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:*

   John B. & Anne I. Collins
   3080 East Lakeshore Dr
   Whitefish, MT 59937

2. *Type of action*: Application for Beneficial Water Use Permit 76LJ 30123906

3. *Water source name:* Whitefish Lake

4. *Location affected by project*: The place of use is generally located in NWNESE, Section 4, Township 31N, Range 22W, Flathead County, Montana

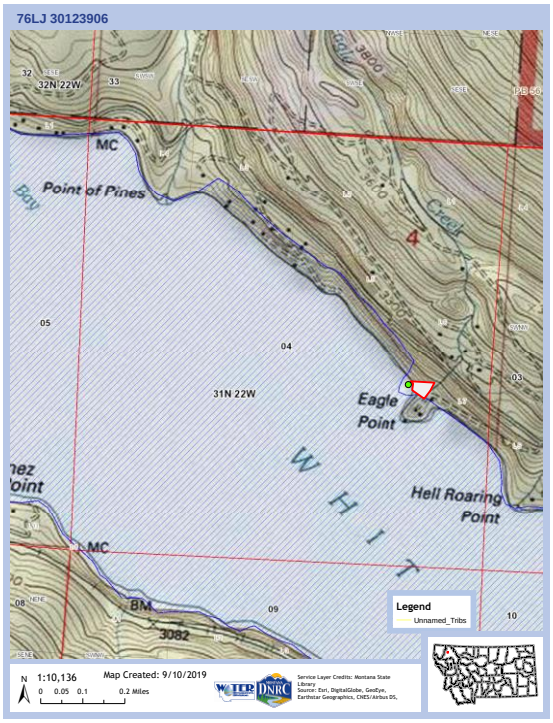

Figure 1: Map of the proposed place of use and point of diversion

5. *Narrative summary of the proposed project, purpose, action to be taken, and benefits:*

The Applicant proposes to divert water from Whitefish Lake, by means of a pump, from January 1st – December 31st from a point in NWNESE, Section 4, Township 31N, Range 22W, Flathead County, Montana to supplement Provisional Permit No. 76LJ 30047287 that is for 75 GPM up to 11.2 AF for geothermal purposes. The Applicant request zero flow up to 14.5 AF for geothermal use. The place of use is generally located in the NWNESE, Section 4, Township 31N, Range 22W, Flathead County, Montana. All water that is diverted and used for geothermal purposes in returned to Whitefish Lake near the point of diversion via a 3-inch pipeline that runs parallel to the supply line. The discharge is permitted by the Montana Department of Environmental Quality (MDEQ) via a Montana Discharge Elimination System (MPDES) permit (permit No. MT0031658). 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)

-U.S. Fish and Wildlife Service and Montana Natural Heritage Program: Endangered, Threatened Species and Species of Special Concern, Wetland Mapper program
-Montana Department of Fish Wildlife & Parks (DFWP); Dewatered Stream Information
-Montana Department of Environmental Quality's (MDEQ) Clean Water Act Information and PWS Drinking Water Watch databases
-U.S. Natural Resource Conservation Service (NRCS); web soil survey
-Montana Historical Society

Part II. Environmental Review

1. Environmental Impact Checklist:

PHYSICAL ENVIRONMENT

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.*

Whitefish Lake is not listed by DFWP as chronically or periodically dewatered. Upon analysis by the Department Whitefish Lake is found to have water in excess of that requested by the Applicant.

Determination: No impact.

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.*

According to the Montana Department of Environmental Quality's (MDEQ) Clean Water Act Information Center in 2018 Whitefish Lake was listed as having one use impaired due to one or more of the following probable causes: mercury and polychlorinated biphenyls. Whitefish River was listed as having one or more uses impaired due to one or more of the following probable causes: oil & grease, PCB's and altered temperature. The proposed diversion will not significantly reduce the total volume of water in the lake or river; the Department found that the proposed use will not affect water quality.

Determination: No significant impact.

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: N/A, project does not involve groundwater.

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.*

A submersible 3-HP Goulds model 65L03 stainless steel pump is installed 40 feet from the shoreline and mounted on a field fabricated stand. The pump produces 75 GPM given 100 feet of head (60 ft elevation, 40 feet system component use/loss). The supply line for the geothermal heat pump system is a 3-inch polyethylene pipe that travels approximately 180 feet to the pool house. All water that is diverted and used for geothermal purposes in returned to Whitefish Lake via a 3-inch pipeline that runs parallel to the supply line for approximately 105 feet and then turns away on a radius for a length of approximately 131 feet, placing the outlet at least 100 feet away from the intake site. The discharge is permitted by MDEQ via a Montana Discharge Elimination System (MPDES) permit (permit No. MT0031658). The geothermal system was designed by a professional licensed engineered working for CTA. The Department found that no significant negative impact will occur to existing water users and surface water resources from the proposed project.

