

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:**
Lakeside County Water & Sewer District
2. **Type of action:**
Beneficial Water Use Permit
3. **Water source name:**
Groundwater
4. **Location affected by project:**
 - (1) Section 25, in Township 26N, Range 21W, Flathead County, Montana
 - (2) Section 29, in Township 26N, Range 20W, Flathead County, Montana
 - (3) Section 30, in Township 26N, Range 20W, Flathead County, Montana
 - (4) S ½ of Section 19, in Township 26N, Range 20W, Flathead County, Montana

Permit Application 76LJ 30165067- Lakeside County Water/Sewer District

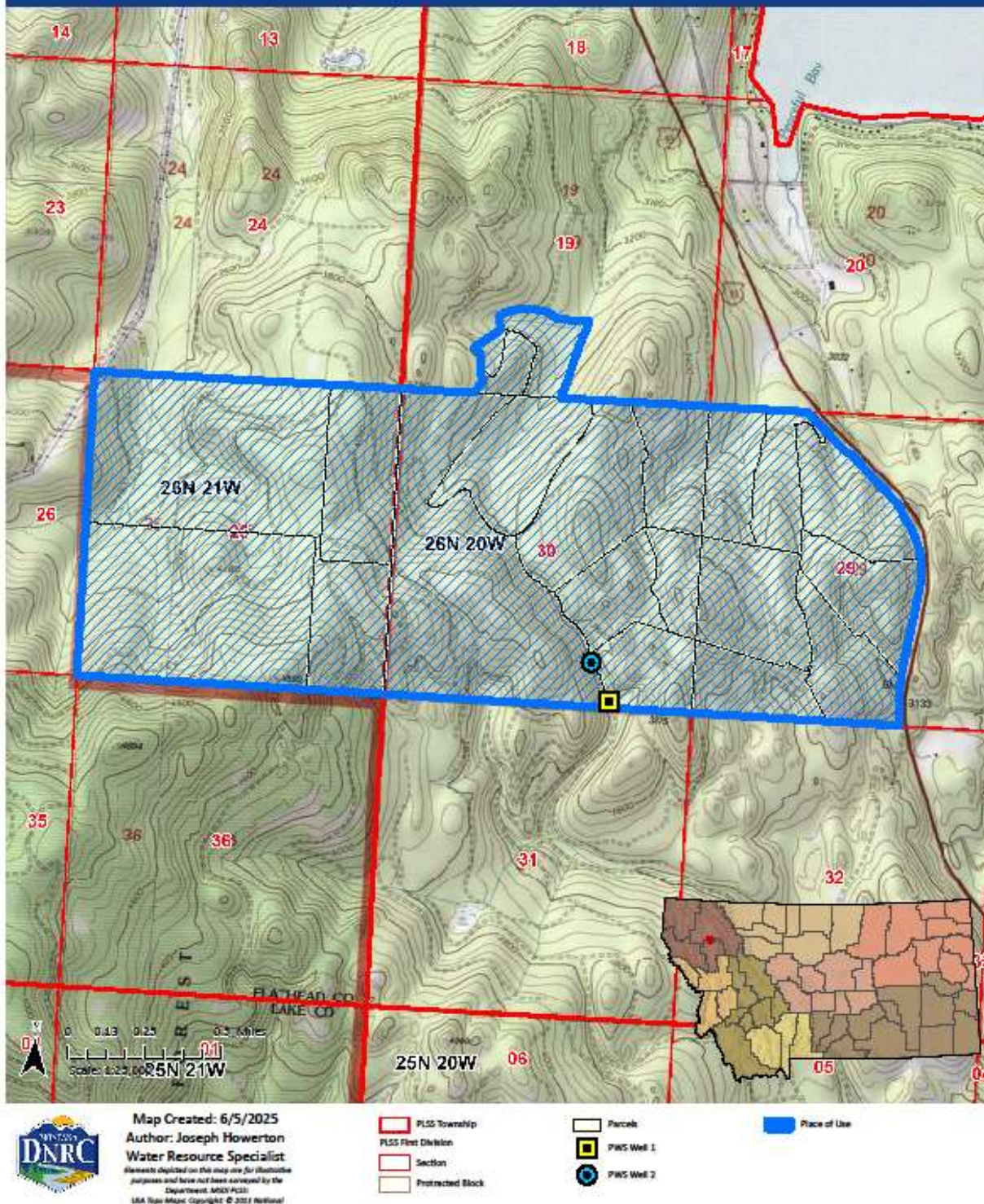


Figure 1: Map of proposed place of use and points of diversion

5. Narrative summary of the proposed project, purpose, action to be taken, and benefits: The DNRC shall issue a water use permit if an applicant proves the criteria in 85-2-311 MCA are met.

