



U.S. Department of the Interior

Bureau of Land Management
Pinedale Field Office

July 2005



Finding of No Signification Impact, Decision Record and Environmental Assessment for the Questar Year-Round Drilling Proposal - Condensate Pipeline Modifications, Sublette and Lincoln Counties, Wyoming



MISSION STATEMENT

It is the mission of the Bureau of Land Management to sustain the health, diversity, and productivity of the public lands for the use and enjoyment of present and future generations.

WY-100-EA05-283

**FINDING OF NO SIGNIFICANT IMPACT(FONSI) and DECISION RECORD (DR)
FOR
QUESTAR YEAR-ROUND DRILLING PROPOSAL – CONDENSATE PIPELINE
MODIFICATION (QYDP-CPM)
EA #WY-100-EA05-283**

SUMMARY OF THE MODIFICATION PROPOSAL

Questar Gas Management (QGM) proposes to modify their condensate pipeline gathering system approved in the November, 2004, Decision Record (DR) (BLM 2004a) for the Questar Year-Round Drilling Proposal (QYDP). The DR for the QYDP EA (WY-100-EA05-034) approved a 107-mile pipeline from the Pinedale-4 well site in the northern end of the Pinedale Anticline Project Area (PAPA) through Bird Canyon Compressor Station and south to the Black's Fork Processing Plant in Sweetwater County.

QGM proposes to route the pipeline west from Bird Canyon for 14.4 miles to the Rocky Mountain Pipeline Terminal in Lincoln County, Wyoming, rather than south to the Black's Fork Processing Plant. The proposal includes a horizontal directional drill (HDD) under the Green River and cultural resources at that HDD location. This modification will result in an overall 61-mile pipeline (the 611 Pipeline), shortening the originally-proposed pipeline by 46 miles.

Additional condensate and produced water gathering system-related modifications from the QYDP EA that are located within the PAPA and addressed in this or other EAs and/or this DR include:

- Addition of three Central Delivery Point facilities (CDPs) located on the Stewart Point 16-18, Mesa 15-06, and Mesa 15-16 pads (all on existing disturbance), with associated compression and Volatile Organic Compound (VOC) control technology emissions;
- Addition of an underground power line to Stewart Point 16-18 CDP from an existing nearby power line;
- Addition of a Natural Gas Liquids (NGL) Stabilizer and Water Handling Facility near Gobblers Knob Compressor Station, with connecting pipelines and buried power lines from/to the Gobblers Knob Compressor Station;
- Addition of a 16,000 bbl condensate storage tank (for upset conditions) adjacent to the Rocky Mountain Pipeline Terminal;
- Addition of a blowdown tank on each well pad within the Questar leasehold;
- Addition of a produced water storage tank battery at Hwy 351 and associated potential trucking to facilities at LaBarge (during upset conditions);
- Addition of Mesa Phase IV Multi-Pipelines to connect wells to the condensate and produced water gathering systems and to add a 16-inch natural gas pipeline loop;
- Modification of Questar Exploration and Production Company's (Questar's) air quality emissions commitment, to having year-round drilling rig emissions Tier II-compliant (or equivalent) no later than January 1, 2008 (versus previous commitment to having all drilling rig emissions Tier II-compliant (or equivalent) no later than January 1, 2007).

Some of these modifications have been analyzed under ROW NEPA documents; others are analyzed in this QYDP-CPM EA. All the modifications are included in the cumulative impact analysis in this QYDP-CPM EA.

FINDING OF NO SIGNIFICANT IMPACTS

As discussed in this EA, the direct and indirect incremental change to the environment introduced by implementation of the Proposed Action result in no significant environmental impacts that have not been analyzed. BLM believes adverse impacts have been mitigated such that the net change in cumulative impacts introduced by the proposed modifications – in combination with past mitigation, present actions, adjustments proposed by QGM and Questar, and future monitoring and assessment – are not expected to be significant. Steps to mitigate, assess, and monitor air emissions are being taken in conjunction with Wyoming DEQ. NOx emissions are expected to be reduced over time on these leases with the use of improved drilling rig engine technology, near elimination of flaring at well completion, and the elimination of emissions from tanker trucks which would otherwise travel to the wells to recover condensate. NOx emissions from oil and gas operations are less than half of total emissions from sources such as power plants, traffic, etc. Potential impacts to NO₂ National Ambient Air Quality Standards, Wyoming Ambient Air Quality Standards, and Prevention of Significant Deterioration are unlikely to be significant. Therefore, a new or supplemental EIS is not required.

