Rum River Field Assessment

throughout the
Upper Rum River WMO Area

Prepared by:

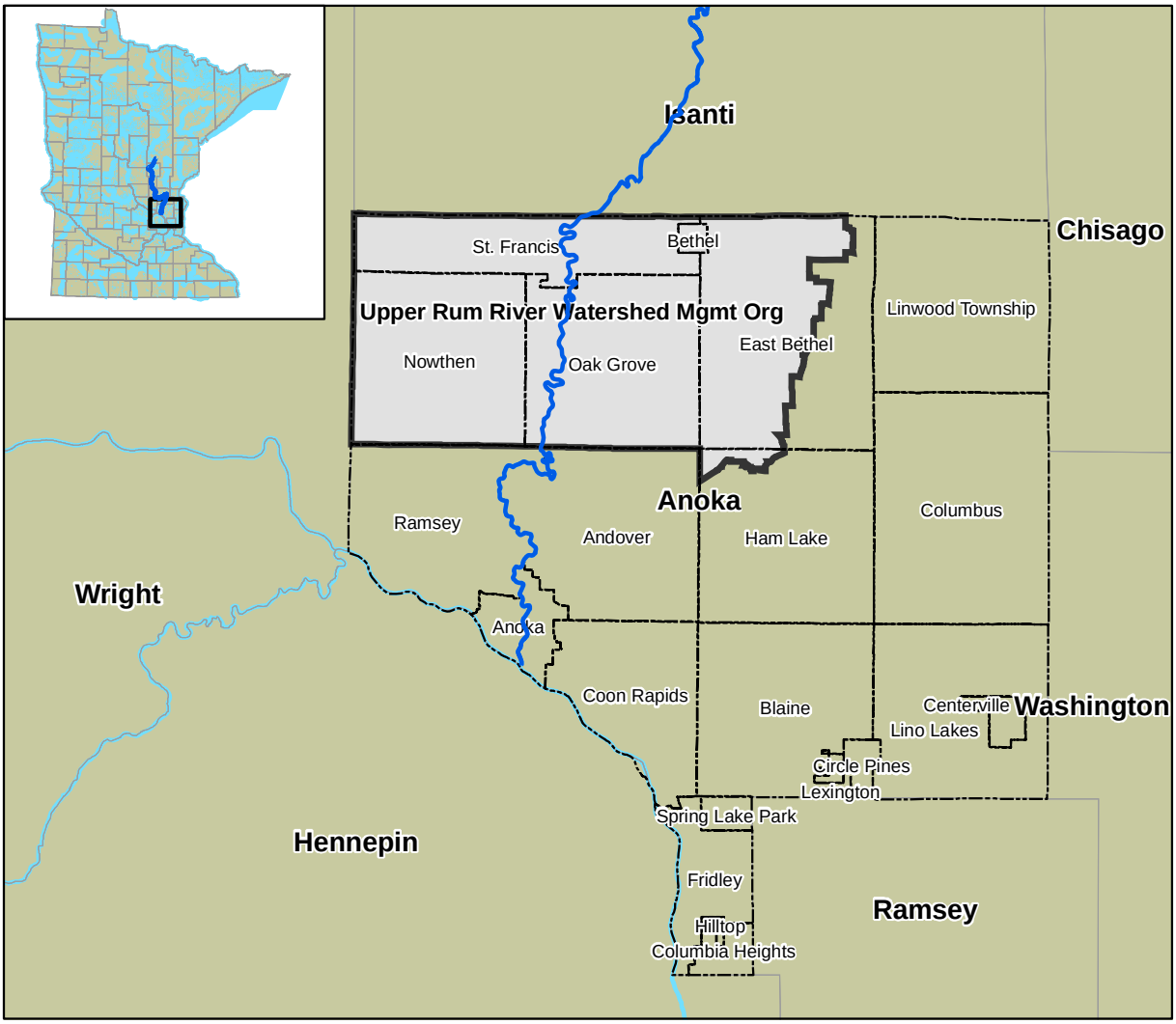
for the

Upper Rum River Watershed Management Organization

Contents

Project Location

Portion of the Rum River studied was from the Isanti-Anoka County boundary to the County Road 7 bridge just south of the Upper Rum River WMO boundary.



