APPENDIX 9

Wildlife and Habitat Mitigation Plans

Appendix 9A

Alternative B – Wildlife and Habitat Mitigation Plan

Alternative B – Wildlife and Habitat Mitigation Plan

Prepared by
Ultra Resources, Inc.
Shell Exploration & Production Company
Questar Market Resources

Purpose
Ultra Resources, Inc. (Ultra), Shell Exploration & Production Company (Shell), and Questar Market Resources (Questar), collectively referred to as the "Proponents", propose this wildlife and habitat mitigation plan to supplement wildlife and habitat provisions identified in the 2000 Pinedale Anticline Exploration and Development Project Record of Decision (ROD) (Bureau of Land Management [BLM] 2000).

On December 6, 2004, the Wyoming Game and Fish Department (WGFD) issued the guidance document Recommendations for Development of Oil and Gas Resources within Crucial and Important Wildlife Habitats (WY Game & Fish Department. 2004 Cheyenne, WY). This document recommends various mitigation and management practices to address impacts to wildlife which could be employed by oil and gas industry in the development of oil and gas resources in Wyoming. In addition to its recommended standard management practices to reduce wildlife impacts associated with oil and gas development, the WGFD also recommended additional mitigation/management prescriptions including: directional drilling, clustered development, condensate removal, remote monitoring, travel plans, environmental monitoring, and as appropriate, gate and close all newly constructed roads to public travel. The following Proponent commitments have incorporated not only most of the recommended standard management practices, but all of the recommended additional mitigation/management prescriptions.

The Proponents' development proposal limits surface fragmentation through directional drilling, multiple-well pads, interim reclamation and consolidated development areas. Use of these multiple-well pads within consolidated development areas will correspondingly reduce associated development impacts such as roads and pipelines. In addition, the Proponents will substantially reduce the amount of human activity and on-site facilities through the use of liquids gathering systems and consolidated production facilities which will result in decreased surface disturbance. By concentrating pad locations and operational activities, Proponents will leave large blocks of acreage undisturbed and available for wildlife use.

Scope
This plan applies to practices within the Pinedale Anticline Project Area (PAPA) to ensure avoidance and minimization of impacts to wildlife and wildlife habitat and to ensure in the event that avoidance and minimization are unachievable, the proper and timely mitigation of wildlife and habitat impacts both on-site and off-site, if needed.

This Plan amends the 2000 PAPA ROD and Mitigation Guidelines and Standard Practices, Appendix A, as they apply to big game and sage grouse except for surface occupancy within 0.25 mile of an active lek. Proponents are requesting exceptions to existing stipulations for big game and sage grouse during wintering, nesting, and brood rearing periods within the concentrated development areas (CDA) for construction and development activities. This will allow for year round construction and development activities within these CDA's during the multi-year period required to complete these actions thereby substantially reducing the time

required for the project development phase. A 0.25-mile restriction of no surface occupancy of permanent facilities near active sage grouse leks will remain in effect. Exceptions for raptor and/or Bald Eagle stipulations will be sought on an individual basis by the Proponent wishing to conduct operations and will be addressed through Voluntary Best Management Practices (BMP's) and in coordination with the U.S. Fish and Wildlife Service (USFWS). Permitting mitigation alternatives outlined below will be implemented.