The applicants propose to utilize water from a groundwater well offshore and west of Flathead Lake, from January 1st through December 31st of every year up to 249.42 AF for commercial, lawn & garden, and multiple domestic purposes. This accounts for annual domestic use up to 100.53 AF, commercial use up to 22.83 AF, and 4/18-10/13 lawn & garden use up to 126.06 AF. The place of use is generally located in: (1) Section 29 & 30, in Township 26N, Range 20W, Flathead County, Montana, (2) Section 25, in Township 26N, Range 21W, Flathead County, Montana, and (3) S ½ of Section 19, in Township 26N, Range 20W, Flathead County, Montana.

6. Agencies consulted during preparation of the Environmental Assessment: (include agencies with overlapping jurisdiction)

- U.S. Fish and Wildlife Service (USFWS): National Wetlands Inventory Wetlands Mapper
- Montana Natural Heritage Program: Endangered, Threatened Species, and Species of Special Concern
- Montana Department of Fish Wildlife & Parks (MTDFWP): Dewatered Stream Information
- Montana Department of Environmental Quality (MTDEQ): Clean Water Act Information Center
- U.S. Natural Resources Conservation Service (NRCS): Web Soil Survey

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.

Although the source of water for this proposed beneficial water use permit is groundwater, the inherent link of groundwater to surface water implies that withdrawal of water for this project could ultimately affect water levels in Flathead Lake. Flathead Lake is part of the Flathead River system, which is not listed as chronically or periodically dewatered by the Montana Department of Fish and Wildlife.

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.

Per the Department of Environmental Quality (DEQ) Water Quality Standards Attainment Record (most recent, 2020), Flathead Lake is classified as oligotrophic, meaning the waters are clear, cold, and biodiverse with low nutrients and high oxygen levels. In this assessment, Flathead Lake was deemed fully supporting for agricultural, drinking water, and primary contact water uses. The Lake was deemed not fully supporting of aquatic life, due to low levels of mercury, polychlorinated biphenyls (PCBs), total nitrogen, and total phosphorus. Withdrawal of water via a well located near Flathead Lake 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.

Although the source of water for this proposed beneficial water use permit is groundwater, the inherent link of groundwater to surface water implies that withdrawal of water for this project could ultimately affect water levels in Flathead Lake.

The proposed use includes year-round and seasonal consumed volumes, however, due to the nature of the confined bedrock aquifer, depletions would accrete to Flathead Lake at a constant year-round net depletion rate of 131.2 gpm. Table 2 identifies the monthly consumed volume while Table 1 identifies the timing of net depletion to Flathead Lake.

Table 1: Application No. 76LJ 30165067 project details.

Purpose	Period of Diversion	Period of Use	Diverted Volume (AF)
Multiple Domestic	Year-round	Year-round	100.5
Commercial	Year-round	Year-round	22.8
Lawn & Garden	Year-round	Seasonal (4/18-10/13)	126.1
Total			249.4

Table 2: Consumed volume schedule for Application No. 76LJ 30165067

Month	IWR (in) – Polson	Irrigation Consumed Volume (AF)	Commercial and Multiple Domestic Consumed Volume (AF)	Total Consumed Volume (AF)	Total Consumed Flow Rate (gpm)
January	0.0	0.0	10.5	10.5	76.4
February	0.0	0.0	9.5	9.5	76.4
March	0.0	0.0	10.5	10.5	76.4
April	0.49	2.1	10.1	12.2	92.2
May	2.50	10.7	10.5	21.1	154.3
June	3.94	16.8	10.1	27.0	203.3
July	5.68	24.2	10.5	34.7	253.4
August	4.99	21.3	10.5	31.8	231.9
September	2.52	10.8	10.1	20.9	157.6
October	0.56	2.4	10.5	12.9	93.9
November	0.0	0.0	10.1	10.1	76.4
December	0.0	0.0	10.5	10.5	76.4
Total	20.68	88.3	123.3	211.6	

With respect to adverse effect from net depletion to surface water, Flathead Lake is approximately 7,800 ft east of the proposed wells and is identified as being hydraulically connected to the source aquifer. Monthly net depletions resulting from the proposed use of groundwater are identified in **Table 3**.