Executive Summary

The purpose of this project was to locate erosion and other issues that could be negatively impacting Rum River water quality, fisheries, or scenic qualities. Staff from the Anoka Conservation District surveyed the Rum River by boat throughout the Upper Rum River Watershed Management Organization's (URRWMO) jurisdictional area. Significant features that were marked by GPS included erosion, possible violations of scenic and recreational river laws or other waters laws, outfall pipes and other direct discharges to the river, and recreational features. Geo-tagged photos were taken of mapped features. The information is compiled in a GIS and maps were produced.

Wherever moderate or severe riverbank erosion was found the landowner was offered technical and financial assistance. Each property owner was sent a customized letter that included an initial assessment of the magnitude of the problem and possible solutions, photos, discussion of assistance available, and a brochure about correcting riverbank erosion. Each homeowner was offered a free on site consultation by Anoka Conservation District staff. Four of the 11 properties owners responded to the letter and requested more information.

This stretch of the Rum River studied is designated as a state scenic and recreational river. Special protections, such as structure setbacks and vegetative clearing restrictions apply. Three possible violations that were documented during the field survey were forwarded to the appropriate enforcement authority. The information forwarded included a map, photo, summary, and landowner information.

Summary of project accomplishments.

16	River miles were studied.
15	Instances of moderate or severe erosion documented.
3	Apparent violations of state scenic and recreational river laws were forwarded to the City of St. Francis. Some may not have been violations because of rule differences in the urban district of St. Francis.
11	Informational packets sent to landowners with moderate-to-severe riverbank erosion.
4	Responses received from landowners who received informational packets. Additional assistance is being provided to them.
120	Geo-tagged photos.
82	Waypoints collected identifying erosion, rule violations, outfall pipes, recreational opportunities, and others.
1	Final report including maps, a 120-photo collection, and summary of findings

Methods

Purpose of Project

To locate erosion and other problems that are negatively impacting Rum River water quality, fisheries, or scenic nature.

Project Staff

This project was carried out Anoka Conservation District staff, under a contract with the Upper Rum River Watershed Management Organization (URRWMO).

Field Survey

The survey was conducted by boat using a GPS to document locations of significant features, which were also photo-documented. On April 15, 2010 staff from the Anoka Conservation District traveled the Rum River from the Anoka-Isanti County Boundary to the County Road 7 bridge in the Cities of Andover and Ramsey. This encompassed all of the Rum River within the Upper Rum River Watershed Management Organization's (URRWMO) jurisdictional area. Significant features that were marked by GPS included erosion, major obstructions, possible violations of scenic and recreational river laws or other waters laws, and outfall pipes and other direct discharges to the river. Geo-tagged photos were taken of most mapped features. The information is compiled in a GIS and maps were produced.

Erosion Correction Assistance

Wherever significant riverbank erosion was found the landowner was offered technical and financial assistance. Each property owner was sent a customized letter that included an initial assessment of the magnitude of the problem and possible solutions, photos, discussion of assistance available, and a brochure about correcting riverbank erosion. Each homeowner was offered a free on site consultation by Anoka Conservation District staff.

Possible Scenic River Rules Violations

The stretch of the Rum River studied is designated as a state scenic and recreational river. Special protections, such as structure setbacks and vegetative clearing restrictions apply. Possible violations that were documented during the field survey were forwarded to the appropriate enforcement authority. The information forwarded included a map, photo, summary, and landowner information. Some may not have been violations because of rule differences in the urban district of St. Francis.

Results

Field Survey

The field survey included 16 river miles. The following points of interest (waypoints) were recorded:

6	Minor erosion
7	Moderate erosion
2	Severe erosion
2	Tree clearing encroachment appearing nearer the river than is allowed by law
3	Understory clearing to the riverbank
5	Mowing to the riverbank
14	Stream or ditch inlets
12	Stormwater outfalls into the river
1	Fishing pier
4	Observation platforms
3	Bridges
3	Boat launches
2	Debris accumulations
1	Gas pipeline crossing
1	Recreational zip-line crossing the river

These features are on the maps on the following pages. GIS shapefiles are available from the Anoka Conservation District.

120 photos were taken of the mapped features and other points of interest. The photo locations are numbered on the maps and photos presented on the pages following the maps.