Determination: No impact.

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."*

The Montana Natural Heritage Program website was reviewed to determine if there are any threatened or endangered fish, wildlife, plants or aquatic species or any "species of special concern" in Township 31N, Range 22W that could be impacted by the proposed project.

The Crested Shieldfern (Dryopteris cristata), Creeping Sedge (Carex chordorrhiza), Giant Helleborine (Epipactis gigantea), and Slender Cottongrass (Eriophorum gracile) are listed as

sensitive species by the United States Forest Service (USFS). The A Lichen (Lobaria hallii) is listed S2 by MFWP, meaning their populations are at risk because their numbers are extremely limited and/or rapidly declining. This area of Whitefish has been disturbed for over 30 years, impact to the sensitive plant species has most likely already occurred.

The Canada Lynx (Lynx Canadensis), Grizzly Bear (Ursus arctos) and Bull Trout (Salvelinus confluentus) are listed as threatened by USFS. The Wolverine (Gulo gulo), Fisher (Martes pennanti), Common Loon (Gavia immer) and Westslope Cutthroat Trout (Oncorhynchus clarkia lewisi) are listed as sensitive species by the USFS. The Hoary Bat (Lasiurus cinereus), Pileated Woodpecker (Dryocopus pileatus), Northern Alligator Lizard (Elgaria coerulea), and Pygmy Whitefish (Prosopium coulteri) are listed S3 to S3B by MFWP meaning their populations are at risk because their numbers are very limited. The Lake Trout (Salvelinus namaycush) is listed S2 by MFWP, meaning their populations are at risk because their numbers are extremely limited and/or rapidly declining. An adequate quantity of water will still exist in Whitefish Lake and River to maintain existing populations of both threatened and sensitive species of fish should they exist. This area of Whitefish was historically developed, any impacts to sensitive mammal species or fish most likely have already occurred. The proposed project will not impact any threatened or endangered fish, wildlife, plants and aquatic species or any species of special concern.

Determination: No impact.

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: N/A, project does not involve wetlands.

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

Determination: N/A, project does not involve ponds.

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.*

According to soil survey data provided by the NRCS, soil within the place of use consists mostly of bedrock outcrops. Soils within the proposed place of use are not susceptible to saline seep. The use of water from Whitefish Lake will not cause degradation of soil quality and stability.

Determination: No impact.

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.*

The house complex has been established for at least 10 years. The Applicant is in charge of weed maintenance.

Determination: No impact.

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

No air pollutants were identified as resulting from the Applicants proposed use of Whitefish Lake water.

Determination: No impact.

HISTORICAL AND ARCHEOLOGICAL SITES - *Assess whether there will be degradation of unique archeological or historical sites in the vicinity of the proposed project if it is on State or Federal Lands. If it is not on State or Federal Lands simply state NA-project not located on State or Federal Lands.*

The Montana Historical Society indicates no historical or archaeological sites are inventoried in the area.

Determination: No impact.

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

All impacts to land, water and energy have been identified and no further impacts are anticipated.

Determination: No impact.

HUMAN ENVIRONMENT

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

The project is located in an area with no locally adopted environmental plans.

Determination: No impact.

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.*

The proposed project will not inhibit, alter or impair access to present recreational opportunities in the area. The project is not expected to create any significant pollution, noise, or traffic congestion in the area that may alter the quality of recreational opportunities. The proposed place of use and diversion do not exist on land designated as wilderness.

Determination: No impact.

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

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

Determination: No impact.

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 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?* None identified.

(b) *Local and state tax base and tax revenues?* None identified.

(c) *Existing land uses?* None identified.

(d) *Quantity and distribution of employment?* None identified.

(e) *Distribution and density of population and housing?* None identified.

(f) *Demands for government services?* None identified.

(g) *Industrial and commercial activity?* None identified.

(h) *Utilities?* None identified.

(i) *Transportation?* None identified.

(j) *Safety?* None identified.

(k) *Other appropriate social and economic circumstances?* None identified.

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

Secondary Impacts: None identified.

Cumulative Impacts: None 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:***

No reasonable alternatives were identified in the EA.

PART III. Conclusion

1. Preferred Alternative: None identified.

2 Comments and Responses

4. ***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:

An EA is the appropriate level of analysis for the proposed action because no significant impacts were identified.

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

Name: Melissa Brickl
Title: Hydrologist/Water Resource Specialist
Date: November 13, 2019