Table 3: Total consumed volume and net depletion to surface water for the Production Wells.

Month	Irrigation Consumed Volume (AF)	Commercial and Multiple Domestic Consumed Volume (AF)	Total Consumed Volume (AF)	Flathead Lake Net Depletion (AF)	Flathead Lake Net Depletion (gpm)
January	0.0	10.5	10.5	18.0	131.2
February	0.0	9.5	9.5	16.2	131.2
March	0.0	10.5	10.5	18.0	131.2
April	2.1	10.1	12.2	17.4	131.2
May	10.7	10.5	21.1	18.0	131.2
June	16.8	10.1	27.0	17.4	131.2
July	24.2	10.5	34.7	18.0	131.2
August	21.3	10.5	31.8	18.0	131.2
September	10.8	10.1	20.9	17.4	131.2
October	2.4	10.5	12.9	18.0	131.2
November	0.0	10.1	10.1	17.4	131.2
December	0.0	10.5	10.5	18.0	131.2
Total	88.3	123.3	211.6	211.6	

Determination: No significant impact.

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.*

The proposed appropriation includes an addition of two public water supply wells that will serve a planned development – Lake View Subdivision – south of Lakeside, MT and will be operated by the Lakeside County Water & Sewer District.

The Applicant specified the maximum flow rate that would be apportioned to each proposed well. Both wells would be pumped up to 430 GPM. The Applicant provided a proposed pumping schedule based on historical water measurement records; this information was extrapolated to generate the assumed pumping schedule shown below in Table 4.

Various commercial uses include a real estate office, restaurant, fitness/wellness facility, spa, golf club house, comfort stations, maintenance facilities, bar, comfort stations located at the various amenities = 20, 384 gallons per day.

The Applicant requests to divert water from two wells at a rate of 430 GPM and volume of 249.4 AF per year for multiple domestic, commercial and lawn & garden purposes.

The Production Wells, GWIC ID 237308 and 237309 are completed in the Helena Formation of the Belt Supergroup system (400BELT) and are approximately 600 ft away from each other. The wells, GWIC ID

237308 and 237309 are perforated between 602-620 ft and 668-686 ft below ground surface (bgs) with static water levels (swl) of 340.96 and 364.60 ft below top of casing (btc), respectively.

Table 4: Assumed monthly pumping schedule for proposed wells.

Month	Diverted Volume (AF)	Diverted Flow Rate (gpm)
January	10.5	76.4
February	9.5	76.4
March	10.5	76.4
April	13.1	99.0
May	25.7	187.7
June	34.2	257.7
July	45.1	329.3
August	40.9	298.5
September	25.5	192.3
October	13.9	101.4
November	10.1	76.4
December	10.5	76.4
Total	249.4	

Aquifer Test & Drawdown Modelling:

A 72-hour aquifer pumping test was performed on PWS Well #1 and a 24-hour pumping test was performed on PWS Well #2.

The proposed wells, GWIC ID 237308 and 237309 using the Moench (1984) solution, previously stated fracture and matrix aquifer properties and monthly pumping schedule to meet the requested annual volume would experience 48.1 and 239.5 ft of drawdown after the first year, leaving approximately 232.9 and 83.9 ft of available water column above the bottom of the well perforations.

The DNRC utilized AQTESOLV® (HydroSOLVE, Inc., 2007) to analyze drawdown data from the aquifer test and obtain estimates of aquifer properties. Aquifer properties were used in forward modeling to evaluate the available water column in the well, quantity of water available in the source aquifer, and potential impacts to groundwater and surface water rights. AQTESOLV® is an analytical modeling software that uses image well theory and the principle of superposition to simulate aquifer stress tests.

