

ENVIRONMENTAL ASSESSMENT
For Routine Actions with Limited Environmental Impact

Part I. Proposed Action Description

1. APPLICANT/CONTACT NAME AND ADDRESS:

JACK W BURCHAM AND MARGARET SNEDDON
78 FIELDING CAMP RD
ESSEX MT 59916-9729

2. TYPE OF ACTION:

Permit Registration for Groundwater Use Within the National Park Service Compact Area No. 76I 30175417

3. WATER SOURCE NAME:

Groundwater

4. LOCATION AFFECTED BY PROJECT:

E2SWSE Section 13, Township 29N, Range 15W, Flathead County, Montana.

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

This application is to obtain a water use permit for a well located within the Glacier National Park Compact Area. The Applicant proposes to divert groundwater at a rate of 18.0 gallons per minute (GPM) up to 2.55 acre-feet (AF) per year. The proposed appropriation is for lawn and garden for 0.92 acres from April 1-October 31 and domestic use for a two-bedroom home from January 1 – December 31, annually. The point of diversion and place of use is in the E2SWSE Section 13, Township 29N, Range 15W, Flathead County, Montana (Figure 1).

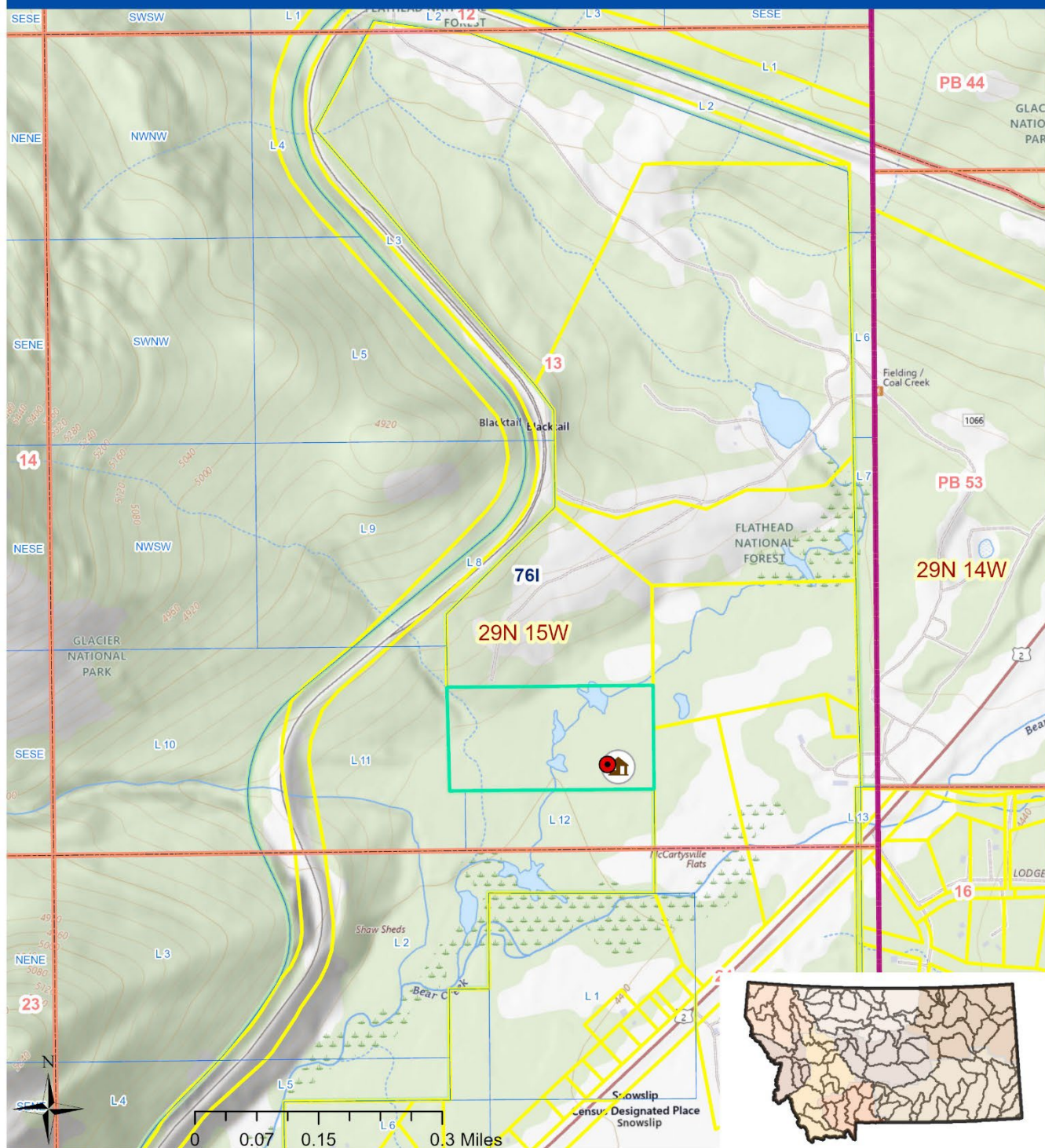
The project is in the Flathead River, Middle Fork Basin (76I) in an area that is not subject to water right basin closures or controlled groundwater area restrictions.

