

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 name and addresses:

Flathead County Water District #1- Evergreen
130 Nicholson Dr
Kalispell, MT 59901

2. Type of action:

Surface Water Change Application for Statement of Claim 76C 215024-00 and Provisional Permits 76LJ 393793-00, 76LJ 56411-00, 76LJ 90208-00, and 76LJ 30064206 (Change Application # 76LJ 30162786)

3. Water source name:

Groundwater

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

The Applicant seeks to change the location of the Points of Diversion and Places of Use of Statement of Claim No. 76LJ 39638 00 and Provisional Permit Nos. 76LJ 39793 00, 76LJ 56411 00, 76LJ 90208 00, and 76LJ 30064206 in this Application. These water rights were last modified by Change Authorization # 76LJ 30154028, which was filed for a 6,450 GPM combined flow rate and 3,128 AF combined diverted volume from the Flathead Deep Alluvial Aquifer via means of an 11-well manifold Public Water Supply System for the purpose of Municipal use within the Flathead County Water District #1- Evergreen District boundary. The diversion and period of use is from January 1 to December 31. **Location affected by project:**

The historical place of use (POU) reaches 109.2 acres in the SE ¼ of the SE ¼ of Section 21, W ½ of the SW ¼ of Section 22, W ½ of the NW ¼ of Section 27, and E ½ of the NE ¼ of Section 28, Township 30 N, Range 27 W, Lincoln County, Montana. The proposed change will result in an entirely new POU occurring in 30.3 acres in the W ½ of the SW ¼ of Section 27, 4.3 acres in the NW ¼ of the SW ¼ of Section 27, 12.8 acres in the SW ¼ of the NW ¼ of Section 27, and 31.0 acres in the E ½ of the E ½ of Section 28, Township 30 N, Range 27 W, Lincoln County Montana.

The place of use for the manifold system where water from the District's 11 wells is comingled between upper zone, lower zone, and storage tanks is described in Table 1 below.

Table 1: Legal Land Descriptions of the Places of Use

Quarter Sections	Section	Township	Range
NW ¼ of the NW ¼	2	28 N	21 W
NE ¼ of the NE ¼	3	28 N	21 W
N ½ of the SE ¼ of the NE ¼	3	28 N	21 W
W ½ of the NE ¼	3	28 N	21 W
NW ¼	3	28 N	21 W
NW ¼ of the NW ¼ of the SW ¼	3	28 N	21 W
	4	28 N	21 W
SW ¼ of the SE ¼ of the NE ¼	5	28 N	21 W
W ½ of the NE ¼	5	28 N	21 W
NW ¼	5	28 N	21 W
W ½ of the NW ¼ of the SE ¼	5	28 N	21 W
S ½ of the SE ¼	5	28 N	21 W
N ½ of the SW ¼	5	28 N	21 W
SE ¼ of the SE ¼ of the SW ¼	5	28 N	21 W
NE ¼	6	28 N	21 W
N ½ of the NE ¼	8	28 N	21 W
SW ¼ of the NE ¼	8	28 N	21 W
SE ¼ of the NW ¼	8	28 N	21 W
N ½ of the N ½	9	28 N	21 W
N ½ of the SE ¼ of the NE ¼	9	28 N	21 W
N ½ of the NW ¼	10	28 N	21 W
NW ¼ of the SW ¼ of the NW ¼	10	28 N	21 W
N ½ of the SE ¼	20	29 N	21 W
SW ¼ of the SE ¼	20	29 N	21 W
E ½ of the SE ¼	20	29 N	21 W
W ½ of the NW ¼ of the NW ¼	27	29 N	21 W
S ½ of the SW ¼	27	29 N	21 W
NE ¼	28	29 N	21 W
SE ¼ of the SE ¼ of the NW ¼	28	29 N	21 W
S ½	28	29 N	21 W
NW ¼	29	29 N	21 W
NE ¼ of the SE ¼	29	29 N	21 W
W ½ of the NW ¼ of the SE ¼	29	29 N	21 W
SE ¼ of the SE ¼	29	29 N	21 W
SE ¼ of the SW ¼ of the SE ¼	29	29 N	21 W
E ½ of the SW ¼	29	29 N	21 W
E ½ of the SW ¼ of the SW ¼	29	29 N	21 W
NW ¼ of the SE ¼	30	29 N	21 W
S ½ of the SE ¼	30	29 N	21 W
SE ¼ of the SE ¼	30	29 N	21 W
SW ¼ of the SE ¼	30	29 N	21 W
NE ¼	31	29 N	21 W
NE ¼ of the NW ¼	31	29 N	21 W
NE ¼ of the SE ¼ of the NW ¼	31	29 N	21 W
E ½ of the SE ¼	31	29 N	21 W
	32	29 N	21 W
	33	29 N	21 W
W ½ of the NW ¼	34	29 N	21 W
W ½ of the SE ¼	34	29 N	21 W
SW ¼	34	29 N	21 W

The Applicant proposes to:

- Change the points of diversion (PODs) from 11 District wells within the District boundary to 12 wells within the District boundary by removing District Shop Well # 1 and replacing it with W Reserve Wells #1 and 2.
- Change the place of use (POU) to include recently annexed and erroneously omitted parcels in the previous change authorization 76LJ 30154028. These POUs are reflected in Figure 2 below.