Drawdown data and measured flow rates from the aquifer test, and the spatial location of each well are input into the model. Using this compilation of data, aquifer properties including Transmissivity (T) and Storativity (S) were estimated using the Cooper-Jacob (1946) solution based on a best-fit visual and statistical match between the observed and theoretical drawdown data. Using the Moench (1984) solution for fractured bedrock aquifers, the fracture hydraulic conductivity (K), fracture storativity (S), matrix hydraulic conductivity (K'), matrix storativity (S'), wellbore skin factor (Sw) and fracture skin factor (Sf) are identified based on a best-fit visual and statistical match between the observed and theoretical drawdown data.

As identified in **Table 5**, total drawdown is the sum of interference drawdown and predicted drawdown with well loss. Well loss is calculated by dividing the predicted theoretical maximum drawdown by a well efficiency value. Well efficiency is calculated by dividing the modeled maximum drawdown for the aquifer test by the maximum observed drawdown of the aquifer test. The aquifer adjacent to the proposed

wells would experience a predicted theoretical maximum drawdown of 41.0 and 24.4 ft at the end of July of the first year of pumping. Interference drawdown was added to the modeled drawdown in the non-pumping well, at the end of July of the first year of pumping to both GWIC ID in 237308 and 237309. The remaining available water column for GWIC ID 237308 and 237309 are equal to the available drawdown above the bottom of the perforations minus total drawdown.

Table 5: Remaining available water column for the Production Wells.

Drawdown Estimate	GWIC ID 237308	GWIC ID 237309
Total Depth at Bottom of Well Perforations (ft btc)	622.00	686.00
Pre-Test Static Water Level (ft btc)	340.96	364.6
Available Drawdown Above Bottom of Perforations (ft)	281.0	323.4
Observed Drawdown of Aquifer Test (ft)	24.4	225.5
Modeled Drawdown Using Mean Aquifer Test Rate (ft)	42.4	24.2
Well Efficiency (%)	100	11
Predicted Theoretical Maximum Drawdown (ft)	41.0	24.4
Predicted Drawdown with Well Loss (ft)	41.0	227.4
Interference Drawdown (ft)	7.1	12.1
Total Drawdown (ft)	48.1	239.5
Remaining Available Water Column (ft)	232.9	83.9

The Department finds that the system is capable of supplying the requested flow rate of 430 GPM and volume of 249,42 AF. The project will not have effect on channel impacts, flow modifications, barriers, riparian areas, dams, well construction.

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 website was reviewed to determine if there are any threatened or endangered fish, wildlife, plants, aquatic species, or any “species of special concern” in Township 26N, Range 21W and Township 26N, Range 20W that could be impacted by the proposed project. 24 animal and six plant species of concern (Tables 6 and 7, respectively) were identified within Township 26N, Range 21W. Of these species, Bull Trout (*Salvelinus confluentus*) and the Grizzly Bear (*Ursus arctos*) are

listed as threatened by the USFWS. 33 animal and 18 plant species of concern (Tables 8 and 9, respectively) were identified within Township 26N, Range 20W. Of these species, Bull Trout (*Salvelinus confluentus*), Canada Lynx (*Lynx canadensis*), Grizzly Bear (*Ursus arctos*), and Wolverine (*Gulo gulo*) are listed as threatened by the USFWS. It is not anticipated that any species of concern will be further impacted by the proposed project given the close proximity to an existing urbanized location in the Town of Lakeside.

