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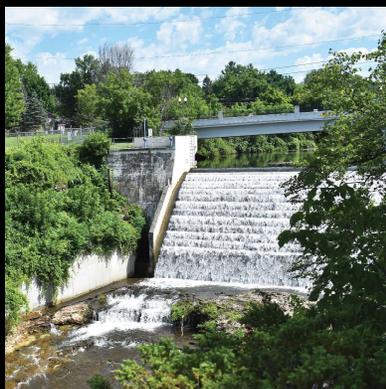
**Summary Report
River Falls Hydroelectric Project
Lake George Shoreline Habitat Assessment
River Falls, Wisconsin**

**Contract No.: W912ES20D0001
Delivery Order: W912ES20F0062**

December 2020



**US Army Corps
of Engineers®**
St. Paul District



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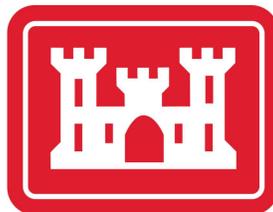
SUMMARY REPORT

**RIVER FALLS HYDROELECTRIC PROJECT
LAKE GEORGE SHORELINE HABITAT ASSESSMENT
RIVER FALLS, WISCONSIN**

**Contract No. W912ES20D0001
Task Order W912ES20F0062**

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December 2020

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EXECUTIVE SUMMARY

This summary report provides the background, materials and methods, and results of a Shoreline Habitat Assessment (SHA) conducted for Lake George, an impoundment located on the Kinnickinnic River in River Falls, Wisconsin. The Project Area includes a portion of the Kinnickinnic River south of Junction Falls Dam, the Lake George impoundment created by the dam, and another portion of the river directly upstream from the impoundment. The SHA was conducted by Gulf South Research Corporation for the U.S. Army Corps of Engineers, St. Paul District, on behalf of the City of River Falls, Wisconsin, on July 28 and 29, 2020. The SHA was implemented in accordance with the *Lake Shoreland & Shallows Habitat Monitoring Field Protocol* provided by the Wisconsin Department of Natural Resources. The protocol dictates assessment of a lake or impoundment using three habitat zones (riparian buffer zone, bank zone, and littoral zone) and recording data including percent riparian ground cover, presence of human structures/developments, runoff concerns, and aquatic vegetation.

The results of the SHA can be summarized as follows:

1. Riparian Buffer Zone (35 feet inland from bank): Approximately 75 percent of the riparian buffer zone was found to be occupied by natural vegetation. The other 25 percent was a combination of impervious surfaces, maintained lawns, and exposed soil or sand. Typical developed areas were associated with a public-use trail system. Runoff concerns included numerous point sources (usually storm water drains from surrounding areas), lawns or maintained areas which sloped towards the impoundment, and trails or paths leading towards the bank. Five buildings, a fishing pier, and boat takeout were also found to be present in the riparian buffer zone.
2. Bank Zone: The bank zone was mostly intact with sporadic rip rap found usually in locations associated with human developments such as bridges or adjacent roads. One concrete retaining wall was located along a portion of the upper Kinnickinnic River and another concrete retaining wall as part of the Junction Falls Dam infrastructure.
3. Littoral Zone (50 feet into the water from the bank): The littoral zone, or nearshore zone, was found to be shallow and containing relatively high densities of submerged aquatic plants and green algae. This zone was mostly lacking human structures with the exception of three bridge crossings (two road, one pedestrian), the Junction Falls Dam, and old remnant bridge abutments.

1.0 INTRODUCTION

The Powell Falls and Junction Falls Dams impound the Kinnickinnic River within the City of River Falls, Wisconsin. The River Falls Municipal Utilities (RFMU) is proposing to relicense the Junction Falls Development and decommission the Powell Falls development with dam removal through the Federal Energy Regulatory Commission (FERC). As part of these efforts, a shoreline habitat assessment (SHA) was required as one of a series of baseline studies to be conducted in the vicinity of the two dams on the Kinnickinnic River. Gulf South Research Corporation (GSRC) was contracted by U.S. Army Corps of Engineers (USACE), St. Paul District, on behalf of RFMU, to conduct the SHA for the Junction Falls Dam's impoundment, known as Lake George.

2.0 BACKGROUND

2.1 Location

Lake George is an impoundment on the Kinnickinnic River created by the Junction Falls Dam within the City of River Falls, Pierce County, Wisconsin. It is located approximately 10 miles upstream of the river's confluence with the St. Croix River, and 30 miles downstream from its headwaters in Erin Prairie Township, Wisconsin (Figure 1). Approximately 0.5-mile downstream from Junction Falls Dam is Powell Falls Dam, which forms a second impoundment known as Lake Louise. The Project Area for the Lake George SHA includes an upstream portion of the Kinnickinnic River north to West Division Street and a downstream portion of the river that terminates just south of the Junction Falls Dam (Figure 2).

The SHA protocol, released by the Wisconsin Department of Natural Resources (WI DNR), requires shoreline assessments to be implemented by parcel number (WI DNR 2020). The parcels assessed bordering the lake and/or river in the Project Area are shown in Table 1.

Table 1. Parcels Assessed for Lake George SHA

#	Parcel Number (No.)	Owner Name
1	276010120900 ¹	City of River Falls
2	276010470100	City of River Falls
3	276010600100	Eunice Moody Restated Trust Agreement
4	276010600500	City of River Falls
5	276010600800	City of River Falls
6	276010970100	Neil Q Anderson
7	276010970400	Delbert & Charla Kusilek Trust Agreement
8	276010970500	Terrance L & Sharon M Tarras
9	276011030500 (SW) ²	City of River Falls
10	276011030500 (C) ²	
11	276011030500 (NE) ²	
12	276011040100	City of River Falls
13	276011040200	City of River Falls
14	276011040400	City of River Falls
15	276011110600	Foster Associates, Inc.
16	276011120700	City of River Falls

Table 1, continued

#	Parcel Number (No.)	Owner Name
17	276011260300	Maxfield E Neuhaus
18	276011260600 (NE) ³	City of River Falls
19	276011260600 (C) ³	
20	276011260600 (S) ³	

¹ Parcel No. 276010120900 abuts the shoreline in three distinct areas that are connected and is assessed as one parcel.

² Parcel No. 276011030500 is divided into three distinct polygons/segments along the shoreline, which were assessed separately and are designated as 'SW' = southwest; 'C' = central; 'NE' = northeast.

³ Parcel No. 276011260600 is divided into three distinct polygons/segments along the shoreline, which were assessed separately and are designated as 'NE' = northeast; 'C' = central; 'S' = south.

Source: Geospatial data provided by USACE, St. Paul District (2020).

Portions of the shoreline do not have an associated parcel number (typically road or bridge crossings). These portions were assessed with a parcel number of 'none applicable'.

2.2 History of Development

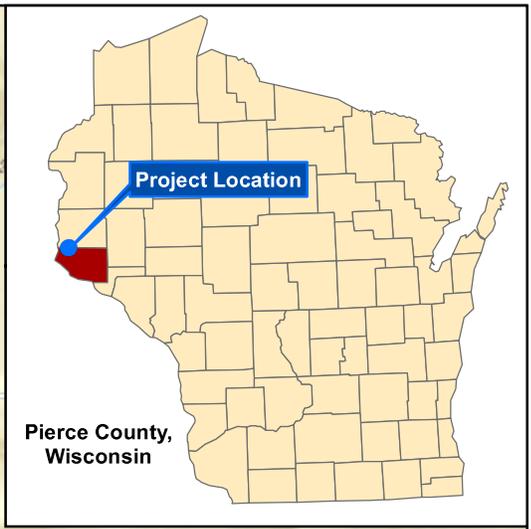
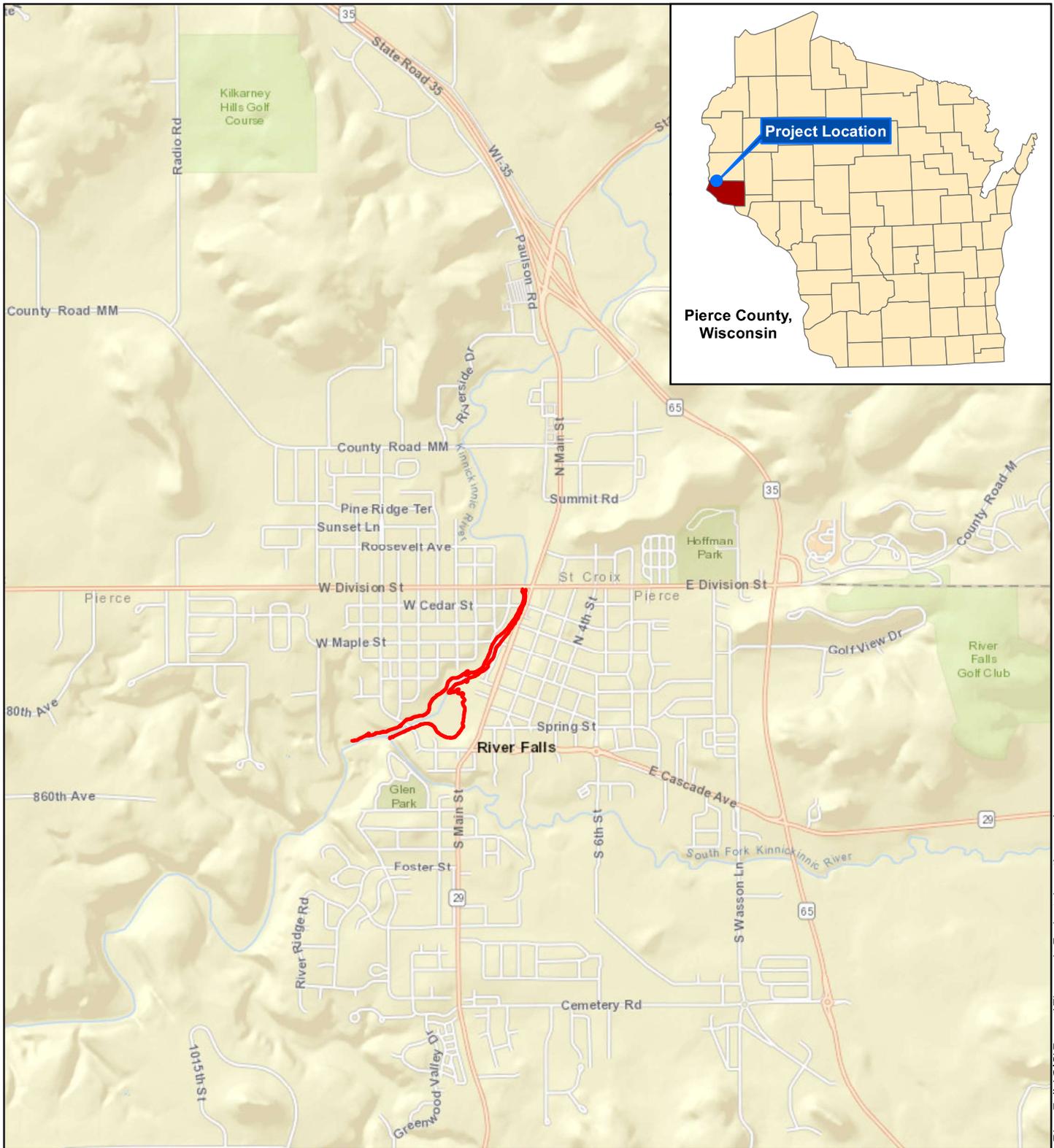
The discovery of River Falls by Europeans is credited to Joel Foster and an indentured servant named Dick who came to the area in 1848 (City of River Falls website 2020). During the second half of the nineteenth century, the area was settled and infrastructure was built including a timber mill and a rock-filled dam at the location of the current Junction Falls Dam (Inter-Fluve 2017). The current dam is a concrete gravity dam built in 1920 by the City of River Falls (Inter-Fluve 2017). The dam was updated in 1962 and 1990.

The damming of the Kinnickinnic River at the Junction Falls Development created an impoundment of water now known as Lake George. Lake George occupies approximately 16 acres, most of which is east of the original river channel (Inter-Fluve 2017). As of 2016, Lake George had less than 10 percent of its storage capacity remaining because of sediment deposits (Inter-Fluve 2016).

Around Lake George, as well as the adjacent upper reach of the Kinnickinnic River to the north and Lake Louise to the south, public use areas including biking/walking trails, benches, and water-access infrastructure have been developed for use by residents of the City of River Falls. Paved bike trails run along both sides of Lake George. While most of the parcels around the lake are maintained as a public recreation opportunity, parcels along the upper reach of the Kinnickinnic River are owned by private individuals and contain both businesses and residences. The City of River Falls surrounds the lake, including the city's downtown to the east/northeast of the lake and neighborhoods to the west. The Junction Falls powerhouse is located immediately west of Junction Falls Dam (Photograph 1).



Photograph 1. View of Junction Falls Dam and the adjoining powerhouse, facing northwest.



Legend

— Project Area



0 0.25 0.5 Miles

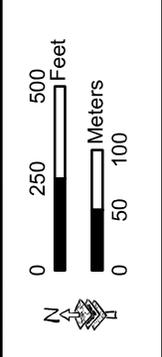
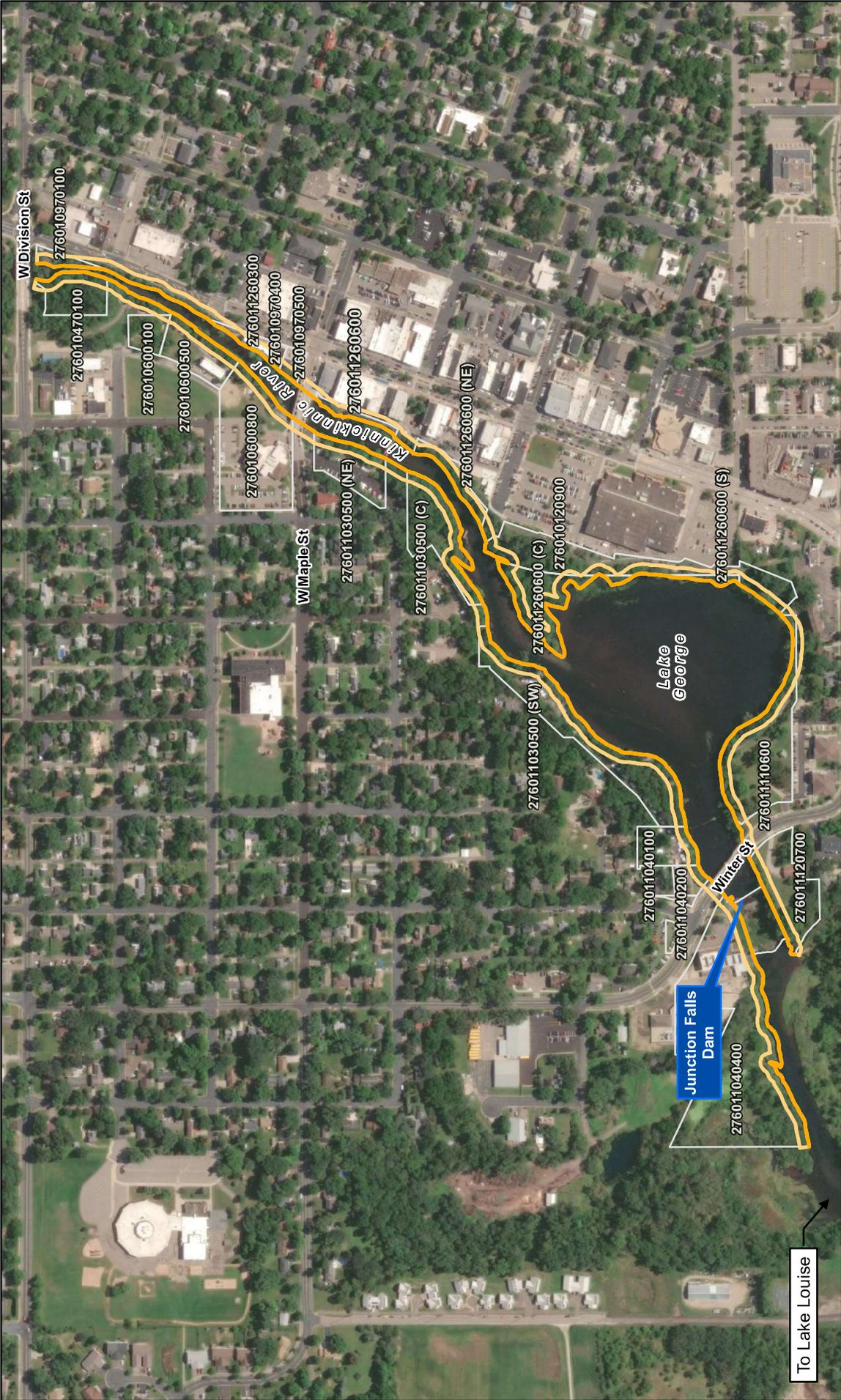
0 0.25 0.5 Kilometers



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Figure 1. Project Location

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- Legend**
- Lake Shoreline Within the Study Area
 - 35-Foot Riparian Buffer
 - Parcel Boundary

Figure 2. Project Area

3.0 MATERIALS AND METHODOLOGY

The following survey methodology follows the direction of the *Lake Shoreland & Shallows Habitat Monitoring Field Protocol* as provided by the WI DNR (WI DNR 2020). In-field assessments are described or designated by 'Loops' in the protocol manual, which are literal loops made around the lake's shoreline on foot or by boat with a focus on assessing particular attributes of the shoreline during each loop. GSRC environmental scientists Josh McEnany and Ross Hackbarth completed in-field surveys on July 28 and 29, 2020.

3.1 Preliminary Research and Mapping

Initial background research and mapping was conducted in order to prepare for in-field assessments. Background research focused on gaining an understanding of Lake George's history of development and geomorphic properties. Preliminary mapping began with obtaining geospatial data for the parcels surrounding the impoundment. The stretch of shoreline to be assessed was determined based on the boundaries of these parcels. A 35-foot buffer inland was created off of the shoreline to serve as the riparian buffer during assessments.

After determination of the extent of the assessment, three zones were established for analysis:

- 1) Littoral Zone: defined as the in-water area of the lake starting at the present water line and extending approximately 50 feet into the lake.
- 2) Bank Zone: the area between the top of the bank lip and the bank toe, which includes the ordinary high-water mark (OHWM).
- 3) Riparian Buffer Zone: begins at the top edge of the bank zone and extends inland 35 feet. Note that the actual riparian area or flood zone may extend further than 35 feet, but a 35-foot wide assessment area has been designated for standardization purposes (WI DNR 2020).

An example of these zones shown over aerial imagery for a single parcel along Lake George is provided in Figure 3.



Figure 3. Assessment Zones for Lake George SHA

3.2 Loop 1: Habitat Assessment

The first task completed for the SHA was a habitat assessment using the datasheet and guidance provided by the SHA protocol. GSRC completed the habitat assessment by walking one loop around the lake to inspect the riparian buffer zone and upland areas and another loop completed by kayak. The habitat assessment was recorded using a project-specific data dictionary loaded onto a Trimble GeoXT® handheld global positioning system (GPS) unit with sub-meter accuracy. These data were transferred to data sheets after in-field activities for reporting purposes.

The SHA datasheet is divided by the three assessment zones described earlier: littoral zone, bank zone, and riparian buffer zone. Data taken for each assessment zone are as follows:

- Riparian Buffer Zone: estimates of percent ground cover for natural vegetation and various disturbances; the number of human structures found in the 35-foot buffer; and runoff concerns such as trails and point source discharges (e.g., storm water drains).
- Bank Zone: Human structures built in the bank zone (e.g., erosion control structures) and visible erosion.
- Littoral Zone: Human structures built in the littoral zone (e.g., piers, boat lifts) and types of aquatic plants present.
- Exposed Lake Bed Zone (if applicable due to low water levels): types of plants growing on the exposed surface and disturbances to the exposed surface.

