

ENVIRONMENTAL ASSESSMENT
For Routine Actions with Limited Environmental Impact

Part I. Proposed Action Description

1. APPLICANT/CONTACT NAME AND ADDRESS:

KELLY & SHELLY WILLS
3032 QUEEN ST
MISSOULA MT 59801-8651

2. TYPE OF ACTION:

Surface Water Application for Beneficial Water Use Permit No. 76LJ 30172339

3. WATER SOURCE NAME:

Lake Mary Ronan

4. LOCATION AFFECTED BY PROJECT:

S2SESE Section 11, Township 25N, Range 22W, Lake County, Montana.

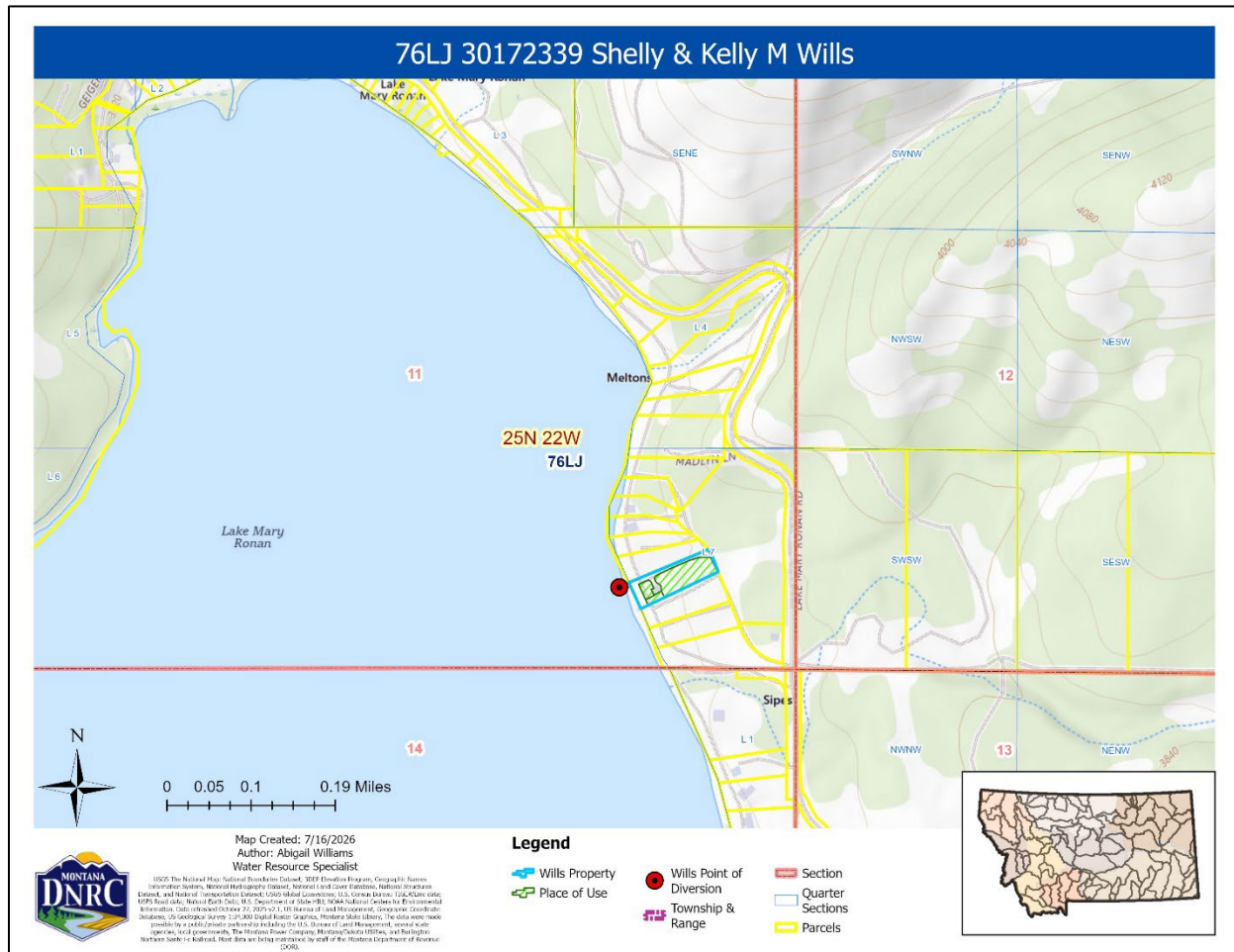


Figure 1. Map of the proposed place of use and points of diversion.

