

ENVIRONMENTAL ASSESSMENT
For Routine Actions with Limited Environmental Impact

Part I. Proposed Action Description

1. APPLICANT/CONTACT NAME AND ADDRESS:

RJM Properties LLC
1191 Majestic View Lane
Kalispell, MT, 59901

2. TYPE OF ACTION:

Ground Water Application for Beneficial Water Use Permit No. 76LJ 30171747

3. WATER SOURCE NAME:

Ground Water (Flathead Valley Deep Alluvial Aquifer)

4. LOCATION AFFECTED BY PROJECT:

N2SWNE Section 17, Township 27N, Range 20W, Flathead County, Montana.

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

The Applicant proposes to divert water from a well drilled into Flathead Deep Alluvial Aquifer by means of a pump at a rate of 101.0 gallons per minute (GPM) up to 21.72 acre-feet (AF) per year. The Applicant proposes to use up to 2.24 acre-feet for multiple domestic for eight households and up to 19.48 acre-feet for irrigation of 10 acres of lawn and garden (1.25 acres per household). The lawn and garden will be irrigated from April 15th to October 15th and multiple domestic use will occur from January 1st to December 31st annually.

The proposed point of diversion is in the NWSWNE of Section 17, Township 27N, Range 20W, Flathead County (Figure 1). The place of use is the Majestic Meadow subdivision located in the N2SWNE of Section 17, Township 27N, Range 20W, Flathead County, Montana (Figure 1).

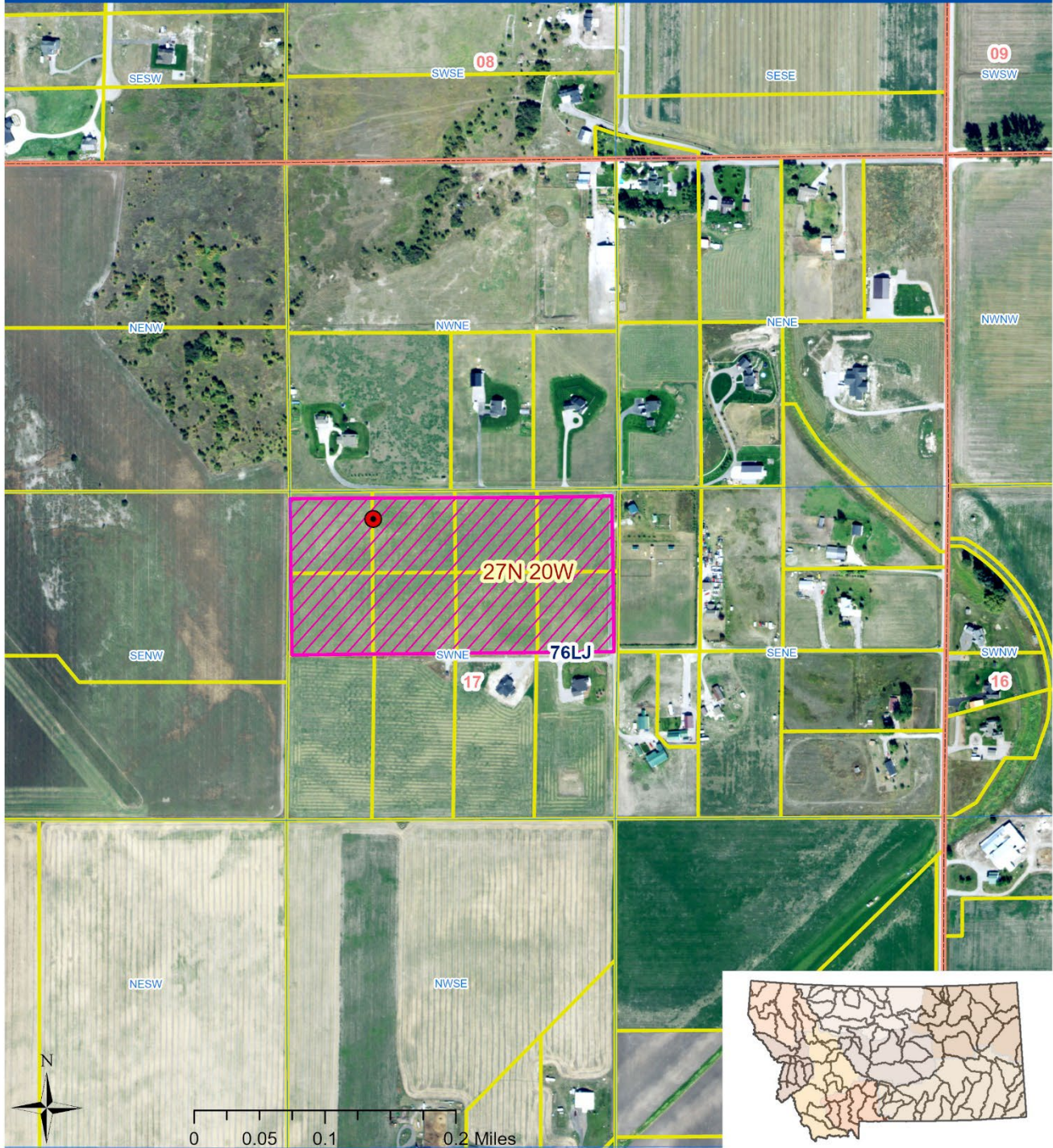
The project is in the Flathead River Basin (76LJ) in an area that is not subject to water right basin closures or controlled groundwater area restrictions.