The DNRC shall issue a water use permit if the applicant proves the criteria in 85-2-402 MCA are met.

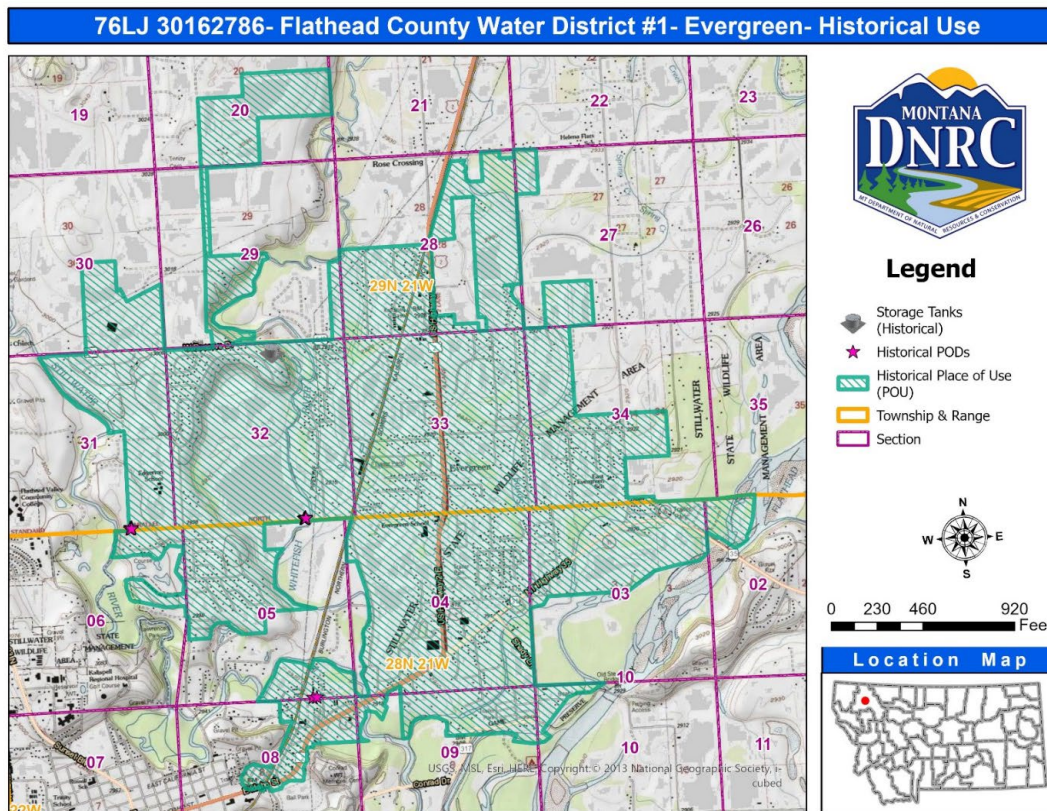


Figure 1- Map of Historic Places of Use and Point of Diversion

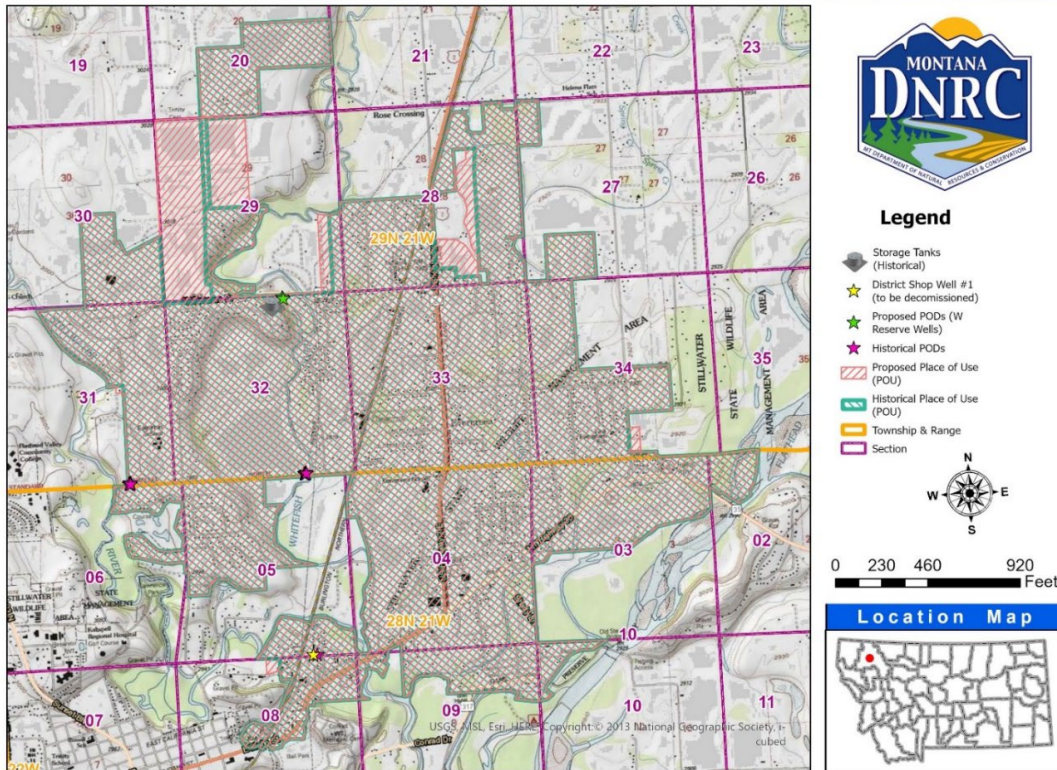


Figure 2- Map of Proposed Place of Use and Point of Diversion

5. Agencies consulted during preparation of the Environmental Assessment:

- 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 (DFWP): Dewatered Stream Information
- Montana Department of Environmental Quality (MDEQ): Clean Water Act Information Center
- U.S. Natural Resource 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.*

The proposed points of diversion (wells) are located approximately two miles northeast of Kalispell, MT, approximately 550 feet east of the Whitefish River, 2 miles north of the confluence of the Whitefish River with the Stillwater River, and 4 miles north of the confluence of the Stillwater River with the Flathead River. Net depletion by pumping in the source aquifer primarily occurs through propagation of drawdown through the overlying confining layer to the Flathead River and Stillwater River. The depth of wells and semi-confining unit cause depletion effects to be dampened resulting in a constant year-round depletion of 1,430.1 GPM and 839.9 GPM in the Flathead and Stillwater Rivers, respectively. No change in rate or timing of depletions to surface water would occur under the proposed change, therefore there will be no additional impact to surface water sources listed.

The Flathead and Stillwater River systems are 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), the Whitefish river was deemed fully supporting for agricultural, drinking water, and primary contact water uses. The River was deemed not fully supporting of aquatic life, due to low levels of oil and grease, polychlorinated biphenyls (PCBs) and temperature.

Flathead River north of Flathead Lake has not been assessed in the available records.

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.