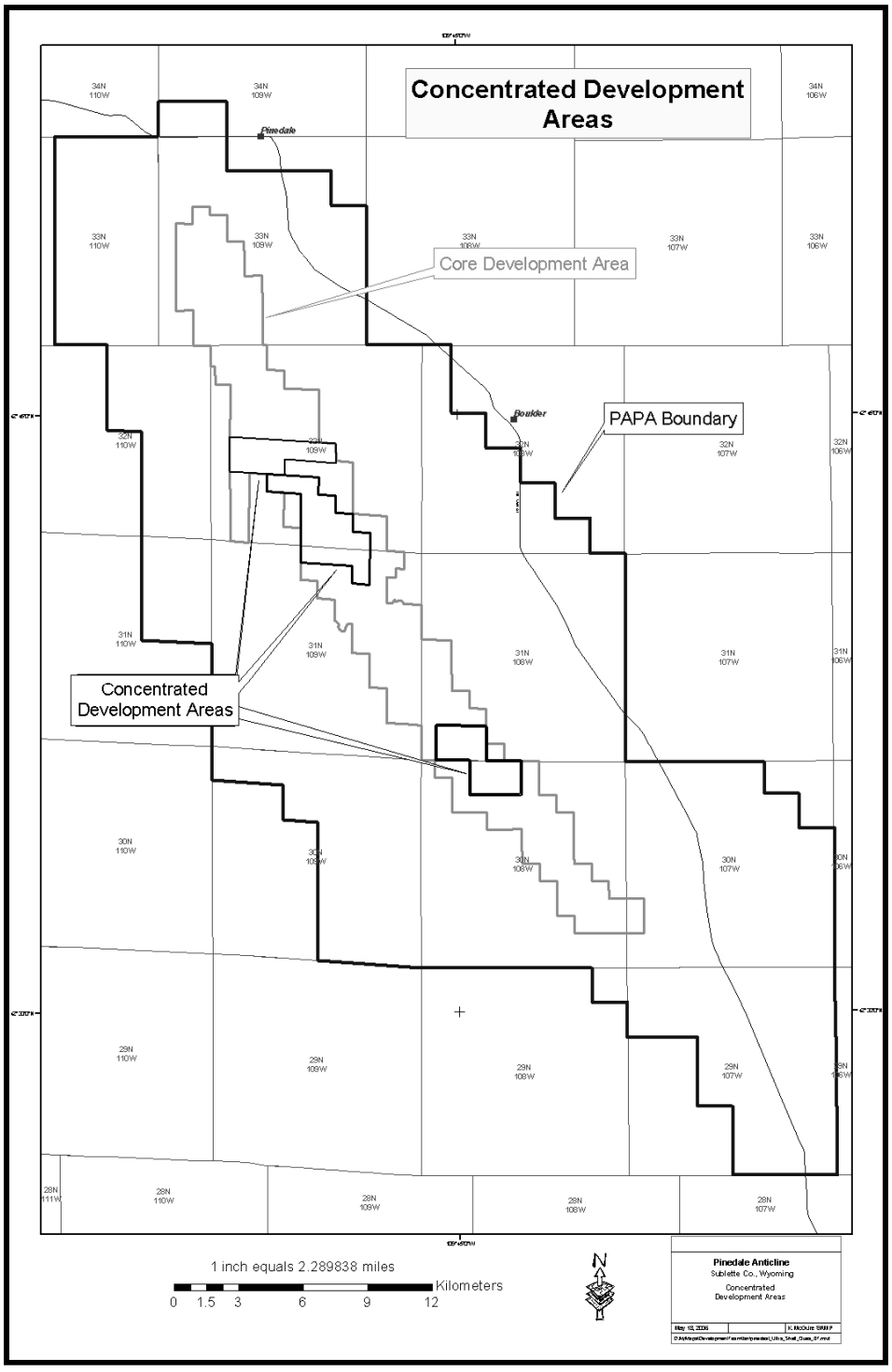
Proponent Committed Measures

The Proponents' commitments for wildlife and habitat mitigation are designed to offset impacts resulting from their development activities within the PAPA, and center on: avoiding impacts**;** minimizing impacts; rectifying, repairing, rehabilitating, or restoring environmental conditions; reducing or eliminating impacts over time; and compensating for impacts on-site or off-site. As outlined under the National Environmental Policy Act (NEPA), 40 CFR 1508.20:

Avoidance of Impact: "Avoiding the impact altogether by not taking a certain action or parts of an action."

- The Proponents will make efforts to avoid the impacts that could otherwise occur if development was implemented pursuant to the 2000 PAPA ROD. Proponents propose to use directional drilling on larger multi-well pads in consolidated development areas year round. Under a No Action alternative, operators could require up to 839 new pads (with additional NEPA analysis) to develop 4,399 new wells. The Proposed Action will require 253 new pads to develop the 4,399 new wells. The year round access development proposal utilizes a total of 601 pads for natural gas development including some possible downspacing to 20, 10 and 5 acre down-hole well density. The No Action total is 1,187 pads. The Proposed Action provides about a 50% percent reduction in total pads. Thirty or more wells may be developed from a single pad in some areas. The 2000 PAPA ROD analyzed wells at 40-acre spacing and limited active pads to 700 pads.

- The arrangement of the consolidated areas will leave large, contiguous blocks of land without active development activities. The estimated total disturbed acreage (without reclaimed acreage calculated into the number) will leave 92% of the PAPA undisturbed by natural gas development. An example of CDA development:


Concentrated Development Areas
Core Development Area
PAPA Boundary
Concentrated Development Areas
Pinedale
Boulder
1 inch equals 2.289838 miles
0 1.5 3 6 9 12
Kilometers
N
Pinedale Anticline
Sublette Co., Wyoming
Concentrated Development Areas

- The Proponents will utilize the following voluntary eagle and raptor BMP's from which they may choose any or all as voluntary measures, and will seek technical assistance from the BLM and the USFWS as necessary.

    1. Conduct appropriate raptor surveys before commencement of ground disturbing activities within 1 mile of proposed disturbance to determine status of known nests and roosts and to identify new nests and roosts.