5. NARRATIVE SUMMARY OF THE PROPOSED PROJECT, PURPOSE, ACTION TO BE TAKEN, AND BENEFITS:

The Applicant proposes to divert water from Lake Mary Ronan, by means of a pump, from April 15th to October 15th at a flow rate of 25.0 GPM. The Applicant proposes to divert up to 3.73 acre-feet (AF) per year, from a point in the S2SESE Section 11, Township 25N, Range 22W, Lake County, to irrigate 1.5 acres of lawn and garden from April 15th to October 15th. The place of use is Government Lot 7, S2SESE, Section 11, Township 25N, Range 22W, Lake County, Montana (Figure 1).

The project is in the Flathead River Basin (76LJ) in an area that is not subject to water right basin closures or controlled groundwater area restrictions.

The DNRC shall issue a water use permit if the Applicant proves the criteria in 85-2-311 MCA are met.

6. 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
- U.S. National Park Service (NPS) Water Rights Branch

Part II. Environmental Review

1. ENVIRONMENTAL IMPACT CHECKLIST:

PHYSICAL ENVIRONMENT

1.1 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 Applicant proposes to divert water from Lake Mary Ronan which is not identified on the DFWP list of chronically or periodically dewatered streams.

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.

Lake Mary Ronan: MDEQ Clean Water Act Information Center's 2020 Water Quality Information report lists Lake Mary Ronan as:

- i. Water Quality Category 4C: Identified threats or impairments result from pollution categories such as dewatering or habitat modification and, thus, the calculation of a Total Maximum Daily Load (TMDL) is not required.
- ii. Use Class A-1: Waters classified as suitable for drinking, culinary and food processing purposes after conventional treatment for removal of naturally present impurities;

- iii. Lake Mary Ronan is assessed as “Fully Supporting” of Agriculture, Aquatic Life, and Primary Contact Recreation. Lake Mary Ronan has not been assessed for drinking water. The proposed diversion of water to irrigate lawn and garden is not expected to significantly affect the water quality on the source.

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.

1.2 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 Applicants propose to divert water from Lake Mary Ronan at a rate of 25.0 GPM up to 3.73 AF to irrigate 1.5 acres of lawn and garden by either a Munro MXS 204 or Munro MXS 205 (or equivalent) submersible pump located 60 feet from the high-water mark. The pump is equipped with a screen to prevent debris from entering the system and a backflow preventor to prevent backflow into the lake. The pump outlet is connected to a 2-inch high density polyethylene (HDPE) mainline that extends 595-feet northeast to the top edge of the property. There are 9 irrigation zones controlled by a control box allowing each zone to operate individually. Each zone is served by 1-inch HDPE lines that connect to K-Rain rotors with an operation pressure of 30 PSI to ensure head-to-head coverage. Applicants have approximately 78 feet of lateral 1-inch HDPE line for all 9 zones to connect sprinklers to the main line.

The installation of the pump and intake pipe is not anticipated to have lasting effects on the riparian area. The installation will not create any barriers or dams on Lake Mary Ronan. The Applicant must have approval from all relevant agencies before disturbing the lake banks along with the riparian areas for installation of the diversion.

Determination: No significant impact.

1.3 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, 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 the project area that could be impacted by the proposed project. Nine animal species (Table 1) were identified within the project area. Of these species, the Grizzly Bear (*Ursus arctos*) is listed as threatened by the USFWS. This area is already developed. It is not anticipated that any species of concern will be impacted by the proposed project. The project will not create any barriers to the migration of fish or wildlife.