Per the Department of Environmental Quality (DEQ) Water Quality Standards Attainment Record (most recent, 2020), the Stillwater River was deemed fully supporting for agricultural, drinking water, and primary contact water uses. The river was deemed not fully supporting of aquatic life, due to impairment by sedimentation/siltation and habitat alterations.

Withdrawal of groundwater from the new wells proposed in this change application 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.

Net depletion by pumping in the source aquifer primarily occurs through propagation of drawdown through the overlying confining layer to the Flathead River and Stillwater River. The depth of wells and semi-confining unit cause depletion effects to be dampened resulting in a constant year-round depletion of 1,430.1 GPM and 839.9 GPM in the Flathead and Stillwater Rivers, respectively. No change in rate or timing of depletions to surface water would occur under the proposed change (Table 2).

Table 2: Net depletion to the Stillwater River and Flathead River under historical and proposed conditions and net effect from the proposed change.							
Month	Historical and Proposed Diverted Volume (AF)¹	Stillwater River Net Depletion (AF)	Stillwater River Net Depletion (GPM)	Flathead River Net Depletion (AF)	Flathead River Net Depletion (GPM)	Net Effect from the Proposed Change (AF)	Net Effect from the Proposed Change (GPM)
January	202.3	195.6	1,430.1	114.9	839.9	0.0	0.0
February	182.7	176.7	1,430.1	103.8	839.9	0.0	0.0
March	202.3	195.6	1,430.1	114.9	839.9	0.0	0.0
April	195.7	189.3	1,430.1	111.2	839.9	0.0	0.0
May	370.8	195.6	1,430.1	114.9	839.9	0.0	0.0
June	358.8	189.3	1,430.1	111.2	839.9	0.0	0.0
July	507.6	195.6	1,430.1	114.9	839.9	0.0	0.0
August	507.6	195.6	1,430.1	114.9	839.9	0.0	0.0
September	358.8	189.3	1,430.1	111.2	839.9	0.0	0.0
October	370.8	195.6	1,430.1	114.9	839.9	0.0	0.0
November	195.7	189.3	1,430.1	111.2	839.9	0.0	0.0
December	202.3	195.6	1,430.1	114.9	839.9	0.0	0.0
Total Volume	3,655.4	2,302.9		1,352.5		0.00	