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

RJM Properties LLC Application No. 76LJ 30171747



Map Created: 3/12/2026
 Author: Abigail Williams
 Water Resource Specialist



USGS The National Map; National Boundaries Dataset, 3DEP Elevation Program, Geographic Names Information System, National Hydrography Dataset, National Land Cover Database, National Structures Dataset, and National Transportation Dataset; USGS Global Ecosystems; U.S. Census Bureau TIGER/Line data; USFS Road data; National Earth Data; U.S. Department of State HRU; NOAA National Centers for Environmental Information. Data refreshed October 27, 2025., Montana State Library

Legend

- Township & Range
- Quarter Sections
- Section
- Parcels
- RJM Proposed Point of Diversion
- RJM Proposed Place of Use

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

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 groundwater from a well that is approximately one mile northwest of Fennon Slough, which is hydrologically considered to be a part of Flathead River and 1.25 miles north of Flathead Lake. Fennon Slough (Flathead River) and Flathead Lake are not 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.

The Applicant proposes to divert and use groundwater. The nearest surface water sources to the proposed groundwater diversion are Fennon Slough (Flathead River) and Flathead Lake.

Flathead River: MDEQ Clean Water Act Information Center's 2020 Water Quality Information report lists the Flathead River as:

- i. Water Quality Category 3: Waters for which there is insufficient data to assess the use support of any applicable beneficial use, so no use support determinations have been made;
- ii. Use Class B-1: Waters classified as suitable for drinking, culinary, and food processing purposes after conventional treatment; bathing, swimming and recreation; growth and propagation of salmonid fishes and associated aquatic life, waterfowl and furbearers; and agricultural and industrial water supply;

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

- i. Water Quality Category 5: Waters where one or more applicable beneficial uses have been assessed as being impaired or threatened, and a TLMD is required to address the factors causing the impairment or threat;
- 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. Flathead Lake is assessed as "Fully Supporting" of Agriculture, Drinking water, and Primary Contact Recreation. It is assessed that Flathead Lake is "Not Fully Supporting" of Aquatic Life due to Mercury, Polychlorinated Biphenyls (PCBs), Nitrogen, and Phosphorus. A TLMD has not been completed for the Mercury nor the Polychlorinated Biphenyls (PCBs) impairment. A TLMD was established or approved by EPA on March 31, 2002 for Nitrogen and Phosphorus with a Nutrient Management Plan.

It is not anticipated that the appropriation of groundwater for multiple domestic and lawn and garden irrigation will result in significant water quality impacts to the nearby surface water sources.

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.

The proposed well is completed in the Flathead Deep Alluvial Aquifer to a depth of 714.0 feet below ground surface (BGS). The Applicant performed a 24-hour constant-rate aquifer test on GWIC ID 331034 at an average flow rate of 101.0 GPM.

The Department determined the physically available volume of water in the source aquifer using aquifer properties derived from previous aquifer tests for previous permits in the vicinity of the proposed production well. The flow rate of 101.0 will be controlled by a variable frequency drive (VFD) with an output of 55 PSI.

Surface water depletion resulting from the Applicant's proposed well due to pumping from the Deep Aquifer will occur year-round to Flathead River and Flathead Lake. The Department conducted physical and legal availability analyses on the aquifer and the hydraulically connected surface water and found water is legally available in the source aquifer and the depleted surface water sources.