Table 6: Animals Species of Concern in Twp 26N, Rge 21W

United States Fish & Wildlife Service (USFWS) Animal Species of Concern			
Species Group	Common Name	Scientific Name	USFWS Status
Mammals	Fisher	<i>Pekania pennanti</i>	
	Grizzly Bear	<i>Ursus arctos</i>	Listed Threatened
	Little Brown Myotis	<i>Myotis lucifugus</i>	
	Long-legged Myotis	<i>Myotis volans</i>	
	Northern Hoary Bat	<i>Lasiurus cinereus</i>	
Birds	Brewer’s Sparrow	<i>Spizella breweri</i>	Migratory Bird Treaty Act of 1918 (MBTA)
	Brown Creeper	<i>Certhi americana</i>	Migratory Bird Treaty Act of 1918 (MBTA)
	Cassin’s Finch	<i>Haemorhous cassinii</i>	Migratory Bird Treaty Act of 1918 (MBTA); Birds of Conservation Concern, Region 10
	Clark’s Nutcracker	<i>Nucifraga Columbiana</i>	Migratory Bird Treaty Act of 1918 (MBTA)
	Common Tern	<i>Sterna hirundo</i>	Migratory Bird Treaty Act of 1918 (MBTA)
	Evening Grosbeak	<i>Coccothraustes vespertinus</i>	Migratory Bird Treaty Act of 1918 (MBTA); Birds of Conservation Concern, Region 10
	Flammulated Owl	<i>Psiloscoops flammeolus</i>	Migratory Bird Treaty Act of 1918 (MBTA); Birds of Conservation Concern, Region 10
	Great Blue Heron	<i>Ardea Herodias</i>	Migratory Bird Treaty Act of 1918 (MBTA)
	Lewis’s Woodpecker	<i>Melanerpes lewis</i>	Migratory Bird Treaty Act of 1918 (MBTA); Birds of Conservation Concern, Regions 10, 17
	Pacific Wren	<i>Troglodytes pacificus</i>	Migratory Bird Treaty Act of 1918 (MBTA)
	Pileated Woodpecker	<i>Dryocopus pileatus</i>	Migratory Bird Treaty Act of 1918 (MBTA)
	Varied Thrush	<i>Ixoreus naevius</i>	Migratory Bird Treaty Act of 1918 (MBTA)
	Veery	<i>Catharus fuscescens</i>	Migratory Bird Treaty Act of 1918 (MBTA)
Reptiles	Northern Alligator Lizard	<i>Elgaria coerulea</i>	
	Western Skink	<i>Plestiodon skiltonianus</i>	
Amphibians	Western Toad	<i>Anaxyrus boreas</i>	
Fish	Bull Trout	<i>Salvelinus confluentus</i>	Listed Threatened; Critical Habitat
	Westslope Cutthroat Trout	<i>Onchorhynchus clarkii lewisi</i>	

Invertebrates	Suckley Cuckoo Bumble Bee	<i>Bombus suckleyi</i>	Proposed as Endangered Species
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Table 7: Plant Species of Concern in Twp 26N, Rge 21W

United States Fish & Wildlife Service (USFWS) Plant Species of Concern		
Species Group	Common Name	Scientific Name
Vascular Plants	Greenleaf Manzanita	<i>Arctostaphylos patula</i>
	Bristly Sedge	<i>Carex comosa</i>
	Panic Grass	<i>Dichanthelium acuminatum</i>
	Water Star-grass	<i>Heteranthera dubia</i>
	Howell's Quillwort	<i>Isoetes howellii</i>
	Columbia Water-meal	<i>Wolffia Columbiana</i>

Table 8: Animals Species of Concern in Twp 26N, Rge 20W

United States Fish & Wildlife Service (USFWS) Animal Species of Concern			
Species Group	Common Name	Scientific Name	USFWS Status
Mammals	Canada Lynx	<i>Lynx canadensis</i>	Listed Threatened; Critical Habitat
	Fisher	<i>Pekania pennanti</i>	
	Grizzly Bear	<i>Ursus arctos</i>	Listed Threatened
	Little Brown Myotis	<i>Myotis lucifugus</i>	
	Long-eared Myotis	<i>Myotis evotis</i>	
	Long-legged Myotis	<i>Myotis volans</i>	
	Townsend's Big-eared Bat	<i>Corynorhinus townsendii</i>	
	Wolverine	<i>Gulo gulo</i>	Listed Threatened
Birds	Black Tern	<i>Chlidonias niger</i>	Migratory Bird Treaty Act of 1918 (MBTA); Birds of Conservation Concern, Regions 10, 11, 17
	Brewer's Sparrow	<i>Spizella breweri</i>	Migratory Bird Treaty Act of 1918 (MBTA)
	Brown Creeper	<i>Certhi americana</i>	Migratory Bird Treaty Act of 1918 (MBTA)
	Cassin's Finch	<i>Haemorhous cassinii</i>	Migratory Bird Treaty Act of 1918 (MBTA); Birds of Conservation Concern, Region 10
	Clark's Nutcracker	<i>Nucifraga Columbiana</i>	Migratory Bird Treaty Act of 1918 (MBTA)
	Common Tern	<i>Sterna hirundo</i>	Migratory Bird Treaty Act of 1918 (MBTA)
	Evening Grosbeak	<i>Coccothraustes vespertinus</i>	Migratory Bird Treaty Act of 1918 (MBTA); Birds of Conservation Concern, Region 10
	Great Blue Heron	<i>Ardea Herodias</i>	Migratory Bird Treaty Act of 1918 (MBTA)
Lewis's Woodpecker	<i>Melanerpes lewis</i>	Migratory Bird Treaty Act of 1918 (MBTA); Birds of Conservation Concern, Regions 10, 17	