Estimates for percent cover in the Riparian Buffer Zone were divided into two layers: canopy and ground cover. The percent cover for the canopy layer can vary anywhere between 0 and 100. The canopy layer includes all trees equal to or greater than approximately 16 feet in height. The percent cover for ground cover must add up to a total of 100 percent cover by estimating five different types of cover: shrub/herbaceous (i.e., natural vegetation), impervious surface, manicured lawn, agriculture, and other (e.g., exposed soil or sand).

Refer to the *Lake Shoreland & Shallows Habitat Monitoring Field Protocol* manual for further details on the habitat assessment (WI DNR 2020).

3.3 Loop 2: Mapping Coarse Woody Debris

Due to the relatively small amount of woody debris found within the lake, Loop 2 activities were conducted concurrently with Loop 1 activities by kayak. As the Project Area was traversed by kayak, all woody debris (i.e., logs/tree limbs) greater than 4 inches in diameter and at least 5 feet in length were recorded using a Trimble handheld GPS unit. Two variables were documented for each piece of woody debris: 1) connectivity to shore (present/not present); and 2) branching (no branches, some branches, full canopy). All woody debris observed were submerged under water for at least five feet of the debris' length.

3.4 Loop 3: Photo-Documentation of Shoreline

A third loop was traversed to take photographs of the entire shoreline within the Project Area. Photographs were taken from a kayak approximately 50 feet from the shoreline and were spaced out so that the entire shoreline was documented. Geographic coordinates were recorded when each photograph was taken. Photographs were not able to be taken by kayak at

the dam and south of the dam, so these photographs were taken from the opposite shoreline. The resulting photograph log shows the condition of the shoreline at the time of the assessment.

4.0 RESULTS

4.1 Environmental Conditions During Surveys

In-field assessments at Lake George were conducted on July 28 and 29, 2020. The weather conditions during surveys are provided in Table 2.

Table 2. Weather Conditions, River Falls, Wisconsin, July 28 to 29, 2020

Date	Temperature ¹			Precipitation ¹	Wind Speed ²
	Minimum	Maximum	Average		
July 28	57	81	69.0	0.06	2-5 mph
July 29	57	81	69.0	0.00	2-5 mph

¹ Source: National Oceanic and Atmospheric Administration (NOAA) 2020

² Source: In-field readings from Kestrel handheld weather meter.

It should be noted that a major flood event occurred in the area including River Falls on June 29 and 30, 2020, approximately one month before the SHA occurred. According to NOAA data, 7.47 inches of rain were received, the majority of which fell in one large event (NOAA 2020). This flood event is likely to have caused significant change to previous environmental conditions, including pushing woody debris downstream and re-positioning sediment loads.

4.2 Loop 1: Habitat Assessment

A total of 20 SHA datasheets were completed for the Lake George habitat assessment. The datasheets for each parcel can be found in Appendix A. Note that two parcel numbers (Parcel Nos. 276011030500, 276011260600) each have three separate datasheets because the parcels have been split into distinct polygons or areas along the shoreline which were assessed separately (based on GIS data provided to GSRC by USACE, St. Paul District).

A total of 2.01 miles of shoreline were assessed along Lake George and the upper Kinnickinnic River (Table 3). This length includes the 20 parcels assessed as well as five sections between parcels that were not designated with any parcel number. The average parcel shoreline length excluding these five sections was 480.8 feet.

Further results of the habitat assessment are divided by habitat zone below.

4.2.1 Riparian Buffer Zone

4.2.1.1 Percent Cover in Riparian

The total area assessed within the riparian buffer zone was 8.31 acres (35 feet inland from the bank zone for length of 2.01 miles) (see Figure 2). As mentioned earlier, the entire periphery of Lake George is some form of public-use area or natural buffer to a public use area. South of Winter Street (see Figure 2), access to the river/impoundment is restricted because of the hazards associated with Junction Falls Dam and steep bluffs along the falls below the dam, as well as the operation of the power plant to the west.

Table 3. Parcel Length and Percent Cover in Riparian Zone

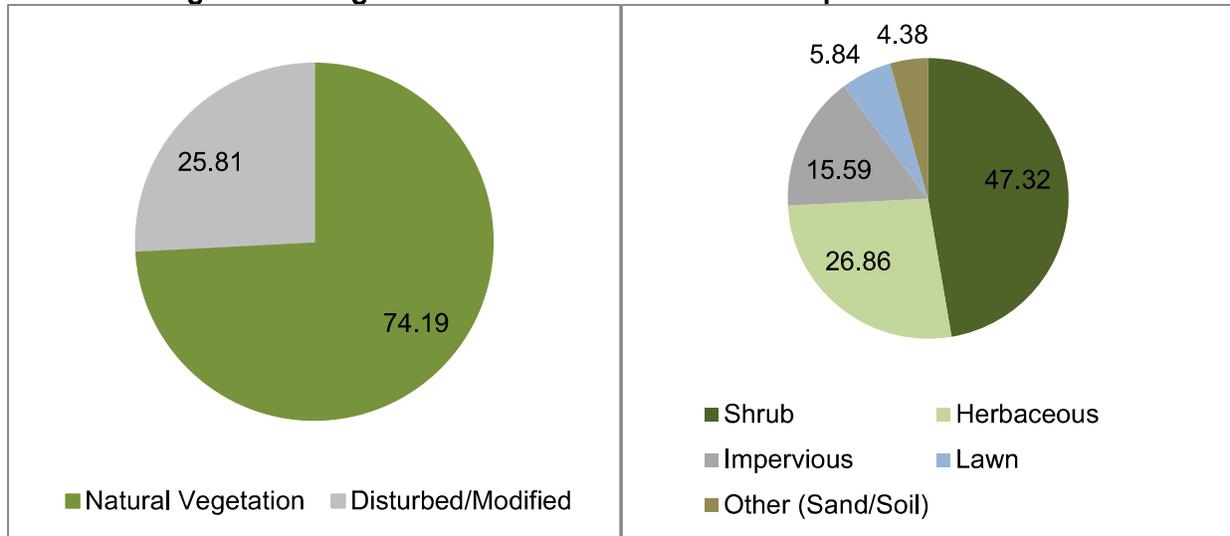
Parcel No.	Canopy	Shrub	Herb.	Impervious	Lawn	Agriculture	Other	Description (Other)	Total Disturbed	Length (ft)
276010120900	60	75	10	10	5	0	0		15	498.46
276010470100	100	40	60	0	0	0	0		0	279.05
276010600100	25	20	40	25	10	0	5	exposed sand/soil	40	272.75
276010600500	20	10	40	35	15	0	0		50	313.10
276010600800	20	15	30	25	20	0	10	exposed soil	55	280.88
276010970100	100	40	20	40	0	0	0		40	266.41
276010970400	20	20	20	60	0	0	0		60	44.63
276010970500	30	25	25	50	0	0	0		50	94.43
276011030500-NE	35	25	25	40	10	0	0		50	323.32
276011030500-C	60	30	20	5	10	0	35	exposed sand/soil	50	871.92
276011030500-SW	45	50	35	5	10	0	0		15	1,229.51
276011040100	30	25	15	5	55	0	0		60	156.56
276011040200	20	50	10	0	40	0	0		40	75.81
276011040400	15	85	10	5	0	0	0		5	1,145.23
276011106000	85	40	40	15	5	0	0		20	976.11
276011120700	80	45	45	0	10	0	0		10	413.33
276011260300	20	20	20	60	0	0	0		60	304.50
276011260600-NE	85	50	30	20	0	0	0		20	897.23
276011260600-C	100	70	20	0	0	0	10	exposed sand	10	1,184.71
276011260600-S	80	60	30	5	5	0	0		10	309.38
none ¹	0	0	0	100	0	0	0		100	54.91
none ¹	0	0	0	100	0	0	0		100	67.48
none ²	80	40	40	20	0	0	0		20	406.64
none ¹	0	0	0	100	0	0	0		100	80.85
none ¹	0	0	0	100	0	0	0		100	68.83
AVERAGE	46.96	36.96	22.68	30.89	7.32	0.00	2.14	-	40.36	10,616.03 (2.01 miles)
WEIGHTED AVERAGE	58.72	47.32	26.86	15.59	5.84	0.00	4.38	-	25.81	-

¹ Road crossing (i.e., bridge).

² Section of land south of Parcel No. 276010970100 and north of Parcel No. 276011260300 in the northeast corner of the Project Area.

Based on percent cover estimates, the majority of the lake’s riparian buffer zone is vegetated (See Table 3 and Figure 4). Areas containing natural vegetation consistently exhibited some combination of canopy (i.e., tree), shrub, and herbaceous vegetation layers. This is indicative of the forms of natural forest community that are present in the area. Approximately 58 percent of the riparian buffer zone was estimated to contain a tree canopy layer (Figure 5), while 74 percent contained a shrub and/or herbaceous layer (Figure 6). The determination of particular species composition or delineation of plant communities is not a component of the SHA protocol (WI DNR 2020).

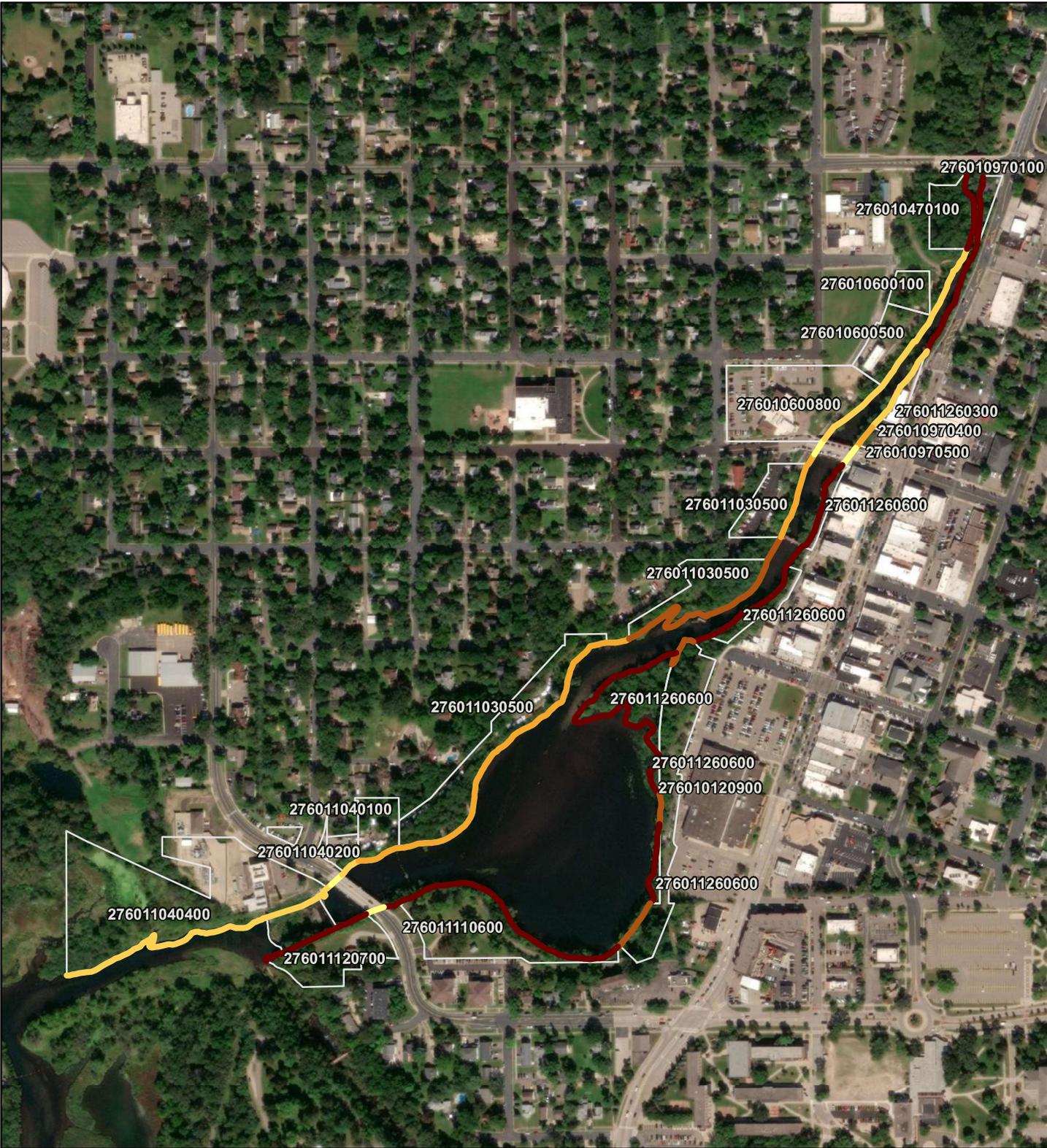
Figure 4. Weighted Percent Ground Cover of Riparian Buffer Zone



Approximately one quarter of the riparian buffer zone exhibited significant disturbance or anthropogenic modifications. Typical disturbed areas include maintained lawns along Lake George intended for public use and paved trails used by bicyclists and pedestrians (Photograph 2).

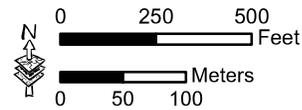


Photograph 2. Typical forms of vegetated cover, manicured lawn, and impervious surface found in the Riparian Buffer Zone.



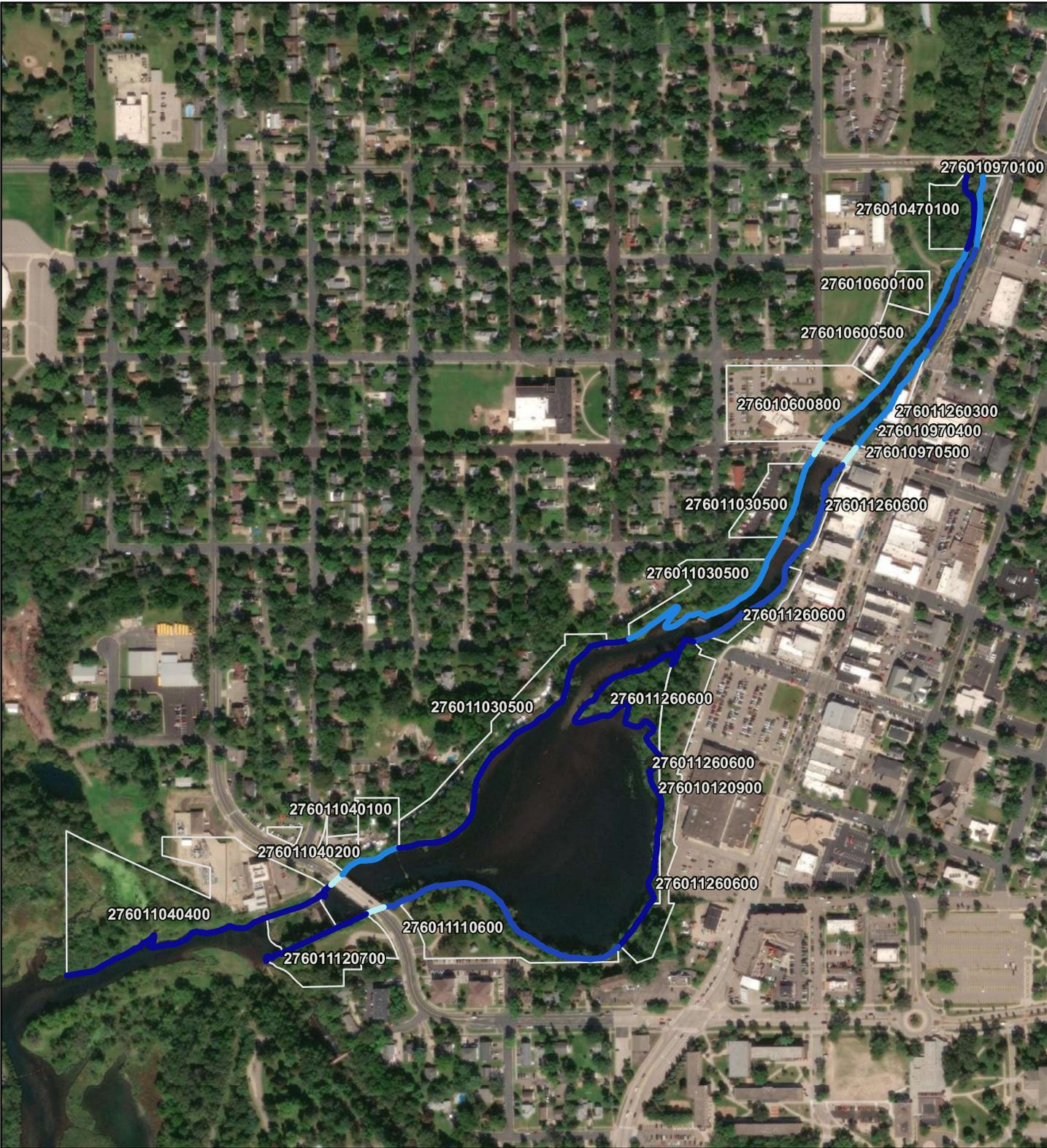
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- | | |
|---------------|-----------------|
| Canopy | 46 - 60 |
| 0 | 61 - 100 |
| 1 - 25 | Parcel Boundary |
| 26 - 45 | |



December 2020

Figure 5. Percent Cover - Natural Vegetation (Canopy)



Legend

Shrub/Herbaceous	 31 - 60
 0	 61 - 80
 1 - 30	 81 - 100
	 Parcel Boundary

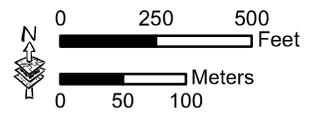


Figure 6. Percent Cover - Natural Vegetation (Shrub and Herbaceous)

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Impervious surfaces observed during the assessment were predominantly paved trails but also included portions of parking areas or buildings. “Other” ground cover recorded was exposed sand or soil. Exposed sand was found near the river bank in areas where sediment deposition is more prevalent. Exposed soil was typically some kind of human disturbance or area of washout from the previous month’s floods. Figures 7 and 8 present maps of total disturbed ground cover and developed and/or maintained ground cover by parcel number, respectively (i.e., by assessment areas).