    2. Monitor any activities that may adversely impact bald eagles and other raptor species.

    3. Restrict activities within 0.5 mile of active raptor nests (1 mile of active bald eagle and ferruginous hawk nests) from the period of early courtship through the fledging of chicks (generally from February 1 to August 15). With assistance from the USFWS, modifications to protective buffers may be considered when topography, vegetation and other variables serve as natural protective buffers.

    4. Restrict activities within 1 mile of known bald eagle winter roosts from November 1 to April 1, when activity has been verified. With assistance from the USFWS, modifications to the 1-mile protective buffer may be considered when topography, vegetation and other variables serve as natural protective buffers.

    5. In coordination with the USFWS noise reduction barriers may be used to minimize disturbance when activities are proposed within an established protective buffer.

    6. Prohibit activities that produce extremely loud noises within 1 mile of active bald eagle nests during nesting periods unless greater tolerance to the activity (or similar activity) has been demonstrated by the particular pair of bald eagles through monitoring.

    7. Build all power lines to standards identified in Avian Power Line Interaction Committee and utilize industry-accepted standards to prevent raptors from being electrocuted on towers and poles.

    8. To preclude bald eagles or other raptors from nesting on human-made structures such as cell phone towers and condensate tanks and to avoid impeding operation or maintenance activities, install anti-perching devices on structures to discourage use by raptors. Additionally, in coordination with the USFWS and based on appropriate ecosystem management, construct artificial nesting platforms to encourage nesting away from human activity.

    9. As necessary, notify the appropriate authorities (Wyoming Department of Transportation on Highways and WGFD or BLM on rural and county roads) of the presence of roadside carrion and ask that they remove the carrion as soon as possible. Carcasses may be covered in the interim to discourage scavenging by bald eagles and other raptors, but only authorized personnel may touch or remove the carcasses.

10. When possible, include the USFWS in on-site reviews for future project sites.

11. The Proponents will work to identify voluntary opportunities to conserve and/or improve natural resources in the area to promote a positive land ethic. Maintain adequate buffer from riparian habitats where possible (outside edge of trees as area of effect). Buffers would be site specific depending on vegetation and topography. They will be developed in coordination with qualified biologists, the USFWS and/or the BLM as necessary. Proponents will strive to conserve potential nesting, roosting and foraging habitat whenever possible by retaining mature trees and old growth stands wherever possible, particularly within 0.5 mile of water.

Minimize Impacts: "Minimizing impacts by limiting the degree or magnitude of the action and its implementation."

- All activities will be conducted in such a manner that minimizes impacts on wildlife, habitat and the local communities.

- The Proponents will minimize the total area of surface disturbance and associated areas of indirect habitat loss by reducing to the extent possible human presence and activity.

    1. The Proponents will utilize liquids gathering systems and centralized processing and storage facilities where feasible thereby reducing traffic.

    2. The Proponents will utilize computer assisted remote monitoring of producing wells, and anticipate an average of only 1 roundtrip per day to each well pad during production.

    3. In addition to minimizing surface disturbance by restricting activities to existing roads, traffic on those roads will also be minimized to the extent practical by coordinating and scheduling the transportation routes and use of the roads by project personnel and service contractors.

    4. Commuting traffic will be minimized in crucial big game winter range and sage grouse winter concentration areas by bussing rig crews from staging areas to work areas.

    5. Total acreage disturbance by 2024, without reclamation considered, is estimated at 14,961 leaving 92% of the PAPA undisturbed.

- The Proponents will make efforts to reduce the total duration of project activities in the PAPA.

    1. The areas of concentrated simultaneous drilling, completion, construction, and production activities will be completed in as short a time as possible by completely drilling and completing all wells on a pad as feasible prior to moving development activities to another pad.

- Development (drilling, and completion activities) within the core area (48.36 square miles) will be concentrated to a maximum of 19 square miles in the three development areas which is 39.29% of the core acreage, leaving 60.71% of the core available for wildlife. This will result in leaving the greatest amount of undisturbed habitat as possible at any point in time in the best combination of the following:
    - largest area
    - largest contiguous blocks
    - best functional connectivity
    - highest quality

- The Proponents' implementation of a road management plan, which voluntarily restricts their activities to existing roads where possible, will reduce surface disturbance and expansion of human disturbance into new areas and will lessen road mileage by 70% as compared to traditional non-concentrated, single-well pad development.

- The Proponents will plan their activities to avoid to the extent practical moving drill rigs in crucial big game winter range after November 15 and before May 1, thereby reducing the number of trucks, equipment and associated traffic during big game stipulations.

- Each year, the specific areas of concentrated activities will be determined through joint review of Proponent development plans. The Proponents (combined or separate as appropriate), BLM, and WGFD will work to reach agreement on the final plans as early in the calendar year as possible to allow sufficient time to plan, permit, and execute new construction as required in the summer months for the next activity year.