¹Municipal use is considered 100 percent consumptive, as such, for the proposed use the consumed volume equals the total diverted volume.

Because the proposed appropriation does result in an increase in flow or volume, the new points of diversion are predicted to produce depletions to surface waters in the same locations as the points of diversion to be disconnected, and the consumptive use remains as 100% for Municipal purposes, the Department finds that the proposed consumed volumes are equal to the historically consumed volumes.

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 to a municipal system serving the town of Evergreen, MT. There are currently 10 manifold wells. It is possible for all manifold wells to pump simultaneously during times of peak demand, therefore the pumping schedule and drawdown analysis to follow reflects a model demonstrating times of peak flow. The Applicant specified the maximum flow rate that would be apportioned to each proposed well. The West Reserve Well #1 would be pumped up to 1,042 GPM, while the West Reserve Well #2 would be pumped up to 1,116 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 3.

Table 3: Applicant Provided Pumping Schedule						
Month	Proposed Volume (AF)	Proposed Flow Rate (GPM)	Existing Volume (AF)	Existing Flow Rate (GPM)	Total Volume (AF)	Total Flow Rate (GPM)
January	88.7	648.5	202.3	1,478.9	291.0	2,127.4
February	80.1	648.5	182.7	1,478.9	262.8	2,127.4
March	88.7	648.5	202.3	1,478.9	291.0	2,127.4
April	85.8	648.5	195.7	1,478.9	281.6	2,127.4
May	162.6	1,188.9	370.8	2,711.1	533.4	3,900.0
June	157.4	1,188.9	358.8	2,711.1	516.2	3,900.0
July	222.6	1,627.7	507.6	3,711.8	730.3	5,339.6
August	222.6	1,627.9	507.6	3,711.8	730.3	5,339.6
September	157.4	1,188.9	358.8	2,711.1	516.2	3,900.0
October	162.6	1,188.9	370.8	2,711.1	533.4	3,900.0
November	85.8	648.5	195.7	1,478.9	281.6	2,127.4
December	88.7	648.5	202.3	1,478.9	291.0	2,127.4
Total Volume	1,603.0		3,655.4		5,258.4	

West Reserve Wells #1 & 2 host a 10-inch casing, are equipped with a Bell & Gossett VIS 8FDHC three stage submersible pump with 100 HP motor, are drilled to 419 feet below ground surface (BGS) and 413 feet BGS, respectively, and are screened from 387-419 feet BGS and 384-413 feet BGS, respectively. Pump design flow is 1,042 GPM at 269 feet of total dynamic head (TDH) for West Reserve Well #1 and 1,116 GPM at 254 feet of TDH for West Reserve Well #2. Pumping is regulated remotely via a SCADA (Supervisory Control & Data Acquisition) system. A booster station will transport water from the two wells to two existing water storage tanks in the lower distribution zone of the District’s municipal system. The conveyance system is extensive and covers several square miles. Applicant-provided design specifications are included in the file.

Aquifer Test & Drawdown Modelling:

Drawdown in the existing wells was modeled for the proposed conditions using the Neuman-Witherspoon (1969) solution, a T of 15,638 ft²/day, a S of 5.0 x 10⁻⁵, and the monthly pumping schedules identified in Table 7, in the Adverse Effect section above.

Both of the West Reserve Wells were evaluated with a 72-hour aquifer test. Data from these tests was used along with AQTESOLV® to analyze drawdown data. The remaining available water column for the West Reserve Wells (#1 & 2) is calculated in Table 4 The remaining available water column above

the bottom of the well (or above the perforated interval) (row K) is equal to the available drawdown above the bottom of the well or perforated interval (row C) minus the total drawdown (row J). Total drawdown is the sum of interference drawdown (additional drawdown as an effect of pumping of nearby wells) (row I) and predicted drawdown with well loss (row H). Well loss is calculated by dividing the predicted theoretical maximum drawdown (row G) by a well efficiency percentage (row F). Well efficiency is calculated by dividing the modeled drawdown using the mean aquifer test rate (row E) by the observed maximum drawdown of the aquifer test (row D).