The DNRC shall issue a water use permit if the Applicant proves the criteria in 85-20-401 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

BURCHAM, JACK W AND SNEDDON, MARGARET 76I 30175417



Map Created: 6/9/2026
 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 v2.1, U.S. Bureau of Land Management, Geographic Coordinate Database, US Geological Survey 1:24,000 Digital Raster Graphics, Montana State Library. The data were made possible by a public/private partnership including the U.S. Bureau of Land Management, several state agencies, local governments, The Montana Power Company, Montana/Dakota Utilities, and Burlington Northern Santa Fe Railroad. Most data are being maintained by staff of the Montana Department of Revenue (DOR).

Legend

- Point of Diversion (Well)
- Jack & Margaret Place of Use
- Home
- Township & Range
- Section
- Quarter Sections
- Parcels

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 6.0 miles northwest of the Middle Fork Flathead River. The Middle Fork Flathead River is 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 source to the proposed groundwater diversion is the Middle Fork Flathead River. Diversions in this area may deplete the Middle Fork Flathead River.

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

- i. Water Quality Category 1: Waters for which all applicable beneficial uses have been assessed and all uses have been determined to be fully supported;
- 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.

It is not anticipated that the appropriation of groundwater 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 Applicant will divert groundwater from the aquifer at a rate of 18.0 GPM.

The well is 40 feet deep and is approximately 6.0 miles northwest of the Middle Fork Flathead River. The NPS did not object to this application, therefore the flow rate will not be included in the calculation of total consumptive use for the Middle Fork Flathead River per the Glacier National Park Compact.

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 means of diversion, a well, was drilled in 2023. As this is a groundwater appropriation, there will be no channel impacts, flow modifications, barriers, dams, or riparian impacts to surface water.

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. Eleven animal species of concern (Table 1) were identified within the project area. Of these species, the Grizzly Bear (*Ursus arctos*), the Wolverine (*Gulo gulo*), the Canada Lynx (*Lynx canadensis*), and the Bull Trout (*Salvelinus confluentus*) are listed as threatened by the USFWS. An adequate quantity of water will still exist in the Middle Fork Flathead River to maintain existing populations of Bull Trout, should they exist there currently. It is not anticipated that any species of concern will be impacted by the proposed project.

Table 1. Species of Concern		
Species Group	Common Name	Scientific Name
Mammals	Canada Lynx*	<i>Lynx canadensis</i>
Mammals	Fisher	<i>Pekania pennanti</i>
Mammals	Grizzly Bear*	<i>Ursus arctos</i>
Mammals	Wolverine*	<i>Gulo gulo</i>
Birds	Evening Grosbeak	<i>Coccothraustes vespertinus</i>
Birds	Gray-crowned Rosy-Finch	<i>Leucosticte tephrocotis</i>
Birds	Pileated Woodpecker	<i>Dryocopus pileatus</i>
Fish	Bull Trout*	<i>Salvelinus confluentus</i>
Fish	Westslope Cutthroat Trout	<i>Oncorhynchus lewisi</i>
Invertebrates	Western Bumble Bee	<i>Bombus occidentalis</i>
Lichens	Fringed Chocolate Chip Lichen	<i>Solorina spongiosa</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.*

Determination: N/A, property has wetlands but the domestic and lawn and garden uses will not involve or occur near wetlands or ponds.