DECISION

It is my decision to approve the Proposed Action. Approval allows the following:

- 1) Construction of the 14.4-mile long, 6-inch diameter condensate pipeline using the alignment shown in Appendix A of this EA. Approval of drilling operations between November 15, 2005, and April 30, 2006, is contingent upon this pipeline and the produced water pipeline being operational by November 15, 2005; if the pipelines are not operational by that date, Questar may not winter-drill after that date unless an exception is granted. That exception will be considered on its own merits.
- 2) Construction of an underground power line to Stewart Point 16-18 CDP from an existing nearby power line.
- 3) Construction of connecting pipelines between the NGL Stabilizer and Water Handling Facility and Gobblers Knob Compressor Station, and the associated power line.
- 4) Placement of one blowdown tank on each well pad within the Questar leasehold;
- 5) Tier II-compliance (or equivalent, or better) of drilling rig engine emissions on all year-round drilling rigs operating in Questar's leasehold by January 1, 2008, as committed to by Questar.

My decision is conditioned upon and subject to the following requirements:

- The Questar Year-Round Drilling Proposal Decision Record and its Appendix A (BLM, 2004a) are in full force and effect except where modified by this Decision Record and its Appendix A.
- Questar and QGM will fully implement the applicant-committed mitigation measures described in Section 2.5 of the QYDP EA (WY-100-EA05-034) and the original ROD for the PAPA EIS except as modified by the QYDP DR (BLM 2004a), by November 15, 2005.
- Questar will fully implement an expanded mule deer research study beginning in the winter of 2005-2006, which will continue existing research and add research into the physiological

effects on mule deer of winter drilling activity, to determine impacts of winter drilling on mule deer populations.

- Questar will provide a proposed expanded mule deer research design to BLM by September 1, 2005; BLM will submit that proposed design to the Pinedale Anticline Working Group (PAWG) and to the WGFD for review and recommendation. Based on PAWG and WGFD recommendations (to BLM by October 15, 2005), BLM will approve an expanded study research design before November 1, 2005. Questar will implement that expanded study research by November 15, 2005. If BLM, PAWG, and WGFD agree that is not feasible, a new expanded study implementation date will be set and the public will be notified.
- Blowdown tanks on all pads put into production after the date of this DR will be no bigger than 90bbl, low-profile (6-foot high) tanks; blowdown tanks on pads put into production prior to the date of this DR will have existing blowdown tanks converted to these 90bbl, low-profile (or smaller, technology permitting) tanks by August 1, 2007, as committed to by QGM.
- QGM will provide a paleontology monitor who will be present during pipeline construction within Bird Canyon; that monitor will coordinate with BLM prior to construction in that area;
- Questar and QGM will fully implement the performance-based objectives for development and production, Conditions of Approval, mitigation, monitoring, inventories, and Best Management Practices listed in Appendix A to this DR; habitat enhancement activities may begin prior to November 15, 2005, at the discretion of BLM and WGFD, and may be subject to additional NEPA analysis.
- The PAWG advisory committee will review and evaluate the above-referenced requirements and make recommendations to BLM on an annual basis regarding continuation, cessation, or addition to those requirements; and
- The BLM Pinedale Field Manager or designee is the Authorized Officer (AO) for this project. Mitigation and monitoring measures may be modified. Mitigation and monitoring requirements will be determined annually by the AO after receiving the results of on-site inspections, recommendations from the Pinedale Anticline Working Group (PAWG), and stakeholder consultations. BLM may require field studies or documentation in addition to those listed in Appendix A to this Decision, to ensure that reclamation and other resource protection goals are met.