Table 4: Remaining Available Water Column for the Proposed Production Wells

	Drawdown Estimate	West Reserve Well #1 (GWIC ID: 326735)	West Reserve Well #2 (GWIC ID: 326737)
A	Total Depth at Bottom of Perforated Interval (ft BTC)	421.0	415.0
B	Pre-Test Static Water Level (ft BTC)	10.2	11.1
C	Available Drawdown of Water Column Above Bottom of Well (ft)	410.8	403.9
D	Observed Maximum Drawdown of Aquifer Test (ft BTC)	74.6	52.1
E	Modeled Drawdown Using Mean Aquifer Test Rate (ft BTC)	12.1	13.2
F	Well Efficiency (%)	0.16	0.25
G	Predicted Maximum Theoretical Drawdown (ft BTC)	14.8	14.8
H	Predicted Drawdown with Well Loss (ft BTC)	91.3	58.5
I	Interference Drawdown (ft BTC)	16.5	16.2
J	Total Drawdown (ft BTC)	107.8	74.7
K	Remaining Available Water Column Above Well Bottom (ft BTC)	303.0	329.3

The total well depth measuring point (BGS) was adjusted to the top of well casing based on a 2 ft well casing stickup reported on the well log.

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 25W that could be impacted by the proposed project. Thirty-two animal and five plant species of concern (Tables 5 and 6, respectively) were identified within the township and range where the project is located. Of these species, the Canada Lynx (*lynx canadensis*), and the Grizzly Bear (*Ursus arctos*) are listed as threatened by the USFWS. This area is already developed, and it is not anticipated that any species of concern will be further impacted by the proposed project.

Table 5. Animal Species of Concern in Township 29 N, Range 21 W, Flathead County.			
	Common Name	Scientific Name	U.S. FWS – Status under the Federal Endangered Species Act of 1973
Mammals	Canada Lynx	<i>Lynx canadensis</i>	Listed Threatened (LT); Critical Habitat (CH)
	Fisher	<i>Pekania pennanti</i>	
	Grizzly Bear	<i>Ursus arctos</i>	Listed Threatened (LT)
	Hoary Bat	<i>Lasiurus cinereus</i>	
	Little Brown Myotis	<i>Myotis lucifugus</i>	
	Long-eared Myotis	<i>Myotis evotis</i>	
	Townsend’s Big-eared Bat	<i>Corynorhinus townsendii</i>	
	Wolverine	<i>Gulo gulo</i>	Listed Threatened (LT)
Birds	American Bittern	<i>Botaurus lentiginosus</i>	Migratory Bird Treaty Act (MBTA)
	American Goshawk	<i>Accipiter atricapillus</i>	Migratory Bird Treaty Act (MBTA)
	Black Tern	<i>Chlidonias niger</i>	Migratory Bird Treaty Act (MBTA); Birds of Conservation Concern, Regions 10, 11, 17
	Bobolink	<i>Dolichonyx oryzivorus</i>	Migratory Bird Treaty Act (MBTA); Birds of Conservation Concern, Regions 10, 11, 17
	Brewer’s Sparrow	<i>Spizella breweri</i>	Migratory Bird Treaty Act (MBTA)
	Brown Creeper	<i>Certhia americana</i>	Migratory Bird Treaty Act (MBTA)
	Cassin’s Finch	<i>Haemorrhous cassinii</i>	Migratory Bird Treaty Act (MBTA); Birds of Conservation Concern, Region 10
	Clark’s Nutcracker	<i>Nucifraga Columbiana</i>	Migratory Bird Treaty Act (MBTA)
	Evening Grosbeak	<i>Coccothraustes vespertinus</i>	Migratory Bird Treaty Act (MBTA); Birds of Conservation Concern, Region 10
	Golden Eagle	<i>Aquila chrysaetos</i>	Migratory Bird Treaty Act (MBTA); The Bald and Golden Eagle Protection Act (BGEPA)
	Great Blue Heron	<i>Ardea herodias</i>	Migratory Bird Treaty Act (MBTA)
	Great Gray Owl	<i>Strix nebulosa</i>	Migratory Bird Treaty Act (MBTA)
Horned Grebe	<i>Podiceps auratus</i>	Migratory Bird Treaty Act (MBTA)	

