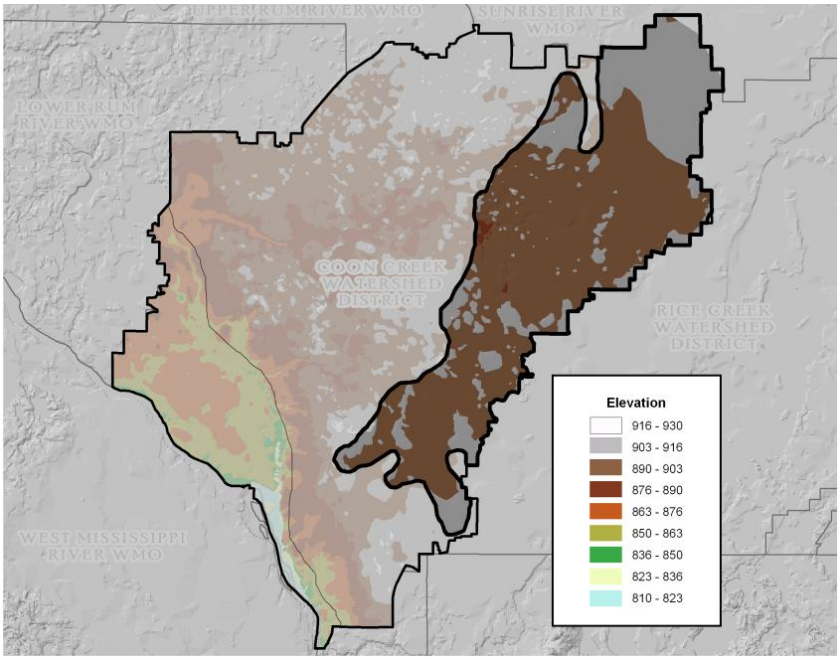
Glacial Lake Fridley Lake Plain

Occurrence

This land type occurs in Blaine, Columbus and southeastern Ham Lake.

The Coon Creek portion of the Glacial Lake Fridley Lake Plain is approximately 22,042 acres (34 sq mi.). This comprises about 32% of the watershed.



Landscape and Topography

Characterized by large level areas that were, or still are, bogs with small sandy island-like features that rise 0-15 feet above the general level of the surrounding land.

Elevations range from 920 to 890 FASL
The average slope is 0.7%.

It is the flattest portion of the watershed.

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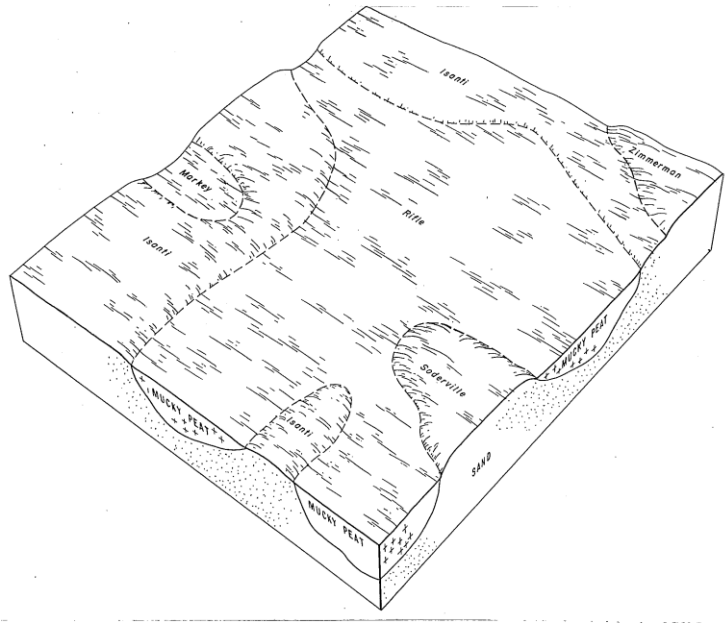

Soils

Soils are very poorly drained and formed in organic material and also fine sands that are very poorly drained.
Rifle peat and muck (60%)
Isanti fine sand (20%)

Soil hydrology has changed significantly:

Hydrologic Soil Group	Presettlement	Current	Change
A-Well Drained	33%	75%	42%
B-Moderately Well Drained	0%	25%	25%
D-Very Poorly Drained	67%	0%	-67%

Surficial Groundwater

The naturally occurring high water table is at or near the surface in most depressed areas.