RATIONALE FOR DECISION and MANAGEMENT CONSIDERATIONS

The decision to approve the Proposed Action is based on the following factors:

- 1) **Consistency with Land Use and Resource Management Plans.** The decision to approve the Proposed Action is in conformance with the overall planning direction for the area. The Pinedale RMP states that public land in the area of the proposal is “open to consideration for exploration, leasing, and development for all leaseable minerals.” Standard and special protective measures, identified and incorporated into this Decision, including the mitigation measures committed to by QGM and Questar, will help meet other resource objectives in the RMP.

- 2) **Finding of No Significant Impact.** As discussed in the EA, the direct and indirect incremental change to the environment introduced by implementation of the Proposed Action results in no significant environmental impacts that have not been analyzed. BLM believes adverse impacts have been mitigated such that the net change in cumulative impacts introduced by the project – in combination with past mitigation, present actions, adjustments proposed by QGM and Questar, and future monitoring and assessment – are not expected to be significant.
- 3) **Relevant Resource and Economic Considerations.** Environmental impacts identified in this EA are within the scope of the PAPA EIS. It is anticipated that implementation of the Proposed Action will reduce impacts for most resources to levels below those analyzed in the QYDP EA. The economic benefit of allowing the project is important, especially to QGM and Questar, the local community, and local and federal governments.
- 4) **Agency Statutory Requirements.** All pertinent statutory requirements applicable to this proposal were considered. These include consultation with the U.S. Fish and Wildlife Service regarding threatened and endangered species; and coordination with state agencies regarding air quality, wildlife, cultural resources, and oil and gas conservation.
- 5) **National Policy.** Exploration and development of Federal oil and gas leases is an integral part of the BLM oil and gas leasing program under authority of the *Mineral Leasing Act of 1920* and the *Federal Land Policy and Management Act of 1976*, and the *National Energy Policy*. The United States continues to rely heavily on foreign energy sources. Oil and gas leasing is needed to encourage development of domestic oil and gas reserves to reduce the United States' dependence on foreign energy supplies. Therefore, the decision is consistent with national policy.
- 6) **Measures to Avoid or Minimize Environmental Harm.** The adoption of the performance-based development and production objectives, Conditions of Approval, mitigation, monitoring, and Best Management Practices in Appendix A to this DR represent practical and effective means to avoid or minimize environmental harm. The Proposed Action will reduce current environmental impacts for most resources.
- 7) **Public Comments.** No comments were received on the scope of this EA during the 2-week scoping period that ended July 7, 2005.

The decision to approve the Proposed Action takes into account important management considerations, Federal agency missions, and the public's need for oil and gas. The decision balances these considerations with the degree of adverse impact to the environment and the Proposed Action's benefits. The development effort will help meet public needs for oil and gas while at the same time allowing humans to coexist with nature in a way that allows the least degree of irreversible, irretrievable commitment of resources. The long-term productivity of the area would neither be lost nor substantially reduced as a result of approving the QGM proposal. Implementation of the mitigation measures listed in Appendix A to this DR and in Section 2.5 of the QYDP EA (WY-100-EA05-034) will result in a reduction of impacts currently occurring to most resources from development within Questar's lease area.

COMPLIANCE AND MONITORING

Qualified personnel from QGM and BLM will be available during and following construction to coordinate with BLM and ensure compliance with construction, reclamation, and other requirements and provisions of this DR. QGM and Questar will be required to conduct monitoring of the project in coordination with BLM and other State and Federal agencies in accordance with Appendix A of this DR. Appropriate remedial action will be required by the BLM or the State of Wyoming in the event unacceptable impacts are identified.

The Decision Record/Appendix A for the Questar Year-Round Drilling Proposal (BLM 2004b) is in full force and effect except as modified by this Decision Record/Appendix A.

Questar and QGM will comply with all appropriate federal, state, and local laws and regulations.