Erosion Correction Assistance

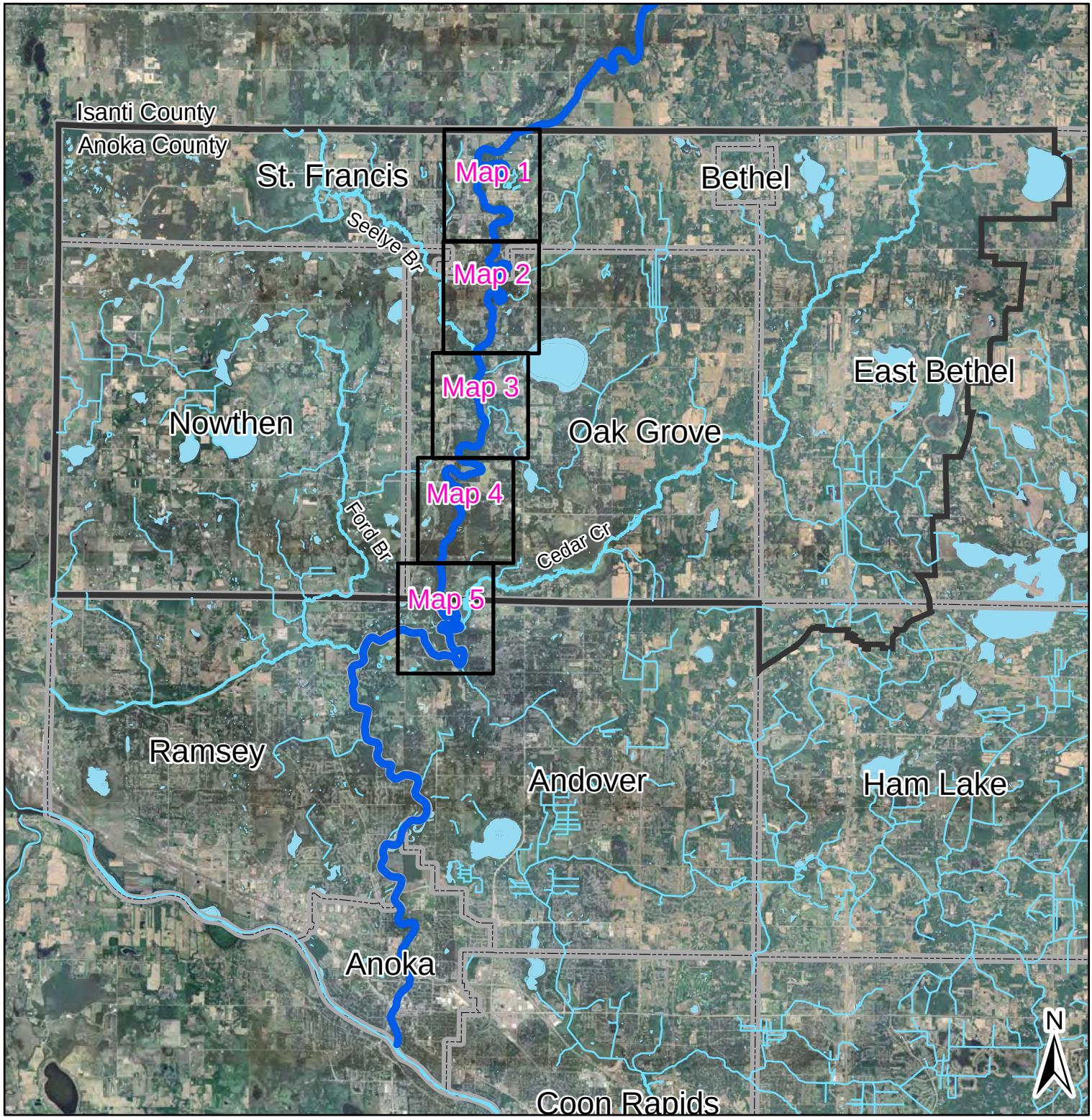
The significant instances of riverbank erosion occurred on properties with 11 different owners. These were primarily erosion categorized as “moderate” or “severe.” Some “minor” instances were also pursued where they were in close proximity to a structure or could easily be corrected by discontinuing certain riverbank activities, such as mowing to the edge. Each property owner was sent a customized letter that included an initial assessment of the magnitude of the problem and possible solutions, photos, discussion of assistance available, and a brochure about correcting riverbank erosion. Each homeowner was offered a free on site consultation by Anoka Conservation District staff.

