

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:* J. C. O'Brien & Sons Inc.
421 Deer Drive
Great Falls, MT 59404
2. *Type of action:* Application for Beneficial Water Use Permit No. 41P-30024017
3. *Water source name:* Groundwater Pit
4. *Location affected by project:* SWNE Sec. 19, T27N R02W, Pondera County
5. *Narrative summary of the proposed project, purpose, action to be taken, and benefits:*
This application is proposed to pump water at a rate of 750 gpm up to 167.9 acre-feet from an enlarged groundwater pit to be used for a gravel washing plant. The water will be piped from the pit to the gravel washing plant. After exiting the wash plant, the water will be piped to a series of 3 ponds where sediment is allowed to settle. Clean water from the third pond will infiltrate back to the aquifer and recharge the groundwater pit. The pit development is located in the SWNE Sec. 19, T27N R02W, Pondera County.

The DNRC shall issue a water use permit if an applicant proves the criteria in 85-2-311, MCA, are met.
6. *Agencies consulted during preparation of the Environmental Assessment:*
(include agencies with overlapping jurisdiction)
Montana Natural Heritage Program
Montana State Historic Preservation Office
Natural Resources and Conservation Service – Liberty County
Montana Bureau of Mines Website
Dept. of Environmental Quality Website (TMDL 303d listing)
MT Dept. of Fish, Wildlife & Parks Website (Montana Rivers Information System)
National Wetlands Inventory Website

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 application will utilize water at a rate of 750 gpm to be pumped from a groundwater pit. The water will then be piped to the gravel washing plant. After exiting the wash plant, the water will be piped to a series of 3 ponds where sediment is allowed to settle. Clean water from the third pond will infiltrate back to the aquifer and recharge the groundwater pit. The pit development is located in the SWNE Sec. 19, T27N R02W, Pondera County. The nearest surface source is an unnamed tributary to South Pondera Coulee, which is not listed as a chronically or periodically dewatered stream by the Dept. of Fish, Wildlife & Parks (DFWP).

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 application will be utilizing groundwater from a pit development. The nearest water source is a tributary of South Pondera Coulee. South Pondera Coulee is listed on the Montana Department of Environmental Quality's 2002 303(d) list as being water quality impaired. The pit is about 1200 feet from a tributary of South Pondera Coulee, and the tributary's confluence with South Pondera Coulee is about another mile downstream. South Pondera Coulee partially supports Aquatic Life and Cold Water Fishery, Trout, and agriculture, drinking water supply, industrial, and recreation was not assessed on the 2002 list. The 2006 303(d) list indicates one or more uses are impaired and a TMDL is required.

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.

Determination: The groundwater was developed by excavating a pit. Water will be removed from the pit using a 750 gpm pump. In May 2006, a 72 hour pump test was conducted at a constant rate of 750 gpm. Prior to that test, a 10.8 hour test was conducted, at a constant pumping rate of 185 gpm, in a 3-foot diameter culvert well located 1050 feet to the southeast and within the same aquifer. The well was tested to provide a backup set of data for comparison purposes with the pump test of the pit. Based on the test results, the aquifer properties determined from the two tests are comparable. DNRC records as of May 2006 show zero existing groundwater appropriations within the 380-foot radius of influence of the applicant's season-long diversion being requested. In addition, because no perennial drainages are within the radius of influence, the applicant determined there can be no adverse affect to senior surface water rights from the pumping the applicant's pit at the proposed rate and volume. Groundwater quality or supply is not expected to be impacted from this project.

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: Groundwater is diverted from the groundwater pit using a PACO 4-inch 100 hp centrifugal pump with a 6-inch intake. The pump is powered by a Perkins 6-cylinder diesel motor. From the groundwater pit, water is conveyed through 4-inch aluminum pipe directly to the wash plant. After exiting the wash plant, the wash water is piped to a series of three small ponds where sediment is allowed to settle. Clean water from the third pond infiltrates directly back to the aquifer and recharges the groundwater pit. Since this is a groundwater pit development and there are no defined channels near the pit, this project should not create any channel impacts, flow modifications or barriers, or have any impact to riparian areas.