ALTERNATIVES CONSIDERED INCLUDING THE PROPOSED ACTION

Three development alternatives (Proposed Action, No Action, and Alternative A) were considered and analyzed in detail in this EA (WY-100-EA05-283).

Proposed Action. The proposed development would involve:

- 1) Construction of a 14.4-mile long condensate pipeline from the Bird Canyon Compressor Station (NW ¼ Section 34, T. 24 N., R. 111 W.) to the Rocky Mountain Pipeline Facility in the north half of Section 11, T. 26 N., R. 113 W. in Lincoln County; and
- 2) Construction of an underground power line to Stewart Point 16-18 CDP from an existing nearby power line; and
- 3) Construction of connecting pipelines between the NGL stabilization facility and Gobblers Knob Compressor Station, and the associated power line; and
- 4) Placement of one blowdown tank on each well pad within the Questar leasehold; blowdown tanks on all pads put into production after the date of this DR will be no bigger than 90bbl, low-profile (6-foot high) tanks; blowdown tanks on pads put into production prior to the date of this DR will have existing blowdown tanks converted to these 90bbl, low-profile (or smaller, technology permitting) tanks by August 1, 2007, as committed to by QGM; and
- 5) Compliance with Tier II-equivalent or better technology on all year-round drilling rigs operating in Questar's leasehold by January 1, 2008, as committed to by Questar.

No Action. Under this alternative BLM would deny QGM's application to construct the 14.4 miles of condensate pipeline between the Bird Canyon Compressor Station and the Rocky Mountain Pipeline Terminal, deny construction of an underground power line to the Stewart Point 16-18 CDP, deny construction of connecting pipelines and power line between the NGL Stabilizer and Water Handling Facility and Gobblers Knob Compressor Station, deny placement of one blowdown tank on each well pad within Questar's leasehold, and would require all drilling rigs operating in Questar's leasehold to be Tier II-compliant (or equivalent) by January 1, 2007. QGM would be allowed to construct the entire 107 mile-long condensate pipeline from the PAPA to the Black's Fork Processing Plant near Granger as approved in the Questar Year-Round Drilling EA DR (BLM, 2004a).

Appendix A

Performance-based Development and Production Objectives, Conditions of Approval, Mitigation, Monitoring, and Best Management Practices

Development and production performance-based (i.e., outcome-based) objectives for existing and future activities within Questar's leasehold are:

- Maintain airborne emissions at or below levels sufficient to avoid:
 1. Near-field or far-field concentrations exceeding Wyoming or National Ambient Air Quality Standards (WAAQS or NAAQS);
 2. Cumulative near-field concentrations greater than Prevention of Significant Deterioration (PSD) Class II increments;
 3. Cumulative far-field concentrations in regional Class I wilderness areas and parks greater than PSD Class I increments;
 4. Decreases in visibility in regional parks and wilderness areas greater than Federal Land Managers' Air Quality Related Values Workgroup (FLAG), Forest Service (USFS), and/or National Park Service (NPS) thresholds;
 5. Decreases in Acid Neutralizing Capacity (ANC) in sensitive regional lakes greater than USFS levels of acceptable change (LAC);
 6. Increases in total acid deposition in sensitive regional lakes greater than deposition analysis thresholds (DAT); and
 7. Cumulative deposition total loadings greater than USFS levels of concern (LOC).
- Continue developing and implementing innovation and leasehold-wide planning to minimize well pad, road, pipeline, and ancillary facilities footprints;
- Continuously reduce visual intrusions through the use of new technology, replacement and removal of outdated equipment, use of most appropriate equipment paint colors, etc., as soon as they become proven and available, throughout the life of the project;
- Maintain sediment erosion (salt and silt discharge rates) at WDEQ and BLM acceptable levels;
- Reclaim sites to establish indigenous vegetative cover and species composition to maintain soil stability and provide nutritional value, palatability, and vegetative structure (i.e., habitat function) and to prevent invasive plant and noxious weed establishment;
- Plan interim and final reclamation to increase habitat patch sizes and reduce habitat fragmentation for sagebrush-obligate species;
- Maintain noise levels at 75dBa or less measured 30 feet from noise source (drilling pad, compressor, etc.);

