

Montana Department of Natural Resources and Conservation
Water Resources Division
Water Rights Bureau

ENVIRONMENTAL ASSESSMENT
For Routine Actions with Limited Environmental Impact

Part I. Proposed Action Description

1. *Applicant/Contact name and address:* Burlington Resources Oil & Gas Co. LP
PO Box 51810
Midland, TX 79710-1810
2. *Type of action:* Application for Beneficial Water Use Permit No. 42L-30030246
3. *Water source name:* Groundwater
4. *Location affected by project:* T6N, T7N and T8N, R60E and R61E, Fallon County
5. *Narrative summary of the proposed project, purpose, action to be taken, and benefits:*
This application is to divert water from January 1 through December 31 at a rate up to 1020 GPM and up to 1650 AF per year from two groundwater wells completed in the Lodgepole Formation to be used for oil well flooding in the Red River B Formation. Water is to be diverted from the Lodgepole Formation from depths between 8180' and 8440'. The water will be conveyed by buried pipeline to several water injection plants. From the water injection plants it will be delivered by pipeline to water injection wells throughout the East Lookout Butte (ELOB) Unit where it will then be injected to a depth of 9000' to flood the Red River B Formation for the purpose of pushing oil up to where it can be collected.
6. *Agencies consulted during preparation of the Environmental Assessment:*
(include agencies with overlapping jurisdiction)
Montana Natural Heritage Program
Montana Historic Preservation Office
Montana Department of Fish Wildlife & Parks (MFWP)
Montana Department of Environmental Quality (MDEQ)
Fallon County Planning Office

Part II. Environmental Review

1. Environmental Impact Checklist:

<h2>PHYSICAL ENVIRONMENT</h2>

WATER QUANTITY, QUALITY AND DISTRIBUTION

Water quantity - Assess whether the source of supply is identified as a chronically or periodically dewatered stream by DFWP. Assess whether the proposed use will worsen the already dewatered condition.

Determination: This groundwater source is not on the MFWP list of chronically or periodically dewatered streams.

Water quality - Assess whether the stream is listed as water quality impaired or threatened by DEQ, and whether the proposed project will affect water quality.

Determination: This groundwater source is not on the MDEQ list of water quality impaired or threatened streams. The water will be pumped from the Lodgepole Formation over 8000 ft below the surface, water will be re-injected to 9000'. There should be no affect to water quality.

Groundwater - Assess if the proposed project impacts ground water quality or supply. If this is a groundwater appropriation, assess if it could impact adjacent surface water flows.

Water is to be diverted from the Lodgepole Formation from depths between 8180' and 8440'. The water will be conveyed by buried pipeline to several water injection plants. From the water injection plants it will be delivered by pipeline to water injection wells throughout the East Lookout Butte (ELOB) Unit where it will then be injected to a depth of 9000' to flood the Red River B Formation. There should be no significant impacts to groundwater supply or quality. There should be no impacts to surface water.

Determination:

DIVERSION WORKS - Assess whether the means of diversion, construction and operation of the appropriation works of the proposed project will impact any of the following: channel impacts, flow modifications, barriers, riparian areas, dams, well construction.

Determination: The diversion works consist of two groundwater wells. The wells were constructed by a licensed contractor and have been approved by the MBOG. The proposed diversion, its construction and operation should not have significant impacts on the channel, historic flows, barriers, riparian areas, dams or well construction.

UNIQUE, ENDANGERED, FRAGILE OR LIMITED ENVIRONMENTAL RESOURCES

Endangered and threatened species - Assess whether the proposed project will impact any threatened or endangered fish, wildlife, plants or aquatic species or any "species of special concern," or create a barrier to the migration or movement of fish or wildlife. For groundwater,

assess whether the proposed project, including impacts on adjacent surface flows, would impact any threatened or endangered species or “species of special concern.”

Determination: The Montana Natural Heritage Program has identified one endangered species or species of special concern within this proposed project area. The species identified is the Greater Sage-grouse. The applicant would be expected to ensure that this species is not harmed as a result of the construction and use of the wells.

Wetlands - *Consult and assess whether the apparent wetland is a functional wetland (according to COE definitions), and whether the wetland resource would be impacted.*

Determination: The project area does not appear to have any existing wetlands. There should be no significant impacts to any existing wetlands.

Ponds - *For ponds, consult and assess whether existing wildlife, waterfowl, or fisheries resources would be impacted.*

Determination: This application is for two groundwater wells completed to depths over 8000 ft., there should be no impact to wildlife, waterfowl or fishery resources in the area.