Table 1. Species of Concern		
Species Group	Common Name	Scientific Name
Mammals	Grizzly Bear*	<i>Ursus arctos</i>
Mammals	Little Brown Myotis	<i>Myotis lucifugus</i>
Mammals	Northern Hoary Bat	<i>Lasiurus cinereus</i>
Mammals	Silver-haired Bat	<i>Lasionycteris noctivagans</i>
Birds	Evening Grosbeak	<i>Coccothraustes vespertinus</i>
Birds	Great Blue Heron	<i>Ardea herodias</i>
Birds	Pileated Woodpecker	<i>Dryocopus pileatus</i>
Fish	Westslope Cutthroat Trout	<i>Oncorhynchus lewisi</i>
Invertebrates	Western Bumble Bee	<i>Bombus occidentalis</i>

*Listed as "Threatened" by the USFWS.

Determination: No significant impact.

Wetlands & Ponds - Consult and assess whether the apparent wetland is a functional wetland (according to COE definitions), and whether the wetland resource would be impacted. For ponds, consult and assess whether existing wildlife, waterfowl, or fisheries resources would be impacted.

N/A there are no wetlands in the proposed place of use or point of diversion.

Determination: No significant impact.

1.4 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 proposed irrigation of lawn and garden will not negatively impact the soil quality, stability, or moisture content in the project area. The soil type in the project area is, "Kingspoint gravelly loam, 4 to 15 percent slopes" which came from glacial till parent material. This soil has a moderately high to high capacity to transmit water. Soil in this area is non-saline to very slightly saline and are therefore not likely susceptible to saline seep.

Determination: No significant impact.

1.5 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.

It is not anticipated that this project will impact the existing vegetative cover as the home and lawn are already established and no construction is planned. 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.

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

There will be no impact to air quality associated with issuance of the proposed permit for beneficial use of surface water from Lake Mary Ronan.

Determination: No significant impact.

- 1.7 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.

- 1.8 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

- 1.9 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.

- 1.10 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.

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

This proposed use will not adversely impact human health.

Determination: No impact.

- 1.12 PRIVATE PROPERTY** - *Assess whether there are any government regulatory impacts on private property rights. If yes, analyze any alternatives considered that could reduce, minimize, or eliminate the regulation of private property rights.*

No government regulatory impacts on private property rights.

Determination: No impact.

- 1.13 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 Lake Mary Ronan at this location.

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:

Based on the significance criteria evaluated in this EA, is an EIS required? ___Yes ___X No

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.

4. NAME OF PERSON(S) RESPONSIBLE FOR PREPARATION OF EA:

Name: Abigail Williams

Title: Water Resource Specialist

Date: 7/27/2026



Montana Fish, Wildlife & Parks

FWP DEWATERING CONCERN AREAS

Revised, May 2005

The following is a list of Montana streams that support important fisheries or contribute to important fisheries (i.e., provide spawning and rearing habitats) that are significantly dewatered. Dewatering refers to a reduction in streamflow below the point where stream habitat is adequate for fish.

This is the third revision of the Dewatered Streams List compiled by FWP dated January 24, 1991 and last updated in May 2003. List entries and updates were provided by FWP regional fisheries biologists from field observations. Further revisions may be necessary as water use patterns change, and additional or more detailed information becomes available.

This revised list includes a total of 323 stream reaches on 314 streams, which are chronically dewatered, and 113 stream reaches on 109 streams, which are periodically dewatered. The reaches do not overlap between categories.

The two categories of dewatering are:

1. **Chronic dewatering** -- streams where dewatering is a significant problem in virtually all years; and
2. **Periodic dewatering** -- streams where dewatering is a significant problem only in drought or water-short years.

Most man-made dewatering occurs during the irrigation season (July-September). Although most dewatering is caused by irrigation withdrawals, a few of the listed waters are dewatered through dam regulation for agricultural and power production purposes or by natural causes.