- The Proponents will also provide a 10-year rolling forecast of PAPA activity at the same time each year to fully describe the future development plans on an ongoing basis.

- Each year, the Proponents will collaborate as appropriate seeking opportunities to adjust the size of the areas required for concentrated activities and reduce impacts. The Proponents, BLM, and WGFD will jointly seek improvements to the annual and 10-year development plans designed to further reduce potential project impacts.

- The Proponents may choose any or all of the following BMP's as voluntary measures which can be used to minimize disturbance to bald eagles and other raptors when oil and gas development activities occur within recommended protective buffers.

    1. During night operations, direct lighting toward the pad to avoid light disturbance to surrounding areas if no negative pad safety impact is foreseen.

    2. Reduce unnecessary traffic and encourage travel times to be during daylight hours between 9-3.

    3. In areas within 1 mile of active nests where there is line of sight from active nests to the activity, pipeline installation equipment shall be shielded from the affected area with camouflage netting.

4. Avoid potentially disruptive activities or permanent above ground structures in the bald eagles' direct flight path between their nest and roost sites and important foraging areas.

Restoration of Impacts: "Rectifying the impact by repairing, rehabilitating, or restoring the affected environment."

- Mitigation measures will begin immediately or as soon as practical, to avoid any lag time between impacts that decrease habitat function and the on-the-ground mitigation actions that increase habitat function. Mitigation in the form of interim reclamation (utilizing native cool-season grasses, forbs, and shrubs in the seed mix) will proceed as soon as practical after development drilling, completion and construction activities are completed on individual pads, which will reduce the net surface disturbance as development proceeds. Once all drilling and completion work has been finished and all wells on the pad are on production, the Proponents forecast that 70% of the disturbed pad area will be reclaimed on individual pads containing pits, and 50% of the disturbed pad area will be reclaimed on pads developed without reserve pits. The Proponents will also temporarily reclaim pads when no forecasted drilling or completion activity is expected on the pad for the following two years.

- Impacts will be mitigated by developing coordinated mitigation approaches with the BLM, WGFD, and other federal and state agencies to seek opportunities to further benefit wildlife.

- Key habitats and habitat components, such as crucial winter ranges, migration routes, sage grouse seasonal habitats, and identified sensitive species habitats, will receive first consideration for mitigation. Specific mitigation actions will as much as possible:

    - occur on-site, or immediately adjacent to impacts
    - address the same animals or species that are being impacted
    - address the same habitat components that are being impacted

Reduction and Elimination of Impacts: "Reducing or eliminating the impact over time by preservation and maintenance operations during the life of the project."

- The Proponents have committed to utilizing liquids gathering systems and centralized processing and storage facilities where feasible. Liquids gathering systems and centralized facilities will significantly reduce tanker truck traffic, most notably after the project construction phase.

- The Proponents will utilize computer assisted remote monitoring of producing wells. Proponents anticipate 1 field operator visit per day per pad.

- Proponents will use existing roads where possible which will reduce surface disturbance and expansion of human disturbance into new areas and will lessen road mileage by 70% compared to traditional non-concentrated, single-well pad development.

Compensation for Impacts: "Compensating for the impact by replacing or providing substitute resources or environments."

- The Proponents have agreed to a 3:1 acre off-site mitigation ratio in the event that off-site mitigation is required to compensate for loss of on-site habitat (i.e., for every acre of long-term on-site habitat disturbed by the project, Proponents will improve three acres off-site habitat). This would supersede existing Questar commitments for off-site mitigation as identified in Decision Records for Questar's existing over-winter development proposals (BLM 2004 [*Finding of No Significant Impact, Decision Record and Environmental Assessment for the Questar Year-Round Drilling Proposal, Sublette County, Wyoming*], and BLM 2005 [*Finding of No Significant Impact, Decision Record and Environmental Assessment for the Questar Year-Round Drilling Addendum, Sublette County, Wyoming*]).

- The Proponents commit to developing a comprehensive off-site mitigation plan within one year of SEIS ROD release. Options that may be included in the plan are enhancing habitat on land contiguous to the PAPA and acquisition of property rights (leasehold interest, short-term or long-term conservation easements, etc.) designed to set aside habitats, protect key migration routes and preserve open space.

- Off-site mitigation will generally be implemented if on-site actions are not considered adequate, or if off-site measures are considered to be of significantly greater value. Off-site mitigation would occur as close to the impacted area as possible, and provide habitat for the specific animals being displaced or experiencing habitat declines as a result of development. Off-site mitigation that occurs farther away would provide a key year-round life requirement for the animals that occupy the development area during part of the year.

- To assure implementation and use of effective monitoring efforts and mitigation options, annual mitigation planning for wildlife and habitats will be coordinated among BLM, WGFD, and the Proponents. The Proponents, BLM and WGFD will jointly seek improvements to the proposed development plans to further reduce project impacts.