	Lewis's Woodpecker	<i>Dryocopus pileatus</i>	Migratory Bird Treaty Act (MBTA); Birds of Conservation Concern, Regions 10, 17
	Long-billed Curlew	<i>Numenius americanus</i>	Migratory Bird Treaty Act (MBTA); Birds of Conservation Concern, Region 11
	Pacific Wren	<i>Troglodytes pacificus</i>	Migratory Bird Treaty Act (MBTA)
	Pileated Woodpecker	<i>Dryocopus pileatus</i>	Migratory Bird Treaty Act (MBTA)
	Trumpeter Swan	<i>Cygnus buccinator</i>	Migratory Bird Treaty Act (MBTA)
	Varied Thrush	<i>Ixoreus naevius</i>	Migratory Bird Treaty Act (MBTA)
	Veery	<i>Catharus fuscescens</i>	Migratory Bird Treaty Act (MBTA)
Reptiles	Northern Alligator Lizard	<i>Elgaria coerulea</i>	
Amphibians	Western Toad	<i>Anaxyrus boreas</i>	
Fish	Bull Trout	<i>Salvelinus confluentus</i>	Listed Threatened (LT); Critical Habitat (CH)
	Pygmy Whitefish	<i>Prosopium coulterii</i>	
	Westslope Cutthroat Trout	<i>Oncorhynchus clarkii lewisi</i>	
Invertebrates	Hooked Snowfly	<i>Isocapnia crinite</i>	
	Alberta Snowfly	<i>Isocapnia integra</i>	
	A Cave Obligate Isopod	<i>Salmasellus stegaothrix</i>	

Table 6. Plant Species of Concern in Township 26 N, Range 25 W, Flathead County.

	Common Name	Scientific Name	U.S. FWS – Status under the Federal Endangered Species Act of 1973
Vascular Plants	Geyer's Onion	<i>Allium geeyeri var. geeyeri</i>	
	Sparrow's-egg Lady's-slipper	<i>Cypripedium passerinum</i>	
	English Sundew	<i>Drosera anglica</i>	
	Beaked Spikerush	<i>Eleocharis rostellata</i>	
	Meadow Horsetail	<i>Equisetum pratense</i>	
	Slender Cottongrass	<i>Eriphorum gracile</i>	
	Latah Tule Pea	<i>Lathyrus bijugatus</i>	
	Kalm's Lobelia	<i>Lobelia kalmia</i>	
	Pygmy Water-lily	<i>Nymphaea leibergii</i>	
	Whitebark Pine	<i>Pinus albicaulis</i>	Listed Threatened (LT)
	Spalding's Catchfly	<i>Silene spaldingii</i>	Listed Threatened (LT)

	Columbia Water-meal	<i>Wolffia Columbiana</i>	
Bryophytes	Short-beaked Aloe Moss	<i>Aloina brevirostris</i>	
	Schreber's Dicranella Moss	<i>Dicranella schreberiana</i>	
	Britton's Dry Rock Moss	<i>Grimmia brittoniae</i>	
	Heim's Henediella Moss	<i>Henediella heimii</i>	
	Meesia Moss	<i>Messia uliginosa</i>	
	Lyall's Polytrichum Moss	<i>Meiotrichum lyallii</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.

According to the National Wetlands Inventory, there are several wetlands within the service area for the Evergreen Water and Sewer District, with classifications including **R2UBG, R3UBH, R3USA, PEM1A, PEM1C, Rp1EM, Rp1FO, Rp1SS, PABF, PABFh, PABFx, PUBF, PUBGx, and PSS1A** defined below:

P- for Palustrine System, including all nontidal wetlands dominated by trees, shrubs, persistent emergent, 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 the 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;

R- for Riverine System, including all wetlands and deepwater habitats contained within a channel, with two exceptions:

1. Wetlands dominated by trees, shrubs, persistent emergent, 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.

Rp- for Riparian System

2- Lower Perennial Subsystem, characterized by a low gradient. There is no tidal influence, and some water flows all year, except during years of extreme drought. The substrate consists mainly of sand and mud. Oxygen deficits may sometimes occur. The fauna is comprised of mostly species that reach their maximum abundance in still water, and true planktonic organisms are common. The gradient is lower than that of the Upper Perennial Subsystem and the floodplain is well developed.

3- Upper Perennial Subsystem, characterized by a high gradient. There is no tidal influence, and some water flows all year, except during years of extreme drought. The substrate consists of rock, cobbles, or gravel with occasional patches of sand. The natural dissolved oxygen concentration is

normally near saturation. The fauna is characteristic of running water, and there are few or no planktonic forms. The gradient is high compared with that of the Lower Perennial Subsystem, and there is very little floodplain development.

4- Intermittent Subsystem, including 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;

AB- for Aquatic Bed Class, including 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;

EM- for Emergent Class, 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.

SB- Streambed Class, including 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;

SS- Scrub-Shrub Class, including areas dominated by woody vegetation less than 6m (20 feet) tall. The species include tree shrubs, young trees (saplings), and trees or shrubs that are small or stunted because of environmental conditions.