Each listed stream shows the length (in miles) of the dewatered reach. For larger/longer streams, the boundaries of the dewatered reach (Point A - Point B) are given. For streams that have no reach boundaries given, the miles shown as dewatered are from the mouth upstream. All mileages are approximate.

The dewatered reaches shown are typical for the stream. However, the number of miles dewatered may vary from year to year depending upon the amount of water available in the stream system.

CHRONIC DEWATERING

<u>STREAM AND REACH</u>	<u>MILES DEWATERED</u>
Beaverhead-Red Rock River Drainage	
Beaverhead River: West Side Canal – mouth	39
Big Sheep Creek: BLM Boundary - Red Rock River	3
Blacktail Deer Creek: Axes Canyon Rd - Beaverhead River	5.5
Horse Prairie Creek: Red Butte - Clark Canyon Reservoir	15
Junction Creek: I-15 - Red Rock River	4
Rattlesnake Creek: Dillon/Argenta Rd - mouth	7.5
Red Rock River: Dell-Briggs Ranch	<u>6</u>
Subtotal for Drainage	80.0
Big Hole River Drainage	
Alder Creek	0.1
Big Hole River:	
Big Lake Creek - Swamp Creek	9
Glen Bridges - mouth	24.4
Birch Creek: Beaverhead/Willow Ditch - mouth	9.8
Governor Creek	5
Wise River: Wise River Ditch - mouth	<u>5</u>
Subtotal for Drainage	53.3
Bitterroot River Drainage	
Baker Creek	1
Bass Creek	1
Bear Creek:	
North Channel	4
South Channel	4
Big Creek	3
Bitterroot River: Corvallis-Stevensville	17
Blodgett Creek	2
Burnt Fork Creek	5
Carlton Creek	5
Chaffin Creek	2
Eightmile Creek	3
Kootenai Creek	2
Lolo Creek	3
Lost Horse Creek	4
Mill Creek	3
Mill Creek (Trib. to Lolo Creek)	0.5
O'Brien Creek	1.5
Reimel Creek	1
Rock Creek	5
Skalkaho Creek	4
South Fork of Lolo Creek	0.5
Sweathouse Creek	2

Dearborn River Drainage

Dearborn River: Bean Lake Canal – mouth	44
Middle Fork Dearborn River	<u>4</u>
Subtotal for Drainage	48

Flathead River Drainage

Lost Creek: 4 miles Above Lore Lake - Stillwater River	7
Mount Creek: Welcome Springs - mouth	5
South Fork Flathead River: Hungry Horse Dam - mouth	5.3
Walker Creek: Entire Length	<u>7</u>
Subtotal for Drainage	24.3

Flint Creek Drainage (Clark Fork)

Cow Creek	3
Douglas Creek	2
Flint Creek: Georgetown Lake - mouth	42.4
Gird Creek	1
Henderson Creek: USFS Boundary - mouth	4
Lower Willow Creek: Reservoir - mouth	9.4
Marshall Creek: USFS Boundary - mouth	<u>5</u>
Subtotal for Drainage	66.8

Gallatin River Drainage

Baker Creek	10
Big Bear Creek	5
Bridger Creek	10
Gallatin River: Shedd's Bridge - Mouth	32.7
Hyalite (Middle) Creek	20
South Cottonwood Creek	<u>6</u>
Subtotal for Drainage	83.7

Jefferson River Drainage

Antelope Creek	7
Boulder River: Boulder - Cold Springs	36
Fish Creek	10
Jefferson River: Headwaters - mouth	84
Little Boulder River	10
North Willow Creek	9
Pipestone Creek	8
South Boulder River	10
South Willow Creek	8
Whitetail Creek	<u>24</u>
Subtotal for Drainage	206

Judith River Drainage

Cottonwood Creek: McMillan ditch to Big Spring Creek	17
Judith River: Ackley Lake diversion – Big Spring Creek	37
Ross Fork Creek	<u>10</u>
Subtotal for Drainage	64