- The Proponents would support formation of a dedicated multi-agency management team to plan and implement permitting, monitoring, mitigation, and reclamation activities. This will benefit both the Proponents and agencies by streamlining the development process, providing continual focus on plan implementation, and providing coordination and cost-efficiencies with other adjacent developments that could impact some of the same animals and habitats impacted by this project.

- The Proponents will monitor mitigation measures to determine mitigation effectiveness and provide ongoing information and direction for future mitigation efforts during the life of the field.

- The Proponents will commission and fund a habitat inventory of the PAPA. Habitat inventory data will be used for development, reclamation, and potential habitat improvement planning for key habitats and habitat components. Habitat improvements may be applied in important habitats to restore degraded or lost habitat functions.

- Concurrent with and complementing these on-site efforts to avoid, minimize and mitigate impacts, the Proponents have commissioned and funded wildlife research, wildlife monitoring and other special studies. The first year of a five year study on pronghorn antelope is now complete as is the first year of a five year research project on sage grouse. The mule deer study is in its sixth year of a seven year research and monitoring project.

- The Proponents will promote communication with other stakeholders as mitigation objectives and approaches are being developed. Specific wildlife and habitat mitigation objectives and actions should, as much as possible, be designed to minimize impacts to other important area resources (e.g., livestock, recreation, visual resources).

Appendix 9B

Alternative C – Wildlife and Habitat Mitigation Plan

Alternative C – Wildlife and Habitat Mitigation Plan

If Alternative C is selected in the ROD, the Alternative B Wildlife and Habitat Mitigation Plan would be modified as appropriate. The only change that would be required would be changing references to Concentrated Development Areas (CDAs) to Development Areas (DAs).

Appendix 9C

Alternative D – Wildlife and Habitat Mitigation Plan

Alternative D – Wildlife and Habitat Mitigation Plan

Prepared by
Ultra Resources, Inc.
Shell Exploration & Production Company
Questar Market Resources

Purpose

Ultra Resources, Inc. (Ultra), Shell Exploration & Production Company (Shell), and Questar Market Resources (Questar), collectively referred to as the "Proponents", propose this wildlife and habitat mitigation plan to supplement wildlife and habitat provisions identified in the 2000 Pinedale Anticline Exploration and Development Project Record of Decision (ROD) (Bureau of Land Management [BLM] 2000).

On December 6, 2004, the Wyoming Game and Fish Department (WGFD) issued the guidance document Recommendations for Development of Oil and Gas Resources within Crucial and Important Wildlife Habitats (WY Game & Fish Department. 2004 Cheyenne, WY). This document recommends various mitigation and management practices to address impacts to wildlife which could be employed by oil and gas industry in the development of oil and gas resources in Wyoming. In addition to its recommended standard management practices to reduce wildlife impacts associated with oil and gas development, the WGFD also recommended additional mitigation/management prescriptions including: directional drilling, clustered development, condensate removal, remote monitoring, travel plans, environmental monitoring, and as appropriate, gate and close all newly constructed roads to public travel. The following Proponent commitments have incorporated not only most of the recommended standard management practices, but all of the recommended additional mitigation/ management prescriptions as recommended by WGFD. These are measures that were not contemplated in the 2000 Pinedale Anticline Exploration and Development Project Record of Decision (ROD) (Bureau of Land Management [BLM] 2000).

The Proponents' development proposal limits surface fragmentation through directional drilling, multiple-well pads, interim reclamation, development areas in the core and voluntary time-limited lease suspensions or no surface occupancy (NSOs) in the flanks. Use of these multiple-well pads within development areas will correspondingly reduce associated development impacts such as roads and pipelines. In addition, the Proponents will substantially reduce the amount of human activity and on-site facilities through the use of liquids gathering systems and consolidated production facilities which will result in decreased surface disturbance. Through development areas, voluntary time-limited lease suspensions or NSOs in the flanks, and operational activities, Proponents will leave large blocks of acreage undisturbed and available for wildlife use.

Scope

This plan applies to practices within the Pinedale Anticline Project Area (PAPA) to ensure avoidance and minimization of impacts to wildlife and wildlife habitat and to ensure in the event that avoidance and minimization are unachievable, the proper and timely mitigation of wildlife and habitat impacts both on-site and off-site, if needed.

