

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:

BALDRIDGE SUMMERFIELD C LIVING TRUST
PO BOX 607
WHITEFISH, MONTANA 59937 - 0607

2. Type of action: Application for Beneficial Water Use Permit No. 76LJ 30162422

3. Water source name: Flathead Lake/Flathead River

4. Location affected by project: NENWNW Sec. 9, T25N, R20W, Lake County, Montana, more specifically described as Lot 14 of the Linderman Estate Subdivision Addition One in Certificate of Survey 4741

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

Baldrige Summerfield C Living Trust submitted an Application for Beneficial Water Use Permit to DNRC requesting an appropriation of 24 gallons per minute (GPM) up to 1.20 acre-feet (AF) of water from Flathead Lake. The water will be used for domestic use in one household and lawn and garden irrigation of 0.08-acres. The applicant proposes to divert water from the using a 1.5 horsepower (HP) submersible pump placed in the lake that conveys water through a 1.25-inch HDPE pipe the basement of the domestic residence. 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:

Montana Department of Fish, Wildlife and Parks - 2005 Dewatered Stream List, 2022 Dewatered Streams Map
Montana Department of Environmental Quality – 303(d) List of Impaired Streams, 2020 Clean Water Act Information Center
Montana Natural Heritage Program - Species of Concern
U.S. Fish and Wildlife Service (USFWS) – National Wetlands Inventory Mapper
U.S. Natural Resource Conservation Service (NRCS) - Web Soil Survey

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.*

Flathead Lake is not listed on the 2005 Montana Department of Fish, Wildlife and Parks (MT FWP) Impaired Stream List nor the MT FWP Dewatered Streams Map updated January 21, 2022. The application is for a diversion out of Flathead Lake, which is tributary to the Flathead River. The Flathead River is also not listed on the 2005 Impaired Stream list nor the 2022 Dewatered Streams Map. The appropriation of 24 GPM up to 1.20 AF of water from Flathead Lake will not cause dewatering in the Flathead River basin.

Determination: No significant 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.*

The Department of Environmental Quality (DEQ) assessed water quality in Flathead Lake, determining it to be impaired with mercury, polychlorinated biphenyls, nitrogen, and phosphorus. The 2020 Assessment places Flathead Lake in water quality category 5, in which one or more beneficial uses have been assessed as impaired or threatened. The beneficial use they determined to be impaired and/or threatened is aquatic life. They assess the lake to be fully supporting agricultural use, drinking water use, and primary contact recreational use. The minimal withdrawal of water requested by the Applicant will not result in increased impairment of 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.*

This is a surface water appropriation.

Determination: N/A

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.*

Applicant will divert water from Flathead Lake at a maximum rate of 24.0 GPM using a Goulds 1.5 horsepower (HP) model 18GS15 submersible 4-inch pump (or equivalent) that extends approximately 260-feet from the shoreline into Flathead Lake. The submersible pump will be located at least 10-feet below the low water elevation (2884 feet) of Flathead Lake and will include a plastic flow sleeve and check valve to prevent backflow. The pump will be controlled by a variable frequency drive (VFD) that is set to maintain a constant pressure of 50 pounds per square inch (PSI). From the shoreline water will be pumped approximately 100 feet to the basement of the domestic residence through a 1.25-inch-high density polyethylene (HDPE) pipe. The water system will be equipped with one Well-X-Troll WX-250 vertical pressure tank and a treatment system with two sediment filters and a Pentek Ultraviolet Light. The total dynamic head (TDH) of the system at the residence is 192.2-feet, based on:

- a. The 26-foot elevation gain from Flathead Lake's surface to the place of use;
- b. The friction losses (equivalent to 23.16-feet of head) in the transmission and distribution lines at approximately 24.0 GPM.
- c. The system operating pressure of 116-feet of head at pump vault (50 PSI x 2.31 feet = 116 pressure head);
- d. The water treatment system losses of 27.72-feet of head (12 PSI x 2.31 feet = 27.72 pressure head); and,
- e. TDH = elevation head + friction head loss + pressure head

0.08 acres of lawn and garden will be irrigated with a standard garden hose attached to a Rainbird 25-PJDA-C impact sprinkler head. For this sprinkler the designed average operating pressure is 50 PSI resulting in a flow rate of approximately 5 GPM. Domestic water demand was confirmed using flow calculations based on fixture demands, equating to a flow rate of 19.0 GPM. Since timing of lawn and garden irrigation and residential use may overlap, the total requested flow rate is equal to 24.0, the sum of the maximum residential use (19.0 GPM) and lawn and garden irrigation (5 GPM). The pump is capable of producing 24.0 GPM based on the applicant-provided system specifications. This flow rate will allow the Applicant to supply the domestic system and lawn and garden irrigation system with adequate operating pressures.