PERIODIC DEWATERING

<u>STREAM AND REACH</u>	<u>MILES DEWATERED</u>
Beaverhead - Red Rock River Drainage	
Beaverhead River: Clark Canyon Dam - West Side Canal	21
Big Beaver Creek	0.7
Blacktail Deer Creek: West Fork - Axes Canyon Rd.	19.8
Bloody Dick Creek (Tributary to Horse Prairie Cr.)	10
Grasshopper Creek:	
Polaris - Bannock	14
Frenzy Place Placer - mouth	6
Jones Creek: BLM boundary - mouth	1.5
Little Sheep Creek: Road crossing - mouth	7.5
Medicine Lodge Creek (Tributary to Horse Prairie Cr.): Ayers Cyn - mouth	16.8
Peet Creek: Jones Diversion - mouth	1.7
Sage Creek: Rock Island Ranch - mouth	11
Trail Creek (Tributary to Horse Prairie Cr.): Source - mouth	<u>7</u>
Subtotal for Drainage	117.0
Big Hole River Drainage	
Big Hole River:	
Hamby Creek - Big Lake Creek	23.4
Swamp Creek - Glen Bridges	84.5
Big Lake Creek	7.5
Canyon Creek	6
Deep Creek	5.1
Divide Creek	9.5
Doolittle Creek	1.5
Fishtrap Creek	2.4
Francis Creek	7.7
Jerry Creek	3.1
Johnson Creek	3.7
Moose Creek	3.0
Mussigbrod Creek	9.4
North Fork Big Hole River	25
Pintlar Creek	10.8
Rock Creek	3
Rock Creek (Tributary to Big Lake Cr)	7
Ruby Creek	4.3
Sandhollow Creek	4.8
Steel Creek	8.6
Swamp Creek	17.4
Trapper Creek	6
Warm Springs Creek	9
Willow Creek	<u>5.5</u>
Subtotal for Drainage	268.2

Bitterroot River Drainage

Lolo Creek

1

Subtotal for Drainage 1

Blackfoot River Drainage

Arkansas Creek

2

Ashby Creek

2

Blackfoot River: Stream mile 84.9-54.1

30.8

Clearwater River

3.5

Elk Creek

3

Hoyt Creek

1

Nevada Creek: Stream mile 34.0-40.0

6

Shanley Creek

1.6

Subtotal for Drainage 49.9

Dearborn River Drainage

South Fork Dearborn River

10

Subtotal for Drainage 10

Flathead River Drainage

Ashley Creek: US Hwy. 2 Bridge – mouth

20

Blaine Creek: Above Lake Blaine - Lake Blaine

3

Bowser Spring Creek: Hwy 424 - Kalispell

8

Dayton Creek: Co. Line - mouth

10

Echo Creek: Sec. 27 - mouth

3

Evergreen Spring Creek

5

Garnier Creek: USFS - mouth

3

Lynch Creek: Sec. 12 - mouth

5

Meadow Creek (Big Fork): USFS - mouth

3

Ronan Creek: Lake Mary Ronan - mouth

5

Spring Creek: North of Kalispell

5

Trumbull Creek: USFS - Rose Crossing

20

Subtotal for Drainage 90

Gallatin River Drainage

Bozeman (Sourdough) Creek

8

Gallatin River: Gallatin Gateway - Shedd's Bridge

5.3

Subtotal for Drainage 13.3

Jefferson River Drainage

Hells Canyon Creek*

0.3

Willow Creek

10

Subtotal for Drainage 10.3

Judith River Drainage

Judith River: Utica to Ackley Lake diversion

5

Subtotal for Drainage 5

Assessment Record Summary

Reporting Cycle: 2020 Assessment Record: MT76O004_020 Status: Completed

WATER INFORMATION		Status: Completed
Reporting Cycle:	2020	
Assessment Unit:	MT76O004_020	
Name:	Lake Mary Ronan	
Location Description:	LAKE MARY RONAN	
Water Type:	Size (Miles/Acres)	Use Class:
FRESHWATER LAKE	1517.2 ACRES	A-1
Trophic Status:	MESOTROPHIC	
Trophic Trend:	Degrading	
1 - Hydrologic Unit Code:	17010208	
2 - HUC Name:	Flathead Lake	
3 - Watershed:	Pend Oreille	
4 - Basin:	Columbia	
5 - TMDL Planning Area:	Flathead Lake	
6 - Ecoregion:	Northern Rockies	
7 - County:	Lake County	
Water Quality Category:	4C - Identified threats or impairments result from pollution categories such as dewatering or habitat modification and, thus, the calculation of a Total Maximum Daily Load (TMDL) is not required	