Water Table	Historic Depth (Ft)	Current Depth (Ft)	Change
Average	16	17	1
Maximum	60	60	0

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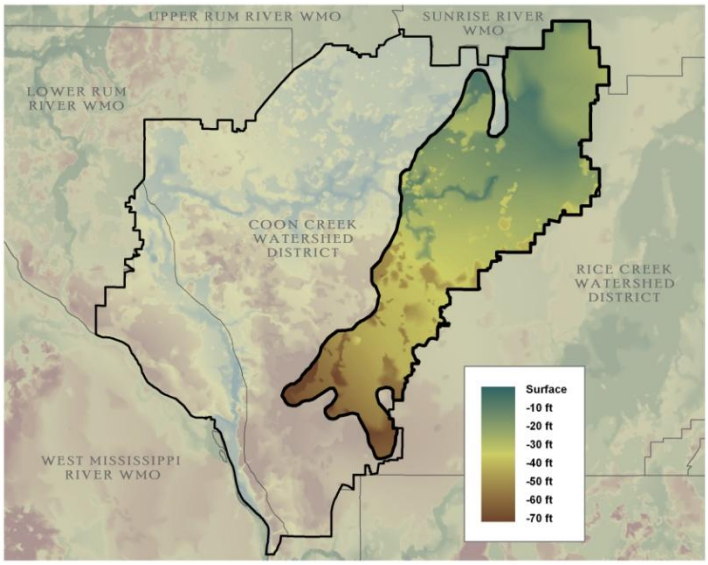

Ditches and Water Courses

The Fridley Lake Plain has approximately 218 miles of creek, ditch, and storm sewer:

	Miles	
Channels (Public)	49	
Channels (Private)	75	
Channels (Total)	**125**	
Stormsewer	92.9	
Total	**217.9**	
Drainage Density	**6.4**	**per Square Mile**

Imperviousness

Approximately 13% of this land type is impervious:

Land Use	**Acres**	**% Land Type**	**% Imperv**	**Imperv Acres**
Agriculture	2,303	10%	5%	115
Airport	371	2%	20%	74
Commercial	303	1%	75%	227
Industrial	264	1%	70%	185
Major Highway	106	0%	50%	53
Multi-Family Residential	270	1%	40%	108
Parks & Rec	5,738	26%	5%	287
Public/Semipublic	55	0%	30%	16
Single Family Residential	3,300	15%	25%	825
Vacant	8,806	40%	5%	440
Water	523	2%	100%	523

Stormwater

The Glacial Lake Fridley Lake Plain outlets in two locations:

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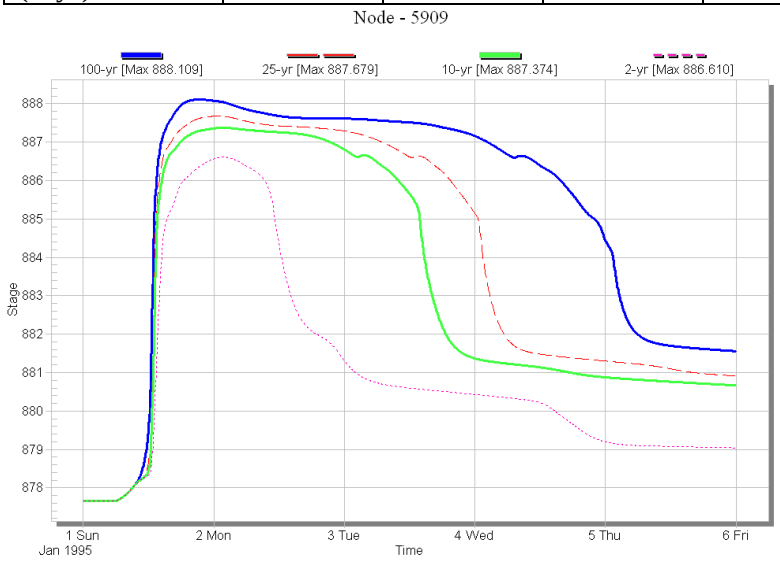
1. Coon Creek (Ditch 59) upstream from Radisson Road
2. Sand Creek (Ditch 41) at Central Avenue