	Pacific Wren	<i>Troglodytes pacificus</i>	Migratory Bird Treaty Act of 1918 (MBTA)
	Pileated Woodpecker	<i>Dryocopus pileatus</i>	Migratory Bird Treaty Act of 1918 (MBTA)
	Varied Thrush	<i>Ixoreus naevius</i>	Migratory Bird Treaty Act of 1918 (MBTA)
	Veery	<i>Catharus fuscescens</i>	Migratory Bird Treaty Act of 1918 (MBTA)
Reptiles	Northern Alligator Lizard	<i>Elgaria coerulea</i>	
	Western Skink	<i>Plestiodon skiltonianus</i>	
Amphibians	Western Toad	<i>Anaxyrus boreas</i>	
Fish	Bull Trout	<i>Salvelinus confluentus</i>	Listed Threatened; Critical Habitat
	Westslope Cutthroat Trout	<i>Onchorhynchus clarkii lewisi</i>	
Invertebrates	Suckley Cuckoo Bumble Bee	<i>Bombus suckleyi</i>	Proposed as Endangered Species
	Hooked Snowfly	<i>Isocapnia crinita</i>	
	Reticulate Taildropper	<i>Prophysaon andersonii</i>	
	Smoky Taildropper	<i>Prophysaon humile</i>	
	Heavy Free-living Caddisfly	<i>Rhyacophila gemona</i>	
	One-spotted Free-living Caddisfly	<i>Rhyacophila unimaculata</i>	
	Northern Rocky Mountains Refugium Caddisfly	<i>Rossiana montana</i>	

Table 9: Plant Species of Concern in Twp 26N, Rge 20W

United States Fish & Wildlife Service (USFWS) Plant Species of Concern		
Species Group	Common Name	Scientific Name
Vascular Plants	Beck Water-marigold	<i>Bidens beckii</i>
	Upward-lobed Moonwort	<i>Botrychium ascendens</i>
	Wavy Moonwort	<i>Botrychium crenulatum</i>
	Bristly Sedge	<i>Carex comosa</i>
	Lake-bank Sedge	<i>Carex lacustris</i>
	Many-headed Sedge	<i>Carex sychnocephala</i>
	Panic Grass	<i>Dichanthelium acuminatum</i>
	Giant Helleborine	<i>Epipactis gigantea</i>
	Water Star-grass	<i>Heteranthera dubia</i>
	Spiny-spore Quillwort	<i>Isoetes echinospora</i>
	Howell's Quillwort	<i>Isoetes howellii</i>
	Pygmy Water-lily	<i>Nymphaea leibergii</i>

	Blunt-leaved Pondweed	<i>Potamogeton obtusifolius</i>
	Straightbeak Buttercup	<i>Ranunculus orthorhynchus</i>
	Pod Grass	<i>Scheuchzeria palustris</i>
	Columbia Water-meal	<i>Wolffia Columbiana</i>
Bryophytes	Giant Golden Moss	<i>Homalothecium megaptilum</i>
	Warnstorfia Moss	<i>Sarmentypnum exannulatum</i>

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.

There are no wetlands in the immediate vicinity of the project location. Flathead Lake itself is classified by the USFWS National Wetlands Inventory as a 121,385.54 acre Lake habitat with code **L1UBHh**. Additionally, there are portions of the project area that include Riverine, Freshwater Emergent Wetland, and Freshwater Pond habitats. These are represented by codes **R4SBC**, **PEM1A**, and **PABF**. Descriptions pertaining to each letter and number of the codes are provided below.