Assessment Record Summary

Reporting Cycle: 2020 Assessment Record: MT76O004_020 Status: Completed

Beneficial Use Support Information					
Use Name	Fully Supporting	Not Fully Supporting	Threatened	Insufficient Information	Not Assessed
Aquatic Life	X		X		
Agricultural	X				
Drinking Water					X
Primary Contact Recreation	X				

Assessment Information		
Use Name	Assessment Type	Assessment Confidence
NA		

Use Name	Assessment Methods
NA	

Impairment Information			
Use Name	Probable Causes	Probable Sources	TMDL Completed
Aquatic Life	Chlorophyll-a	Grazing in Riparian or Shoreline Zones	N
		Agriculture	
		Silviculture Activities	

Assessment Record Summary

Reporting Cycle: 2020 Assessment Record: MT76O004_020 Status: Completed

Use Name	Observed Effects
NA	

Delisting / Category Changes			
Cause	Reason for Change	Change Date	Comments
Chlorophyll-a	Not caused by a pollutant (4C)	01/28/2008	The pollutant/non-pollutant effect designation was changed from pollutant to non-pollutant.



Charts and Data

Printable Report [↗](#) [Export to Excel](#)

☰ 📁 Map Title and Filters

SOC Occurrences
with MT Status = Species of Concern

Reports based on Visible Map Extent

☰ 📁 Species Occurrences

Species List | plus Occurrences | plus Obs (may take a while)

+	Mammals - Fisher	(<i>Pekania pennanti</i>)	SO Count: 1	Obs Count: 91	Earliest Obs: 1965	Recent Obs: 2022
+	Mammals - Grizzly Bear	(<i>Ursus arctos</i>)	SO Count: 1	Obs Count: 1551	Earliest Obs: 1895	Recent Obs: 2026
+	Mammals - Little Brown Myotis	(<i>Myotis lucifugus</i>)	SO Count: 2	Obs Count: 2	Earliest Obs: 2010	Recent Obs: 2010
+	Mammals - Northern Hoary Bat	(<i>Lasiurus cinereus</i>)	SO Count: 1	Obs Count: 1	Earliest Obs: 2010	Recent Obs: 2010
+	Mammals - Silver-haired Bat	(<i>Lasionycteris noctivagans</i>)	SO Count: 3	Obs Count: 3	Earliest Obs: 2010	Recent Obs: 2010
+	Birds - Evening Grosbeak	(<i>Coccothraustes vespertinus</i>)	SO Count: 1	Obs Count: 3	Earliest Obs: 2022	Recent Obs: 2024
+	Birds - Great Blue Heron	(<i>Ardea herodias</i>)	SO Count: 1	Obs Count: 1	Earliest Obs: 1979	Recent Obs: 1979
+	Birds - Pileated Woodpecker	(<i>Dryocopus pileatus</i>)	SO Count: 1	Obs Count: 2	Earliest Obs: 2022	Recent Obs: 2023
+	Fish - Westslope Cutthroat Trout	(<i>Oncorhynchus lewisi</i>)	SO Count: 1	Obs Count: 342	Earliest Obs: 1980	Recent Obs: 2022
+	Invertebrates - <i>Bombus occidentalis</i>	(Western Bumble Bee)	SO Count: 1	Obs Count: 1	Earliest Obs: 1932	Recent Obs: 1932

Soil Map—Lake County Area, Montana



**Natural Resources
Conservation Service**

Web Soil Survey
National Cooperative Soil Survey

7/16/2026
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MAP LEGEND

Area of Interest (AOI)

 Area of Interest (AOI)