- Maintain or improve the integrity of sagebrush habitat to sustain or increase the number of male sage-grouse on leks and numbers of sagebrush-obligate listed and sensitive species;
- Maintain currently active big game migration routes;
- Reduce human activity impacts in the leasehold below current levels during both the development and production phases;
- Prevent contamination of all surface and ground water;
- Continually utilize state-of-the-art technologies to avoid, minimize, or mitigate impacts; and
- Encourage Questar to participate in and support peer-reviewed research that evaluates impacts from development and applied mitigation.

Conditions of Approval, Best Management Practices, Mitigation, Inventories, and Monitoring

BLM will impose the following Conditions of Approval (COAs), Best Management Practices (BMPs), mitigation, inventories, and monitoring on or relative to all existing and future authorizations within Questar's leasehold and on the pipeline right-of-way:

- New well pads will be designed and constructed to meet WDEQ stormwater discharge requirements. Questar will modify all existing well pads to meet WDEQ stormwater discharge requirements within 2 years of this Decision Record;
- All road hydraulic structures will be engineered to insure that structures are stable and erosion is minimized throughout the anticipated life of the project;
- All well pads, roads, pipelines, and other facilities will be engineered and constructed to minimize sedimentation at the lease boundary;
- Storm water and snowmelt water will be held in the project area for as long as possible to allow for infiltration, reduce runoff energy and associated sediment loads, using geofabrics, jute netting, spreader dikes, retention ponds, additional armoring of existing water courses, or other techniques;
- Mud storage tanks will be used, rather than pits, for Horizontal Directional Drilling (HDD) crossings of the rivers;
- Questar and QGM will employ appropriate topsoil storage technology and procedures to ensure soil viability and plant rooting potential are maintained;
- QGM will consult with the WDEQ, WGFD and BLM to determine measures necessary to protect aquatic life at the river crossings if QGM determines it is necessary to use additives for HDDs;

- WGM will prepare site-specific HDD monitoring and contingency plans for each river crossing for BLM, WDEQ and WGFD, Army Corp of Engineers review and approval, prior to disturbance;
- All water wells will be cemented or grouted as required by WSEO to protect fresh water aquifers; Questar- and QGM-related motor vehicle traffic will be limited in Questar's leasehold to BLM-approved roads;
- Monthly activity reports (vehicles, people, temporary noise exceedances, etc.) in the Questar leasehold will be provided to BLM until BLM issues written notification that monthly activity reports are no longer required; Questar will initiate consultation with BLM to further refine this requirement;
- Questar will utilize closed drilling systems (no reserve pits) for all wells, unless proven on a case-by-case basis that to do so would be technologically or economically unfeasible. If reserve pits are approved, Questar will remove/vacuum fluids from reserve pits within 60 days of all wells on a pad being placed into production, to accelerate pit closure and reclamation;
- Flareless completions will be utilized for all wells within the leasehold to reduce visual and noise impacts, unless proven on a case-by-case basis that flareless completions would be unsafe and that flaring completion is permitted by Wyoming DEQ;
- Remote telemetry will be installed and operated at all wells, to minimize well monitoring trips;
- New production facilities will be painted a non-contrasting color which is harmonious with the surrounding landscape (i.e, Shale Green unless otherwise specified by BLM on a case-by-case basis); existing production facilities will be painted that color at the earliest opportunity, no later than when facilities are due for re-painting;
- Produced water and condensate from all wells in the leasehold will be piped out of the PAPA beginning no later than November 15, 2005, except that an emergency produced-water tank battery located alongside Hwy 351 may be utilized in emergency situations; this supersedes previous decisions related to method of produced water and condensate disposal;
- Compressor stations and other production equipment will be sited away from noise-sensitive resources, or appropriately muffled, to meet the performance-based noise objective;
- Well pads, access roads, and other above-ground facilities will not be located within 825 feet of an active raptor nest, within 1,000 feet of an active ferruginous hawk nest, and within 2,640 feet of a bald eagle nest;
- The following seasonal restrictions for activities near active raptor nests/roosting sites/foraging areas will be imposed:
 1. February 1 through July 31, within ½ mile of all active raptor nests
 2. February 1 through July 31, within 1 mile of all active ferruginous hawk nests