Determination: No significant impact.

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 Applicant will divert groundwater from the aquifer at a rate of 101.0 GPM up to 2.24 AF/year for multiple domestic use for eight households and up to 19.48 AF/year to irrigate 10 acres of lawn and garden with 1.25 acres apportioned per household. The Applicant proposes to divert water for multiple domestic use from January 1st to December 31st and for irrigation of lawn and garden from May 15th to October 15th annually. The Applicant will use a Grundfos SP90S100-9 in a 3-inch drop pipe extending 200 feet below ground surface that connects to two pressure tanks and a variable frequency drive set to an output pressure of 55 PSI. The two pressure tanks, VFD, and control panels are located in the pump house on Lot 2 of the Majestic Meadows Subdivision. After leaving the pressure tanks the water is diverted to Lots 1 through 8 of Majestic Meadow via a 4-inch PVC water main that has eight separate service connections.

The Department calculated a total dynamic head (TDH) of 306.62 feet using the Applicants supplied 150 feet pumping depth, friction losses for the system of 29.57 feet and the output pressure of 55PSI (equivalent to 127.5 feet). The pump curve supplied in the application confirms that at a TDH of 306.62 the pump can perform the requested flow rate.

The well is 714.0 feet deep BGS with a static water level of 5 feet BGS. The well is located 1 mile northwest of Flathead River (Fennon Slough) and 1.25 miles north of Flathead Lake. The depletions caused by this appropriation will not negatively impact the surface water sources water quality nor the aquatic environment.

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. Seven animal species of concern (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 proposed project will not create any barriers to the migration or movement of wildlife.

Table 1. Species of Concern		
Species Group	Common Name	Scientific Name
Mammals	Grizzly Bear*	<i>Ursus arctos</i>
Birds	Bobolink	<i>Dolichonyx oryzivorus</i>
Birds	Brewer's Sparrow	<i>Spizella breweri</i>
Birds	Evening Grosbeak	<i>Coccothraustes vespertinus</i>
Birds	Great Blue Heron	<i>Ardea herodias</i>
Birds	Pileated Woodpecker	<i>Dryocopus pileatus</i>
Invertebrates	Oblique Ambersnail	<i>Oxyloma nuttallianum</i>

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.

The proposed project is not located near any wetlands or ponds.

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 multiple domestic use and irrigation of lawn and garden will not negatively impact the soil quality, stability or moisture content in the project area. The project area is comprised of three soil types; 13.2 acres is comprised of Somers silt loam, 5.6 acres is comprised of Somers silty clay, and 3.8 acres is comprised of Tuffit-Somers silty lay loams. The Somers silt loam has a moderately high ability to transmit water. The Somers silty clay and Tuffit-Somers silty lay loam have a moderately low to moderately high ability to transmit water. Soils in this area are not typically susceptible to saline seep. It is not likely that the development of the subdivision or irrigation of lawn and garden will impact the soil quality, stability or moisture content.

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 beyond what has been cleared for construction in the project area as the land was previously used for farming and was already cleared of naturally occurring vegetation. It is not anticipated that the issuance of a water use permit will contribute to the establishment of 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 groundwater.

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 groundwater 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 XNo

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: 05/04/2026



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	<u>1</u>
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	<u>1.6</u>
Subtotal for Drainage	49.9

Dearborn River Drainage

South Fork Dearborn River	<u>10</u>
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	<u>20</u>
Subtotal for Drainage	90

Gallatin River Drainage

Bozeman (Sourdough) Creek	8
Gallatin River: Gallatin Gateway - Shedd's Bridge	<u>5.3</u>
Subtotal for Drainage	13.3

Jefferson River Drainage

Hells Canyon Creek*	0.3
Willow Creek	<u>10</u>
Subtotal for Drainage	10.3

Judith River Drainage

Judith River: Utica to Ackley Lake diversion	<u>5</u>
Subtotal for Drainage	5

Assessment Record Summary

Reporting Cycle: 2020

Assessment Record: MT76O001_010

Status: Unassigned

WATER INFORMATION

Status: Unassigned

Reporting Cycle: 2020
Assessment Unit: MT76O001_010
Name: Flathead River
Location Description: FLATHEAD RIVER, headwaters to Flathead Lake

Water Type:	Size (Miles/Acres)	Use Class:
RIVER	53.71 MILES	B-1

Trophic Status:

Trophic Trend:

1 - Hydrologic Unit Code: 17010208
2 - HUC Name: Flathead Lake
3 - Watershed: Pend Oreille
4 - Basin: Columbia
5 - TMDL Planning Area: Flathead - Stillwater
6 - Ecoregion: Northern Rockies
6 - Ecoregion: Canadian Rockies
7 - County: Flathead County
8 - LAT/LONG AU Upstream: Start: 48.467256 / -114.071261
9 - LAT/LONG AU Downstream: End: 48.060975 / -114.128357

Water Quality Category: 3 - Waters for which there is insufficient data to assess the use support of any applicable beneficial use, so no use support determinations have been made.

Assessment Record Summary

Reporting Cycle: 2020

Assessment Record: MT76O001_010

Status: Unassigned

Beneficial Use Support Information					
Use Name	Fully Supporting	Not Fully Supporting	Threatened	Insufficient Information	Not Assessed
Aquatic Life					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
NA			

Assessment Record Summary

Reporting Cycle: 2020

Assessment Record: MT76O001_010

Status: Unassigned

Use Name	Observed Effects
NA	

Delisting / Category Changes			
Cause	Reason for Change	Change Date	Comments
NA			

Assessment Record Summary

Reporting Cycle: 2020

Assessment Record: MT76O003_010

Status: Unassigned

WATER INFORMATION

Status: Unassigned

Reporting Cycle: 2020

Assessment Unit: MT76O003_010

Name: Flathead Lake

Location Description: FLATHEAD LAKE

Water Type:	Size (Miles/Acres)	Use Class:
FRESHWATER LAKE	57305 ACRES	A-1

Trophic Status: OLIGOTROPHIC

Trophic Trend: Unknown

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

6 - Ecoregion: Canadian Rockies

7 - County: Flathead County

7 - County: Lake County

Water Quality Category: 5 - Waters where one or more applicable beneficial uses have been assessed as being impaired or threatened, and a TMDL is required to address the factors causing the impairment or threat.

Assessment Record Summary

Reporting Cycle: 2020

Assessment Record: MT76O003_010

Status: Unassigned

Beneficial Use Support Information					
Use Name	Fully Supporting	Not Fully Supporting	Threatened	Insufficient Information	Not Assessed
Aquatic Life		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	Mercury	Atmospheric Deposition - Nitrogen	N
		Impacts from Hydrostructure Flow Regulation/modification	
		Municipal Point Source Discharges	
		Silviculture Harvesting	
		Source Unknown	
	Polychlorinated Biphenyls (PCBs)	Dam or Impoundment	
		Unspecified Urban Stormwater	
		Atmospheric Deposition - Nitrogen	N
		Impacts from Hydrostructure Flow Regulation/modification	
		Municipal Point Source Discharges	
	Nitrogen, Total	Silviculture Harvesting	
		Source Unknown	
		Dam or Impoundment	
		Unspecified Urban Stormwater	
		Atmospheric Deposition - Nitrogen	Y
Phosphorus, Total	Municipal Point Source Discharges		
	Unspecified Urban Stormwater		
	Atmospheric Deposition - Nitrogen	Y	
	Municipal Point Source Discharges		
	Unspecified Urban Stormwater		

Assessment Record Summary

Reporting Cycle: 2020

Assessment Record: MT76O003_010

Status: Unassigned

Use Name	Observed Effects
NA	

Delisting / Category Changes			
Cause	Reason for Change	Change Date	Comments
Nitrogen, Total	TMDL Approved or established by EPA (4A)	03/31/2002	"Nutrient Management Plan and Total Maximum Daily Load for Flathead Lake, Montana", approved by EPA on March 31, 2002 addressed TMDLs for nitrogen and phosphorus and indirectly addresses 303(d) listings for dissolved oxygen and excess algal growth, which result from excess nutrients.
Phosphorus, Total	TMDL Approved or established by EPA (4A)	03/31/2002	"Nutrient Management Plan and Total Maximum Daily Load for Flathead Lake, Montana", approved by EPA on March 31, 2002 addressed TMDLs for nitrogen and phosphorus and indirectly addresses 303(d) listings for dissolved oxygen and excess algal growth, which result from excess nutrients.
Sedimentation/Siltation	Applicable WQS attained, according to new assessment method	11/21/2014	