Soils

 Soil Map Unit Polygons

 Soil Map Unit Lines

 Soil Map Unit Points

Special Point Features



Blowout



Borrow Pit



Clay Spot



Closed Depression



Gravel Pit



Gravelly Spot



Landfill



Lava Flow



Marsh or swamp



Mine or Quarry



Miscellaneous Water



Perennial Water



Rock Outcrop



Saline Spot



Sandy Spot



Severely Eroded Spot



Sinkhole



Slide or Slip



Sodic Spot



Spoil Area



Stony Spot



Very Stony Spot



Wet Spot



Other



Special Line Features

Water Features



Streams and Canals

Transportation



Rails



Interstate Highways



US Routes



Major Roads



Local Roads

Background



Aerial Photography

MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:20,000.

Warning: Soil Map may not be valid at this scale.

Enlargement of maps beyond the scale of mapping can cause misunderstanding of the detail of mapping and accuracy of soil line placement. The maps do not show the small areas of contrasting soils that could have been shown at a more detailed scale.

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service

Web Soil Survey URL:

Coordinate System: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: Lake County Area, Montana

Survey Area Data: Version 27, Aug 30, 2025

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: Jun 30, 2021—Oct 11, 2021

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

Map Unit Legend

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
90	Kingspoint gravelly loam, 4 to 15 percent slopes	1.8	100.0%
Totals for Area of Interest		1.8	100.0%

Lake County Area, Montana

90—Kingspoint gravelly loam, 4 to 15 percent slopes

Map Unit Setting

National map unit symbol: 4w86

Elevation: 2,900 to 5,000 feet

Mean annual precipitation: 15 to 30 inches

Mean annual air temperature: 37 to 45 degrees F

Frost-free period: 70 to 125 days

Farmland classification: Farmland of statewide importance

Map Unit Composition

Kingspoint and similar soils: 85 percent

Minor components: 15 percent

Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Kingspoint

Setting

Landform: Moraines

Down-slope shape: Linear

Across-slope shape: Linear

Parent material: Glacial till

Typical profile

Oi - 0 to 3 inches: mucky peat

E - 3 to 20 inches: gravelly loam

Bw - 20 to 36 inches: very gravelly loam

Bk - 36 to 60 inches: very gravelly loam

Properties and qualities

Slope: 4 to 15 percent

Depth to restrictive feature: More than 80 inches

Drainage class: Well drained

Capacity of the most limiting layer to transmit water (Ksat):

Moderately high to high (0.57 to 1.98 in/hr)

Depth to water table: More than 80 inches

Frequency of flooding: None

Frequency of ponding: None

Calcium carbonate, maximum content: 15 percent

Maximum salinity: Nonsaline to very slightly saline (0.0 to 2.0 mmhos/cm)

Available water supply, 0 to 60 inches: Moderate (about 7.8 inches)