The location of the pump in the lake will not cause any channel impacts or flow modifications in Flathead Lake. The use of a pump in the lake will not create any barriers to fish migration. The construction of the water conveyance system may require trenching to bury pipes if the Applicant chooses to bury them. This may cause a temporary disturbance to riparian vegetation on the Applicant's property. This disturbance would be small. The project does not involve a dam or well.

Determination: No significant 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 was used to determine if there are any threatened or endangered fish, wildlife, plants or aquatic species or any “species of special concern” in the proposed project area in Section 9, Township 25N, Range 20W, that could be impacted by the proposed project. 17 bird and 1 reptile species of concern were identified. Not identified in this search, but known to exist in Township 25N, Range 20W are the Grizzly Bear (*Ursus arctos*) and the Bull Trout (*Salvelinus confluentus*) which are listed as threatened by the USFWS. An adequate quantity of water will still exist in the surface water source to maintain existing populations of Bull Trout, should they exist there currently. This area is already highly developed, and it is not anticipated that any species of concern will be further impacted by the proposed project.

Species of Concern: American Goshawk (*Accipiter atricapillus*), American White Pelican (*Pelecanus erythrorhynchos*), Black Tern (*Chlidonias niger*), Brown Creeper (*Certhia americana*), Cassin’s Finch (*Haemorhous cassinii*), Clark’s Nutcracker (*Nucifraga columbiana*), Common Loon (*Gavia immer*), Evening Grosbeak (*Coccothraustes vespertinus*), Forester’s Tern (*Sterna forsteri*), Golden Eagle (*Aquila chrysaetos*), Great Blue Heron (*Ardea Herodias*), Horned Grebe (*Podiceps auratus*), Lewis’s Woodpecker (*Melanerpes lewis*), Pileated Woodpecker (*Dryocopus pileatus*), Trumpeter Swan (*Cygnus buccinator*), Varied Thrush (*Ixoreus naevius*), Veery (*Catharus fuscescens*), Northern Alligator Lizard (*Catharus fuscescens*).

Determination: No significant 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.

Project does not involve wetlands or critical riparian habitats.

Determination: No significant impact.

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.

The soils in the proposed place of use are Eaglewing gravelly silt loam, with 15 to 30 percent slopes, formed from lake effect. Soil quality, stability, and moisture content are not likely to be significantly impacted by the proposed development of one domestic unit and lawn and garden irrigation of 0.08 acres. This soil is not heavy in salts and is unlikely to result in saline seep.

Determination: No significant 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.*

Development of this property will cause vegetation cover disturbance on the parcel during the construction process and long-term in the exact location where facilities are constructed. It is not anticipated that the issuance of a water use permit will contribute to the establishment or spread of noxious weeds in the project area. The project is located entirely on private property, and the applicants will be responsible for controlling noxious weeds.

Determination: No significant impact.

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

Adverse air quality impacts from increased air pollutants are not expected as a result of this project. The water will be diverted using a submersible electric pump. No air pollutants were identified as resulting from the Applicant's proposed use of Lindbergh Lake for domestic and lawn and garden purposes.

Determination: No significant 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.*

Determination: N/A- Project not located on State or Federal Lands.

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 significant 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 consistent with planned land uses.

Determination: No significant 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 or adjacent to land designated as wilderness.

Determination: No significant impact.

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

No negative impact on human health is anticipated from this proposed use.

Determination: No significant impact.

PRIVATE PROPERTY - *Assess whether there are 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? 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:

The only alternative to the proposed action would be the no action alternative. The no action alternative would not authorize the diversion of water from Flathead Lake.

PART III. Conclusion

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

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:

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: Caitlyn Stevens

Title: Water Resource Specialist

Date: March 8, 2023