Montana SOC Occurrences Report

SOC Occurrences with MT Status = Species of Concern

Report generated 4/22/2026 7:03:26 AM



	SO Count: 1	Obs Count: 1521	Earliest Obs: 1895	Recent Obs: 2025
<input type="checkbox"/> Birds - Bobolink (<i>Dolichonyx oryzivorus</i>)				
	SO Count: 1	Obs Count: 1	Earliest Obs: 2022	Recent Obs: 2022
<input type="checkbox"/> Birds - Brewer's Sparrow (<i>Spizella breweri</i>)				
	SO Count: 1	Obs Count: 1	Earliest Obs: 2016	Recent Obs: 2016
<input type="checkbox"/> Birds - Evening Grosbeak (<i>Coccothraustes vespertinus</i>)				
	SO Count: 1	Obs Count: 1	Earliest Obs: 2024	Recent Obs: 2024
<input type="checkbox"/> Birds - Great Blue Heron (<i>Ardea herodias</i>)				
	SO Count: 9	Obs Count: 26	Earliest Obs: 1978	Recent Obs: 2025
<input type="checkbox"/> Birds - Pileated Woodpecker (<i>Dryocopus pileatus</i>)				
	SO Count: 1	Obs Count: 1	Earliest Obs: 2020	Recent Obs: 2020
<input type="checkbox"/> Invertebrates - <i>Oxyloma nuttallianum</i> (Oblique Ambersnail)				
	SO Count: 1	Obs Count: 1	Earliest Obs: 1897	Recent Obs: 1900

Citation for this report:

Montana SOC Occurrences Report

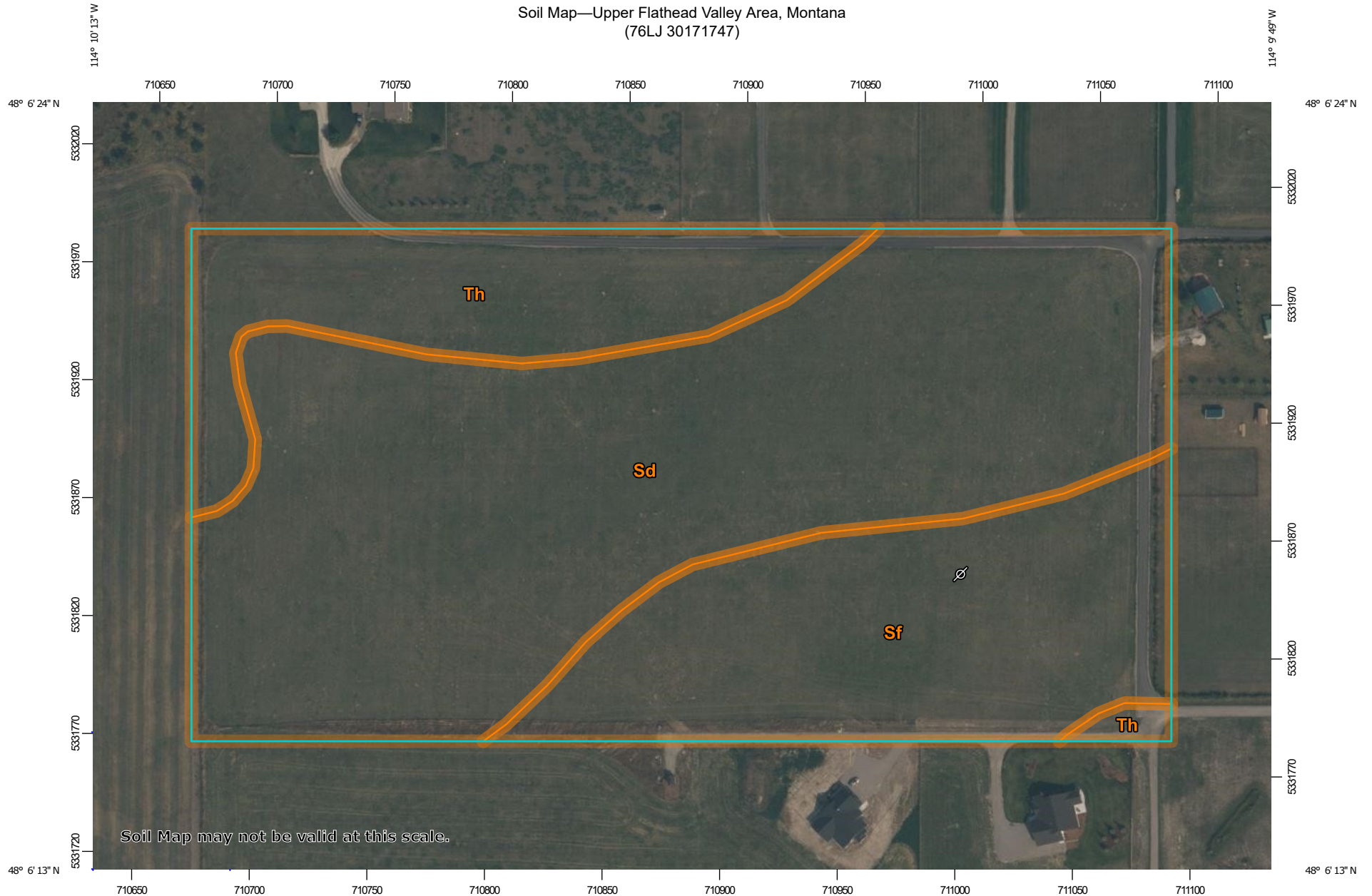
SOC Occurrences with MT Status = Species of Concern