Interpretive groups

Land capability classification (irrigated): 4e

Land capability classification (nonirrigated): 4e

Hydrologic Soil Group: B

Ecological site: F043AP909MT - Upland Cool Woodland Group

Hydric soil rating: No

Minor Components

Mcdonald

Percent of map unit: 4 percent

Landform: Moraines

Down-slope shape: Linear

Across-slope shape: Linear

Ecological site: R044AB032MT - Loamy (Lo) LRU 44A-B

Hydric soil rating: No

Eaglewing

Percent of map unit: 4 percent

Landform: Moraines

Down-slope shape: Linear

Across-slope shape: Linear

Hydric soil rating: No

Kingspoint, stony loam

Percent of map unit: 3 percent

Landform: Moraines

Down-slope shape: Linear

Across-slope shape: Linear

Hydric soil rating: No

Poorly drained soils

Percent of map unit: 2 percent

Landform: Flood plains

Down-slope shape: Linear

Across-slope shape: Linear

Hydric soil rating: Yes

Somewhat poorly drained soils

Percent of map unit: 2 percent

Hydric soil rating: No

Data Source Information

Soil Survey Area: Lake County Area, Montana

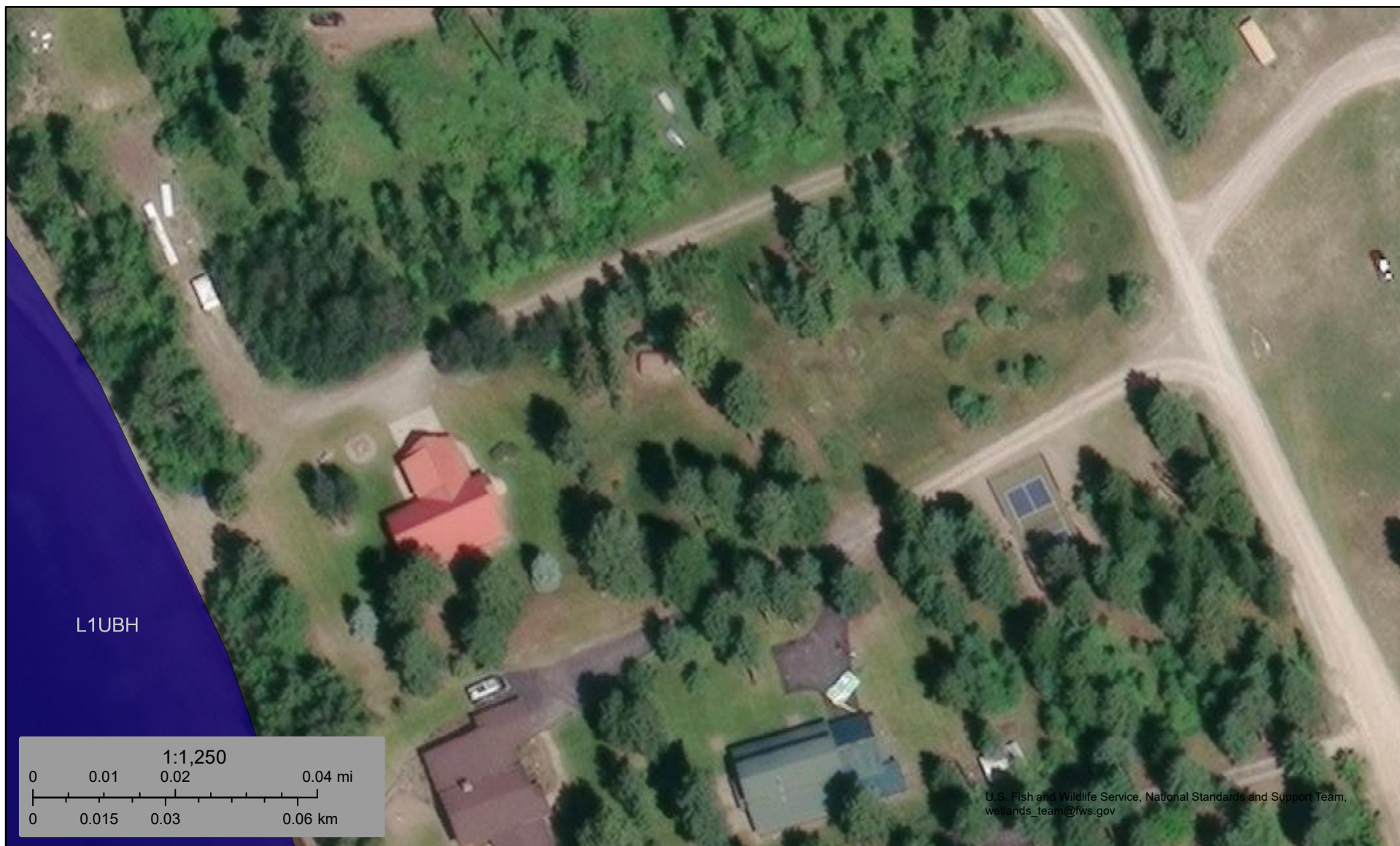
Survey Area Data: Version 27, Aug 30, 2025



U.S. Fish and Wildlife Service

National Wetlands Inventory

Wetlands



July 16, 2026

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.