Four of the 11 properties owners responded to the letter and requested more information from Anoka Conservation District staff. The information requested ranged from a follow-up discussion to sending concept designs and scheduling a spring site visit. Most expressed some interest in financial assistance that is available, but realize that these are competitive funds.

Possible Scenic River Rules Violations

Three apparent violations of state scenic and recreational river laws were forwarded to the City of St. Francis. Information forwarded included a map, photo, summary, and landowner information. All the issues were within St. Francis, and the city administers scenic and recreational river rules. Some or all of the issues may not have been violations because of rule differences in the urban district of St. Francis.

Maps and Photos



Map Key

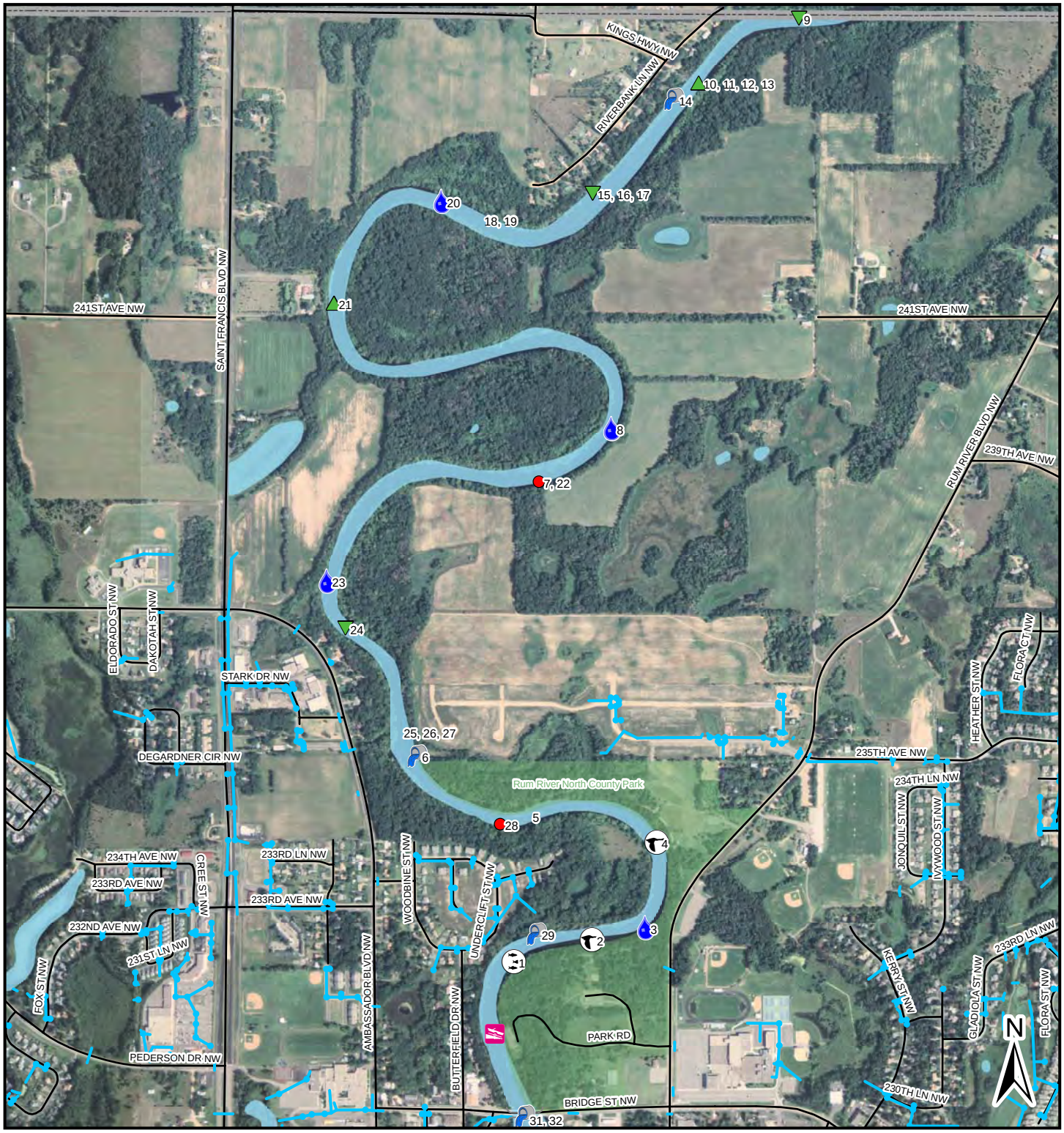
Miles
0 2 4 8

Rum River Field Assessment

15 April 2010

for the
Upper Rum River
Watershed Managment Organization
by the
Anoka Conservation District