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 domestic and lawn and garden irrigation use will not negatively impact the soil quality, stability, or moisture content in the project area. The project area is composed of two soil types. 86.1% is made of “Dystric Eutrochrepts, till substratum” formed from till material. This soil has a high capacity to transmit water. 13.9% is made of “Garlet family, extremely stony and Risingwolf, dry-Rock outcrop complex, 35 to 60 percent slopes” formed from colluvium derived from metasedimentary rock and mixed volcanic ash over colluvium derived from metasedimentary rock, respectively. This soil has a moderately high to high ability to transmit water. Soils in this area are not typically 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 is already in place and applicants plan to irrigate the existing grass in the project area. 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 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 85-20-401 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: 07/13/26



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: MT76I001_010 Status: Unassigned

WATER INFORMATION Status: Unassigned

Reporting Cycle: 2020

Assessment Unit: MT76I001_010

Name: Middle Fork Flathead River

Location Description: MIDDLE FORK FLATHEAD RIVER, headwaters to mouth (Flathead River)

Water Type: RIVER Size (Miles/Acres): 85.98 MILES Use Class: A-1

Trophic Status:

Trophic Trend:

1 - Hydrologic Unit Code: 17010207

2 - HUC Name: Middle Fork Flathead

3 - Watershed: Pend Oreille

4 - Basin: Columbia

5 - TMDL Planning Area: Flathead Headwaters

6 - Ecoregion: Canadian Rockies

7 - County: Flathead County

8 - LAT/LONG AU Upstream: Start: 47.996219 / -113.058294

9 - LAT/LONG AU Downstream: End: 48.467256 / -114.071261

Water Quality Category: 1 - Waters for which all applicable beneficial uses have been assessed and all uses have been determined to be fully supported.

Assessment Record Summary

Reporting Cycle: 2020 Assessment Record: MT76I001_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: MT76I001_010 Status: Unassigned

Use Name	Observed Effects
NA	

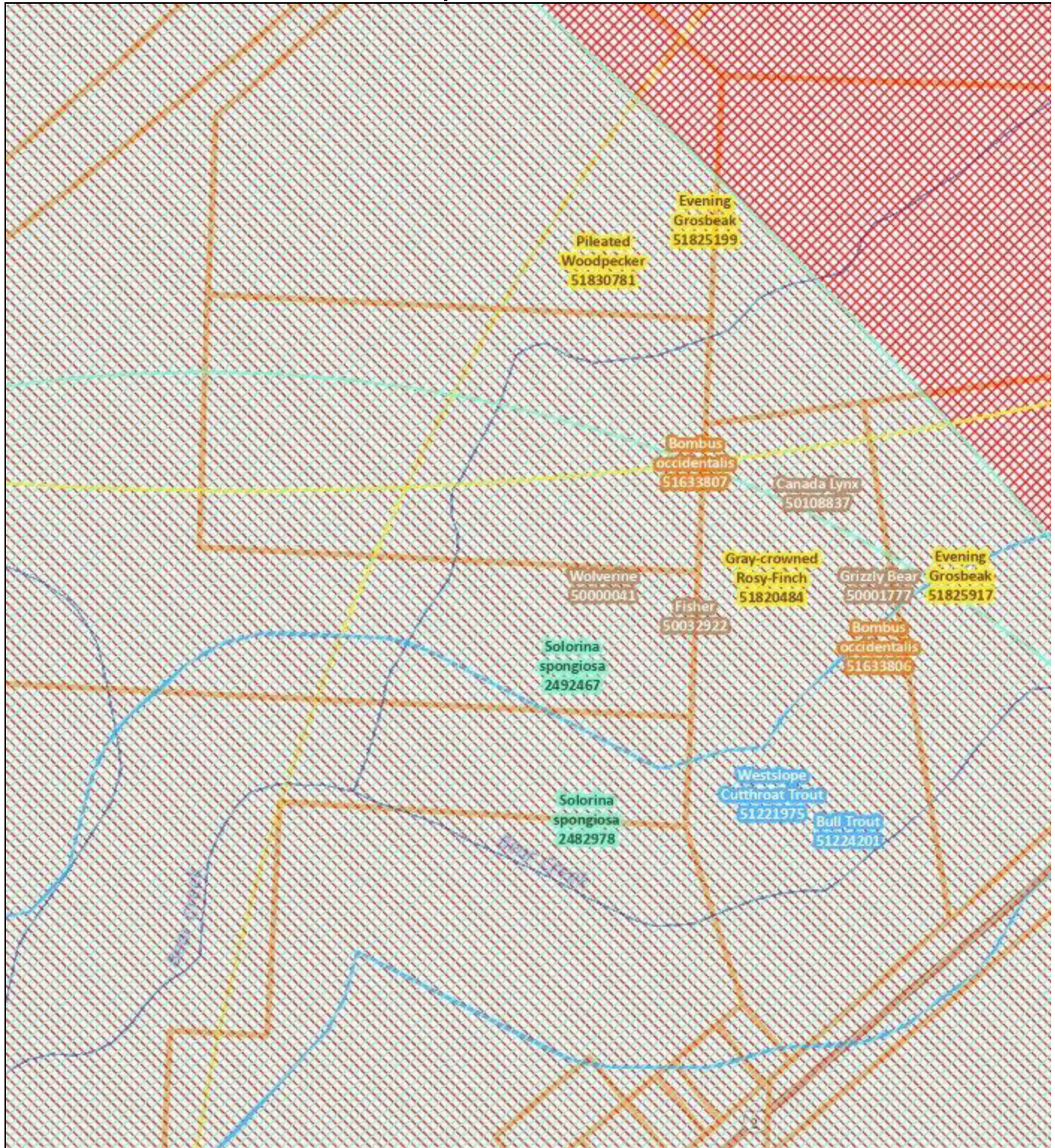
Delisting / Category Changes			
Cause	Reason for Change	Change Date	Comments
NA			