4.2.1.2 Human Structures in Riparian

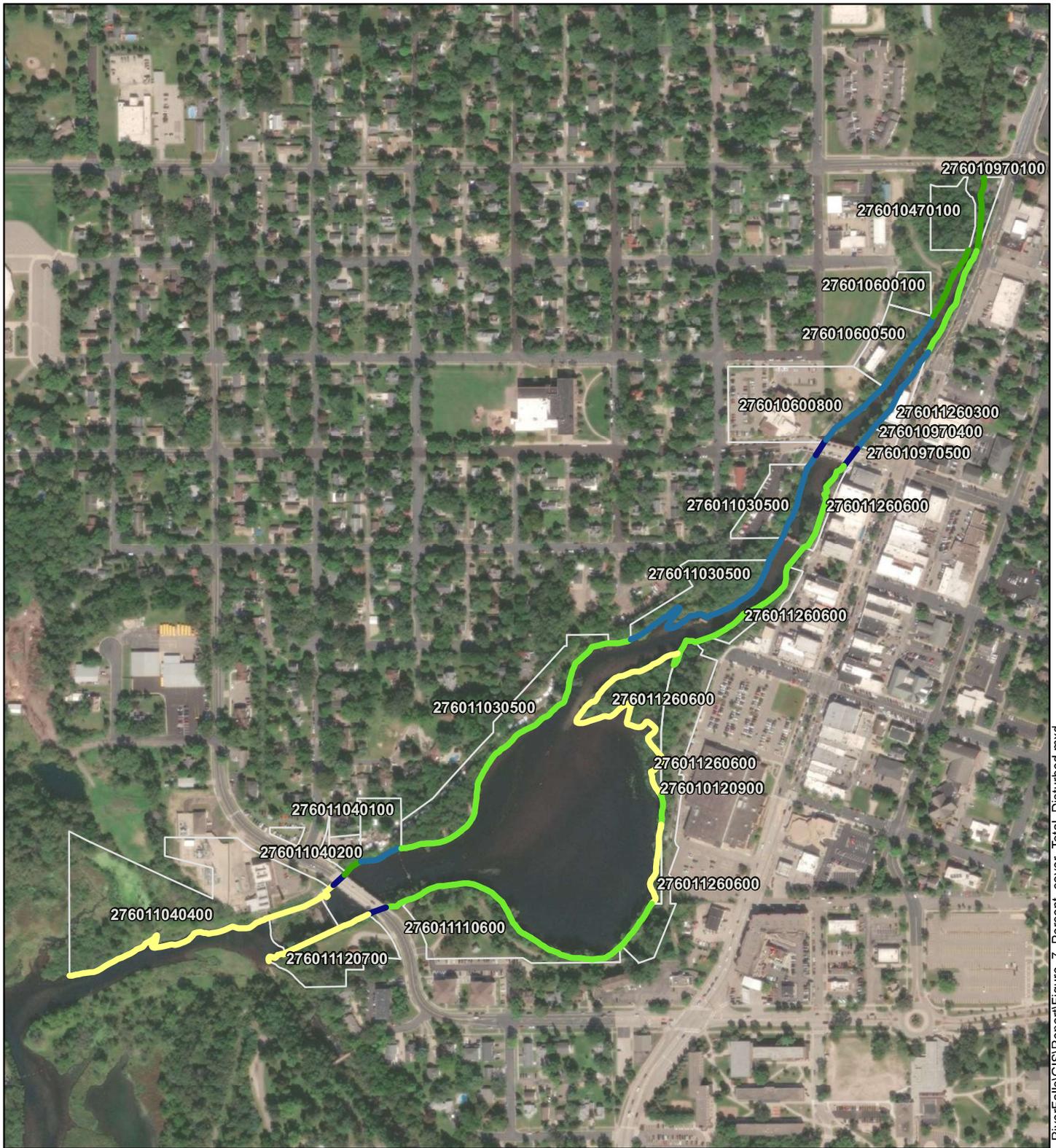
Though primarily lacking development more extensive than trail systems, the Lake George and upper Kinnickinnic River riparian buffer zone contains sporadic structures as presented in Table 4 and Figure 9. None of the five buildings recorded in the 35-foot buffer were located along the Lake George shoreline. Rather, four buildings are located on the eastern side of the upper Kinnickinnic River, and the other building recorded was a portion of the Junction Falls Development’s powerhouse which is found downstream (south) of the dam. Additional buildings are located in the parcels assessed but are found outside (i.e., further inland) of the designated riparian buffer zone. The boat ramp located on the western shoreline of Lake George is a gravel takeout with rip rap at the base (Photograph 3).



Photograph 3. Boat ramp on west side of Lake George.

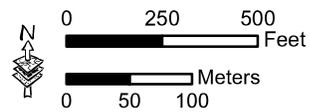
Table 4. Human Structures in Riparian Buffer Zone

Parcel No.	Buildings	Boats on Shore	Fire Pits	Other	Description (Other)
276010120900	0	0	0	0	
276010470100	0	0	0	0	
276010600100	0	0	0	2	bench, light pole
276010600500	0	0	0	2	light poles
276010600800	0	0	0	1	bridge abutment
276010970100	1	0	0	1	adjacent road
276010970400	1	0	0	0	
276010970500	1	0	0	0	
276011030500-C	0	0	0	1	paved trail
276011030500-NE	0	0	0	3	bike rack, benches, trash cans
276011030500-SW	0	0	0	2	fishing pier, boat ramp
276011040100	0	0	0	2	benches
276011040200	0	0	0	0	
276011040400	1	0	0	1	dam-related infrastructure
276011110600	0	0	0	0	
276011120700	0	0	0	0	
276011260300	1	0	0	0	
276011260600-C	0	0	0	0	
276011260600-NE	0	0	0	0	
276011260600-S	0	0	0	1	paved trail
Totals (20 parcels)	5	0	0	16	-



Legend

- Total Disturbed Percent Cover** Parcel Boundary
- 5 - 10
 - 11 - 20
 - 21 - 40
 - 41 - 60
 - 61 - 100



December 2020

Figure 7. Percent Cover - All Disturbed Conditions (Impervious Surface, Lawn, and Exposed Soil/Sand)



Legend

Impervious	Lawn	Parcel Boundary
0 - 5	0	
6 - 15	1 - 10	
16 - 35	11 - 30	
36 - 60	31 - 50	
61 - 100	51 - 100	

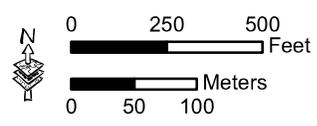
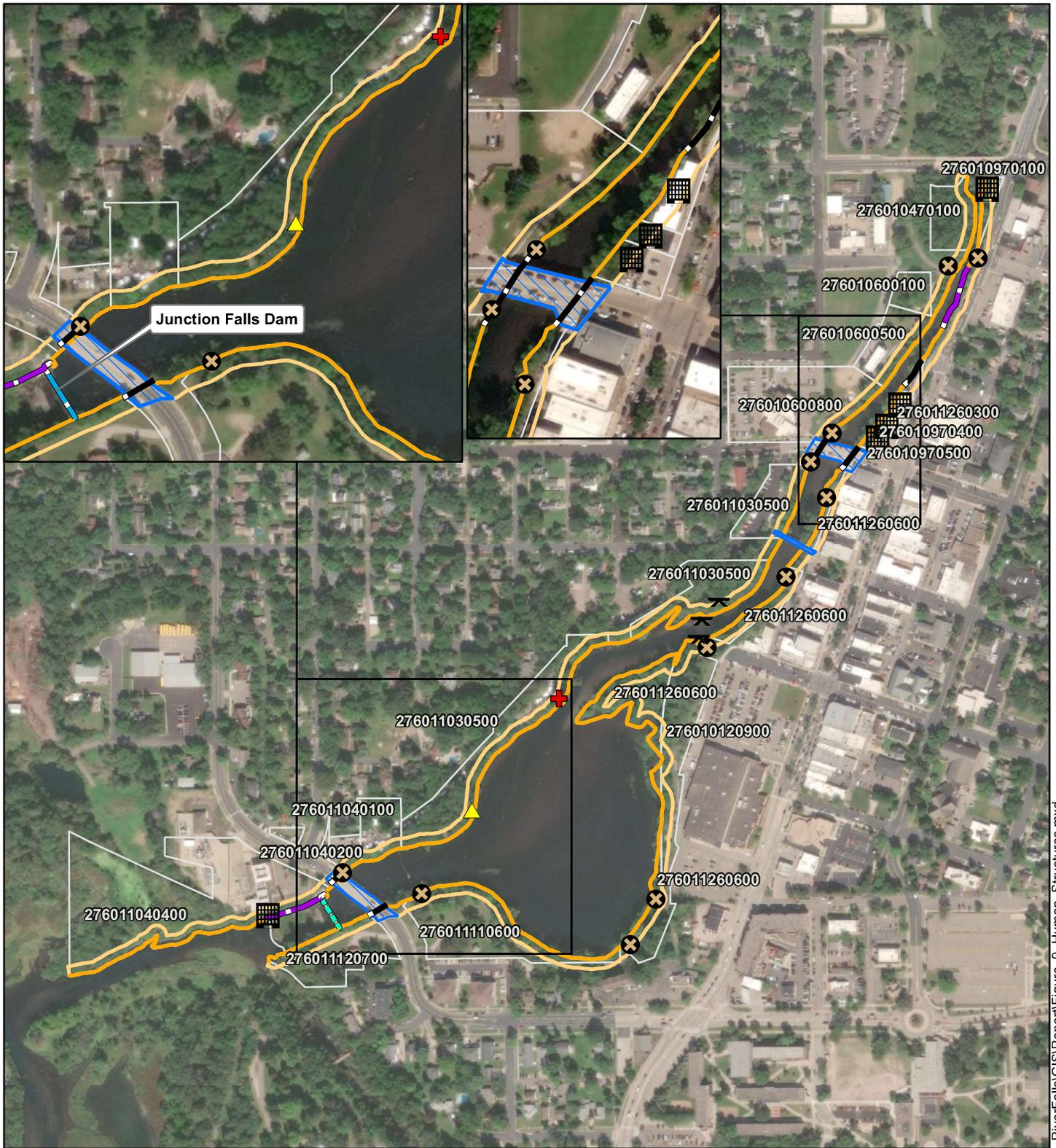
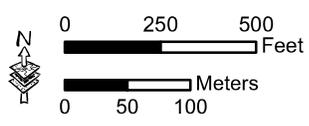


Figure 8. Percent Cover - Developed/Maintained (Impervious Surface and Lawn)

K:\Projects\80380102_Shoreline_Survey_RiverFalls\GIS\Report\Figure_8_Percent_cover_impervious_Lawn.mxd



- Legend**
- Human Structure
 - Dam
 - Rip-rap
 - Retaining Wall
 - Bridge
 - Parcel Boundary
 - Abutment
 - Building
 - Fishing Pier
 - Kayak Takeout
 - Point Source



December 2020

Figure 9. Human Structures in Project Area

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4.2.1.3 Runoff Concerns in Riparian and Entire Parcel

Runoff concerns and other inputs of water to the impoundment and river were considered for both the riparian buffer zone and the rest of the parcel outside of the buffer zone (i.e., further inland). Typical runoff concerns recorded were trails or roads leading to the lake and lawns or exposed soil sloping towards the lake (Table 5). Point sources, defined as specific identifiable sources of water or pollution input into the lake (e.g., storm water outflows), were found consistently around the lake. Due to the often hidden or obscured nature of point sources observed, it is possible that more exist along the lake and river edge that have been covered by debris, vegetation, or soil erosion (Photograph 4).

Other examples of types of runoff concerns are provided in Photographs 5 through 7. Channelized water flow was minimal and on average less than 2 feet wide when found in the Project Area. Trails or designated paths leading to the lake were either portions of the walking path installed by the City or pedestrian-made dirt trails leading to fishing spots or lookouts along the Lake George bank.



Photograph 4. Typical point source in riparian buffer zone.



Photograph 5. Top left – Paved path sloping to lake showing collected water.

Photograph 6. Top right – steep slope with maintained lawn and rip rap behind.



Photograph 7. Bottom left – signs of minor channelized (ephemeral) water flow coming from uphill.

Table 5. Runoff Concerns in Riparian Buffer Zone

Parcel No.	Point Source		Channelized Water/Gully ¹	Stair, Trail, Road		Lawn, Soil Sloping Upland	Bare Soil ¹	Sand/Silt ¹	Other Runoff ¹
	Riparian	Upland		Riparian	Upland				
276010120900	0	1	1	0	0	1	0	0	0
276010470100	0	0	1	1	0	0	1	1	0
276010600100	1	0	1	1	1	1	1	1	0
276010600500	0	0	0	0	0	1	0	1	0
276010600800	1	0	0	1	0	1	0	0	0
276010970100	1	0	0	0	0	1	0	0	0
276010970400	0	0	0	0	0	1	0	0	0
276010970500	0	0	0	0	0	1	0	0	0
276011030500-SW	0	0	0	1	0	1	0	1	0
276011030500-C	0	0	0	1	0	1	0	1	0
276011030500-NE	1	0	0	1	0	1	0	1	0
276011040100	0	0	0	1	0	1	0	0	0
276011040200	1	0	0	0	0	1	0	0	0
276011040400	0	0	0	0	0	0	0	1	0
276011110600	1	0	0	1	0	1	0	1	0
276011120700	0	0	0	1	0	1	0	0	0
276011260300	0	0	0	0	0	1	0	0	0
276011260600-NE	1	0	0	0	0	1	0	0	0
276011260600-C	0	0	0	0	0	1	0	0	0
276011260600-S	1	0	0	0	0	1	0	0	0
Totals (20 parcels)	8	1	3	9	1	18	1	7	5

¹Parcels without a "Riparian" and "Upland" designation only had runoff concerns in the riparian buffer zone (i.e., no upland runoff concerns).

4.2.2 Bank Zone

Within the bank zone, which is the portion of shoreline between the upper bank lip and lower bank toe that typically contains the OHWM, anthropogenic modifications consisted of vertical retaining wall along two stretches and rip rap (Table 6). A retaining wall has been installed along the western bank of the dam and powerhouse (Parcel No. 276011040400) as well as a stretch of the eastern bank of the upper Kinnickinnic River (Photograph 8). Rip rap was found commonly associated with bridges, retaining walls, or steep portions of shoreline along the upper reach of the river. A short stretch of shoreline containing natural vegetation on the east bank of the river showed signs of erosion.



Photograph 8. Retaining wall along upper Kinnickinnic River.

Table 6. Human Structures in Bank Zone

Parcel No.	Vertical Retaining Wall (ft)	Rip Rap (ft)	Other Erosion Control (ft)	Artificial Beach (ft)	Bank Erosion (>1 ft)	Bank Erosion (<1 ft)
276010120900	0	0	0	0	0	0
276010470100	0	0	0	0	0	0
276010600100	0	0	0	0	0	0
276010600500	0	0	0	0	0	0
276010600800	0	40	0	0	0	0
276010970100	0	0	0	0	0	0
276010970400	0	0	0	0	0	0
276010970500	0	0	0	0	0	0
276011030500-C	0	0	0	0	0	0
276011030500-NE	0	125	0	0	0	0
276011030500-SW	0	10	0	0	0	0
276011040100	0	0	0	0	0	0
276011040200	0	40	0	0	0	0
276011040400	230	100	0	0	0	0
276011110600	0	0	0	0	0	0
276011120700	0	150	0	0	0	0
276011260300	125	150	0	0	0	0
276011260600-C	0	0	0	0	0	0
276011260600-NE	0	0	0	0	90	0
276011260600-S	0	0	0	0	0	0
Total Length (ft)	355	615	0	0	90	0

4.2.3 Littoral Zone

4.2.3.1 Human Structures in Littoral Zone

A total of seven human structures were recorded in the littoral zone (i.e., below the bank) that fit the 'Other' category on the SHA datasheet and can be described as follows:

- 276010600800: 2 old bridge abutments
- 276011030500-NE: 1 pedestrian bridge
- 276011030500-SW: 1 fishing pier, 1 boat ramp (both begin in the riparian buffer zone and terminate in the littoral zone)
- 276011040400: 1 dam (Junction Falls Dam)
- 276011120700: 1 dam (Junction Falls Dam)

Two large road bridges (West Maple Street and Winter Street) are located between parcels and not noted in the list above, but these bridges are present in the littoral zone of the overall Project Area. Photographs 9 through 12 present examples of the human structures found in the littoral zone.



Photograph 9. Junction Falls Dam.



Photograph 10. Old bridge abutments.



Photograph 11. Fishing pier.



Photograph 12. Riverwalk foot bridge.

4.2.3.2 Aquatic Plants

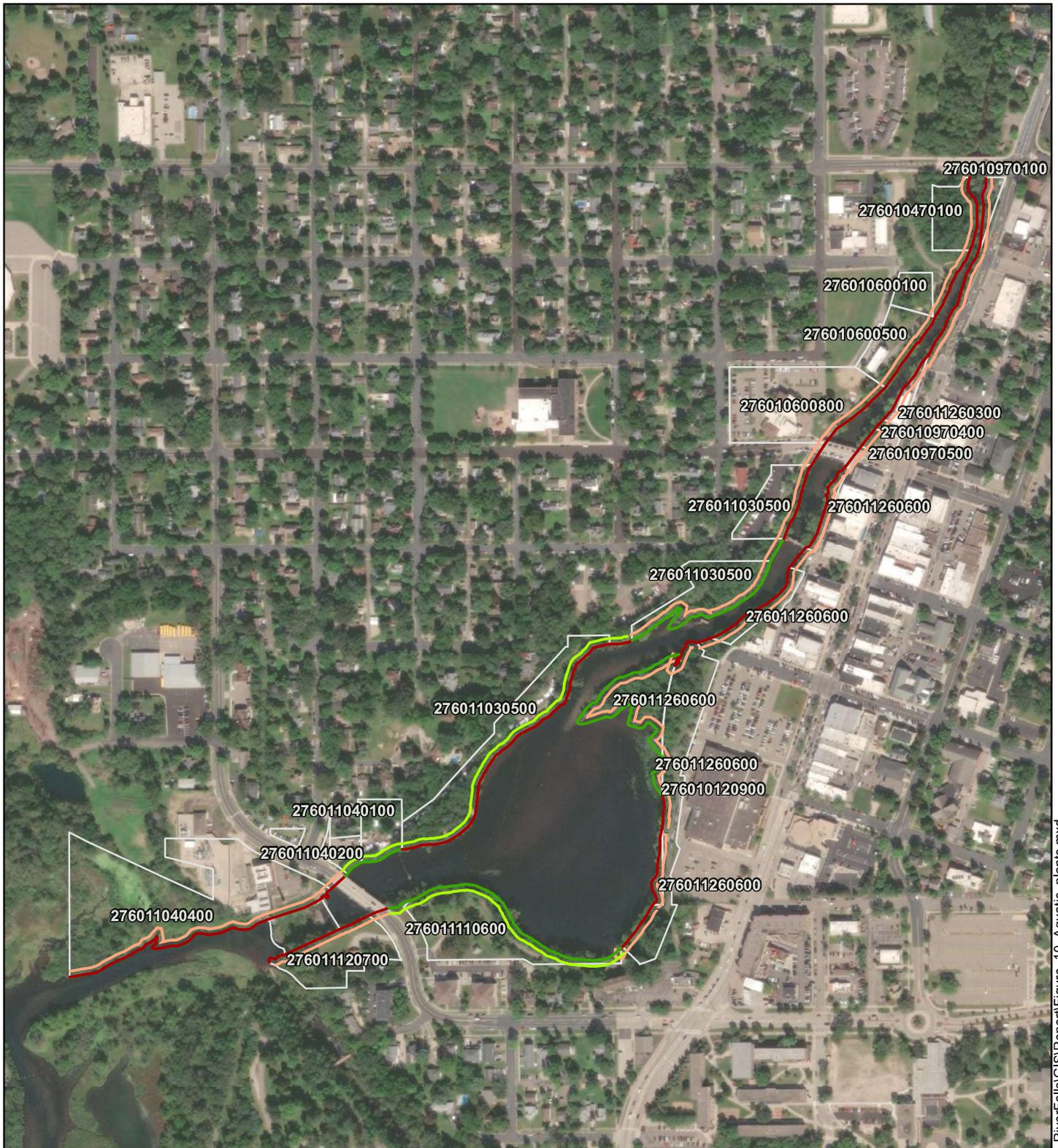
Emergent and floating aquatic plants were observed in five parcels and four parcels, respectively. The parcels in which aquatic plants were observed typically bordered Lake George or the slower, wider section of the river immediately upstream (north) from Lake George (Figure 10). It should be noted that submerged aquatic plants are not included in the SHA, with an explanation given as “Plants growing only underwater (submergent) are not included in the survey because they may be difficult to observe.” (WI DNR 2020). There is a high density of submerged aquatic plants in Lake George and also seasonally, green algae (Photograph 13). The results of a 2020 invasive aquatic plant species survey conducted by Inter-Fluve provide further information on the species composition and densities of aquatic plants in the impoundment (Inter-Fluve 2020).