- Upper Rum River WMO Bdry
- City Boundaries
- Streams
- Lakes



Map 1

Rum River Field Assessment

15 April 2010

for the
Upper Rum River
Watershed Managment Organization
by the
Anoka Conservation District

Miles
0 0.25 0.5 1

2 Photo Location and Number	Tree Clearing
Stream and Ditch Inlets	Understory Clearing
Stormwater Outfall	Mowed to Water
Riverbank Erosion - Spot	Trash Accumulation
Riverbank Erosion - Stretches	Bridges
Boat Launches	Public Lands
Fishing Piers	City Boundaries
Observation Platforms	St. Francis Stormwater Pipes

Map 2

Rum River Field Assessment

15 April 2010

for the
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Miles
0 0.25 0.5 1

2	Photo Location and Number		Tree Clearing
	Stream and Ditch Inlets		Understory Clearing
	Stormwater Outfall		Mowed to Water
	Riverbank Erosion - Spot	T	Trash Accumulation
	Riverbank Erosion - Stretches		Bridges
	Boat Launches		Public Lands
	Fishing Piers		City Boundaries
	Observation Platforms		St. Francis Stormwater Pipes

Map 3

Rum River Field Assessment

15 April 2010

for the
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0 0.25 0.5 1 Miles

2	Photo Location and Number		Tree Clearing
	Stream and Ditch Inlets		Understory Clearing
	Stormwater Outfall		Mowed to Water
	Riverbank Erosion - Spot	T	Trash Accumulation
	Riverbank Erosion - Stretches		Bridges
	Boat Launches		Public Lands
	Fishing Piers		City Boundaries
	Observation Platforms		

Map 4

Rum River Field Assessment

15 April 2010

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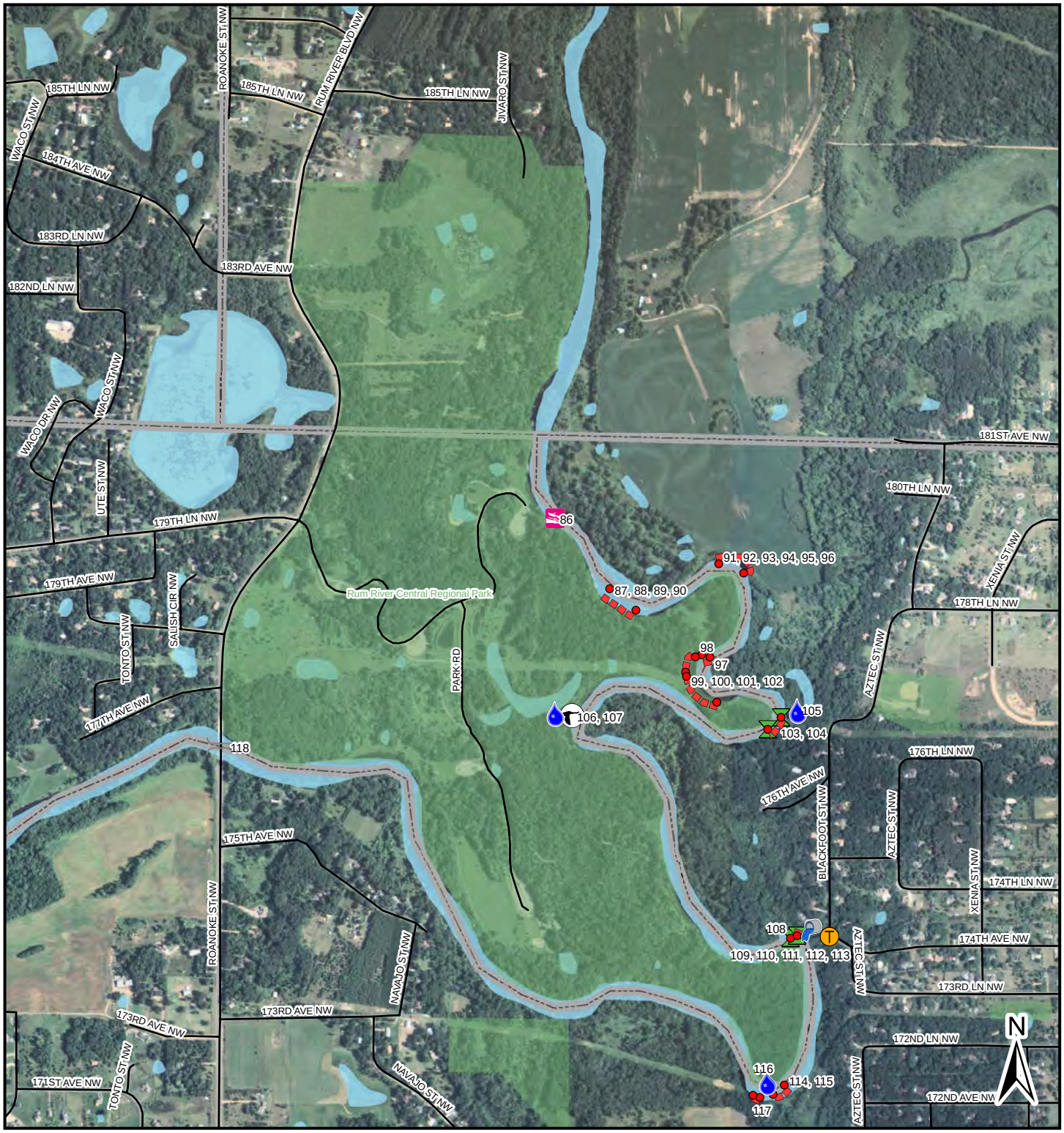
Miles
0 0.25 0.5 1