Montana SOC Occurrences Report

SOC Occurrences with MT Status = Species of Concern

Report generated 6/19/2026 2:34:59 PM



⊕ **Mammals - Canada Lynx** (*Lynx canadensis*)

	SO Count: 1	Obs Count: 2081	Earliest Obs: 1895	Recent Obs: 2026
☐ Mammals - Fisher (<i>Pekania pennanti</i>)				
	SO Count: 1	Obs Count: 217	Earliest Obs: 1947	Recent Obs: 2026
☐ Mammals - Grizzly Bear (<i>Ursus arctos</i>)				
	SO Count: 1	Obs Count: 1551	Earliest Obs: 1895	Recent Obs: 2026
☐ Mammals - Wolverine (<i>Gulo gulo</i>)	SO Count: 1	Obs Count: 2035	Earliest Obs: 1934	Recent Obs: 2026
☐ Birds - Evening Grosbeak (<i>Coccothraustes vespertinus</i>)				
	SO Count: 2	Obs Count: 2	Earliest Obs: 2021	Recent Obs: 2022
☐ Birds - Gray-crowned Rosy-Finch (<i>Leucosticte tephrocotis</i>)				
	SO Count: 1	Obs Count: 1	Earliest Obs: 2021	Recent Obs: 2021
☐ Birds - Pileated Woodpecker (<i>Dryocopus pileatus</i>)				
	SO Count: 1	Obs Count: 1	Earliest Obs: 2021	Recent Obs: 2021
☐ Fish - Bull Trout (<i>Salvelinus confluentus</i>)				
	SO Count: 1	Obs Count: 106	Earliest Obs: 1979	Recent Obs: 2021
☐ Fish - Westslope Cutthroat Trout (<i>Oncorhynchus lewisi</i>)				
	SO Count: 1	Obs Count: 162	Earliest Obs: 1989	Recent Obs: 2021
☐ Invertebrates - <i>Bombus occidentalis</i> (Western Bumble Bee)				
	SO Count: 2	Obs Count: 2	Earliest Obs: 2018	Recent Obs: 2025
☐ Lichens - <i>Solorina spongiosa</i> (Fringed Chocolate Chip Lichen)				
	SO Count: 2	Obs Count: 2	Earliest Obs: 1981	Recent Obs: 1981

Citation for this report:

Montana SOC Occurrences Report

SOC Occurrences with MT Status = Species of Concern

Within Lat/Long: (48.26550,-113.43094) to (48.27551,-113.45710)

Natural Heritage Map Viewer. Montana Natural Heritage Program.