3. February 1 through August 15, within 1 mile of all active bald eagle nests
 4. November 1 through April 1, within 1 mile of active bald eagle communal winter roosts
 5. November 1 through April 1, within 2 ½ miles of an bald eagle nest and within 1 mile of winter forage use areas (essentially, streambanks along the New Fork and Green Rivers)
- Surface disturbing and disruptive activities in sage-grouse winter habitat from November 15 through March 14 will be avoided;
 - Surface disturbing and disruptive activities in sage-grouse nesting and early brood-rearing habitat within 2 miles of an occupied lek, or in identified sage-grouse nesting and early brood-rearing habitat outside the 2-mile buffer, will be prohibited from March 15 through July 15;
 - Surface disturbance and occupancy will be prohibited within ¼ mile of the perimeter of sage-grouse leks, and human activity will be avoided between 8 p.m. and 8 a.m. from March 1st to May 15th;
 - Movement of rigs off winter-drilling pads after April 30 of any year will be allowed only if the receiving pad does not have seasonal or other stipulations preventing movement of a rig onto the receiving pad, or unless an exception for the receiving pad has been applied for and granted;
 - Well completions within MA 5 will be prohibited between November 15 and April 30, and will be prohibited between May 1 and July 15 unless a sage-grouse nesting stipulation exception is granted on a site-specific basis, pending results of sage-grouse nesting surveys near the site;
 - Questar will continue to assist BLM and WGFD in monitoring sage-grouse movements to determine if populations are migratory;
 - Questar and QGM will monitor noise near noise-sensitive resources as identified by BLM;
 - Questar will continue to monitor winter pronghorn movement within the leasehold in coordination with BLM and WGFD;
 - Questar will continue to monitor raptor/ferruginous/bald eagle/burrowing owl nesting activity, sage-grouse lek attendance, and other sagebrush-obligate species, in coordination with BLM and WGFD;
 - By November 15, 2005, Questar will inventory greater sage-grouse seasonal habitats within the leasehold not already inventoried by BLM or WGFD; GIS data will be provided to BLM, WGFD and PAWG with FDGC-compliant metadata (Questar needs to initiate coordination with BLM wildlife and GIS personnel so inventories are not duplicated);
 - Questar and QGM will monitor water use and provide annual depletions reports to BLM and USF&WS;
 - Questar will continue to financially support and assist with coordination of the PAPA wildlife monitoring plan;
-