This Plan amends the 2000 PAPA ROD and Mitigation Guidelines and Standard Practices, Appendix A, as they apply to big game and sage grouse except for surface occupancy within

0.25 mile of an active lek. Proponents are requesting exceptions to existing stipulations for big game and sage grouse during wintering, nesting, and brood rearing periods within certain development areas as outlined in Alternative D in Chapter 2 for construction and development activities. This will allow for year round construction and development activities within these specific areas during the multi-year period required to complete these actions thereby substantially reducing the time required for the project development phase. A 0.25-mile restriction of no surface occupancy of permanent facilities near active sage grouse leks will remain in effect. Exceptions for raptor and/or Bald Eagle stipulations will be sought on an individual basis by the Proponent wishing to conduct operations and will be addressed through Voluntary Best Management Practices (BMP's) and in coordination with the U.S. Fish and Wildlife Service (USFWS). Permitting mitigation alternatives outlined below will be implemented.

Proponent Committed Measures

The Proponents' commitments for wildlife and habitat mitigation are designed to offset impacts resulting from their development activities within the PAPA, and center on: avoiding impacts**;** minimizing impacts; rectifying, repairing, rehabilitating, or restoring environmental conditions; reducing or eliminating impacts over time; and compensating for impacts on-site or off-site. As outlined under the National Environmental Policy Act (NEPA), 40 CFR 1508.20:

Avoidance of Impact: "Avoiding the impact altogether by not taking a certain action or parts of an action."

- The Proponents will make efforts to avoid the impacts that could otherwise occur if development was implemented pursuant to the 2000 PAPA ROD. Proponents propose to use directional drilling on larger multi-well pads in development areas year round. Under Alternative D, operators commit to no more than 600 pads to develop 4,399 new wells. The year round access development proposal utilizes pads for natural gas development including some possible downspacing to 20, 10 and 5 acre down-hole well density. Thirty or more wells may be developed from a single pad in some areas. The 2000 PAPA ROD analyzed wells at 40-acre spacing and limited active pads to 700 pads.

- The arrangement of the development areas will leave large, contiguous blocks of land without active development activities. The estimated total disturbed acreage (without reclaimed acreage calculated into the number) will leave 92% of the PAPA undisturbed by natural gas development.

- Proponents offer to voluntarily suspend for a time-limited period or commit to time-limited NSOs on certain leases or acreage in the flank areas of the PAPA. This voluntary commitment ensures a significant portion of the flanks of the PAPA will be available as undisturbed habitat for wildlife.

- The Proponents will utilize the following voluntary eagle and raptor BMP's from which they may choose any or all as voluntary measures, and will seek technical assistance from the BLM and the USFWS as necessary.

    1. Conduct appropriate raptor surveys before commencement of ground disturbing activities within 1 mile of proposed disturbance to determine status of known nests and roosts and to identify new nests and roosts.

2. Monitor any activities that may adversely impact bald eagles and other raptor species.

3. Restrict activities within 0.5 mile of active raptor nests (1 mile of active bald eagle and ferruginous hawk nests) from the period of early courtship through the fledging of chicks (generally from February 1 to August 15). With assistance from the USFWS, modifications to protective buffers may be considered when topography, vegetation and other variables serve as natural protective buffers.

4. Restrict activities within 1 mile of known bald eagle winter roosts from November 1 to April 1, when activity has been verified. With assistance from the USFWS, modifications to the 1-mile protective buffer may be considered when topography, vegetation and other variables serve as natural protective buffers.

5. In coordination with the USFWS noise reduction barriers may be used to minimize disturbance when activities are proposed within an established protective buffer.

6. Prohibit activities that produce extremely loud noises within 1 mile of active bald eagle nests during nesting periods unless greater tolerance to the activity (or similar activity) has been demonstrated by the particular pair of bald eagles through monitoring.

7. Build all power lines to standards identified in Avian Power Line Interaction Committee and utilize industry-accepted standards to prevent raptors from being electrocuted on towers and poles.

8. To preclude bald eagles or other raptors from nesting on human-made structures such as cell phone towers and condensate tanks and to avoid impeding operation or maintenance activities, install anti-perching devices on structures to discourage use by raptors. Additionally, in coordination with the USFWS and based on appropriate ecosystem management, construct artificial nesting platforms to encourage nesting away from human activity.

9. As necessary, notify the appropriate authorities (Wyoming Department of Transportation on Highways and WGFD or BLM on rural and county roads) of the presence of roadside carrion and ask that they remove the carrion as soon as possible. Carcasses may be covered in the interim to discourage scavenging by bald eagles and other raptors, but only authorized personnel may touch or remove the carcasses.

10. When possible, include the USFWS in on-site reviews for future project sites.

11. The Proponents will work to identify voluntary opportunities to conserve and/or improve natural resources in the area to promote a positive land ethic. Maintain adequate buffer from riparian habitats where possible (outside edge of trees as area of effect). Buffers would be site specific depending on vegetation and topography. They will be developed in coordination with

qualified biologists, the USFWS and/or the BLM as necessary. Proponents will strive to conserve potential nesting, roosting and foraging habitat whenever possible by retaining mature trees and old growth stands wherever possible, particularly within 0.5 mile of water.