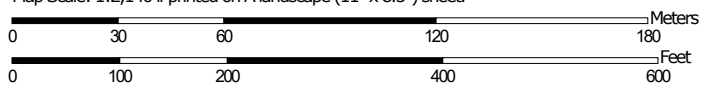
Retrieved on June 19, 2026, from <https://mtnhp.org/MapView/SOReport.aspx>

Soil Map—Flathead National Forest Area, Montana
(761 30175417)



Soil Map may not be valid at this scale.

Map Scale: 1:2,140 if printed on A landscape (11" x 8.5") sheet.



Map projection: Web Mercator Corner coordinates: WGS84 Edge tics: UTM Zone 12N WGS84



Natural Resources
Conservation Service

Web Soil Survey
National Cooperative Soil Survey

6/19/2026
Page 1 of 3

Soil Map—Flathead National Forest Area, Montana
(76I 30175417)

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 1:24,000.

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: Flathead National Forest 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: Oct 3, 2022—Oct 4, 2022

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
27-7	Dystric Eutrochrepts, till substratum	15.6	86.1%
335F	Garlet family, extremely stony-Risingwolf, dry-Rock outcrop complex, 35 to 60 percent slopes	2.5	13.9%
Totals for Area of Interest		18.1	100.0%

Flathead National Forest Area, Montana

27-7—Dystric Eutrochrepts, till substratum

Map Unit Setting

National map unit symbol: nq3n

Elevation: 3,000 to 4,100 feet

Mean annual precipitation: 20 to 40 inches

Mean annual air temperature: 39 to 43 degrees F

Frost-free period: 70 to 105 days

Farmland classification: Not prime farmland

Map Unit Composition

Dystric eutrochrepts and similar soils: 90 percent

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

Description of Dystric Eutrochrepts

Setting

Landform: Kames, Kettles, Terraces

Parent material: Till

Typical profile

Oi - 0 to 3 inches: slightly decomposed plant material

Bs - 3 to 9 inches: very gravelly silt loam

2Bw1 - 9 to 18 inches: extremely cobbly sandy loam

2Bw2 - 18 to 31 inches: extremely cobbly sandy loam

2C - 31 to 60 inches: very cobbly loamy sand

Properties and qualities

Slope: 10 to 20 percent

Depth to restrictive feature: More than 80 inches

Capacity of the most limiting layer to transmit water (Ksat): High
(1.98 to 5.95 in/hr)

Depth to water table: More than 80 inches

Frequency of flooding: None

Frequency of ponding: None

Available water supply, 0 to 60 inches: Very low (about 2.7 inches)

Interpretive groups

Land capability classification (irrigated): None specified

Hydrologic Soil Group: A

Ecological site: F043AP909MT - Upland Cool Woodland Group

Other vegetative classification: Douglas-fir/dwarf huckleberry
(PK250), subalpine fir/dwarf huckleberry (PK640)

Data Source Information

Soil Survey Area: Flathead National Forest Area, Montana

Survey Area Data: Version 22, Aug 30, 2025

Flathead National Forest Area, Montana

335F—Garlet family, extremely stony-Risingwolf, dry-Rock outcrop complex, 35 to 60 percent slopes

Map Unit Setting

National map unit symbol: 2v7zt

Landscape: Mountains

Elevation: 3,770 to 6,560 feet

Mean annual precipitation: 33 to 59 inches

Mean annual air temperature: 36 to 42 degrees F

Frost-free period: 40 to 65 days

Farmland classification: Not prime farmland

Map Unit Composition

Garlet, extremely stony, and similar soils: 40 percent

Risingwolf, dry, and similar soils: 30 percent

Rock outcrop, non-calcareous: 15 percent

Minor components: 15 percent

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

Description of Garlet, Extremely Stony

Setting

Landscape: Mountains

Landform: Mountain slopes

Landform position (two-dimensional): Backslope

Down-slope shape: Linear

Across-slope shape: Convex

Parent material: Colluvium derived from metasedimentary rock

Typical profile

Oi - 0 to 2 inches: slightly decomposed plant material

A - 2 to 6 inches: very gravelly sandy loam

Bw - 6 to 16 inches: very gravelly sandy loam

C - 16 to 60 inches: extremely gravelly sandy loam

Properties and qualities

Slope: 35 to 60 percent

Surface area covered with cobbles, stones or boulders: 6.3 percent

Depth to restrictive feature: More than 80 inches

Drainage class: Well drained

Capacity of the most limiting layer to transmit water (Ksat): High
(2.13 to 7.09 in/hr)