UB- for Unconsolidated Bottom Class, including 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%;

US- Unconsolidated Shore Class, including all wetland habitats having two characteristics:

1. Unconsolidated substrates with less than 75 % areal cover of stones, boulders or bedrock; and,
2. Less than 30 % areal cover of vegetation;

Landforms such as beaches, bars, and flats are included in the Unconsolidated Shore class;

1- Persistent Subclass, dominated by species that normally remain standing at least until the beginning of the next growing season;

A- Temporary Flooded Water Regime, where 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 most of the season;

B- Seasonally Flooded Water Regime, where 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;

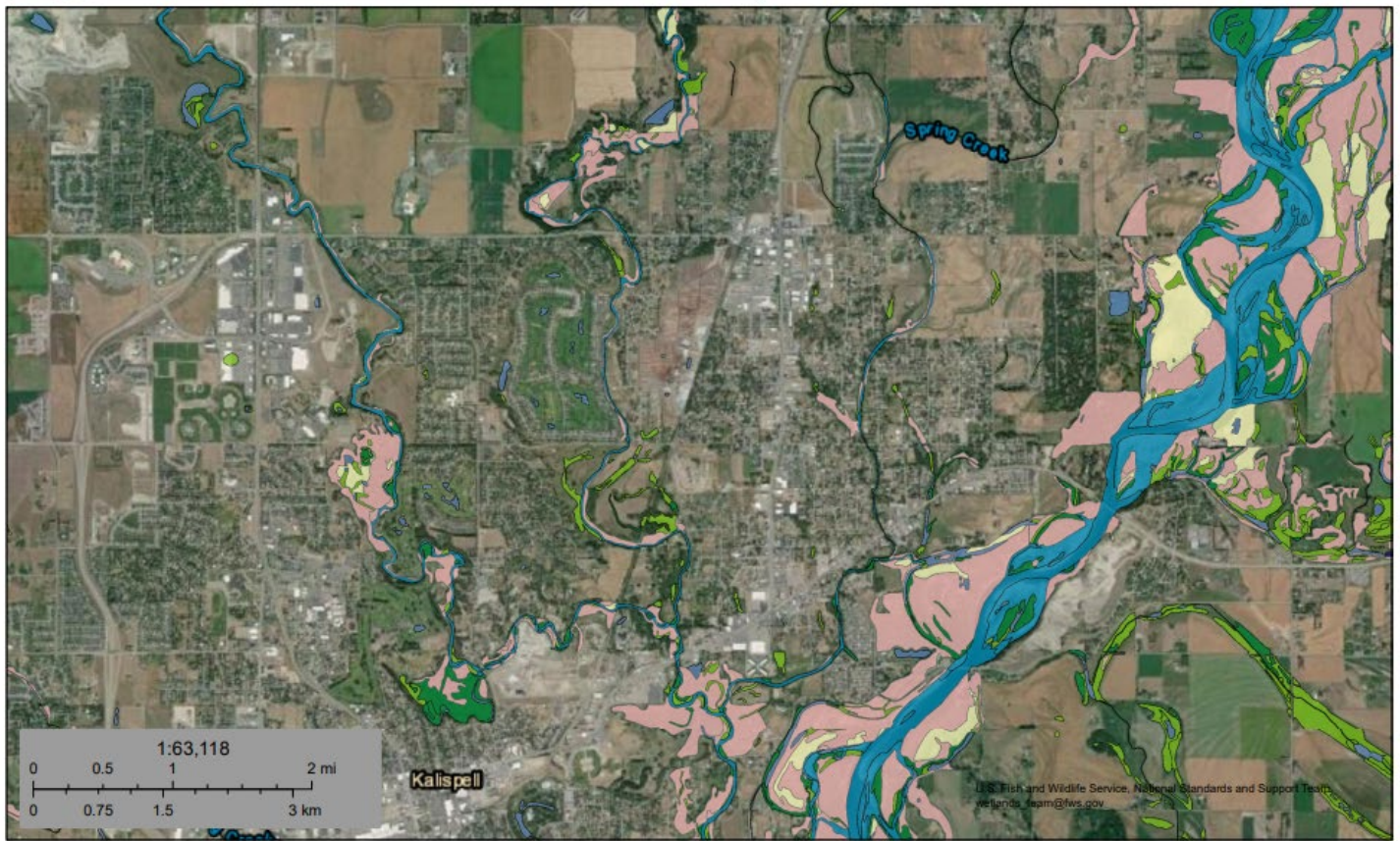
F- Semipermanently Flooded Water Regime, where surface water persists throughout the growing season in most years. When surface water is absent, the water table is usually at or very near the land surface;

G- Intermittently Exposed Water Regime, where water covers the substrate throughout the year except in years of extreme drought;

H- Permanently Flood Water Regime, where water covers the substrate throughout the year in all years;

h- Diked/Impounded Special Modifier, where wetlands have been created or modified by a man-made barrier or dam that obstructs the inflow or outflow of water;

x- Excavated Special Modifier, used to identify wetland basins or channels that were excavated by humans.