Minimize Impacts: "Minimizing impacts by limiting the degree or magnitude of the action and its implementation."

- All activities will be conducted in such a manner that minimizes impacts on wildlife, habitat and the local communities.

- The Proponents will minimize the total area of surface disturbance and associated areas of indirect habitat loss by reducing to the extent possible human presence and activity.

    1. The Proponents will utilize liquids gathering systems and centralized processing and storage facilities where feasible thereby reducing traffic.

    2. The Proponents will utilize computer assisted remote monitoring of producing wells, and anticipate an average of only 1 roundtrip per day to each well pad during production.

    3. In addition to minimizing surface disturbance by restricting activities to existing roads, traffic on those roads will also be minimized to the extent practical by coordinating and scheduling the transportation routes and use of the roads by project personnel and service contractors.

    4. Commuting traffic will be minimized in crucial big game winter range and sage grouse winter concentration areas by bussing rig crews from staging areas to work areas.

    5. Total acreage disturbance by 2024, without reclamation considered, is estimated at 14,961 leaving 92% of the PAPA undisturbed.

- The Proponents will make efforts to reduce the total duration of project activities in the PAPA.

    1. The areas of simultaneous drilling, completion, construction, and production activities will be completed in as short a time as possible by completely drilling and completing all wells on a pad as feasible prior to moving development activities to another pad.

- Development (construction, drilling, and completion activities) will be as specified in Alternative D in Chapter 2. This will result in leaving the greatest amount of undisturbed habitat as possible at any point in time in the best combination of the following:
    - largest area
    - largest contiguous blocks
    - best functional connectivity
    - highest quality

- The Proponents' implementation of a road management plan, which voluntarily restricts their activities to existing roads where possible, will reduce surface disturbance and expansion of human disturbance into new areas and will lessen road mileage by 70% as compared to traditional single-well pad development.

- The Proponents will plan their activities to avoid to the extent practical moving drill rigs in crucial big game winter range after November 15 and before May 1, thereby reducing the number of trucks, equipment and associated traffic during big game stipulations.

- Each year, the specific areas of activities will be determined through joint review of Proponent development plans. The Proponents (combined or separate as appropriate), BLM, and WGFD will work to reach agreement on the final plans as early in the calendar year as possible to allow sufficient time to plan, permit, and execute new construction as required in the summer months for the next activity year.

- The Proponents will also provide a 10-year rolling forecast of PAPA activity at the same time each year to fully describe the future development plans on an ongoing basis.

- Each year, the Proponents, BLM, and WGFD will jointly seek improvements to the annual and 10-year development plans designed to further reduce potential project impacts.

- The Proponents may choose any or all of the following BMP's as voluntary measures which can be used to minimize disturbance to bald eagles and other raptors when oil and gas development activities occur within recommended protective buffers.

    1. During night operations, direct lighting toward the pad to avoid light disturbance to surrounding areas if no negative pad safety impact is foreseen.

    2. Reduce unnecessary traffic and encourage travel times to be during daylight hours between 9-3.

    3. In areas within 1 mile of active nests where there is line of sight from active nests to the activity, pipeline installation equipment shall be shielded from the affected area with camouflage netting.

    4. Avoid potentially disruptive activities or permanent above ground structures in the bald eagles' direct flight path between their nest and roost sites and important foraging areas.

Restoration of Impacts: "Rectifying the impact by repairing, rehabilitating, or restoring the affected environment."

- Mitigation measures will begin immediately or as soon as practical, to avoid any lag time between impacts that decrease habitat function and the on-the-ground mitigation actions that increase habitat function. Mitigation in the form of interim reclamation (utilizing native cool-season grasses, forbs, and shrubs in the seed

mix) will proceed as soon as practical after development drilling, completion and construction activities are completed on individual pads, which will reduce the net surface disturbance as development proceeds. Once all drilling and completion work has been finished and all wells on the pad are on production, the Proponents forecast that 70% of the disturbed pad area will be reclaimed on individual pads containing pits, and 50% of the disturbed pad area will be reclaimed on pads developed without reserve pits. The Proponents will also temporarily reclaim pads when no forecasted drilling or completion activity is expected on the pad for the following two years.

- Impacts will be mitigated by developing coordinated mitigation approaches with the BLM, WGFD, and other federal and state agencies to seek opportunities to further benefit wildlife.

- Key habitats and habitat components, such as crucial winter ranges, migration routes, sage grouse seasonal habitats, and identified sensitive species habitats, will receive first consideration for mitigation. Specific mitigation actions will as much as possible:

    - occur on-site, or immediately adjacent to impacts
    - address the same animals or species that are being impacted
    - address the same habitat components that are being impacted

Reduction and Elimination of Impacts: "Reducing or eliminating the impact over time by preservation and maintenance operations during the life of the project."