- Questar will submit to BLM, WGFD, and PAWG, by January 1, 2006, a wildlife/habitat mitigation plan, developed in consultation with BLM and WGFD;
- Questar will remove all condensate and unused produced water storage tanks from well pads by September 1, 2006;
- Blowdown tanks on all pads put into production after the date of this DR will be no bigger than 90bbl, low-profile (6-foot high) tanks; blowdown tanks on pads put into production prior to the date of this DR will have existing blowdown tanks converted to these 90bbl, low-profile (or smaller, technology permitting) tanks by August 1, 2007, as committed to by QGM;
- Questar will submit to BLM for approval, by January 1, 2006, a reclamation plan for post-drilling, production phase, and post-production phase reclamation for the leasehold area;
- Questar and QGM will accelerate reclamation of disturbed areas – using innovative seed mixtures and application techniques, supplementing natural precipitation with sprinkler irrigation at key times, and/or other practices as approved by BLM;
- Questar and QGM will undertake aggressive weed control or removal in disturbed areas; QGM and Questar will be responsible for weed control on disturbed areas within the exterior limits of the permit and will be responsible for consultation with the authorized officer and/or local authorities for acceptable weed control methods. A "Pesticide Use Proposal" (Form WY-04-9222-1) and pesticide label must be submitted by the operator to the Surface Management Office no later than December 1 for the following spring/summer use;
- Reclamation success will be based on establishment of viable site-stabilizing plant growth, as determined by the authorized officer, within 1 year of initiation of reclamation. Site-stabilizing plant growth shall consist of indigenous species and/or ecologically-comparable species as approved by the authorized officer. Within 5 years of initiation of reclamation, the operator must establish **at least** 50%, and within 8 years of initiation of reclamation establish **at least** 80%, of indigenous vegetative cover and species composition to maintain soil stability and provide nutritional value, palatability, and vegetative structure (i.e., habitat function). The initiation of reclamation will commence immediately after the last well scheduled on a pad is put into production. In the event that more than one year will lapse between the drilling of wells on a pad, the authorized officer may require temporary site stabilization measures;
- Questar will restore those portions of pads not needed for production operations to as close to original contours as is practical after drilling is completed and during production phase reclamation, to minimize or eliminate the need to re-disturb those reclamation areas when wells are plugged and abandoned;
- By September 1, 2005, Questar will provide to BLM the name of the Questar point of contact, knowledgeable about reclamation, who will monitor forage utilization and reclamation success on reclaimed areas throughout the leasehold until post-drilling and production phase reclamation is deemed by BLM to be completed; that contact will begin immediately to coordinate with BLM on implementation and reporting of reclamation efforts and results;

- Questar and QGM will continue to financially support air quality monitoring in the PFO, in conjunction with other PAPA operators;
- Questar will monitor leasehold traffic volume and provide annual reports to BLM;
- Questar will monitor noise levels of drilling, cementing, and completion operations 30 feet from the well pad and provide annual reports to BLM;
- QGM and Questar will file their approved SPCCs and SWPPPs with BLM;
- By November 15, 2005, Questar will inventory all roads/trails in the leasehold not already inventoried by BLM; GIS data will be provided to BLM, WGF and PAWG with FDGC-compliant metadata (Questar needs to initiate coordination with BLM GIS personnel so inventories are not duplicated);
- By August 31, 2006, Questar will complete site-specific surveys of soils and vegetation types throughout the leasehold in coordination with BLM, and provide survey results to BLM in a digital, 1:24,000 level format with FDGC-compliant metadata (Questar needs to initiate coordination with BLM range and GIS personnel so inventories are not duplicated);
- Questar will conduct 6th-level watershed modeling throughout the leasehold (including identification of current sediment discharge rates), and provide the results to BLM and WDEQ, contingent on availability of data; Questar will initiate coordination with the BLM Zone Hydrologist by September 1, 2005, to carry out this requirement;
- Questar will monitor 'first flush' total suspended solids (TSS), in coordination with WDEQ and BLM and other agencies; Questar will initiate coordination with the BLM Zone Hydrologist by September 1, 2005, to carry out this requirement; and
- Mesa roads (as specified by BLM) will be closed seasonally to Questar traffic not directly related to drilling or production maintenance, from November 15th to April 30th.

Site-specific Conditions of Approval, Best Management Practices, Mitigation, Inventories, and Monitoring

The following Conditions of Approval, Best Management Practices, mitigation, inventories, and monitoring can be imposed by BLM, when deemed necessary by BLM, on a site-specific basis:

- Conversion of resource roads to 2-tracks after the last scheduled well on a pad is placed into production;
 - Nighttime lighting restrictions (including but not limited to directional lighting, hooded lights, colored lights);
 - Contouring of spoil piles to approximate the surrounding topography, and/or soil stabilization practices while stockpiled or after soil is re-distributed for reclamation;
 - Construction of livestock/wildlife water developments and/or strategic supplementation of natural precipitation to improve livestock distribution and forage utilization; and
-

- Implementation of additional air quality mitigation measures such as: use of selective or non-selective catalytic reduction on compressors; increased diameter of sales pipelines; increased water or magnesium chloride applications or other treatments (gravel, paving) on all surface disturbances including resource roads and well pads.