Within Lat/Long: (48.09907,-114.15298) to (48.10924,-114.17892)

Natural Heritage Map Viewer. Montana Natural Heritage Program.

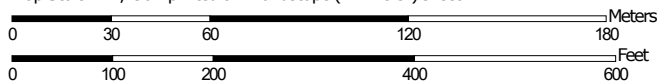
Retrieved on April 22, 2026, from <https://mtnhp.org/MapView/SORReport.aspx>

Soil Map—Upper Flathead Valley Area, Montana
(76LJ 30171747)



Soil Map may not be valid at this scale.

Map Scale: 1:2,290 if printed on A landscape (11" x 8.5") sheet.




Map projection: Web Mercator Corner coordinates: WGS84 Edge tics: UTM Zone 11N WGS84





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: Upper Flathead Valley Area, Montana

Survey Area Data: Version 22, 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: Aug 31, 2021—Oct 12, 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
Sd	Somers silt loam, 0 to 3 percent slopes	13.2	58.5%
Sf	Somers silty clay, 0 to 4 percent slopes	5.6	24.8%
Th	Tuffit-Somers silty clay loams, 0 to 5 percent slopes	3.8	16.7%
Totals for Area of Interest		22.5	100.0%



Upper Flathead Valley Area, Montana

Sd—Somers silt loam, 0 to 3 percent slopes

Map Unit Setting

National map unit symbol: 4vsf
Elevation: 2,890 to 3,080 feet
Mean annual precipitation: 15 to 18 inches
Mean annual air temperature: 39 to 45 degrees F
Frost-free period: 105 to 125 days
Farmland classification: Prime farmland if irrigated

Map Unit Composition

Somers and similar soils: 90 percent
Minor components: 10 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Somers

Setting

Landform: Terraces
Down-slope shape: Linear
Across-slope shape: Linear
Parent material: Alluvium

Typical profile

Ap - 0 to 8 inches: silt loam
Bw - 8 to 12 inches: silty clay loam
Bk - 12 to 22 inches: silty clay loam
BC - 22 to 30 inches: stratified loam to silty clay loam
2C - 30 to 60 inches: loamy fine sand

Properties and qualities

Slope: 0 to 3 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Moderately well drained
Capacity of the most limiting layer to transmit water (Ksat):
Moderately high (0.20 to 0.57 in/hr)
Depth to water table: About 48 to 72 inches
Frequency of flooding: None
Frequency of ponding: None
Calcium carbonate, maximum content: 20 percent
Maximum salinity: Nonsaline to very slightly saline (0.0 to 3.0 mmhos/cm)
Available water supply, 0 to 60 inches: Moderate (about 7.9 inches)

Interpretive groups

Land capability classification (irrigated): 2e
Land capability classification (nonirrigated): 3e
Hydrologic Soil Group: C



Ecological site: R044AP808MT - Upland Grassland Group
Hydric soil rating: No

Minor Components

Nonhydric

Percent of map unit: 10 percent
Hydric soil rating: No

Data Source Information

Soil Survey Area: Upper Flathead Valley Area, Montana
Survey Area Data: Version 22, Aug 30, 2025