- The Proponents have committed to utilizing liquids gathering systems and centralized processing and storage facilities where feasible. Liquids gathering systems and centralized facilities will significantly reduce tanker truck traffic, most notably after the project construction phase.

- The Proponents will utilize computer assisted remote monitoring of producing wells. Proponents anticipate 1 field operator visit per day per pad.

- Proponents will use existing roads where possible which will reduce surface disturbance and expansion of human disturbance into new areas and will lessen road mileage by 70% compared to traditional single-well pad development.

Compensation for Impacts: "Compensating for the impact by replacing or providing substitute resources or environments."

- Proponents commit to the agreed upon wildlife monitoring and mitigation matrix with performance based objectives and sequential outcomes. The matrix was agreed to among the Proponents, the Governor of Wyoming, and the WGFD. Please see Appendix 10 to the Final SEIS.

- The Proponents commit to developing a comprehensive off-site mitigation plan within one year of SEIS ROD release. Options that may be included in the plan are enhancing habitat on land contiguous to the PAPA and acquisition of property rights

(leasehold interest, short-term or long-term conservation easements, etc.) designed to set aside habitats, protect key migration routes and preserve open space.

- The Proponents commit to establishing the Pinedale Anticline Operators' Mitigation and Monitoring Fund (Fund). This Fund will provide assurance that financial support is available for mitigation and monitoring for the life of the project. The sole purpose of the Fund is to provide funding for monitoring and mitigation impacts directly related to Proponents' activities in the PAPA SEIS project. Proceeds from the Fund can be used both on-site and off-site in the general PAPA area for air quality monitoring, wildlife, livestock, vegetation and reclamation research, analysis, monitoring, mitigation and agencies' PAPA-project essential full time equivalent (FTE) positions as a result of PAPA activities. Proponents envision that the Fund will support as components of wildlife mitigation:

    - basic habitat enhancements for improvement of habitat function both on-site and off-site and
    - protection of key migration routes and / or acreage that directly benefit wildlife.

  The funds referenced in this correspondence are aimed at mitigation and monitoring activities and specifically targeted to funding mitigation as required from the wildlife monitoring and mitigation matrix. It is impossible to accurately predict what types of actions would warrant the use of these monies, but compliance activities do not fit the intended purpose of the fund.

  Proponents will provide $4.2 million as the initial contribution after BLM issues the SEIS Record of Decision (ROD) to begin mitigation and monitoring efforts immediately. Proponents would make future annual contributions to the Fund based on the pace of development. Estimated annual average contribution based on the Proposed Action is $1.8 million per year with an expected total contribution based on the Proposed Action of approximately $36 million. This offer is the only commitment for Proponents' contributions to the Fund.

- Off-site mitigation will generally be implemented if on-site actions are not considered adequate, or if off-site measures are considered to be of significantly greater value. Off-site mitigation would occur as close to the impacted area as possible, and provide habitat for the specific animals being displaced or experiencing habitat declines as a result of development. Off-site mitigation that occurs farther away would provide a key year-round life requirement for the animals that occupy the development area during part of the year.

- To assure implementation and use of effective monitoring efforts and mitigation options, annual mitigation planning for wildlife and habitats will be coordinated among BLM, WGFD, and the Proponents. The Proponents, BLM and WGFD will jointly seek improvements to the proposed development plans to further reduce project impacts.

- The Proponents would support formation of a dedicated multi-agency management team to plan and implement permitting, monitoring, mitigation, and reclamation activities funded out of the Mitigation and Monitoring Fund. This will benefit both the Proponents and agencies by streamlining the development process, providing

continual focus on plan implementation, and providing coordination and cost-efficiencies with other adjacent developments that could impact some of the same animals and habitats impacted by this project.

- The Proponents will monitor mitigation measures to determine mitigation effectiveness and provide ongoing information and direction for future mitigation efforts during the life of the field.

- The Proponents will commission and fund a habitat inventory of the PAPA. Habitat inventory data will be used for development, reclamation, and potential habitat improvement planning for key habitats and habitat components. Habitat improvements may be applied in important habitats to restore degraded or lost habitat functions.

- Concurrent with and complementing these on-site efforts to avoid, minimize and mitigate impacts, the Proponents have commissioned and funded wildlife research, wildlife monitoring and other special studies. The first year of a five year study on pronghorn antelope is now complete as is the first year of a five year research project on sage grouse. The mule deer study is in its sixth year of a seven year research and monitoring project.

- The Proponents will promote communication with other stakeholders as mitigation objectives and approaches are being developed. Specific wildlife and habitat mitigation objectives and actions should, as much as possible, be designed to minimize impacts to other important area resources (e.g., livestock, recreation, visual resources).