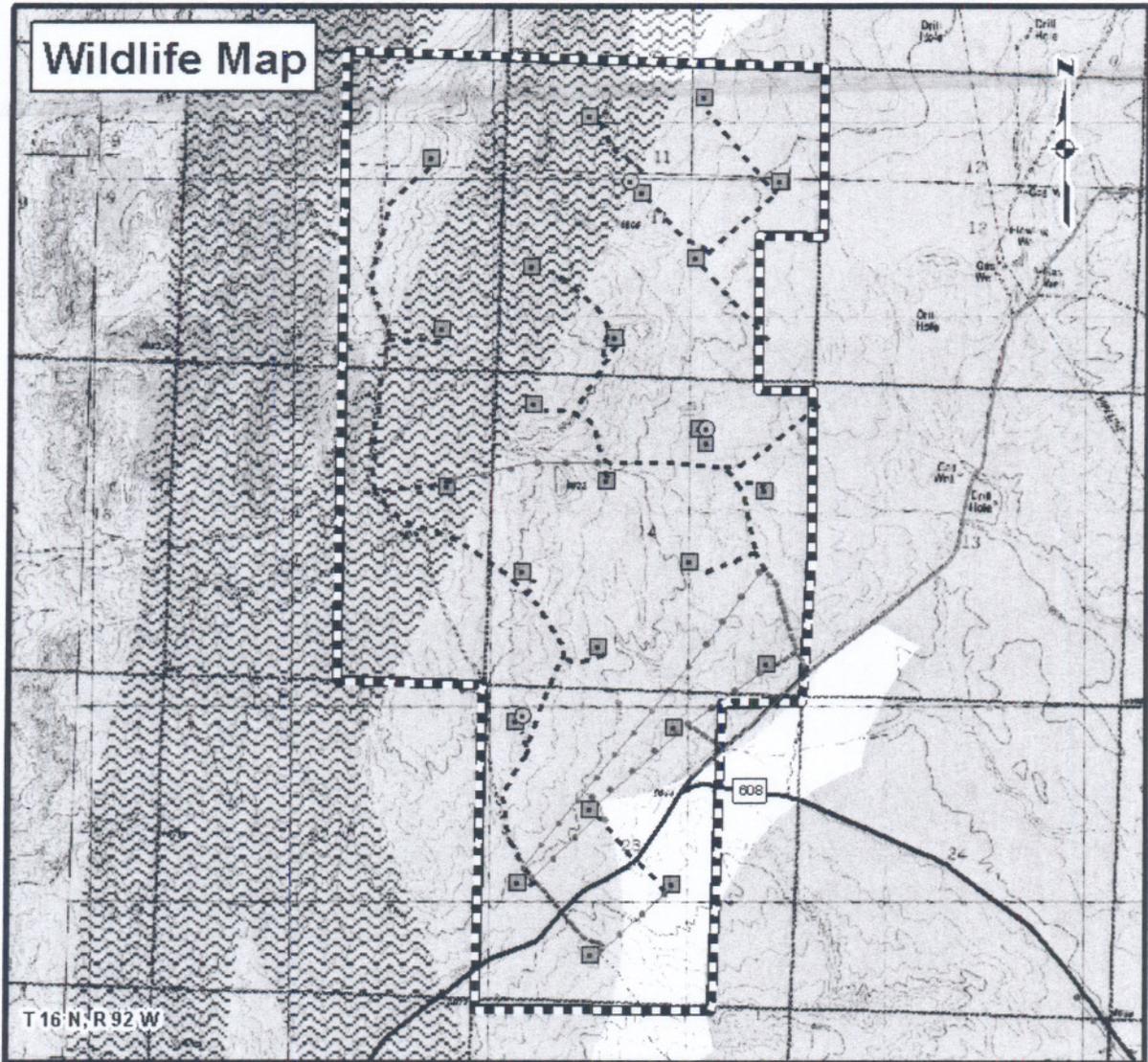


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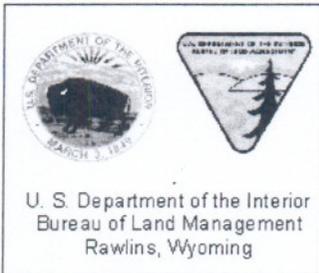
Drafted: 8/20/2008

| Legend | |
|-------------------|--------------------------------|
| | Sage Grouse Timing Stipulation |
| | GSG_WinterRange |
| Catalina_E | |
| Pod_ID | |
| | Catalina E |
| | Catalina E Injection |
| | Catalina E CDP |
| Pod_Name | |
| | Catalina E |

Catalina POD F Wildlife Map



Note: The entire project area is subject to Greater Sage-grouse nesting and brood rearing Timing Stipulations (Mar. 1 - July 15) and Big Game Crucial Winter Range (Nov. 15 - Apr. 30).



0 0.25 0.5 0.75 Miles

1:28,000

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Drafted: 8/20/2008

Legend

- Raptor Timing Stips
- MD Migration
- Catalina_F**
- Pod_ID**
- Catalina F
- Catalina F CDP
- Catalina F Injector
- Pod_Name**
- Catalina F