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: According to the Montana Natural Heritage Program, they found no records of species of special concern in the proposed search area. The project site is not within or near a critical wildlife habitat area and will not deteriorate any wildlife habitat. The wash plant has been in existence for approximately three (3) years, using a well located southeast from the existing 1 acre-foot pit and proposed enlarged 4 acre-foot pit. Due to the distance of the proposed pit from a perennial water source, as mentioned above, the proposed project should not impact any threatened or endangered species or species of special concern. The project site is not within or near a critical wildlife habitat area and will not deteriorate any wildlife habitat.

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 wetland website was reviewed and no known wetlands exist in the project area.

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

Determination: A small 4 acre-foot groundwater pit will be utilized at the diversion site. Since this is a groundwater pit, fisheries resources will not be impacted and this project should have little significant impact to existing wildlife and waterfowl.

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: The existing vegetative cover in the project area, NE of Sec. 19, includes dry land crops and native grass, as well as an existing gravel washing plant. The existing gravel washing plant is at the same location as that currently being applied for, and used a well located southeast of the proposed pit location. The existing gravel washing plant apparently was not covered by an active water right. There was some disturbance to the vegetative cover when the existing gravel washing plant was created and there will be further disturbance to the vegetative cover when the new pit and pipeline to the wash plant is installed. There is potential to establish or spread noxious weeds due to the vegetation disturbance, however, it is the responsibility of the property owner to control weeds on their property.

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: The soils include the Telstad-Joplin loams, 0-4 percent slopes, in a small area of the place of use in the NWNE Sec. 19, but the majority of the place of use includes the Attewan-Wabek complex, 0-8 percent slopes. The soils will be temporarily disturbed during the construction phase of the pit and pipeline connecting the pit to the wash plant, and back to the sediment ponds. The soils in the area where the proposed 4 acre-foot pit and pipeline will be are predominantly Attewan-Wabek complex, deep soils, made up of mostly clay loam soils. This soil complex is not prone to saline. There should be little impact to the soils along the pipeline route.

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

Determination: No impacts to air quality will occur as a result of this 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: According to the Montana State Historical Society (Society), there have been no previously recorded sites within the designated search location. The Society indicated in their January 24, 2007, letter that there is a low likelihood cultural properties will be impacted and felt a cultural resource inventory is unwarranted at this time. However, they further mentioned that should cultural materials be inadvertently discovered during this project, that their office be contacted and the site investigated. As the project is located on private property, any inventory conducted would be at the landowner's discretion.

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: No additional impacts on other environmental resources were identified.

<h2 style="margin: 0;">HUMAN ENVIRONMENT</h2>

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

Determination: There are no known environmental plans or goals in this area.

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: This project is on private land and there are no access roads to recreational or wilderness areas in the project area. Therefore, no impact is expected from this project.

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

Determination: The project should have no impact on human health.

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

Yes___ No___ If yes, analyze any alternatives considered that could reduce, minimize, or eliminate the regulation of private property rights.

Determination: There are no known additional government regulatory impacts on private property rights associated with this application.

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? There will be increased traffic when hauling gravel, however, impact should not be significant.
- (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 or Cumulative Impacts: No secondary or cumulative impacts have been identified.

3. Describe any mitigation/stipulation measures: None

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:

Alternative 1: Issue a water use permit if the applicant proves the criteria in 85-2-311, MCA are met.

No action alternative: This alternative is to do nothing and the existing land use would remain as is. The applicant would not benefit economically from the gravel washing plant.

PART III. Conclusion

1. Preferred Alternative: Alternative 1.

2. Comments and Responses: None

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 impacts have been identified, therefore an EIS is not necessary.

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

Name: Dixie Brough

Title: Water Resources Specialist

Date: February 27, 2007