Photograph 13. Green algae bloom on Lake George.

4.2.4 Exposed Lakebed Zone

No areas of exposed lakebed were observed during the assessment.



Legend

Emergent Aquatic Plants Parcel Boundary

— Not present

— Present

Floating Aquatic Plants

— Not present

— Present



0 250 500
Feet

0 50 100
Meters



December 2020

Figure 10. Emergent and Floating Aquatic Plants

4.3 Loop 2: Mapping Coarse Woody Debris

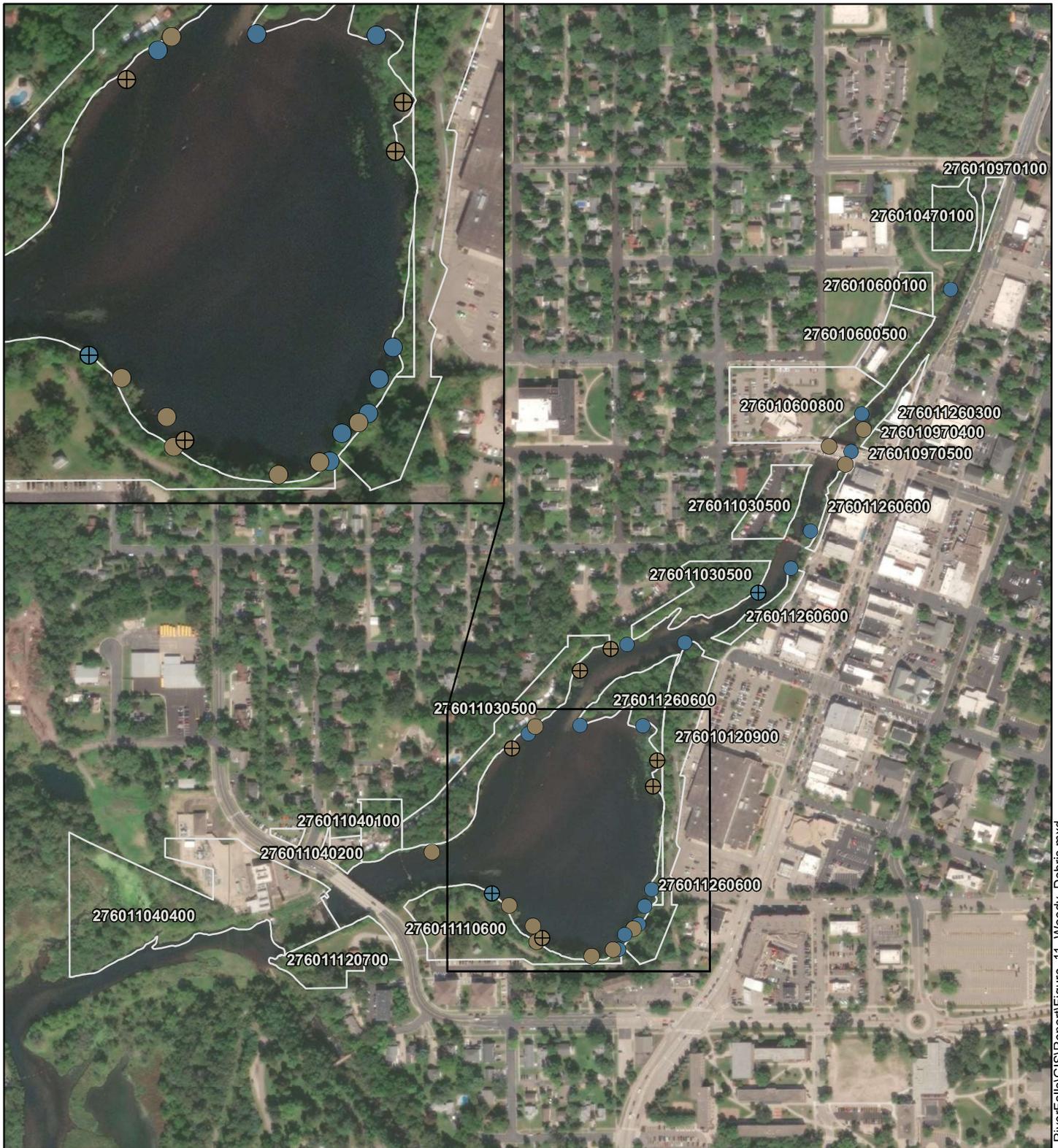
The results of mapping coarse woody debris are shown in Figure 11. A total of 34 pieces of large woody debris meeting the requirements of the SHA protocol were recorded. Geographic coordinates for these woody debris are provided in Table 7.

Table 7. Geographic Coordinates of Woody Debris

#	Woody Debris Category	Longitude (°)	Latitude (°)
1	Multiple branches, no connectivity*	-92.63202492	44.85588156
2	No branches, connectivity**	-92.63119819	44.85547225
3	Multiple branches, no connectivity	-92.63096164	44.85535162
4	Multiple branches, connectivity	-92.63091532	44.85689588
5	No branches, no connectivity	-92.630687	44.85704467
6	Multiple branches, no connectivity	-92.63063667	44.85515033
7	Multiple branches, no connectivity	-92.63058883	44.8571113
8	Multiple branches, no connectivity	-92.63058555	44.8549954
9	Multiple branches, connectivity	-92.63050492	44.85503168
10	No branches, no connectivity	-92.62997139	44.857125
11	Multiple branches, connectivity	-92.6299691	44.8576564
12	Multiple branches, no connectivity	-92.62982545	44.85484835
13	Multiple branches, connectivity	-92.6295461	44.85787274
14	Multiple branches, no connectivity	-92.6295305	44.854914
15	No branches, no connectivity	-92.62945467	44.854917
16	No branches, no connectivity	-92.62936617	44.85506167
17	No branches, no connectivity	-92.62932005	44.85791585
18	Multiple branches, no connectivity	-92.62924317	44.8551155
19	No branches, no connectivity	-92.62917456	44.85516432
20	No branches, no connectivity	-92.62910468	44.85711636
21	No branches, no connectivity	-92.62909283	44.85534183
22	No branches, no connectivity	-92.6289935	44.85550433
23	Multiple branches, connectivity	-92.62896717	44.85651833
24	Multiple branches, connectivity	-92.62891081	44.85677133
25	No branches, no connectivity	-92.62852221	44.85793346
26	No branches, connectivity	-92.62750391	44.85841742
27	No branches, no connectivity	-92.62704823	44.85865786
28	No branches, no connectivity	-92.62677564	44.85902546
29	Multiple branches, no connectivity	-92.62651808	44.85985388
30	Multiple branches, no connectivity	-92.62628909	44.85967465
31	No branches, no connectivity	-92.62621451	44.85980283
32	No branches, no connectivity	-92.62606415	44.86017377
33	Multiple branches, no connectivity	-92.62603819	44.86001828
34	No branches, no connectivity	-92.62482831	44.86139544

*No connectivity = debris did not touch the shore

**Connectivity = debris touched the shore



Legend

Category

Parcel Boundary

- ⊕ Multiple branches, connectivity
- Multiple branches, no connectivity
- ⊕ No branches, connectivity
- No branches, no connectivity

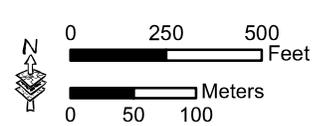


Figure 11. Large Woody Debris in Lake George

Photograph 14 shows the typical form of woody debris found on the edge of Lake George. The largest congregation of woody debris occurred along the southern to southeastern shoreline of Lake George, likely because of patterns of water flow and deposition.



Photograph 14. Example of woody debris on the Lake George shoreline.

4.4 Loop 3: Photo-Documentation of Shoreline

A total of 157 photographs were taken to document the condition of the shoreline at Lake George. These photographs can be found in the photograph log provided in Appendix B. This appendix includes a map (Figure B-1) showing the location of each photograph as well as a table that provides the geographic coordinates for each photo point.

5.0 DISCUSSION

The shoreline within the Project Area has three distinct portions that are discussed separately here.

South of Junction Falls Dam, the shoreline changes rapidly from exposed bedrock waterfalls that have been modified by the installation of the dam, adjoining retaining wall, and powerhouse to a short “river reach” that leads to Lake Louise to the south. Lake Louise is the impoundment that has been created by installation of the Powell Falls Dam further south. This short stretch of channel between impoundments (Photograph 15) is likely to have become wider and shallower than pre-disturbance conditions, as is typical of river reaches where sediment transport has been impeded downstream and an impoundment has developed (Schmutz and Moog 2018). Swaths of reed canary grass (*Phalaris arundinacea*) dominate much of the northern shoreline of

this reach. Channelized water drainages have developed that connect the river to wetlands that have established immediately to the north. It is possible that these wetlands developed in response to installation of the two dams.



Photograph 15. Stretch of river south of Junction Falls Dam.

Lake George is the second distinct portion of the Project Area and the focal point of this SHA study. The original river channel flowed near to the existing northwest shoreline (along Parcel No. 276011030500). When the dam was built, the impoundment was created to the south and east of the original channel in lower elevation floodplains or forests. Currently, the shoreline around the lake is mostly consistent in character (Photographs 16 and 17).



Photograph 16. View of southeast portion of Lake George shoreline.



Photograph 17. View of northwest portion of Lake George shoreline.

The majority of the riparian buffer zone is occupied by natural vegetation, albeit much of the vegetation shows some signs of disturbance. The paved walking/biking path (i.e., White Pathway) that runs along the impoundment on all sides is typically between 20 and 100 feet from the edge of the shoreline. Areas around the path are maintained as mowed lawn with amenities that include picnic tables, benches, one boat takeout (primarily intended for kayak takeout from the upper Kinnickinnic River), and one fishing pier. The path is connected into a loop by one pedestrian bridge over the upper Kinnickinnic River and sidewalks along the Winter Street bridge. Modifications within the current bank zone of Lake George are minimal. Rip rap has been placed as stabilization in some areas including under the Winter Street bridge and under the fishing pier located on the impoundment. Due to the shallow nature of most areas of Lake George, the littoral zone (i.e., nearshore zone) is similar in character to much of the open water zone. Floating and/or emergent vegetation are found in small stretches around the shoreline.

In accordance with RFMU's 2019 Revised Study Plan for the River Falls Hydroelectric Project (FERC P-10489), the feasibility of a short-term drawdown of water within the impoundment in order to consolidate sediment and stimulate plant growth was considered during the shoreline assessment. Data collected during this survey did not contribute substantially to the conclusion that a short-term drawdown was necessary within the next re-licensing period to remove sediment. It would be most efficient to perform a drawdown and sediment removal concurrently with dam removal, if dam removal is being considered after the next license term. To warrant a drawdown prior to future dam removal, Lake George would have to be at risk of completely filling with sediment. In order to determine whether the lake is at risk of complete sedimentation, necessary considerations include the current sediment level (Inter-Fluve 2016) and the rate of sedimentation. A second sediment study should be performed to obtain the rate of sedimentation, which could then be used to project when the lake would completely fill with sediment. A planned drawdown and associated sediment removal would be recommended prior to the estimated date calculated for when complete sedimentation of the lake would occur.

The third relatively distinct portion of the Project Area is a short stretch of the upper Kinnickinnic River directly north of Lake George (Photograph 18). Closer to Lake George, this stretch appears to be wider, shallower, and slower moving than prior to establishment of the impoundment due to sediment deposition. Further upstream, the river is found in its natural form.



Photograph 18. Kayakers on the Kinnickinnic River north of Lake George.

6.0 REFERENCES

- City of River Falls (website). 2020. History of River Falls. Website for the City of River Falls, Wisconsin. Accessed at: <https://www.rfcity.org/177/History-of-River-Falls>. Accessed October 20, 2020.
- Inter-Fluve. 2016. Lake George and Lake Louise Sediment Assessment Report. Submitted to the City of River Falls, WI. Released March 2016.
- Inter-Fluve. 2017. Restoration of the Kinnickinnic River through Dam Removal, Feasibility Report. Submitted to Friends of the Kinni, River Falls, Wisconsin.
- National Oceanic and Atmospheric Administration (NOAA). 2020. NOAA Online Weather Data (NOWData), Forecast Office: Twin Cities, Climatological Data for River Falls, WI, July 2020. Accessed at: <https://w2.weather.gov/climate/xmacis.php?wfo=mpx>. Accessed October 21, 2020.
- Schmutz, S. and O. Moog. 2018. Dams: Ecological Impacts and Management. In: Schmutz, S., Sendzimir, J. (eds.), *Riverine Ecosystem Management*. Aquatic Ecology Series, vol 8. Springer, Cham.
- Wisconsin Department of Natural Resources (WI DNR). 2020. Lake Shoreland & Shallows Habitat Monitoring Field Protocol. Document No. EGAD # 3400-2020-19. Accessed at: <https://dnr.wi.gov/water/wsSWIMSDocument.ashx?documentSeqNo=242424328>.

APPENDIX A
ASSESSMENT DATASHEETS



Date Lake Name WBIC

Parcel ID Observers

RIPARIAN ZONE

Percent Cover in Riparian

	Percent (0-100)
Canopy	<input type="text" value="60"/>
Shrub	<input type="text" value="10"/>
Shrub/Herbaceous	<input type="text" value="85"/>
Impervious Surface	<input type="text" value="10"/>
Manicured Lawn	<input type="text" value="5"/>
Agriculture	<input type="text" value="0"/>
Other (e.g., duff, soil, mulch)	<input type="text" value="0"/>

Description:

Human Structures in Riparian

	Number
Buildings	<input type="text" value="0"/>
Boats on Shore	<input type="text" value="0"/>
Fire Pits	<input type="text" value="0"/>
Other	<input type="text" value="0"/>

Description:

Runoff Concerns in Riparian or Entire Parcel

	Present in Riparian	Present out of Riparian
Point Source	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Channelized Water Flow/Gully	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Stair/Trail/Road to Lake	<input type="checkbox"/>	<input type="checkbox"/>
Lawn/Soil Sloping to Lake	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Bare Soil	<input type="checkbox"/>	<input type="checkbox"/>
Sand/Silt Deposits	<input type="checkbox"/>	<input type="checkbox"/>
Other	<input type="checkbox"/>	<input type="checkbox"/>

Description:

Notes:

submerged vegetation

BANK ZONE

	Length (ft)
Vertical Sea Wall	<input type="text" value="0"/>
Rip Rap	<input type="text" value="0"/>
Other Erosion Control Structures	<input type="text" value="0"/>
Artificial Beach	<input type="text" value="0"/>
Bank Erosion >1 ft face	<input type="text" value="0"/>
Bank Erosion <1 ft face	<input type="text" value="0"/>

LITTORAL ZONE

Human Structures

	Number
Piers	<input type="text" value="0"/>
Boat Lifts	<input type="text" value="0"/>
Boat Shelters	<input type="text" value="0"/>
Swim Rafts/Water Trampolines	<input type="text" value="0"/>
Boathouses (Over Water)	<input type="text" value="0"/>
Marinas	<input type="text" value="0"/>
Other	<input type="text" value="0"/>

Description:

Aquatic Plants

	Present
Emergents	<input type="checkbox"/>
Floating	<input type="checkbox"/>
Plant Removal	<input type="checkbox"/>

If Applicable (Low Water Level): EXPOSED LAKE BED ZONE

Plants

	Present
Canopy	<input type="checkbox"/>
Shrubs	<input type="checkbox"/>
Herbaceous	<input type="checkbox"/>

Disturbed

	Present
Plants (Mowed or Removed)	<input type="checkbox"/>
Sediment (Tilled or Dug)	<input type="checkbox"/>

Date Lake Name WBIC

Parcel ID Observers

RIPARIAN ZONE

Percent Cover in Riparian

	Percent (0-100)
Canopy	<input type="text" value="100"/>
Shrub	<input type="text" value="60"/>
Shrub/Herbaceous	<input type="text" value="100"/>
Impervious Surface	<input type="text" value="0"/>
Manicured Lawn	<input type="text" value="0"/>
Agriculture	<input type="text" value="0"/>
Other (e.g., duff, soil, mulch)	<input type="text" value="0"/>

Description:

Human Structures in Riparian

	Number
Buildings	<input type="text" value="0"/>
Boats on Shore	<input type="text" value="0"/>
Fire Pits	<input type="text" value="0"/>
Other	<input type="text" value="0"/>

Description:

Runoff Concerns in Riparian or Entire Parcel

	Present in Riparian	Present out of Riparian
Point Source	<input type="checkbox"/>	<input type="checkbox"/>
Channelized Water Flow/Gully	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Stair/Trail/Road to Lake	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Lawn/Soil Sloping to Lake	<input type="checkbox"/>	<input type="checkbox"/>
Bare Soil	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Sand/Silt Deposits	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Other	<input type="checkbox"/>	<input type="checkbox"/>

Description:

Notes:

BANK ZONE

	Length (ft)
Vertical Sea Wall	<input type="text" value="0"/>
Rip Rap	<input type="text" value="0"/>
Other Erosion Control Structures	<input type="text" value="0"/>
Artificial Beach	<input type="text" value="0"/>
Bank Erosion >1 ft face	<input type="text" value="0"/>
Bank Erosion <1 ft face	<input type="text" value="0"/>

LITTORAL ZONE

Human Structures

	Number
Piers	<input type="text" value="0"/>
Boat Lifts	<input type="text" value="0"/>
Boat Shelters	<input type="text" value="0"/>
Swim Rafts/Water Trampolines	<input type="text" value="0"/>
Boathouses (Over Water)	<input type="text" value="0"/>
Marinas	<input type="text" value="0"/>
Other	<input type="text" value="0"/>

Description:

Aquatic Plants

Emergents	<input type="text" value="Present"/>
Floating	<input type="text"/>
Plant Removal	<input type="text"/>

If Applicable (Low Water Level): EXPOSED LAKE BED ZONE

Plants

Canopy	<input type="text" value="Present"/>
Shrubs	<input type="text"/>
Herbaceous	<input type="text"/>

Disturbed

Plants (Mowed or Removed)	<input type="text"/>
Sediment (Tilled or Dug)	<input type="text"/>

Date Lake Name WBIC

Parcel ID Observers

RIPARIAN ZONE

Percent Cover in Riparian

	Percent (0-100)
Canopy	<input type="text" value="25"/>
Shrub	<input type="text" value="40"/>
Shrub/Herbaceous	<input type="text" value="60"/>
Impervious Surface	<input type="text" value="25"/>
Manicured Lawn	<input type="text" value="10"/>
Agriculture	<input type="text" value="0"/>
Other (e.g., duff, soil, mulch)	<input type="text" value="5"/>

Description:

Human Structures in Riparian

	Number
Buildings	<input type="text" value="0"/>
Boats on Shore	<input type="text" value="0"/>
Fire Pits	<input type="text" value="0"/>
Other	<input type="text" value="2"/>

Description:

Runoff Concerns in Riparian or Entire Parcel

	Present in Riparian	Present out of Riparian
Point Source	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Channelized Water Flow/Gully	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Stair/Trail/Road to Lake	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Lawn/Soil Sloping to Lake	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Bare Soil	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Sand/Silt Deposits	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Other	<input type="checkbox"/>	<input type="checkbox"/>

Description:

BANK ZONE

	Length (ft)
Vertical Sea Wall	<input type="text" value="0"/>
Rip Rap	<input type="text" value="0"/>
Other Erosion Control Structures	<input type="text" value="0"/>
Artificial Beach	<input type="text" value="0"/>
Bank Erosion >1 ft face	<input type="text" value="0"/>
Bank Erosion <1 ft face	<input type="text" value="0"/>