Depth to water table: More than 80 inches

Frequency of flooding: None

Frequency of ponding: None

Available water supply, 0 to 60 inches: Low (about 3.8 inches)

Interpretive groups

Land capability classification (irrigated): None specified

Land capability classification (nonirrigated): 7s
Hydrologic Soil Group: A
Ecological site: R043AX968MT - Montane Stable Colluvial Slope
Saskatoon serviceberry-common snowberry/Sitka alder/ Rocky
mountain maple/thimbleberry/mountain brome-Geyer's sedge
Other vegetative classification: MONTANE STABLE COLLUVIAL
SLOPE (R43AX968MT)
Hydric soil rating: No

Description of Risingwolf, Dry

Setting

Landscape: Mountains
Landform: Mountain slopes
Landform position (two-dimensional): Backslope
Down-slope shape: Linear
Across-slope shape: Concave
Parent material: Mixed volcanic ash over colluvium derived from
metasedimentary rock

Typical profile

Oi - 0 to 1 inches: slightly decomposed plant material
Oe - 1 to 2 inches: moderately decomposed plant material
E - 2 to 6 inches: very gravelly medial loam
Bw1 - 6 to 14 inches: very gravelly medial loam
2Bw2 - 14 to 28 inches: very gravelly sandy loam
2C - 28 to 60 inches: extremely gravelly sandy loam

Properties and qualities

Slope: 35 to 60 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 (0.71 to 2.13 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Available water supply, 0 to 60 inches: Low (about 5.0 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 7e
Hydrologic Soil Group: B
Ecological site: F043AX951MT - Lower Subalpine Cool Dry
Coniferous subalpine fir- Engelmann spruce/ Sitka alder/
thinleaf huckleberry/ common beargrass
Other vegetative classification: LOWER SUBALPINE
CONIFEROUS COOL MODERATELY DRY (F43AX951MT),
subalpine fir/queencup beadlily-beargrass phase (PK624)
Hydric soil rating: No

Description of Rock Outcrop, Non-calcareous

Setting

Landscape: Mountains

Landform: Mountain slopes

Landform position (two-dimensional): Shoulder

Parent material: Metasedimentary rock

Interpretive groups

Land capability classification (irrigated): None specified

Land capability classification (nonirrigated): 8

Hydrologic Soil Group: D

Hydric soil rating: No

Minor Components

Crawfish

Percent of map unit: 10 percent

Landscape: Mountains

Landform: Mountain slopes

Landform position (two-dimensional): Shoulder

Down-slope shape: Convex

Across-slope shape: Convex

Ecological site: R043AA036MT - Droughty (Dr) LRU 43A-A

Other vegetative classification: 43B SHALLOW DROUGHTY (LRU 43B-) (R43BX956MT)

Hydric soil rating: No

Watsondraw, dry

Percent of map unit: 5 percent

Landscape: Mountains

Landform: Mountain slopes

Landform position (two-dimensional): Backslope

Down-slope shape: Convex

Across-slope shape: Concave

Ecological site: F043AX951MT - Lower Subalpine Cool Dry

Coniferous subalpine fir- Engelmann spruce/ Sitka alder/
thinleaf huckleberry/ common beargrass

Other vegetative classification: subalpine fir/queencup beadlily-
beargrass phase (PK624), LOWER SUBALPINE

CONIFEROUS COOL MODERATELY DRY (F43AX951MT)

Hydric soil rating: No

Data Source Information

Soil Survey Area: Flathead National Forest Area, Montana

Survey Area Data: Version 22, Aug 30, 2025



U.S. Fish and Wildlife Service

National Wetlands Inventory

76I 30175417



June 19, 2026

Wetlands

Estuarine and Marine Deepwater

Estuarine and Marine Wetland

Freshwater Emergent Wetland

Freshwater Forested/Shrub Wetland

Freshwater Pond

Lake

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.