Lake

- System **Lacustrine (L)** : The Lacustrine System includes wetlands and deepwater habitats with all of the following characteristics: (1) situated in a topographic depression or a dammed river channel; (2) lacking trees, shrubs, persistent emergents, and emergent mosses or lichens with 30 percent or greater areal coverage; and (3) total area of at least 8 hectares (ha) (20 acres). Similar wetlands and deepwater habitats totaling less than 8 ha are also included in the Lacustrine System if an active wave-formed or bedrock shoreline feature makes up all or part of the boundary, or if the water depth in the deepest part of the basin equals or exceeds 2.5 m (8.2 ft) at low water. Lacustrine waters may be tidal or nontidal, but ocean-derived salinity is always less than 0.5 ppt.
- Subsystem **Limnetic (1)** : This Subsystem includes all deepwater habitats (i.e., areas > 2.5 m [8.2 ft] deep below low water) in the Lacustrine System. Many small Lacustrine Systems have no Limnetic Subsystem.
- Class **Unconsolidated Bottom (UB)** : Includes all wetlands and deepwater habitats with at least 25% cover of particles smaller than stones (less than 6-7 cm), and a vegetative cover less than 30%.
- Water Regime **Permanently Flooded (H)** : Water covers the substrate throughout the year in all years.
- Special Modifier **Diked/Impounded (h)** : These wetlands have been created or modified by a man-made barrier or dam that obstructs the inflow or outflow of water.

Riverine

- System **Riverine (R)** : The Riverine System includes all wetlands and deepwater habitats contained within a channel, with two exceptions: (1) wetlands dominated by trees, shrubs, persistent emergents, emergent mosses, or lichens, and (2) habitats with water containing ocean-derived salts of 0.5 ppt or greater. A channel is an open conduit either naturally or artificially

created which periodically or continuously contains moving water, or which forms a connecting link between two bodies of standing water.

- Subsystem **Intermittent (4)** : This Subsystem includes channels that contain flowing water only part of the year. When the water is not flowing, it may remain in isolated pools or surface water may be absent.
- Class **Streambed (SB)** : Includes all wetlands contained within the Intermittent Subsystem of the Riverine System and all channels of the Estuarine System or of the Tidal Subsystem of the Riverine System that are completely dewatered at low tide.
- Water Regime **Seasonally Flooded (C)** : Surface water is present for extended periods especially early in the growing season, but is absent by the end of the growing season in most years. The water table after flooding ceases is variable, extending from saturated to the surface to a water table well below the ground surface.

Freshwater Emergent Wetland

- System **Palustrine (P)** : The Palustrine System includes all nontidal wetlands dominated by trees, shrubs, persistent emergents, emergent mosses or lichens, and all such wetlands that occur in tidal areas where salinity due to ocean-derived salts is below 0.5 ppt. It also includes wetlands lacking such vegetation, but with all of the following four characteristics: (1) area less than 8 ha (20 acres); (2) active wave-formed or bedrock shoreline features lacking; (3) water depth in the deepest part of basin less than 2.5 m (8.2 ft) at low water; and (4) salinity due to ocean-derived salts less than 0.5 ppt.
- Class **Emergent (EM)** : Characterized by erect, rooted, herbaceous hydrophytes, excluding mosses and lichens. This vegetation is present for most of the growing season in most years. These wetlands are usually dominated by perennial plants.
- Subclass **Persistent (1)** : Dominated by species that normally remain standing at least until the beginning of the next growing season. This subclass is found only in the Estuarine and Palustrine systems.
- Water Regime **Temporary Flooded (A)** : Surface water is present for brief periods (from a few days to a few weeks) during the growing season, but the water table usually lies well below the ground surface for the most of the season.