GEOLOGY/SOIL QUALITY, STABILITY AND MOISTURE - *Assess whether there will be degradation of soil quality, alteration of soil stability, or moisture content. Assess whether the soils are heavy in salts that could cause saline seep.*

Determination: This proposed use should not degrade soil quality or cause saline seep problems in the area.

VEGETATION COVER, QUANTITY AND QUALITY/NOXIOUS WEEDS - *Assess impacts to existing vegetative cover. Assess whether the proposed project would result in the establishment or spread of noxious weeds.*

Determination: It is expected that the landowner will control the spread of noxious weeds on their property as regulated by the Fallon County Weed District.

AIR QUALITY - *Assess whether there will be a deterioration of air quality or adverse effects on vegetation due to increased air pollutants.*

Determination: There should be no deterioration of air quality or adverse effects on vegetation due to increased air pollutants from this proposed project.

HISTORICAL AND ARCHEOLOGICAL SITES - *Assess whether there will be degradation of unique archeological or historical sites in the vicinity of the proposed project.*

Determination: The Montana Historic Preservation Office has identified no previously recorded archeological or historic sites of record in the proposed project area. A cultural resource inventory has not been recommended for this site by the Montana Historical Society.

DEMANDS ON ENVIRONMENTAL RESOURCES OF LAND, WATER, AND ENERGY - Assess any other impacts on environmental resources of land, water and energy not already addressed.

Determination: There should be no significant impacts on other environmental resources of land, energy, and water from this proposed use.

HUMAN ENVIRONMENT

LOCALLY ADOPTED ENVIRONMENTAL PLANS AND GOALS - Assess whether the proposed project is inconsistent with any locally adopted environmental plans and goals.

Determination: This proposed use is not inconsistent with any locally adopted environmental plans and goals for Fallon County.

ACCESS TO AND QUALITY OF RECREATIONAL AND WILDERNESS ACTIVITIES - Assess whether the proposed project will impact access to or the quality of recreational and wilderness activities.

Determination: There should be no significant adverse impacts on recreational or wilderness activities from this proposed use.

HUMAN HEALTH - Assess whether the proposed project impacts on human health.

Determination: There should be no significant impact on human health from this proposed use.

PRIVATE PROPERTY - Assess whether there is any government regulatory impacts on private property rights.

Yes ___ No X ___ If yes, analyze any alternatives considered that could reduce, minimize, or eliminate the regulation of private property rights.

Determination: No significant impact.

OTHER HUMAN ENVIRONMENTAL ISSUES - For routine actions of limited environmental impact, the following may be addressed in a checklist fashion.

Impacts on:

- (a) Cultural uniqueness and diversity? No significant impact
- (b) Local and state tax base and tax revenues? No significant impact
- (c) Existing land uses? No significant impact
- (d) Quantity and distribution of employment? No significant impact
- (e) Distribution and density of population and housing? No significant impact

- (f) Demands for government services? No significant impact
- (g) Industrial and commercial activity? No significant impact
- (h) Utilities? No significant impact
- (i) Transportation? No significant impact
- (j) Safety? No significant impact
- (k) Other appropriate social and economic circumstances? No significant impact

2. Secondary and cumulative impacts on the physical environment and human population:

Secondary Impacts: The use of this water for oil well flooding should not impact water users downstream of the area.

Cumulative Impacts: The injection wells will increase the productivity of the East Lookout Butte oil recovery unit and therefore increase tax revenue on the local, state and federal levels.

- 3. Describe any mitigation/stipulation measures:** The applicant is aware that he would be required to cease using water if the use of the water is adversely impacting the rights of senior water users.
- 4. Description and analysis of reasonable alternatives to the proposed action, including the no action alternative, if an alternative is reasonably available and prudent to consider:** Burlington Resources would have to find another suitable source of water for their oil well flood operation, or cease production.

PART III. Conclusion

- 1. Preferred Alternative:** The preferred alternative would be to allow the use of the groundwater with the condition that the water rights of senior water users would not be adversely impacted.
- 2. Comments and Responses:** None to report
- 3. Finding:**
Yes ___ No X Based on the significance criteria evaluated in this EA, is an EIS required?

If an EIS is not required, explain why the EA is the appropriate level of analysis for this proposed action: No significant environmental impacts were identified. No EIS is required.

Name of person(s) responsible for preparation of EA:

Name: Christine Smith
Title: Water Resources Specialist
Date: December 3, 2008