Ditch 59 at Radisson Road

	1999	2009	Change	Pct Change
Time to Peak (Hrs)	17	35	18	105%
100 yr Elevation	883.3	888.1	4.8	
Peak Discharge (cfs)	950	876	-74	-774%
Flow Duration on 2 year event (days)		6		



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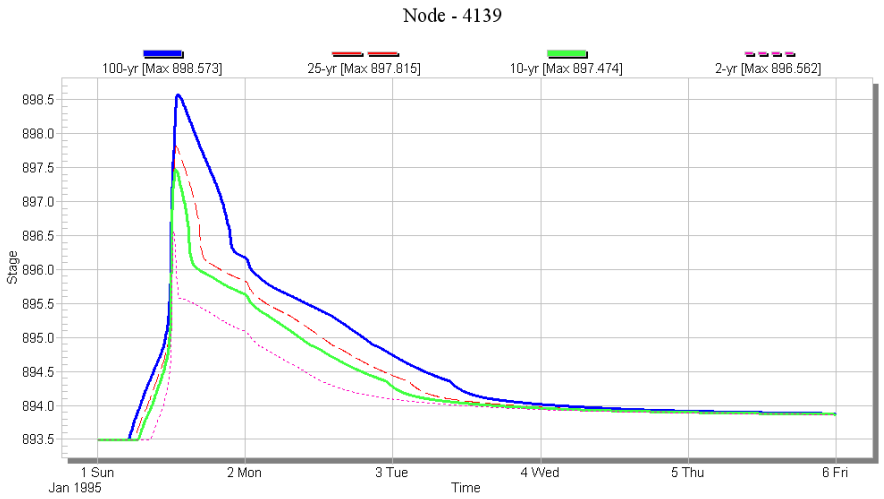
Sand Creek (Ditch 41) at Central Avenue

	1999	2009	Change	% Change
Time to Peak (Hrs)	35	27	-8	-23%
100-year Elevation	895.3	898.6	3.3	-
Peak Discharge (cfs)	350	221	-129	-37%
Flow Duration on 2 yr event (days)		13 days		



Water Quality

	Standard	Ditch 59 @ Radisson Rd		Ditch 41 @ Central Ave	
		Base flow	Storm	Base flow	Storm
Chloride	≥ 230 mg/L			88.8	81.8
Dissolved Oxygen	<6.3 mg/L			11.2	9.6
Total Phosphorus	.130 mg/L			.070	.100
Total Suspended Solids	>13.7 mg/L			8.5	8.0
Turbidity	>25 FRNU			12.3	12