LITTORAL ZONE

Human Structures

	Number
Piers	<input type="text" value="0"/>
Boat Lifts	<input type="text" value="0"/>
Boat Shelters	<input type="text" value="0"/>
Swim Rafts/Water Trampolines	<input type="text" value="0"/>
Boathouses (Over Water)	<input type="text" value="0"/>
Marinas	<input type="text" value="0"/>
Other	<input type="text" value="0"/>

Description:

Aquatic Plants

	Present
Emergents	<input type="checkbox"/>
Floating	<input type="checkbox"/>
Plant Removal	<input type="checkbox"/>

If Applicable (Low Water Level): EXPOSED LAKE BED ZONE

Plants

	Present
Canopy	<input type="checkbox"/>
Shrubs	<input type="checkbox"/>
Herbaceous	<input type="checkbox"/>

Disturbed

Plants (Mowed or Removed)	<input type="checkbox"/>
Sediment (Tilled or Dug)	<input type="checkbox"/>

Notes:

disturbance from paths to lake (possible fishing locations)

Date Lake Name WBIC

Parcel ID Observers

RIPARIAN ZONE

Percent Cover in Riparian

	Percent	(0-100)
Canopy	<input type="text" value="10"/>	<input type="text" value="20"/>
Shrub	<input type="text" value="40"/>	<input type="text"/>
Shrub/Herbaceous	<input type="text" value="50"/>	<input type="text"/>
Impervious Surface	<input type="text" value="35"/>	<input type="text"/>
Manicured Lawn	<input type="text" value="15"/>	<input type="text"/>
Agriculture	<input type="text" value="0"/>	<input type="text"/>
Other (e.g., duff, soil, mulch)	<input type="text" value="0"/>	<input type="text"/>

Description:

Human Structures in Riparian

	Number
Buildings	<input type="text" value="0"/>
Boats on Shore	<input type="text" value="0"/>
Fire Pits	<input type="text" value="0"/>
Other	<input type="text" value="2"/>

Description:

Runoff Concerns in Riparian or Entire Parcel

Point Source	Present in Riparian	Present out of Riparian
Channelized Water Flow/Gully	<input type="text"/>	<input type="text"/>
Stair/Trail/Road to Lake	<input type="text"/>	<input type="text"/>
Lawn/Soil Sloping to Lake	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Bare Soil	<input type="checkbox"/>	<input type="checkbox"/>
Sand/Silt Deposits	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Other	<input type="text"/>	<input type="text"/>

Description:

Notes:

BANK ZONE

	Length (ft)
Vertical Sea Wall	<input type="text" value="0"/>
Rip Rap	<input type="text" value="0"/>
Other Erosion Control Structures	<input type="text" value="0"/>
Artificial Beach	<input type="text" value="0"/>
Bank Erosion >1 ft face	<input type="text" value="0"/>
Bank Erosion <1 ft face	<input type="text" value="0"/>

LITTORAL ZONE

Human Structures

	Number
Piers	<input type="text" value="0"/>
Boat Lifts	<input type="text" value="0"/>
Boat Shelters	<input type="text" value="0"/>
Swim Rafts/Water Trampolines	<input type="text" value="0"/>
Boathouses (Over Water)	<input type="text" value="0"/>
Marinas	<input type="text" value="0"/>
Other	<input type="text" value="0"/>

Description:

Aquatic Plants

	Present
Emergents	<input type="text"/>
Floating	<input type="text"/>
Plant Removal	<input type="text"/>

If Applicable (Low Water Level): EXPOSED LAKE BED ZONE

Plants

	Present
Canopy	<input type="text"/>
Shrubs	<input type="text"/>
Herbaceous	<input type="text"/>

Disturbed

Plants (Mowed or Removed)	<input type="text"/>
Sediment (Tilled or Dug)	<input type="text"/>

Date Lake Name WBIC

Parcel ID Observers

RIPARIAN ZONE

Percent Cover in Riparian

	Percent	Percent (0-100)
Canopy	<input type="text" value="15"/>	<input type="text" value="20"/>
Shrub	<input type="text" value="30"/>	
Herbaceous		
Shrub/Herbaceous	<input type="text" value="45"/>	
Impervious Surface	<input type="text" value="25"/>	
Manicured Lawn	<input type="text" value="20"/>	
Agriculture	<input type="text" value="0"/>	
Other (e.g., duff, soil, mulch)	<input type="text" value="10"/>	

Description:

Human Structures in Riparian

	Number
Buildings	<input type="text" value="0"/>
Boats on Shore	<input type="text" value="0"/>
Fire Pits	<input type="text" value="0"/>
Other	<input type="text" value="1"/>

Description:

Runoff Concerns in Riparian or Entire Parcel

	Present in Riparian	Present out of Riparian
Point Source	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Channelized Water Flow/Gully	<input type="checkbox"/>	<input type="checkbox"/>
Stair/Trail/Road to Lake	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Lawn/Soil Sloping to Lake	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Bare Soil	<input type="checkbox"/>	<input type="checkbox"/>
Sand/Silt Deposits	<input type="checkbox"/>	<input type="checkbox"/>
Other	<input type="checkbox"/>	<input type="checkbox"/>

Description:

Notes:

BANK ZONE

	Length (ft)
Vertical Sea Wall	<input type="text" value="0"/>
Rip Rap	<input type="text" value="40"/>
Other Erosion Control Structures	<input type="text" value="0"/>
Artificial Beach	<input type="text" value="0"/>
Bank Erosion >1 ft face	<input type="text" value="0"/>
Bank Erosion <1 ft face	<input type="text" value="0"/>

LITTORAL ZONE

Human Structures

	Number
Piers	<input type="text" value="0"/>
Boat Lifts	<input type="text" value="0"/>
Boat Shelters	<input type="text" value="0"/>
Swim Rafts/Water Trampolines	<input type="text" value="0"/>
Boathouses (Over Water)	<input type="text" value="0"/>
Marinas	<input type="text" value="0"/>
Other	<input type="text" value="2"/>

Description:

Aquatic Plants

Emergents	<input type="text" value="Present"/>
Floating	<input type="text"/>
Plant Removal	<input type="text"/>

If Applicable (Low Water Level): EXPOSED LAKE BED ZONE

Plants

Canopy	<input type="text" value="Present"/>
Shrubs	<input type="text"/>
Herbaceous	<input type="text"/>

Disturbed

Plants (Mowed or Removed)	<input type="text"/>
Sediment (Tilled or Dug)	<input type="text"/>

Date Lake Name WBIC

Parcel ID Observers Length (ft)

RIPARIAN ZONE

Percent Cover in Riparian

	Percent (0-100)
Canopy	<input type="text" value="100"/>
Shrub	<input type="text" value="20"/>
Shrub/Herbaceous	<input type="text" value="60"/>
Impervious Surface	<input type="text" value="40"/>
Manicured Lawn	<input type="text" value="0"/>
Agriculture	<input type="text" value="0"/>
Other (e.g., duff, soil, mulch)	<input type="text" value="0"/>

Description:

Human Structures in Riparian

	Number
Buildings	<input type="text" value="1"/>
Boats on Shore	<input type="text" value="0"/>
Fire Pits	<input type="text" value="0"/>
Other	<input type="text" value="1"/>

Description:

Runoff Concerns in Riparian or Entire Parcel

	Present in Riparian	Present out of Riparian
Point Source	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Channelized Water Flow/Gully	<input type="checkbox"/>	<input type="checkbox"/>
Stair/Trail/Road to Lake	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Lawn/Soil Sloping to Lake	<input type="checkbox"/>	<input type="checkbox"/>
Bare Soil	<input type="checkbox"/>	<input type="checkbox"/>
Sand/Silt Deposits	<input type="checkbox"/>	<input type="checkbox"/>
Other	<input type="checkbox"/>	<input type="checkbox"/>

Description:

BANK ZONE

Vertical Sea Wall	<input type="text" value="0"/>
Rip Rap	<input type="text" value="0"/>
Other Erosion Control Structures	<input type="text" value="0"/>
Artificial Beach	<input type="text" value="0"/>
Bank Erosion >1 ft face	<input type="text" value="0"/>
Bank Erosion <1 ft face	<input type="text" value="0"/>

LITTORAL ZONE

Human Structures

	Number
Piers	<input type="text" value="0"/>
Boat Lifts	<input type="text" value="0"/>
Boat Shelters	<input type="text" value="0"/>
Swim Rafts/Water Trampolines	<input type="text" value="0"/>
Boathouses (Over Water)	<input type="text" value="0"/>
Marinas	<input type="text" value="0"/>
Other	<input type="text" value="0"/>

Description:

Aquatic Plants

Emergents	<input type="text" value="Present"/>
Floating	<input type="text"/>
Plant Removal	<input type="text"/>

If Applicable (Low Water Level): EXPOSED LAKE BED ZONE

Plants

Canopy	<input type="text" value="Present"/>
Shrubs	<input type="text"/>
Herbaceous	<input type="text"/>

Disturbed

Plants (Mowed or Removed)	<input type="text"/>
Sediment (Tilled or Dug)	<input type="text"/>

Notes:

250-foot rock wall located in riparian zone just south of this parcel.

Date Lake Name W/BIC

Parcel ID Observers

RIPARIAN ZONE

Percent Cover in Riparian

	Percent	(0-100)
Canopy	<input type="text" value="20"/>	<input type="text" value="20"/>
Shrub	<input type="text" value="20"/>	<input type="text" value="20"/>
Shrub/Herbaceous	<input type="text" value="40"/>	<input type="text" value="40"/>
Impervious Surface	<input type="text" value="60"/>	<input type="text" value="60"/>
Manicured Lawn	<input type="text" value="0"/>	<input type="text" value="0"/>
Agriculture	<input type="text" value="0"/>	<input type="text" value="0"/>
Other (e.g., duff, soil, mulch)	<input type="text" value="0"/>	<input type="text" value="0"/>

Description:

Human Structures in Riparian

	Number
Buildings	<input type="text" value="1"/>
Boats on Shore	<input type="text" value="0"/>
Fire Pits	<input type="text" value="0"/>
Other	<input type="text" value="0"/>

Description:

Runoff Concerns in Riparian or Entire Parcel

	Present in Riparian	Present out of Riparian
Point Source	<input type="text"/>	<input type="text"/>
Channelized Water Flow/Gully	<input type="text"/>	<input type="text"/>
Stair/Trail/Road to Lake	<input type="text"/>	<input type="text"/>
Lawn/Soil Sloping to Lake	<input checked="" type="checkbox"/>	<input type="text"/>
Bare Soil	<input type="text"/>	<input type="text"/>
Sand/Silt Deposits	<input type="text"/>	<input type="text"/>
Other	<input type="text"/>	<input type="text"/>

Description:

Notes:

BANK ZONE

	Length (ft)
Vertical Sea Wall	<input type="text" value="0"/>
Rip Rap	<input type="text" value="0"/>
Other Erosion Control Structures	<input type="text" value="0"/>
Artificial Beach	<input type="text" value="0"/>
Bank Erosion >1 ft face	<input type="text" value="0"/>
Bank Erosion <1 ft face	<input type="text" value="0"/>

LITTORAL ZONE

Human Structures

	Number
Piers	<input type="text" value="0"/>
Boat Lifts	<input type="text" value="0"/>
Boat Shelters	<input type="text" value="0"/>
Swim Rafts/Water Trampolines	<input type="text" value="0"/>
Boathouses (Over Water)	<input type="text" value="0"/>
Marinas	<input type="text" value="0"/>
Other	<input type="text" value="0"/>

Description:

Aquatic Plants

	Present
Emergents	<input type="text"/>
Floating	<input type="text"/>
Plant Removal	<input type="text"/>

If Applicable (Low Water Level): EXPOSED LAKE BED ZONE

Plants

	Present
Canopy	<input type="text"/>
Shrubs	<input type="text"/>
Herbaceous	<input type="text"/>

Disturbed

Plants (Mowed or Removed)	<input type="text"/>
Sediment (Tilled or Dug)	<input type="text"/>

Date Lake Name WBIC

Parcel ID Observers

RIPARIAN ZONE

Percent Cover in Riparian

	Percent (0-100)
Canopy	<input type="text" value="30"/>
Shrub	<input type="text" value="25"/>
Shrub/Herbaceous	<input type="text" value="50"/>
Impervious Surface	<input type="text" value="50"/>
Manicured Lawn	<input type="text" value="0"/>
Agriculture	<input type="text" value="0"/>
Other (e.g., duff, soil, mulch)	<input type="text" value="0"/>

Description:

Human Structures in Riparian

	Number
Buildings	<input type="text" value="1"/>
Boats on Shore	<input type="text" value="0"/>
Fire Pits	<input type="text" value="0"/>
Other	<input type="text" value="0"/>

Description:

Runoff Concerns in Riparian or Entire Parcel

	Present in Riparian	Present out of Riparian
Point Source		
Channelized Water Flow/Gully		
Stair/Trail/Road to Lake		
Lawn/Soil Sloping to Lake	<input checked="" type="checkbox"/>	
Bare Soil		
Sand/Silt Deposits		
Other		

Description:

Notes:

BANK ZONE

	Length (ft)
Vertical Sea Wall	<input type="text" value="0"/>
Rip Rap	<input type="text" value="0"/>
Other Erosion Control Structures	<input type="text" value="0"/>
Artificial Beach	<input type="text" value="0"/>
Bank Erosion >1 ft face	<input type="text" value="0"/>
Bank Erosion <1 ft face	<input type="text" value="0"/>

LITTORAL ZONE

Human Structures

	Number
Piers	<input type="text" value="0"/>
Boat Lifts	<input type="text" value="0"/>
Boat Shelters	<input type="text" value="0"/>
Swim Rafts/Water Trampolines	<input type="text" value="0"/>
Boathouses (Over Water)	<input type="text" value="0"/>
Marinas	<input type="text" value="0"/>
Other	<input type="text" value="0"/>

Description:

Aquatic Plants

	Present
Emergents	<input type="text"/>
Floating	<input type="text"/>
Plant Removal	<input type="text"/>

If Applicable (Low Water Level): EXPOSED LAKE BED ZONE

Plants

	Present
Canopy	<input type="text"/>
Shrubs	<input type="text"/>
Herbaceous	<input type="text"/>

Disturbed

	Plants (Mowed or Removed)	Sediment (Tilled or Dug)
	<input type="text"/>	<input type="text"/>
	<input type="text"/>	<input type="text"/>

Date Lake Name WBIC

Parcel ID Observers

RIPARIAN ZONE

Percent Cover in Riparian

	Percent	(0-100)
Canopy	<input type="text" value="50"/>	<input type="text" value="45"/>
Shrub	<input type="text" value="35"/>	
Shrub/Herbaceous		<input type="text" value="85"/>
Impervious Surface		<input type="text" value="5"/>
Manicured Lawn		<input type="text" value="10"/>
Agriculture		<input type="text" value="0"/>
Other (e.g., duff, soil, mulch)		<input type="text" value="0"/>

Description:

Human Structures in Riparian

	Number
Buildings	<input type="text" value="0"/>
Boats on Shore	<input type="text" value="0"/>
Fire Pits	<input type="text" value="0"/>
Other	<input type="text" value="2"/>

Description:

Runoff Concerns in Riparian or Entire Parcel

	Present in Riparian	Present out of Riparian
Point Source		
Channelized Water Flow/Gully		
Stair/Trail/Road to Lake	<input checked="" type="checkbox"/>	
Lawn/Soil Sloping to Lake	<input checked="" type="checkbox"/>	
Bare Soil	<input checked="" type="checkbox"/>	
Sand/Silt Deposits		
Other		

Description:

Notes:

BANK ZONE

	Length (ft)
Vertical Sea Wall	<input type="text" value="0"/>
Rip Rap	<input type="text" value="10"/>
Other Erosion Control Structures	<input type="text" value="0"/>
Artificial Beach	<input type="text" value="0"/>
Bank Erosion >1 ft face	<input type="text" value="0"/>
Bank Erosion <1 ft face	<input type="text" value="0"/>

LITTORAL ZONE

Human Structures

	Number
Piers	<input type="text" value="0"/>
Boat Lifts	<input type="text" value="0"/>
Boat Shelters	<input type="text" value="0"/>
Swim Rafts/Water Trampolines	<input type="text" value="0"/>
Boathouses (Over Water)	<input type="text" value="0"/>
Marinas	<input type="text" value="0"/>
Other	<input type="text" value="2"/>

Description:

Aquatic Plants

Emergents	<input type="text" value="Present"/>
Floating	<input checked="" type="checkbox"/>
Plant Removal	

If Applicable (Low Water Level): EXPOSED LAKE BED ZONE

Plants

Canopy	<input type="text" value="Present"/>
Shrubs	
Herbaceous	

Disturbed

Plants (Mowed or Removed)	
Sediment (Tilled or Dug)	

Date Lake Name WBIC

Parcel ID Observers

RIPARIAN ZONE

Percent Cover in Riparian

Canopy	<input type="text" value="30"/>	Herbaceous	<input type="text" value="20"/>	Percent	<input type="text" value="60"/>	(0-100)
Shrub/Herbaceous						
Impervious Surface						
Manicured Lawn						
Agriculture						
Other (e.g., duff, soil, mulch)						
Description:	exposed sand/soil					

Human Structures in Riparian

Buildings	Number
Boats on Shore	<input type="text" value="0"/>
Fire Pits	<input type="text" value="0"/>
Other	<input type="text" value="1"/>
Description:	walking path

Runoff Concerns in Riparian or Entire Parcel

Point Source	Present in Riparian	Present out of Riparian
Channelized Water Flow/Gully		
Stair/Trail/Road to Lake	<input checked="" type="checkbox"/>	
Lawn/Soil Sloping to Lake	<input checked="" type="checkbox"/>	
Bare Soil	<input checked="" type="checkbox"/>	
Sand/Silt Deposits	<input checked="" type="checkbox"/>	
Other		
Description:		

Notes:

BANK ZONE

Vertical Sea Wall	Length (ft)
Rip Rap	<input type="text" value="0"/>
Other Erosion Control Structures	<input type="text" value="0"/>
Artificial Beach	<input type="text" value="0"/>
Bank Erosion >1 ft face	<input type="text" value="0"/>
Bank Erosion <1 ft face	<input type="text" value="0"/>

LITTORAL ZONE

Human Structures	Number
Piers	<input type="text" value="0"/>
Boat Lifts	<input type="text" value="0"/>
Boat Shelters	<input type="text" value="0"/>
Swim Rafts/Water Trampolines	<input type="text" value="0"/>
Boathouses (Over Water)	<input type="text" value="0"/>
Marinas	<input type="text" value="0"/>
Other	<input type="text" value="0"/>
Description:	

Aquatic Plants

Emergents	Present
Floating	<input checked="" type="checkbox"/>
Plant Removal	<input type="text"/>

If Applicable (Low Water Level): EXPOSED LAKE BED ZONE

Plants	Present
Canopy	<input type="text"/>
Shrubs	<input type="text"/>
Herbaceous	<input type="text"/>

Disturbed

Plants (Mowed or Removed)	<input type="text"/>
Sediment (Tilled or Dug)	<input type="text"/>

Date Lake Name W/BIC

Parcel ID Observers

RIPARIAN ZONE

Percent Cover in Riparian

	Percent (0-100)
Canopy	<input type="text" value="35"/>
Shrub	<input type="text" value="25"/>
Shrub/Herbaceous	<input type="text" value="50"/>
Impervious Surface	<input type="text" value="40"/>
Manicured Lawn	<input type="text" value="10"/>
Agriculture	<input type="text" value="0"/>
Other (e.g., duff, soil, mulch)	<input type="text" value="0"/>

Description:

Human Structures in Riparian

	Number
Buildings	<input type="text" value="0"/>
Boats on Shore	<input type="text" value="0"/>
Fire Pits	<input type="text" value="0"/>
Other	<input type="text" value="3"/>

Description:

Runoff Concerns in Riparian or Entire Parcel

	Present in Riparian	Present out of Riparian
Point Source	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Channelized Water Flow/Gully	<input type="checkbox"/>	<input type="checkbox"/>
Stair/Trail/Road to Lake	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Lawn/Soil Sloping to Lake	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Bare Soil	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Sand/Silt Deposits	<input type="checkbox"/>	<input type="checkbox"/>
Other	<input type="checkbox"/>	<input type="checkbox"/>

Description:

Notes:

The impervious surface in riparian zone includes a foot bridge and retaining wall.