Upper Flathead Valley Area, Montana

Sf—Somers silty clay, 0 to 4 percent slopes

Map Unit Setting

National map unit symbol: 4vsh
Elevation: 2,600 to 3,400 feet
Mean annual precipitation: 15 to 18 inches
Mean annual air temperature: 39 to 45 degrees F
Frost-free period: 105 to 125 days
Farmland classification: Prime farmland if irrigated

Map Unit Composition

Somers and similar soils: 90 percent
Minor components: 10 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Somers

Setting

Landform: Terraces
Down-slope shape: Linear
Across-slope shape: Linear
Parent material: Alluvium

Typical profile

Ap - 0 to 8 inches: silty clay
Bw - 8 to 12 inches: silty clay loam
Bk - 12 to 22 inches: silty clay loam
BC - 22 to 30 inches: stratified loam to silty clay loam
2C - 30 to 60 inches: loamy fine sand

Properties and qualities

Slope: 0 to 4 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Moderately well drained
Capacity of the most limiting layer to transmit water (Ksat):
Moderately low to moderately high (0.06 to 0.20 in/hr)
Depth to water table: About 48 to 72 inches
Frequency of flooding: None
Frequency of ponding: None
Calcium carbonate, maximum content: 20 percent
Maximum salinity: Nonsaline to very slightly saline (0.0 to 3.0 mmhos/cm)
Available water supply, 0 to 60 inches: Moderate (about 7.6 inches)

Interpretive groups

Land capability classification (irrigated): 4e
Land capability classification (nonirrigated): 4e
Hydrologic Soil Group: C

Ecological site: R044AP808MT - Upland Grassland Group
Hydric soil rating: No

Minor Components

Nonhydric

Percent of map unit: 10 percent
Hydric soil rating: No

Data Source Information

Soil Survey Area: Upper Flathead Valley Area, Montana
Survey Area Data: Version 22, Aug 30, 2025

Upper Flathead Valley Area, Montana

Th—Tuffit-Somers silty clay loams, 0 to 5 percent slopes

Map Unit Setting

National map unit symbol: 4vt0
Elevation: 2,600 to 3,400 feet
Mean annual precipitation: 15 to 19 inches
Mean annual air temperature: 39 to 45 degrees F
Frost-free period: 105 to 125 days
Farmland classification: Not prime farmland

Map Unit Composition

Tuffit and similar soils: 50 percent
Somers and similar soils: 35 percent
Minor components: 15 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Tuffit

Setting

Landform: Terraces
Down-slope shape: Linear
Across-slope shape: Linear
Parent material: Alluvium

Typical profile

A - 0 to 4 inches: silty clay loam
B_{tn} - 4 to 12 inches: silty clay
B_{kn} - 12 to 29 inches: silty clay loam
C - 29 to 60 inches: stratified very fine sandy loam to silty clay loam

Properties and qualities

Slope: 0 to 5 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Well drained
Capacity of the most limiting layer to transmit water (K_{sat}):
Moderately low to moderately high (0.06 to 0.20 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: Moderately saline to strongly saline (8.0 to 32.0 mmhos/cm)
Sodium adsorption ratio, maximum: 30.0
Available water supply, 0 to 60 inches: Moderate (about 7.0 inches)

Interpretive groups

Land capability classification (irrigated): None specified



Land capability classification (nonirrigated): 6s
Hydrologic Soil Group: C
Ecological site: R044AP803MT - Saline-Sodic Grassland Group
Hydric soil rating: No

Description of Somers

Setting

Landform: Terraces
Down-slope shape: Linear
Across-slope shape: Linear
Parent material: Alluvium

Typical profile

Ap - 0 to 8 inches: silty clay loam
Bw - 8 to 12 inches: silty clay loam
Bk - 12 to 22 inches: silty clay loam
BC - 22 to 30 inches: stratified loam to silty clay loam
2C - 30 to 60 inches: loamy fine sand

Properties and qualities

Slope: 0 to 5 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Moderately well drained
Capacity of the most limiting layer to transmit water (Ksat):
Moderately high (0.20 to 0.57 in/hr)
Depth to water table: About 48 to 72 inches
Frequency of flooding: None
Frequency of ponding: None
Calcium carbonate, maximum content: 20 percent
Maximum salinity: Nonsaline to very slightly saline (0.0 to 3.0 mmhos/cm)
Available water supply, 0 to 60 inches: Moderate (about 7.8 inches)

Interpretive groups

Land capability classification (irrigated): 2e
Land capability classification (nonirrigated): 3e
Hydrologic Soil Group: C
Ecological site: R044AP808MT - Upland Grassland Group
Hydric soil rating: No