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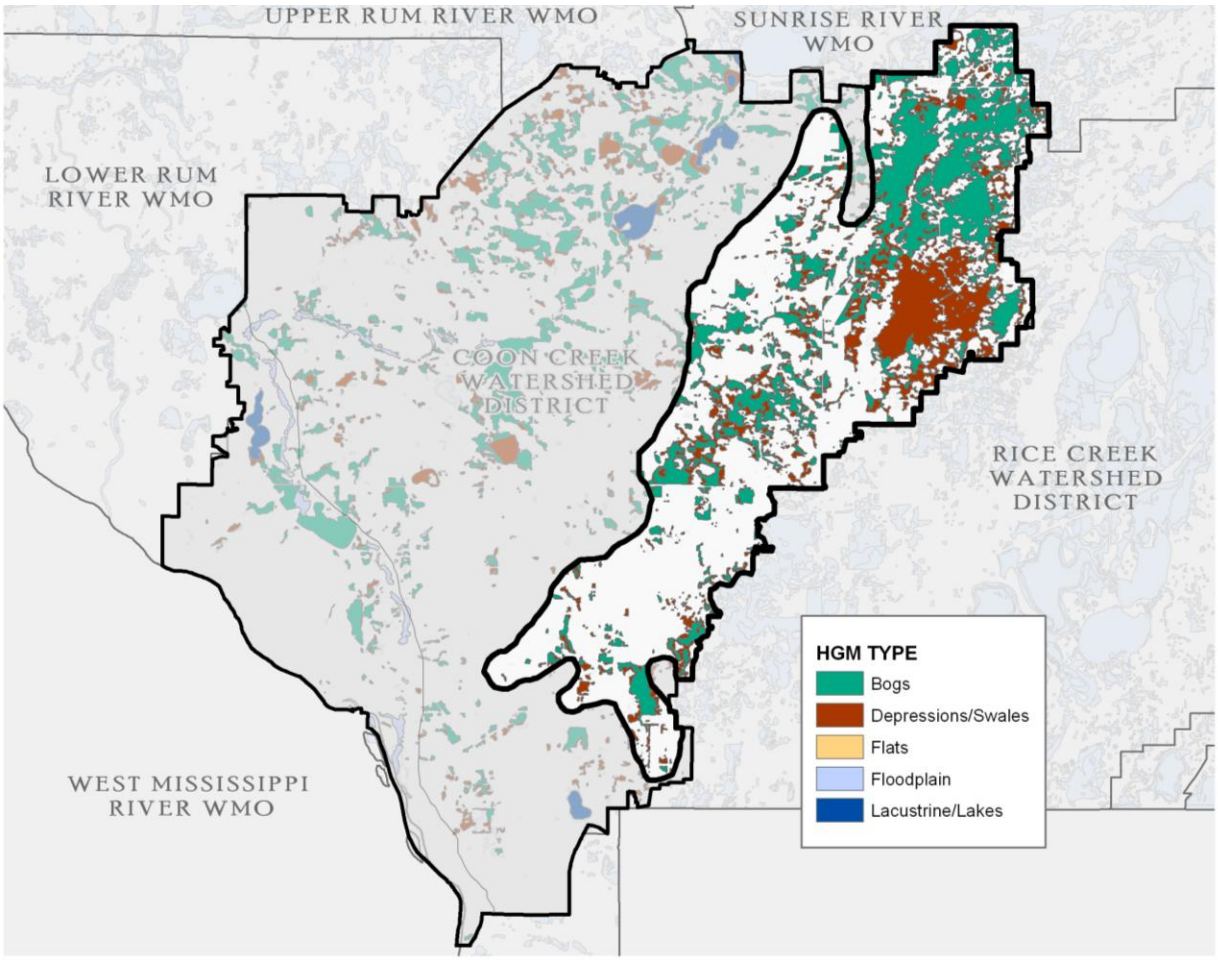
Lakes and Wetlands

The Lake Fridley Lake Plain has 33 acres of Lakes and Lacustrine wetlands comprised of two shallow lakes within the Carlos Avery Wildlife Management Area.

All lakes within this land type are man-made:

Name	Nature	Lake ID	Size (Ac)	Max Depth (ft)	Water Clarity (ft)
Club West	Man Made	020764	27.9	26	3.5
Sunrise	Man Made				
TPC	Man Made				



Wetlands

The Lake Fridley Land Type contains 7,900 acres of wetland. Approximately 57% of these wetlands (4,500) are ephemeral in nature, relying on saturated, seasonal or temporary hydrology to sustain their wetland characteristics. The vast majority of wetlands with more permanent hydrology are within the Carlos Avery Wildlife Management Area.

Hydrogeomorphic Classification	Acres	% Land Type
Bogs	4,547.3	57%
Depressions/Swales	3,403.5	42%
Flats	0	0%
Floodplain	0	0%
Lacustrine	33.1	0%