BANK ZONE

	Length (ft)
Vertical Sea Wall	<input type="text" value="0"/>
Rip Rap	<input type="text" value="125"/>
Other Erosion Control Structures	<input type="text" value="0"/>
Artificial Beach	<input type="text" value="0"/>
Bank Erosion >1 ft face	<input type="text" value="0"/>
Bank Erosion <1 ft face	<input type="text" value="0"/>

LITTORAL ZONE

Human Structures

	Number
Piers	<input type="text" value="0"/>
Boat Lifts	<input type="text" value="0"/>
Boat Shelters	<input type="text" value="0"/>
Swim Rafts/Water Trampolines	<input type="text" value="0"/>
Boathouses (Over Water)	<input type="text" value="0"/>
Marinas	<input type="text" value="0"/>
Other	<input type="text" value="1"/>

Description:

Aquatic Plants

Emergents	<input type="text" value="Present"/>
Floating	<input type="text" value=""/>
Plant Removal	<input type="text" value=""/>

If Applicable (Low Water Level): EXPOSED LAKE BED ZONE

Plants

Canopy	<input type="text" value="Present"/>
Shrubs	<input type="text" value=""/>
Herbaceous	<input type="text" value=""/>

Disturbed

Plants (Mowed or Removed)	<input type="text" value=""/>
Sediment (Tilled or Dug)	<input type="text" value=""/>

Date Lake Name WBIC

Parcel ID Observers

RIPARIAN ZONE

Percent Cover in Riparian

	Percent (0-100)
Canopy	<input type="text" value="30"/>
Shrub	<input type="text" value="15"/>
Shrub/Herbaceous	<input type="text" value="40"/>
Impervious Surface	<input type="text" value="5"/>
Manicured Lawn	<input type="text" value="55"/>
Agriculture	<input type="text" value="0"/>
Other (e.g., duff, soil, mulch)	<input type="text" value="0"/>

Description:

Human Structures in Riparian

	Number
Buildings	<input type="text" value="0"/>
Boats on Shore	<input type="text" value="0"/>
Fire Pits	<input type="text" value="0"/>
Other	<input type="text" value="2"/>

Description:

Runoff Concerns in Riparian or Entire Parcel

	Present in Riparian	Present out of Riparian
Point Source		
Channelized Water Flow/Gully		
Stair/Trail/Road to Lake	<input checked="" type="checkbox"/>	
Lawn/Soil Sloping to Lake	<input checked="" type="checkbox"/>	
Bare Soil		
Sand/Silt Deposits		
Other		

Description:

Notes:

BANK ZONE

	Length (ft)
Vertical Sea Wall	<input type="text" value="0"/>
Rip Rap	<input type="text" value="0"/>
Other Erosion Control Structures	<input type="text" value="0"/>
Artificial Beach	<input type="text" value="0"/>
Bank Erosion >1 ft face	<input type="text" value="0"/>
Bank Erosion <1 ft face	<input type="text" value="0"/>

LITTORAL ZONE

	Number
Piers	<input type="text" value="0"/>
Boat Lifts	<input type="text" value="0"/>
Boat Shelters	<input type="text" value="0"/>
Swim Rafts/Water Trampolines	<input type="text" value="0"/>
Boathouses (Over Water)	<input type="text" value="0"/>
Marinas	<input type="text" value="0"/>
Other	<input type="text" value="0"/>

Description:

Aquatic Plants

	Present
Emergents	<input checked="" type="checkbox"/>
Floating	<input checked="" type="checkbox"/>
Plant Removal	

If Applicable (Low Water Level): EXPOSED LAKE BED ZONE

	Present
Canopy	
Shrubs	
Herbaceous	

Disturbed

Plants (Mowed or Removed)	
Sediment (Tilled or Dug)	

Date Lake Name WBIC

Parcel ID Observers

RIPARIAN ZONE

Percent Cover in Riparian

	Percent	(0-100)
Canopy	<input type="text" value="50"/>	<input type="text" value="20"/>
Shrub	<input type="text" value="10"/>	<input type="text"/>
Shrub/Herbaceous	<input type="text" value="60"/>	<input type="text"/>
Impervious Surface	<input type="text" value="0"/>	<input type="text"/>
Manicured Lawn	<input type="text" value="40"/>	<input type="text"/>
Agriculture	<input type="text" value="0"/>	<input type="text"/>
Other (e.g., duff, soil, mulch)	<input type="text" value="0"/>	<input type="text"/>

Description:

Human Structures in Riparian

	Number
Buildings	<input type="text" value="0"/>
Boats on Shore	<input type="text" value="0"/>
Fire Pits	<input type="text" value="0"/>
Other	<input type="text" value="0"/>

Description:

Runoff Concerns in Riparian or Entire Parcel

	Present in Riparian	Present out of Riparian
Point Source	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Channelized Water Flow/Gully	<input type="checkbox"/>	<input type="checkbox"/>
Stair/Trail/Road to Lake	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Lawn/Soil Sloping to Lake	<input type="checkbox"/>	<input type="checkbox"/>
Bare Soil	<input type="checkbox"/>	<input type="checkbox"/>
Sand/Silt Deposits	<input type="checkbox"/>	<input type="checkbox"/>
Other	<input type="checkbox"/>	<input type="checkbox"/>

Description:

Notes:

storm water drain in rip rap

BANK ZONE

	Length (ft)
Vertical Sea Wall	<input type="text" value="0"/>
Rip Rap	<input type="text" value="40"/>
Other Erosion Control Structures	<input type="text" value="0"/>
Artificial Beach	<input type="text" value="0"/>
Bank Erosion >1 ft face	<input type="text" value="0"/>
Bank Erosion <1 ft face	<input type="text" value="0"/>

LITTORAL ZONE

Human Structures

	Number
Piers	<input type="text" value="0"/>
Boat Lifts	<input type="text" value="0"/>
Boat Shelters	<input type="text" value="0"/>
Swim Rafts/Water Trampolines	<input type="text" value="0"/>
Boathouses (Over Water)	<input type="text" value="0"/>
Marinas	<input type="text" value="0"/>
Other	<input type="text" value="0"/>

Description:

Aquatic Plants

	Present
Emergents	<input checked="" type="checkbox"/>
Floating	<input checked="" type="checkbox"/>
Plant Removal	<input type="checkbox"/>

If Applicable (Low Water Level): EXPOSED LAKE BED ZONE

Plants

	Present
Canopy	<input type="checkbox"/>
Shrubs	<input type="checkbox"/>
Herbaceous	<input type="checkbox"/>

Disturbed

Plants (Mowed or Removed)	<input type="checkbox"/>
Sediment (Tilled or Dug)	<input type="checkbox"/>

Date Lake Name W/BIC
 Parcel ID Observers

RIPARIAN ZONE

Percent Cover in Riparian

	Percent	(0-100)
Canopy	<input type="text" value="85"/>	<input type="text" value="15"/>
Shrub	<input type="text" value="10"/>	<input type="text" value="95"/>
Shrub/Herbaceous	<input type="text" value="5"/>	<input type="text" value="0"/>
Impervious Surface	<input type="text" value="0"/>	<input type="text" value="0"/>
Manicured Lawn	<input type="text" value="0"/>	<input type="text" value="0"/>
Agriculture	<input type="text" value="0"/>	<input type="text" value="0"/>
Other (e.g., duff, soil, mulch)	<input type="text" value="0"/>	<input type="text" value="0"/>

Description:

Human Structures in Riparian

	Number
Buildings	<input type="text" value="1"/>
Boats on Shore	<input type="text" value="0"/>
Fire Pits	<input type="text" value="0"/>
Other	<input type="text" value="1"/>

Dam structure

Description:

Runoff Concerns in Riparian or Entire Parcel

	Present in Riparian	Present out of Riparian
Point Source	<input type="text"/>	<input type="text"/>
Channelized Water Flow/Gully	<input type="text"/>	<input type="text"/>
Stair/Trail/Road to Lake	<input type="text"/>	<input type="text"/>
Lawn/Soil Sloping to Lake	<input checked="" type="checkbox"/>	<input type="text"/>
Bare Soil	<input checked="" type="checkbox"/>	<input type="text"/>
Sand/Silt Deposits	<input type="text"/>	<input type="text"/>
Other	<input type="text"/>	<input type="text"/>

Description:

Notes:

BANK ZONE

	Length (ft)
Vertical Sea Wall	<input type="text" value="150"/>
Rip Rap	<input type="text" value="100"/>
Other Erosion Control Structures	<input type="text" value="0"/>
Artificial Beach	<input type="text" value="0"/>
Bank Erosion >1 ft face	<input type="text" value="0"/>
Bank Erosion <1 ft face	<input type="text" value="0"/>

LITTORAL ZONE

Human Structures

	Number
Piers	<input type="text" value="0"/>
Boat Lifts	<input type="text" value="0"/>
Boat Shelters	<input type="text" value="0"/>
Swim Rafts/Water Trampolines	<input type="text" value="0"/>
Boathouses (Over Water)	<input type="text" value="0"/>
Marinas	<input type="text" value="0"/>
Other	<input type="text" value="1"/>

Description:

Aquatic Plants

Emergents	<input type="text" value="Present"/>
Floating	<input type="text"/>
Plant Removal	<input type="text"/>

If Applicable (Low Water Level): EXPOSED LAKE BED ZONE

Plants

Canopy	<input type="text" value="Present"/>
Shrubs	<input type="text"/>
Herbaceous	<input type="text"/>

Disturbed

Plants (Mowed or Removed)	<input type="text"/>
Sediment (Tilled or Dug)	<input type="text"/>

Date Lake Name WBIC

Parcel ID Observers

RIPARIAN ZONE

Percent Cover in Riparian

	Percent (0-100)
Canopy	<input type="text" value="85"/>
Shrub	<input type="text" value="40"/>
Shrub/Herbaceous	<input type="text" value="80"/>
Impervious Surface	<input type="text" value="15"/>
Manicured Lawn	<input type="text" value="5"/>
Agriculture	<input type="text" value="0"/>
Other (e.g., duff, soil, mulch)	<input type="text" value="0"/>

Description:

Human Structures in Riparian

	Number
Buildings	<input type="text" value="0"/>
Boats on Shore	<input type="text" value="0"/>
Fire Pits	<input type="text" value="0"/>
Other	<input type="text" value="0"/>

Description:

Runoff Concerns in Riparian or Entire Parcel

	Present in Riparian	Present out of Riparian
Point Source	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Channelized Water Flow/Gully	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Stair/Trail/Road to Lake	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Lawn/Soil Sloping to Lake	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Bare Soil	<input type="checkbox"/>	<input type="checkbox"/>
Sand/Silt Deposits	<input type="checkbox"/>	<input type="checkbox"/>
Other	<input type="checkbox"/>	<input type="checkbox"/>

Description:

Notes:

submerged vegetation throughout

BANK ZONE

	Length (ft)
Vertical Sea Wall	<input type="text" value="10"/>
Rip Rap	<input type="text" value="0"/>
Other Erosion Control Structures	<input type="text" value="0"/>
Artificial Beach	<input type="text" value="0"/>
Bank Erosion >1 ft face	<input type="text" value="0"/>
Bank Erosion <1 ft face	<input type="text" value="0"/>

LITTORAL ZONE

Human Structures

	Number
Piers	<input type="text" value="0"/>
Boat Lifts	<input type="text" value="0"/>
Boat Shelters	<input type="text" value="0"/>
Swim Rafts/Water Trampolines	<input type="text" value="0"/>
Boathouses (Over Water)	<input type="text" value="0"/>
Marinas	<input type="text" value="0"/>
Other	<input type="text" value="0"/>

Description:

Aquatic Plants

	Present
Emergents	<input checked="" type="checkbox"/>
Floating	<input checked="" type="checkbox"/>
Plant Removal	<input type="checkbox"/>

If Applicable (Low Water Level): EXPOSED LAKE BED ZONE

Plants

	Present
Canopy	<input type="checkbox"/>
Shrubs	<input type="checkbox"/>
Herbaceous	<input type="checkbox"/>

Disturbed

Plants (Mowed or Removed)	<input type="checkbox"/>
Sediment (Tilled or Dug)	<input type="checkbox"/>

Date Lake Name W/BIC
 Parcel ID Observers

RIPARIAN ZONE

Percent Cover in Riparian

	Percent	(0-100)
Canopy	<input type="text" value="45"/>	<input type="text" value="80"/>
Shrub	<input type="text" value="45"/>	<input type="text" value="90"/>
Shrub/Herbaceous	<input type="text" value="0"/>	<input type="text" value="10"/>
Impervious Surface	<input type="text" value="0"/>	<input type="text" value="0"/>
Manicured Lawn	<input type="text" value="0"/>	<input type="text" value="0"/>
Agriculture	<input type="text" value="0"/>	<input type="text" value="0"/>
Other (e.g., duff, soil, mulch)	<input type="text" value="0"/>	<input type="text" value="0"/>

Description: _____

Human Structures in Riparian

	Number
Buildings	<input type="text" value="0"/>
Boats on Shore	<input type="text" value="0"/>
Fire Pits	<input type="text" value="0"/>
Other	<input type="text" value="0"/>

Description: _____

Runoff Concerns in Riparian or Entire Parcel

	Present in Riparian	Present out of Riparian
Point Source	<input type="text"/>	<input type="text"/>
Channelized Water Flow/Gully	<input type="text"/>	<input type="text"/>
Stair/Trail/Road to Lake	<input checked="" type="checkbox"/>	<input type="text"/>
Lawn/Soil Sloping to Lake	<input checked="" type="checkbox"/>	<input type="text"/>
Bare Soil	<input type="text"/>	<input type="text"/>
Sand/Silt Deposits	<input type="text"/>	<input type="text"/>
Other	<input type="text"/>	<input type="text"/>

Description: _____

Notes:

BANK ZONE

	Length (ft)
Vertical Sea Wall	<input type="text" value="0"/>
Rip Rap	<input type="text" value="150"/>
Other Erosion Control Structures	<input type="text" value="0"/>
Artificial Beach	<input type="text" value="0"/>
Bank Erosion >1 ft face	<input type="text" value="0"/>
Bank Erosion <1 ft face	<input type="text" value="0"/>

LITTORAL ZONE

Human Structures

	Number
Piers	<input type="text" value="0"/>
Boat Lifts	<input type="text" value="0"/>
Boat Shelters	<input type="text" value="0"/>
Swim Rafts/Water Trampolines	<input type="text" value="0"/>
Boathouses (Over Water)	<input type="text" value="0"/>
Marinas	<input type="text" value="0"/>
Other	<input type="text" value="1"/>

Description: _____ dam

Aquatic Plants

Emergents	<input type="text" value="Present"/>
Floating	<input type="text"/>
Plant Removal	<input type="text"/>

If Applicable (Low Water Level): EXPOSED LAKE BED ZONE

Plants

Canopy	<input type="text" value="Present"/>
Shrubs	<input type="text"/>
Herbaceous	<input type="text"/>

Disturbed

Plants (Mowed or Removed)	<input type="text"/>
Sediment (Tilled or Dug)	<input type="text"/>

Date Lake Name WBIC

Parcel ID Observers

RIPARIAN ZONE

Percent Cover in Riparian

	Percent	(0-100)
Canopy	<input type="text" value="20"/>	<input type="text" value="20"/>
Shrub	<input type="text" value="20"/>	<input type="text" value="20"/>
Shrub/Herbaceous	<input type="text" value="40"/>	<input type="text" value="40"/>
Impervious Surface	<input type="text" value="60"/>	<input type="text" value="60"/>
Manicured Lawn	<input type="text" value="0"/>	<input type="text" value="0"/>
Agriculture	<input type="text" value="0"/>	<input type="text" value="0"/>
Other (e.g., duff, soil, mulch)	<input type="text" value="0"/>	<input type="text" value="0"/>

Description:

Human Structures in Riparian

	Number
Buildings	<input type="text" value="1"/>
Boats on Shore	<input type="text" value="0"/>
Fire Pits	<input type="text" value="0"/>
Other	<input type="text" value="0"/>

Description:

Runoff Concerns in Riparian or Entire Parcel

	Present in Riparian	Present out of Riparian
Point Source	<input type="checkbox"/>	<input type="checkbox"/>
Channelized Water Flow/Gully	<input type="checkbox"/>	<input type="checkbox"/>
Stair/Trail/Road to Lake	<input type="checkbox"/>	<input type="checkbox"/>
Lawn/Soil Sloping to Lake	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Bare Soil	<input type="checkbox"/>	<input type="checkbox"/>
Sand/Silt Deposits	<input type="checkbox"/>	<input type="checkbox"/>
Other	<input type="checkbox"/>	<input type="checkbox"/>

Description:

Notes:

BANK ZONE

	Length (ft)
Vertical Sea Wall	<input type="text" value="125"/>
Rip Rap	<input type="text" value="150"/>
Other Erosion Control Structures	<input type="text" value="0"/>
Artificial Beach	<input type="text" value="0"/>
Bank Erosion >1 ft face	<input type="text" value="0"/>
Bank Erosion <1 ft face	<input type="text" value="0"/>

LITTORAL ZONE

Human Structures

	Number
Piers	<input type="text" value="0"/>
Boat Lifts	<input type="text" value="0"/>
Boat Shelters	<input type="text" value="0"/>
Swim Rafts/Water Trampolines	<input type="text" value="0"/>
Boathouses (Over Water)	<input type="text" value="0"/>
Marinas	<input type="text" value="0"/>
Other	<input type="text" value="0"/>

Description:

Aquatic Plants

Emergents	<input type="text" value="Present"/>
Floating	<input type="text"/>
Plant Removal	<input type="text"/>

If Applicable (Low Water Level): EXPOSED LAKE BED ZONE

Plants

Canopy	<input type="text" value="Present"/>
Shrubs	<input type="text"/>
Herbaceous	<input type="text"/>

Disturbed

Plants (Mowed or Removed)	<input type="text"/>
Sediment (Tilled or Dug)	<input type="text"/>

Date Lake Name W/BIC

Parcel ID Observers

RIPARIAN ZONE

Percent Cover in Riparian

	Percent (0-100)
Canopy	<input type="text" value="85"/>
Shrub	<input type="text" value="30"/>
Shrub/Herbaceous	<input type="text" value="50"/>
Impervious Surface	<input type="text" value="80"/>
Manicured Lawn	<input type="text" value="20"/>
Agriculture	<input type="text" value="0"/>
Other (e.g., duff, soil, mulch)	<input type="text" value="0"/>

Description:

Human Structures in Riparian

	Number
Buildings	<input type="text" value="0"/>
Boats on Shore	<input type="text" value="0"/>
Fire Pits	<input type="text" value="0"/>
Other	<input type="text" value="0"/>

Description:

Runoff Concerns in Riparian or Entire Parcel

	Present in Riparian	Present out of Riparian
Point Source	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Channelized Water Flow/Gully	<input type="checkbox"/>	<input type="checkbox"/>
Stair/Trail/Road to Lake	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Lawn/Soil Sloping to Lake	<input type="checkbox"/>	<input type="checkbox"/>
Bare Soil	<input type="checkbox"/>	<input type="checkbox"/>
Sand/Silt Deposits	<input type="checkbox"/>	<input type="checkbox"/>
Other	<input type="checkbox"/>	<input type="checkbox"/>