Minor Components

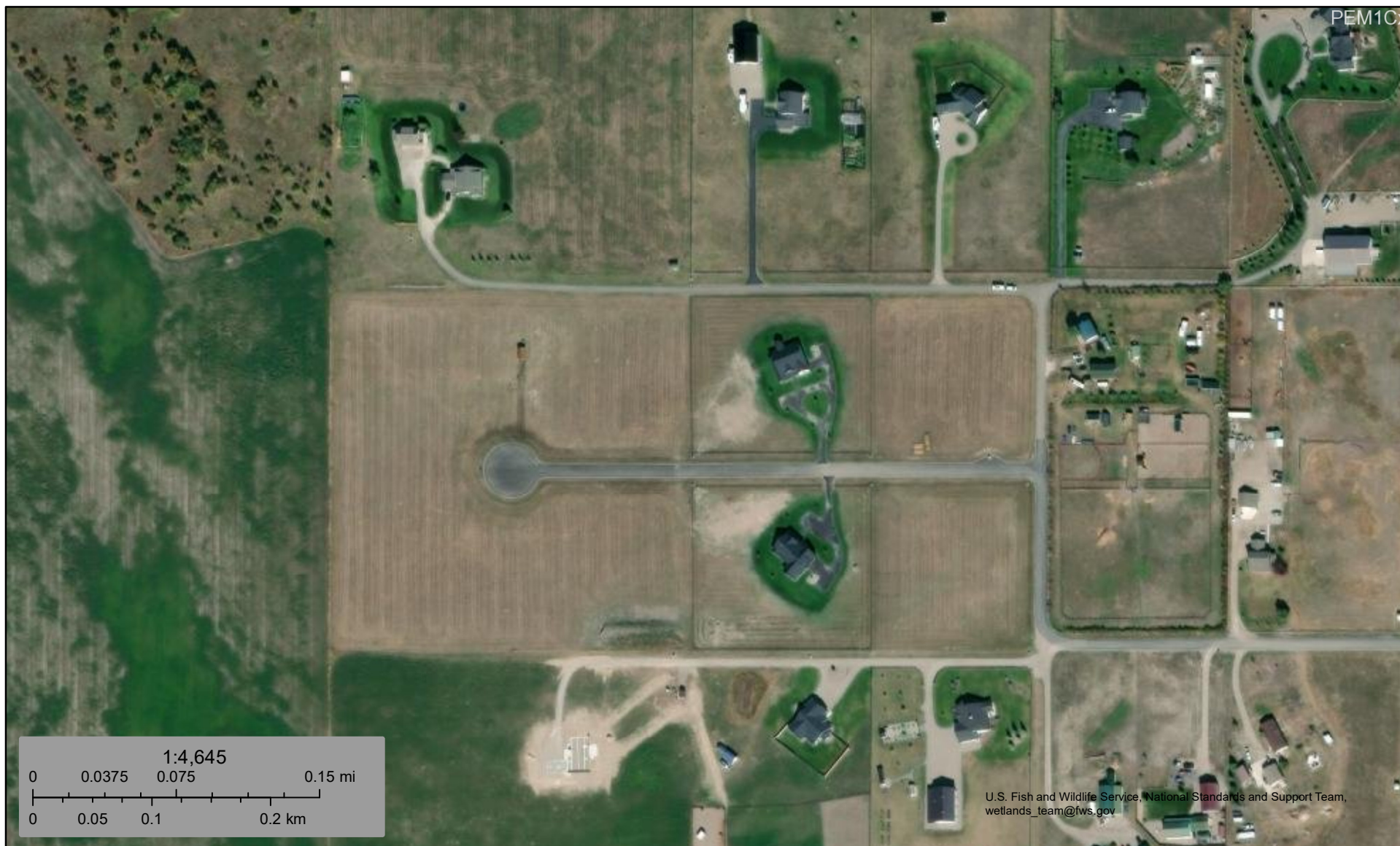
Nonhydric

Percent of map unit: 15 percent
Hydric soil rating: No

Data Source Information

Soil Survey Area: Upper Flathead Valley Area, Montana
Survey Area Data: Version 22, Aug 30, 2025





PEM1Cx

U.S. Fish and Wildlife Service, National Standards and Support Team, wetlands_team@fws.gov

April 22, 2026

Wetlands

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