July 24, 2024

Wetlands

- | | | | | | |
|---|--------------------------------|---|-----------------------------------|---|----------|
|  | Estuarine and Marine Deepwater |  | Freshwater Emergent Wetland |  | Lake |
|  | Estuarine and Marine Wetland |  | Freshwater Forested/Shrub Wetland |  | Other |
| | |  | Freshwater Pond |  | Riverine |

This map is for general reference only. The US Fish and Wildlife Service is not responsible for the accuracy or currentness of the base data shown on this map. All wetlands related data should be used in accordance with the layer metadata found on the Wetlands Mapper web site.

National Wetlands Inventory (NWI)
This page was produced by the NWI mapper

Determination: The proposed change involves shifting the irrigated area to an area directly south of historical irrigation. It is not anticipated that the change in irrigation method or location of irrigation will have significant impact on surrounding wetlands beyond the historical use. The department will issue the change application so long as the Applicant meets the criteria outlined in Montana Code Annotated (MCA) § 85.2.402.

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.

Soils in the district area are wide ranging from clays to gravels. For purposes of overall area analysis for this assessment, the United States Department of Agriculture (USDA) National Resource Conservation Service (NRCS) Web Soil Survey was consulted to produce the following soil features of the area. A simplified rectangle was drawn to encompass the entirety of the district to extract the data summarized below.

The probability of soil degradation across the area is generally low, as shown in Table below. Most of the highly susceptible areas within the district are located near the banks of the Flathead and Whitefish Rivers.

Soil Degradation Susceptibility		
Rating	Acres in Area of Interest	Percent of Area of Interest
Slightly susceptible	3,005.5	45.3%
Moderately susceptible	2,530.7	38.2%
Highly susceptible	1,094.7	16.5%

Slopes in the area are generally low, falling between 2-6%, indicating general soil stability.

Soils in the area typically fall under the hydrologic soil groups A & B, indicating that the soils have a high to moderate infiltration rate.

Around 90 % of the soils within the district area have low content of sodium, calcium, potassium, and magnesium minerals and are thus minimally susceptible to 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.

According to the Montana Natural Heritage (MNHP) Map Viewer, the land cover within the project area is dominated by human uses such as high- and low-density residential units, commercial businesses, roadways, and developed open spaces. The next prominent land cover is wetland and riparian systems including Northern Rocky Mountain lower montane riparian woodland and shrubland, open water, alpine-montane wet meadows, and emergent marshes.

Of the noxious weed species in Montana, Spotted Knapweed, Tall Baby's breath, and Scotch Thistle are the most dominate. The classification of the project area according to the MNHP Montana Invasive Weed Dashboard is in the top 10% of cumulative invasion risk. It is responsibility of the individual landowners within the district to exercise due diligence in the spread of noxious weeds.

The area within the District is already highly developed, and therefore, there is not projected degradation to vegetation due to the issuance of this beneficial water use permit.

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, most of the soils in this area have low to moderate resistance to dust propagation, therefore there is likelihood of fugitive dust as a result of development. It is the responsibility of the landowner and developer to minimize the effects of fugitive dust when developing the land.

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.*

The only historical site of interested located within the District is the Bruyer Granary located off of Whitefish Stage Road. The area around the Granary is already developed, and it is not anticipated that issuance of this beneficial water use permit will contribute to degradation of this historical site.

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.*

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 land designated as wilderness.

Determination: No significant impact.

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

All wastewater from the District is disposed of via the Evergreen Sewer Districts public 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?

Employment opportunities will increase with the commercial development of this land.

(e) Distribution and density of population and housing?

This beneficial water use permit will allow for the District to expand their service area to keep up with the growing population in the area.

(f) Demands for government services?

This project may increase demand for government services.

(g) Industrial and commercial activity?

This project will allow for increase commercial activity in the area.

(h) Utilities?

This project will increase the demand for utilities as more connections are made to the public water system.

(i) Transportation?

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

(j) Safety?

None.

(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 District to operate within the means of their water rights.

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 Change Authorization is the no action alternative.

PART III. Conclusion

1. Preferred Alternative

Authorize a water right change if the Applicant proves the criteria in 85-2-402 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: Kristal Kiel

Title: Water Resources Specialist

Date: July 24, 2024