Description:

Notes:

impervious surface includes foot bridge

BANK ZONE

	Length (ft)
Vertical Sea Wall	<input type="text" value="0"/>
Rip Rap	<input type="text" value="10"/>
Other Erosion Control Structures	<input type="text" value="0"/>
Artificial Beach	<input type="text" value="0"/>
Bank Erosion >1 ft face	<input type="text" value="90"/>
Bank Erosion <1 ft face	<input type="text" value="0"/>

LITTORAL ZONE

Human Structures

	Number
Piers	<input type="text" value="0"/>
Boat Lifts	<input type="text" value="0"/>
Boat Shelters	<input type="text" value="0"/>
Swim Rafts/Water Trampolines	<input type="text" value="0"/>
Boathouses (Over Water)	<input type="text" value="0"/>
Marinas	<input type="text" value="0"/>
Other	<input type="text" value="0"/>

Description:

Aquatic Plants

Emergents	<input type="text" value="Present"/>
Floating	<input type="text" value=""/>
Plant Removal	<input type="text" value=""/>

If Applicable (Low Water Level): EXPOSED LAKE BED ZONE

Plants

Canopy	<input type="text" value="Present"/>
Shrubs	<input type="text" value=""/>
Herbaceous	<input type="text" value=""/>

Disturbed

Plants (Mowed or Removed)	<input type="text" value=""/>
Sediment (Tilled or Dug)	<input type="text" value=""/>

Date Lake Name WBIC

Parcel ID Observers

RIPARIAN ZONE

Percent Cover in Riparian

	Percent	Length (ft)
Canopy	<input type="text" value="70"/>	<input type="text" value="0"/>
Shrub	<input type="text" value="20"/>	<input type="text" value="0"/>
Herbaceous	<input type="text" value="100"/>	<input type="text" value="0"/>
Shrub/Herbaceous	<input type="text" value="90"/>	<input type="text" value="0"/>
Impervious Surface	<input type="text" value="0"/>	<input type="text" value="0"/>
Manicured Lawn	<input type="text" value="0"/>	<input type="text" value="0"/>
Agriculture	<input type="text" value="0"/>	<input type="text" value="0"/>
Other (e.g., duff, soil, mulch)	<input type="text" value="10"/>	<input type="text" value="0"/>

Description:

Human Structures in Riparian

	Number
Buildings	<input type="text" value="0"/>
Boats on Shore	<input type="text" value="0"/>
Fire Pits	<input type="text" value="0"/>
Other	<input type="text" value="0"/>

Description:

Runoff Concerns in Riparian or Entire Parcel

	Present in Riparian	Present out of Riparian
Point Source	<input type="text"/>	<input type="text"/>
Channelized Water Flow/Gully	<input type="text"/>	<input type="text"/>
Stair/Trail/Road to Lake	<input type="text"/>	<input type="text"/>
Lawn/Soil Sloping to Lake	<input checked="" type="checkbox"/>	<input type="text"/>
Bare Soil	<input type="text"/>	<input type="text"/>
Sand/Silt Deposits	<input type="text"/>	<input type="text"/>
Other	<input type="text"/>	<input type="text"/>

Description:

Notes:

BANK ZONE

	Length (ft)
Vertical Sea Wall	<input type="text" value="0"/>
Rip Rap	<input type="text" value="0"/>
Other Erosion Control Structures	<input type="text" value="0"/>
Artificial Beach	<input type="text" value="0"/>
Bank Erosion >1 ft face	<input type="text" value="0"/>
Bank Erosion <1 ft face	<input type="text" value="0"/>

LITTORAL ZONE

	Number
Piers	<input type="text" value="0"/>
Boat Lifts	<input type="text" value="0"/>
Boat Shelters	<input type="text" value="0"/>
Swim Rafts/Water Trampolines	<input type="text" value="0"/>
Boathouses (Over Water)	<input type="text" value="0"/>
Marinas	<input type="text" value="0"/>
Other	<input type="text" value="0"/>

Description:

Aquatic Plants

	Present
Emergents	<input checked="" type="checkbox"/>
Floating	<input type="text"/>
Plant Removal	<input type="text"/>

If Applicable (Low Water Level): EXPOSED LAKE BED ZONE

	Present
Canopy	<input type="text"/>
Shrubs	<input checked="" type="checkbox"/>
Herbaceous	<input checked="" type="checkbox"/>

Disturbed

	Present
Plants (Mowed or Removed)	<input checked="" type="checkbox"/>
Sediment (Tilled or Dug)	<input type="text"/>

Date Lake Name WBIC

Parcel ID Observers

RIPARIAN ZONE

Percent Cover in Riparian

	Percent	(0-100)
Canopy	<input type="text" value="60"/>	<input type="text" value="80"/>
Shrub	<input type="text" value="30"/>	<input type="text"/>
Shrub/Herbaceous	<input type="text"/>	<input type="text" value="90"/>
Impervious Surface	<input type="text" value="5"/>	<input type="text"/>
Manicured Lawn	<input type="text" value="5"/>	<input type="text"/>
Agriculture	<input type="text" value="0"/>	<input type="text"/>
Other (e.g., duff, soil, mulch)	<input type="text" value="0"/>	<input type="text"/>

Description:

Human Structures in Riparian

	Number
Buildings	<input type="text" value="0"/>
Boats on Shore	<input type="text" value="0"/>
Fire Pits	<input type="text" value="0"/>
Other	<input type="text" value="1"/>

Description:

Runoff Concerns in Riparian or Entire Parcel

	Present in Riparian	Present out of Riparian
Point Source	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Channelized Water Flow/Gully	<input type="checkbox"/>	<input type="checkbox"/>
Stair/Trail/Road to Lake	<input type="checkbox"/>	<input type="checkbox"/>
Lawn/Soil Sloping to Lake	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Bare Soil	<input type="checkbox"/>	<input type="checkbox"/>
Sand/Silt Deposits	<input type="checkbox"/>	<input type="checkbox"/>
Other	<input type="checkbox"/>	<input type="checkbox"/>

Description:

Notes:

submerged vegetation consistent throughout; culvert as point source

BANK ZONE

	Length (ft)
Vertical Sea Wall	<input type="text" value="0"/>
Rip Rap	<input type="text" value="0"/>
Other Erosion Control Structures	<input type="text" value="0"/>
Artificial Beach	<input type="text" value="0"/>
Bank Erosion >1 ft face	<input type="text" value="0"/>
Bank Erosion <1 ft face	<input type="text" value="0"/>

LITTORAL ZONE

Human Structures

	Number
Piers	<input type="text" value="0"/>
Boat Lifts	<input type="text" value="0"/>
Boat Shelters	<input type="text" value="0"/>
Swim Rafts/Water Trampolines	<input type="text" value="0"/>
Boathouses (Over Water)	<input type="text" value="0"/>
Marinas	<input type="text" value="0"/>
Other	<input type="text" value="0"/>

Description:

Aquatic Plants

Emergents	<input type="text" value="Present"/>
Floating	<input type="text"/>
Plant Removal	<input type="text"/>

If Applicable (Low Water Level): EXPOSED LAKE BED ZONE

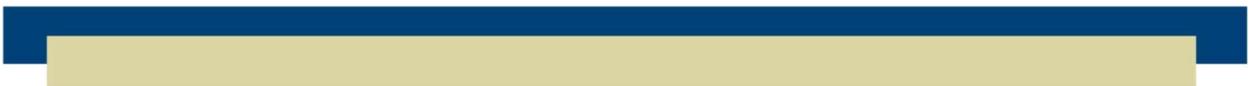
Plants

Canopy	<input type="text" value="Present"/>
Shrubs	<input type="text"/>
Herbaceous	<input type="text"/>

Disturbed

Plants (Mowed or Removed)	<input type="text"/>
Sediment (Tilled or Dug)	<input type="text"/>

**APPENDIX B
PHOTOGRAPH LOG**



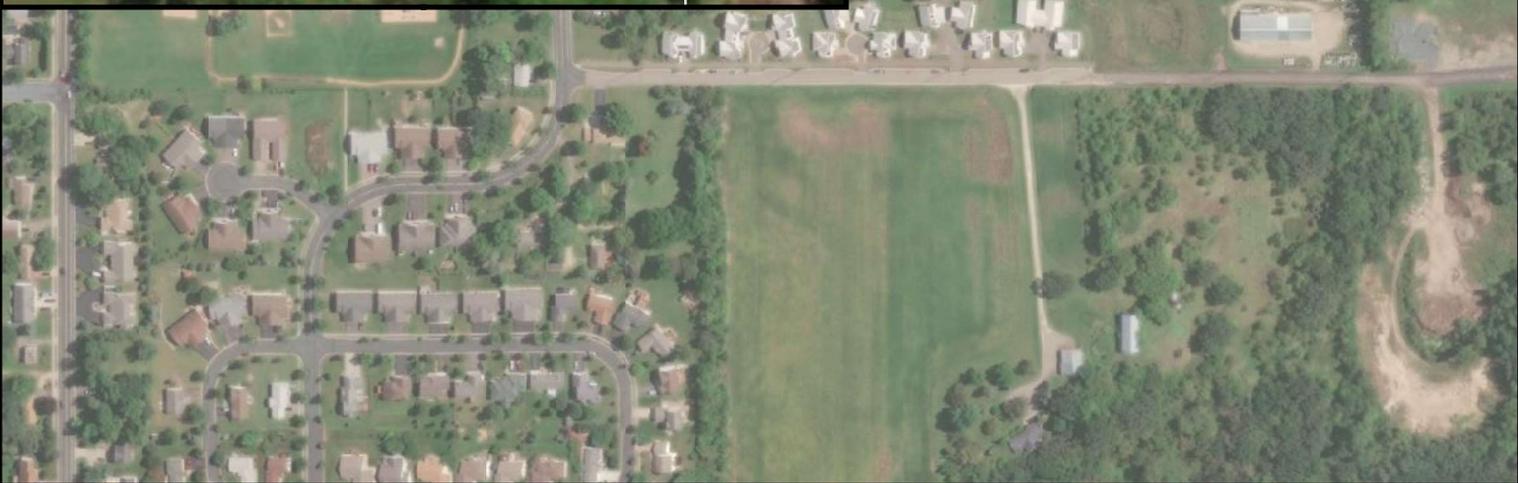
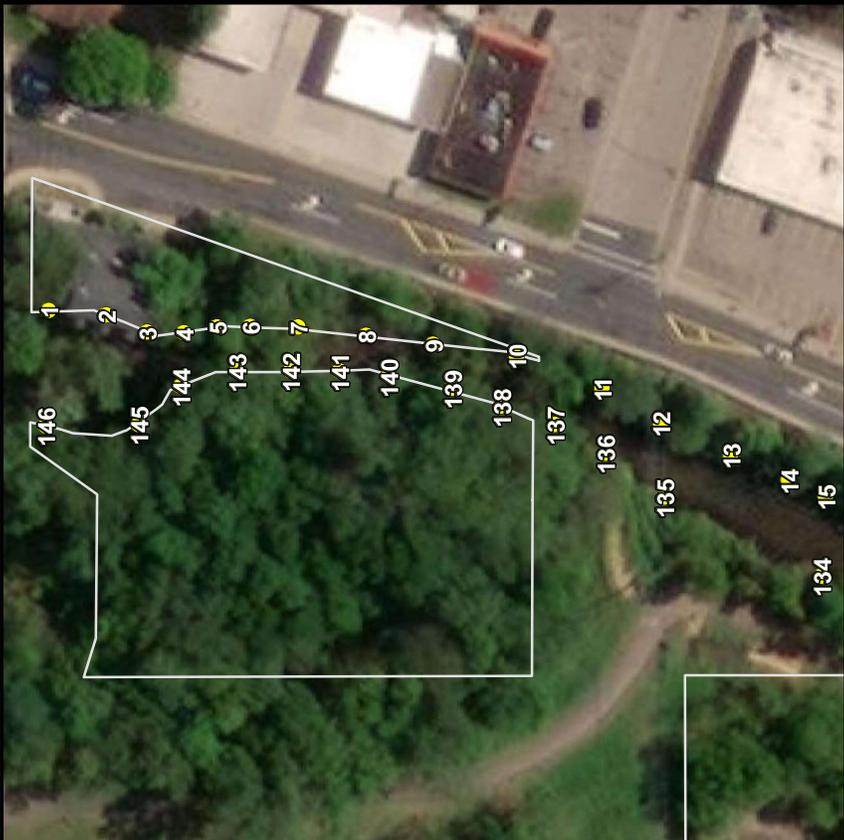
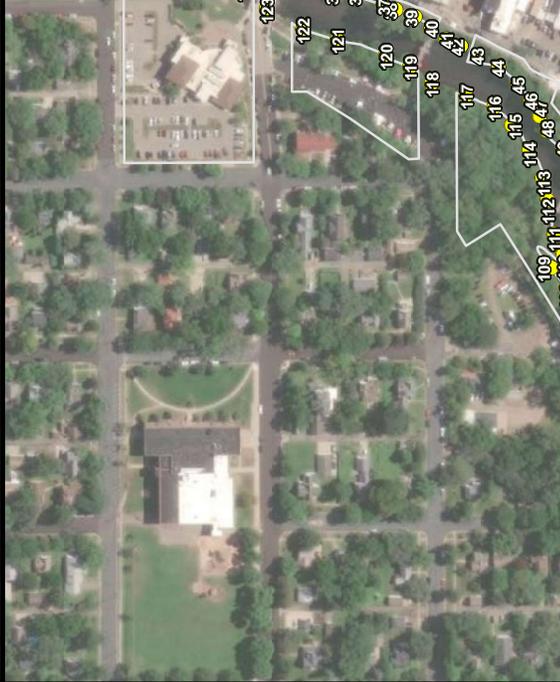
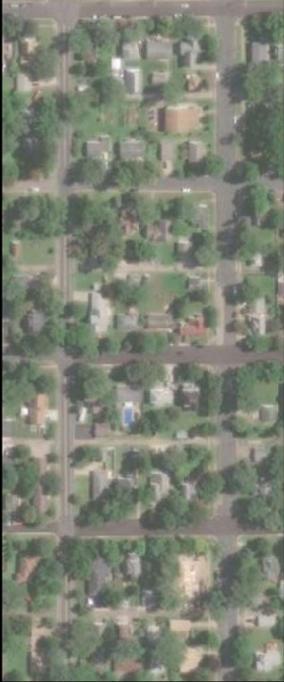


Table B-1. Photo Point Coordinates

Photo Point No.	Parcel No.	X Coordinate (° Longitude)	Y Coordinate (° Latitude)
001	276010970100	-92.6243306	44.86247252
002	276010970100	-92.62434033	44.86238978
003	276010970100	-92.62437587	44.86233134
004	276010970100	-92.62437711	44.8622782
005	276010970100	-92.62436559	44.862231
006	276010970100	-92.62436512	44.86218341
007	276010970100	-92.62436635	44.86211453
008	276010970100	-92.6243843	44.86201683
009	276010970100	-92.62440271	44.86192047
010	276010970100	-92.62442577	44.86180094
011	None	-92.62449194	44.86167853
012	None	-92.62456312	44.86159453
013	None	-92.62462718	44.86149418
014	None	-92.62467965	44.86141094
015	None	-92.62471259	44.86135794
016	None	-92.62474741	44.86129982
017	None	-92.62481465	44.86118353
018	None	-92.62489524	44.86104441
019	None	-92.624947	44.86094624
020	None	-92.62503806	44.86084218
021	None	-92.62514118	44.86074188
022	276011260300	-92.62524259	44.86065835
023	276011260300	-92.62529538	44.86058945
024	276011260300	-92.62539059	44.86049083
025	276011260300	-92.62553541	44.860355
026	276011260300	-92.62560318	44.86025888
027	276011260300	-92.62572883	44.86014559
028	276010970400	-92.62584318	44.86006036
029	276010970500	-92.62592194	44.85998894
030	276010970500	-92.62603389	44.85989065
031	None	-92.62615724	44.859789
032	None	-92.62625853	44.8596934
033	276011260600	-92.6263884	44.85960551
034	276011260600	-92.62644057	44.85952501
035	276011260600	-92.62653255	44.85944702
036	276011260600	-92.6265377	44.85931422
037	276011260600	-92.62661738	44.85915237
038	276011260600	-92.6266501	44.85907735
039	276011260600	-92.62671157	44.8589684
040	276011260600	-92.62679622	44.85887532
041	None	-92.62688986	44.85878922
042	None	-92.62694849	44.85870532
043	276011260600	-92.62701976	44.85861154
044	276011260600	-92.62711881	44.85848895

Photo Point No.	Parcel No.	X Coordinate (° Longitude)	Y Coordinate (° Latitude)
045	276011260600	-92.62725845	44.85838091
046	276011260600	-92.62738986	44.85830868
047	276011260600	-92.6275165	44.85825504
048	276011260600	-92.627635	44.85821532
049	276011260600	-92.627791	44.85812586
050	276011260600	-92.62794163	44.85805413
051	276011260600	-92.62813386	44.85798063
052	276010120900	-92.62845772	44.85789045
053	276010120900	-92.6285595	44.85783172
054	276011260600	-92.62878113	44.85777517
055	276011260600	-92.6290069	44.8576799
056	276011260600	-92.62936645	44.85759958
057	276011260600	-92.62956563	44.85751499
058	276011260600	-92.62977108	44.85734649
059	276011260600	-92.6299834	44.85718753
060	276011260600	-92.62993514	44.85716332
061	276011260600	-92.62978341	44.85720805
062	276011260600	-92.62961723	44.85723819
063	276011260600	-92.62943268	44.85725928
064	276011260600	-92.62929399	44.85718182
065	276011260600	-92.62913336	44.85713232
066	276011260600	-92.62896112	44.85702014
067	276011260600	-92.62885894	44.85682729
068	276011260600	-92.6289773	44.85663482
069	276011260600	-92.62891741	44.85649882
070	276010120900	-92.62881415	44.85634997
071	276010120900	-92.62883398	44.85616468
072	276011260600	-92.6288744	44.85596229
073	276011260600	-92.62890169	44.85579968
074	276011260600	-92.62892847	44.85563622
075	276011260600	-92.62897837	44.85549214
076	276010120900	-92.62904798	44.85526817
077	276010120900	-92.62917487	44.8551442
078	276010120900	-92.6293482	44.85498191
079	276011110600	-92.62963085	44.85482873
080	276011110600	-92.62979264	44.85480887
081	276011110600	-92.62997696	44.85481765
082	276011110600	-92.63033441	44.85489494
083	276011110600	-92.63058377	44.85499861
084	276011110600	-92.63092653	44.8552183
085	276011110600	-92.63110905	44.85541555
086	276011110600	-92.63150939	44.85556159
087	276011110600	-92.63177521	44.85554884
088	276011110600	-92.63207992	44.85550251
089	276011110600	-92.63230189	44.85541084
090	276011040100	-92.63250898	44.85590449