Freshwater Pond

- System **Palustrine (P)** : The Palustrine System includes all nontidal wetlands dominated by trees, shrubs, persistent emergents, emergent mosses or lichens, and all such wetlands that occur in tidal areas where salinity due to ocean-derived salts is below 0.5 ppt. It also includes wetlands lacking such vegetation, but with all of the following four characteristics: (1) area less than 8 ha (20 acres); (2) active wave-formed or bedrock shoreline features lacking; (3) water depth in the deepest part of basin less than 2.5 m (8.2 ft) at low water; and (4) salinity due to ocean-derived salts less than 0.5 ppt.
- Class **Aquatic Bed (AB)** : Includes wetlands and deepwater habitats dominated by plants that grow principally on or below the surface of the water for most of the growing season in most years.
- Water Regime **Sempermanently Flooded (F)** : Surface water persists throughout the growing season in most years. When surface water is absent, the water table is usually at or very near the land surface.

Withdrawal of groundwater for the proposed project will have minimal impact on the Flathead Lake habitat.

Determination: No significant impact.

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

The proposed project does not include construction of new ponds or plans to withdraw or add water to the existing 0.06 acre freshwater pond located in the NE NW NW of Section 25 Township 26N Range 21W. Thus, it is anticipated there will be no significant impact to existing wildlife, waterfowl or fisheries resources. The proposed golf course will overlap the location of this pond, in which case it is burden of the developer to satisfy all legal requirements for construction approval.

Determination: No significant impact.

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.*

Soils in the area are dominated by gravelly to cobbly silt loam and rock outcrop complexes and are classified by Hydrologic Soil Groups B & D according to the United States Department of Agriculture (USDA) Natural Resources Conservation Service (NRCS) web soil survey. The soil groups are mostly nonsaline to very slightly saline, yet several types are nonsaline. Thus, all soil groups throughout the area are minimally susceptible to saline seep as they contain let alone can contribute very little if any salt. Percent slopes range from 0 to 80 percent slopes. All soils have a moderately high to high capacity to transmit water minus Sharrott and Rockhill soil groups. The parent materials of the soil groups are till, volcanic ash and colluvium derived from argillite, quartzite and/or calcareous siltstone.

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.*

According to the Montana Natural Heritage (MNHP) Map Viewer, the vegetation within the project area is primarily (nearly 75% of the land area) conifer dominated forest and woodland with Rocky Mountain mesic/dry-mesic montane mixed conifer forest, ponderosa pine woodland and savanna, and lodgepole pine forest. Recently disturbed or modified harvested forest and human uses comprise nearly 20% of the land area as well.

It is not anticipated that issuance of a water use permit will contribute to the establishment or spread of noxious weeds in the project area. Noxious weed prevention and control will be the responsibility of the landowners, who must follow local noxious weed regulations.

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.*

According to the USDA Web Soil Survey, soils in this area have high to moderate resistance to dust propagation, minimizing the likelihood of fugitive dust as a result of development.

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.*

N/A- project not on State or Federal Lands.

Determination: No significant 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.*

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. It shall be the landowners' responsibility to comply with all local county & city planning and zoning regulations.

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 or wilderness 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.

Determination: No significant impact.

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

All wastewater from this project will be attached to the Lakeside public sewer system, and will be treated and disposed of in accordance with any applicable laws per supervision of applicable agencies.

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.

(b) Local and state tax base and tax revenues?

Income from property taxes will increase tax revenues.

(c) Existing land uses?

None.

(d) Quantity and distribution of employment?

This project will increase the population of this area and contribute to increased employment opportunities.

(e) Distribution and density of population and housing?

This project involves producing more housing, resulting in a positive impact.

(f) Demands for government services?

This project may increase demand for government services.

(g) Industrial and commercial activity?

This project will increase commercial activity in the area.

(h) Utilities?

This project will increase the demand for utilities.

(i) Transportation?

This project will increase the use of road systems in this area.

(j) Safety?

New residents must adhere to traffic laws as well as adjust to road and weather conditions. Additionally, increased population density and development may increase the likelihood of encounters with wildlife.

(k) Other appropriate social and economic circumstances?

None.

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

Secondary Impacts

None.

Cumulative Impacts

This project may have cumulative impacts due to increased human presence.

3. ***Describe any mitigation/stipulation measures:***

It is the responsibility of the landowner and developer to mitigate any environmental risks in development and use of this property.

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 alternative to the proposed issuance of this beneficial water use permit is the no action alternative.

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.

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:

No significant impacts related to the proposed project have been identified.

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

Name: Joseph Howerton

Title: Water Resources Specialist

Date: June 23, 2025