Photo Point No.	Parcel No.	X Coordinate (° Longitude)	Y Coordinate (° Latitude)
091	276011030500	-92.63226494	44.85593615
092	276011030500	-92.63203608	44.85595763
093	276011030500	-92.63184347	44.85597337
094	276011030500	-92.6316813	44.85604234
095	276011030500	-92.63148587	44.85617087
096	276011030500	-92.63141195	44.85629958
097	276011030500	-92.6313192	44.8566228
098	276011030500	-92.63108413	44.85685198
099	276011030500	-92.63061663	44.85713544
100	276011030500	-92.63032344	44.85727877
101	276011030500	-92.63017119	44.8573728
102	276011030500	-92.63010505	44.85750901
103	276011030500	-92.6300487	44.85765826
104	276011030500	-92.62990065	44.85779719
105	276011030500	-92.62963251	44.85791109
106	276011030500	-92.62935491	44.85794732
107	276011030500	-92.62915202	44.85798783
108	276011030500	-92.62890064	44.8581077
109	276011030500	-92.62874159	44.85819014
110	276011030500	-92.62863436	44.85812226
111	276011030500	-92.62847123	44.85817474
112	276011030500	-92.62819467	44.85821199
113	276011030500	-92.62801608	44.85823874
114	276011030500	-92.62777855	44.85831617
115	276011030500	-92.62758938	44.8584147
116	276011030500	-92.62744556	44.85851672
117	276011030500	-92.62734887	44.85867857
118	276011030500	-92.62725049	44.85887594
119	276011030500	-92.62711348	44.8589998
120	276011030500	-92.62702399	44.85913669
121	276011030500	-92.62689385	44.85941367
122	276011030500	-92.62680712	44.85961214
123	None	-92.62664069	44.85982045
124	276010600800	-92.62646854	44.85996726
125	276010600800	-92.62629167	44.8600796
126	276010600800	-92.62608844	44.86020311
127	276010600800	-92.62587528	44.86033654
128	276010600500	-92.62570141	44.86047719
129	276010600500	-92.62560335	44.86056752
130	276010600500	-92.62550217	44.86066745
131	276010600500	-92.62537464	44.8607587
132	276010600500	-92.6252424	44.86089185
133	276010600500	-92.62509497	44.86104766
134	276010600100	-92.62487378	44.86136535
135	276010600100	-92.62471304	44.86158937
136	None	-92.62462359	44.86167491

Photo Point No.	Parcel No.	X Coordinate (° Longitude)	Y Coordinate (° Latitude)
137	None	-92.62456519	44.86174628
138	276010470100	-92.62452832	44.86182364
139	276010470100	-92.62449098	44.86189341
140	276010470100	-92.6244665	44.86198479
141	276010470100	-92.62445568	44.86205555
142	276010470100	-92.62445499	44.86212585
143	276010470100	-92.624455	44.86220248
144	276010470100	-92.62448477	44.86228354
145	276010470100	-92.62456145	44.86234431
146	276010470100	-92.62456337	44.86247736
147	276011040400	-92.63448129	44.85516278
148	276011040400	-92.63475281	44.85516798
149	276011040400	-92.6350254	44.85512365
150	276011040400	-92.63541993	44.85505885
151	276011040400	-92.63603683	44.8549514
152	276011040400	-92.63650026	44.85478429
153	276011120700	-92.63424871	44.85484442
154	276011120700	-92.63344852	44.85508581
155	276011040400	-92.63369448	44.85541656
156	276011040400	-92.63344109	44.85552211
157	276011040200	-92.63305709	44.85576312



Photo Point #1 (Parcel No. 276010970100)



Photo Point #2 (Parcel No. 276010970100)



Photo Point #3 (Parcel No. 276010970100)



Photo Point #4 (Parcel No. 276010970100)



Photo Point #5 (Parcel No. 276010970100)



Photo Point #6 (Parcel No. 276010970100)



Photo Point #7 (Parcel No. 276010970100)



Photo Point #8 (Parcel No. 276010970100)



Photo Point #9 (Parcel No. 276010970100)



Photo Point #10 (Parcel No. 276010970100)



Photo Point #11 (Parcel No. – none applicable)



Photo Point #12 (Parcel No. – none applicable)



Photo Point #13 (Parcel No. – none applicable)



Photo Point #14 (Parcel No. – none applicable)



Photo Point #15 (Parcel No. – none applicable)



Photo Point #16 (Parcel No. – none applicable)



Photo Point #17 (Parcel No. – none applicable)



Photo Point #18 (Parcel No. – none applicable)



Photo Point #19 (Parcel No. – none applicable)



Photo Point #20 (Parcel No. – none applicable)



Photo Point #21 (Parcel No. 276011260300)



Photo Point #22 (Parcel No. 276011260300)



Photo Point #23 (Parcel No. 276011260300)



Photo Point #24 (Parcel No. 276011260300)



Photo Point #25 (Parcel No. 276011260300)



Photo Point #26 (Parcel No. 276011260300)



Photo Point #27 (Parcel No. 276011260300)



Photo Point #28 (Parcel No. 276010970400)



Photo Point #29 (Parcel No. 276010970500)



Photo Point #30 (Parcel No. 276010970500)



Photo Point #31 (Parcel No. – none applicable)



Photo Point #32 (Parcel No. – none applicable)



Photo Point #33 (Parcel No. 276011260600)



Photo Point #34 (Parcel No. 276011260600)



Photo Point #35 (Parcel No. 276011260600)



Photo Point #36 (Parcel No. 276011260600)



Photo Point #37 (Parcel No. 276011260600)



Photo Point #38 (Parcel No. 276011260600)



Photo Point #39 (Parcel No. 276011260600)



Photo Point #40 (Parcel No. 276011260600)



Photo Point #41 (Parcel No. – none applicable)



Photo Point #42 (Parcel No. – none applicable)



Photo Point #43 (Parcel No. 276011260600-NE)



Photo Point #44 (Parcel No. 276011260600-NE)



Photo Point #45 (Parcel No. 276011260600-NE)



Photo Point #46 (Parcel No. 276011260600-NE)



Photo Point #47 (Parcel No. 276011260600-NE)



Photo Point #48 (Parcel No. 276011260600-NE)



Photo Point #49 (Parcel No. 276011260600-NE)



Photo Point #50 (Parcel No. 276011260600-NE)



Photo Point #51 (Parcel No. 276011260600-NE)



Photo Point #52 (Parcel No. 276010120900)



Photo Point #53 (Parcel No. 276010120900)



Photo Point #54 (Parcel No. 276011260600-C)



Photo Point #55 (Parcel No. 276011260600-C)



Photo Point #56 (Parcel No. 276011260600-C)



Photo Point #57 (Parcel No. 276011260600-C)



Photo Point #58 (Parcel No. 276011260600-C)



Photo Point #59 (Parcel No. 276011260600-C)



Photo Point #60 (Parcel No. 276011260600-C)



Photo Point #61 (Parcel No. 276011260600-C)



Photo Point #62 (Parcel No. 276011260600-C)



Photo Point #63 (Parcel No. 276011260600-C)



Photo Point #64 (Parcel No. 276011260600-C)



Photo Point #65 (Parcel No. 276011260600-C)



Photo Point #66 (Parcel No. 276011260600-C)



Photo Point #67 (Parcel No. 276011260600-C)



Photo Point #68 (Parcel No. 276011260600-C)



Photo Point #69 (Parcel No. 276011260600-C)



Photo Point #70 (Parcel No. 276010120900)



Photo Point #71 (Parcel No. 276010120900)



Photo Point #72 (Parcel No. 276011260600-S)



Photo Point #73 (Parcel No. 276011260600-S)



Photo Point #74 (Parcel No. 276011260600-S)



Photo Point #75 (Parcel No. 276011260600-S)



Photo Point #76 (Parcel No. 276010120900)



Photo Point #77 (Parcel No. 276010120900)



Photo Point #78 (Parcel No. 276010120900)



Photo Point #79 (Parcel No. 276011110600)



Photo Point #80 (Parcel No. 276011110600)



Photo Point #81 (Parcel No. 276011110600)



Photo Point #82 (Parcel No. 276011110600)



Photo Point #83 (Parcel No. 276011110600)



Photo Point #84 (Parcel No. 276011110600)



Photo Point #85 (Parcel No. 276011110600)



Photo Point #86 (Parcel No. 276011110600)



Photo Point #87 (Parcel No. 276011110600)



Photo Point #88 (Parcel No. 276011110600)



Photo Point #89 (Parcel No. 276011110600)



Photo Point #90 (Parcel No. 276011040100)



Photo Point #91 (Parcel No. 276011030500-SW)



Photo Point #92 (Parcel No. 276011030500-SW)



Photo Point #93 (Parcel No. 276011030500-SW)



Photo Point #94 (Parcel No. 276011030500-SW)



Photo Point #95 (Parcel No. 276011030500-SW)



Photo Point #96 (Parcel No. 276011030500-SW)



Photo Point #97 (Parcel No. 276011030500-SW)



Photo Point #98 (Parcel No. 276011030500-SW)



Photo Point #99 (Parcel No. 276011030500-SW)



Photo Point #100 (Parcel No. 276011030500-SW)



Photo Point #101 (Parcel No. 276011030500-SW)



Photo Point #102 (Parcel No. 276011030500-SW)



Photo Point #103 (Parcel No. 276011030500-SW)



Photo Point #104 (Parcel No. 276011030500-SW)



Photo Point #105 (Parcel No. 276011030500-SW)



Photo Point #106 (Parcel No. – none applicable)



Photo Point #107 (Parcel No. 276011030500-C)

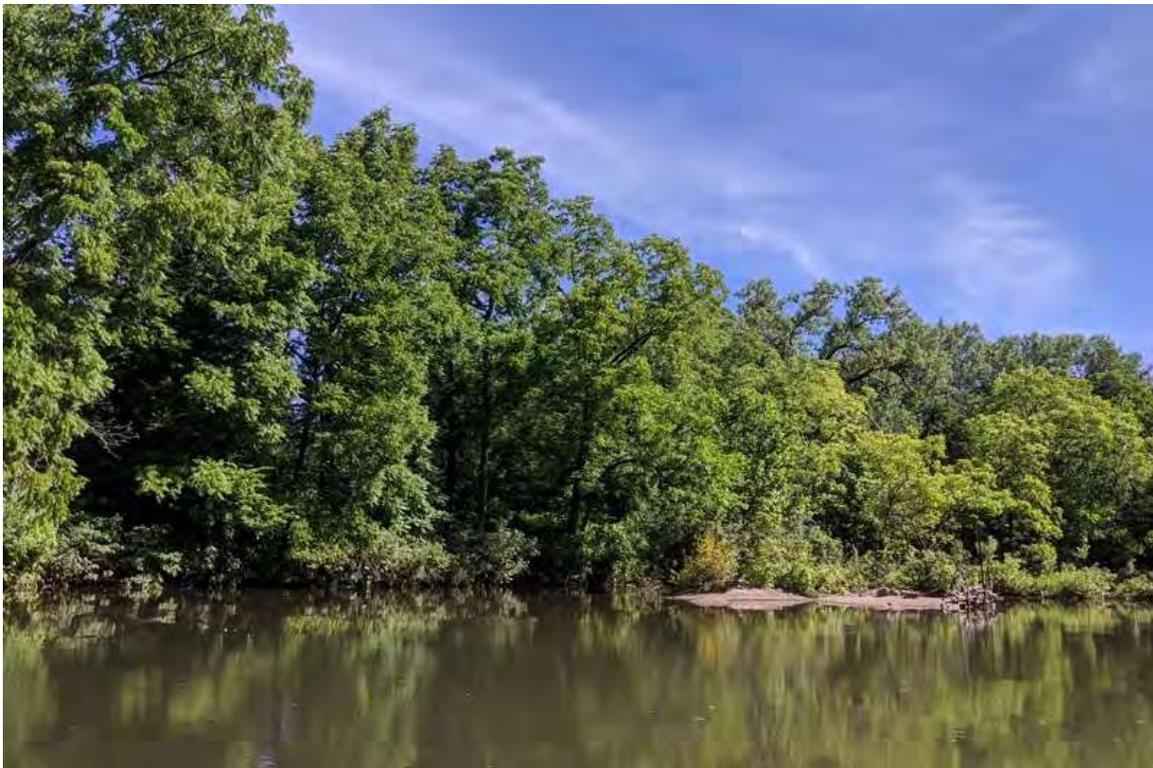


Photo Point #108 (Parcel No. 276011030500-C)



Photo Point #109 (Parcel No. 276011030500-C)

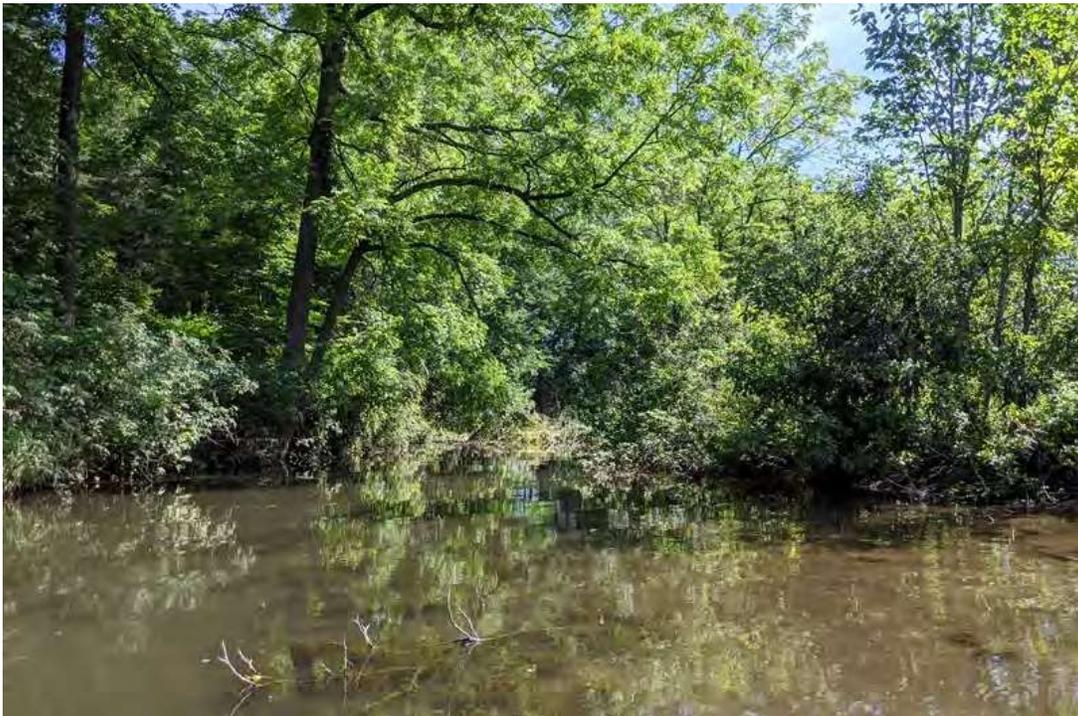


Photo Point #110 (Parcel No. 276011030500-C)



Photo Point #111 (Parcel No. 276011030500-C)



Photo Point #112 (Parcel No. 276011030500-C)



Photo Point #113 (Parcel No. 276011030500-C)



Photo Point #114 (Parcel No. 276011030500-C)



Photo Point #115 (Parcel No. 276011030500-C)



Photo Point #116 (Parcel No. 276011030500-C)



Photo Point #117 (Parcel No. 276011030500-C)



Photo Point #118 (Parcel No. – none applicable)



Photo Point #119 (Parcel No. 276011030500-NE)



Photo Point #120 (Parcel No. 276011030500-NE)



Photo Point #121 (Parcel No. 276011030500-NE)



Photo Point #122 (Parcel No. 276011030500-NE)



Photo Point #123 (Parcel No. – none applicable)



Photo Point #124 (Parcel No. 276010600800)



Photo Point #125 (Parcel No. 276010600800)



Photo Point #126 (Parcel No. 276010600800)



Photo Point #127 (Parcel No. 276010600800)



Photo Point #128 (Parcel No. 276010600500)



Photo Point #129 (Parcel No. 276010600500)



Photo Point #130 (Parcel No. 276010600500)



Photo Point #131 (Parcel No. 276010600500)



Photo Point #132 (Parcel No. 276010600500)



Photo Point #133 (Parcel No. 276010600500)



Photo Point #134 (Parcel No. 276010600100)



Photo Point #135 (Parcel No. – none applicable)



Photo Point #136 (Parcel No. – none applicable)



Photo Point #137 (Parcel No. 276010470100)



Photo Point #138 (Parcel No. 276010470100)



Photo Point #139 (Parcel No. 276010470100)



Photo Point #140 (Parcel No. 276010470100)



Photo Point #141 (Parcel No. 276010470100)



Photo Point #142 (Parcel No. 276010470100)



Photo Point #143 (Parcel No. 276010470100)



Photo Point #144 (Parcel No. 276010470100)



Photo Point #145 (Parcel No. 276010470100)

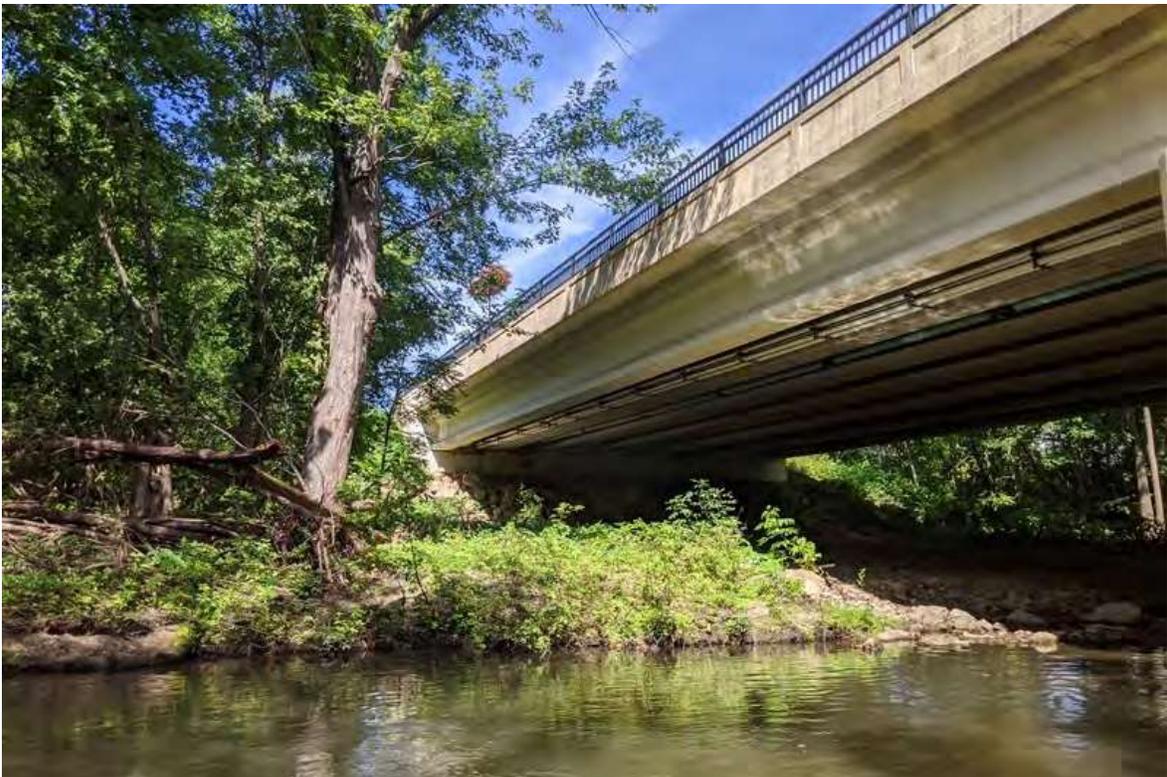


Photo Point #146 (Parcel No. 276010470100)



Photo Point #147 (Parcel No. 276011040400)



Photo Point #148 (Parcel No. 276011040400)



Photo Point #149 (Parcel No. 276011040400)



Photo Point #150 (Parcel No. 276011040400)



Photo Point #151 (Parcel No. 276011040400)



Photo Point #152 (Parcel No. 276011040400)



Photo Point #153 (Parcel No. 276011120700)



Photo Point #154 (Parcel No. 276011120700)



Photo Point #155 (Parcel No. 276011040400)



Photo Point #156 (Parcel No. 276011040400)



Photo Point #157 (Parcel No. 276011040200)