2	Photo Location and Number		Tree Clearing
	Stream and Ditch Inlets		Understory Clearing
	Stormwater Outfall		Mowed to Water
	Riverbank Erosion - Spot	T	Trash Accumulation
	Riverbank Erosion - Stretches		Bridges
	Boat Launches		Public Lands
	Fishing Piers		City Boundaries
	Observation Platforms		



Map 5

Rum River Field Assessment

15 April 2010

for the
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0 0.25 0.5 1 Miles

2	Photo Location and Number		Tree Clearing
	Stream and Ditch Inlets		Understory Clearing
	Stormwater Outfall		Mowed to Water
	Riverbank Erosion - Spot	T	Trash Accumulation
	Riverbank Erosion - Stretches		Bridges
	Boat Launches		Public Lands
	Fishing Piers		City Boundaries
	Observation Platforms		

Rum River Field Survey Photo Documentation

15 April 2010

Photo 1 – Fishing pier at Rum River North County Park.

Photo 2 – Observation deck in Rum R North Co Park

Photo 3 – Small inlet.

Photo 4 – Observation deck in Rum R North Co Park

Photo 5 – Picnic site in Rum R North Co Park.

Photo 6 – Stormwater outfall. 20” dia FES

Photo 7 – Outfall pipe high on slope causing bank failure. 6-8” dia pipe.

Photo 8 – Minor gully. No active erosion.

Photo 9 – Earthwork and nearly bare soil (sparse straw cover) associated with home or septic construction.

Photo 10 – Cleared all large near-shore trees. Pushed soil over riverbank. Also see photos 11,12, &13.

Photo 11 – See Photo 10 description.

Photo 12 – See Photo 10 description.

Photo 13 – See Photo 10 description.

Photo 14 – Overhanging 12” diameter outlet positioned on center of slope.

Photo 15 – Cleared understory veg., left large trees. Bare soil sparsely straw covered. Also see photos 16, 17.

Photo 16 – See Photo 15 description.

Photo 17 – See Photo 15 description.

Photo 18 – Scenic photo of White Pine overhanging river. Also see Photo 19.

Photo 19 – See Photo 18 description.

Photo 20 – Stream inlet approx. 10 ft. wide, low water level.

Photo 21 – Removed all large trees at water's edge, left waist-high stumps. Classified as scattered clearing.

Photo 22 – See Photo 7 description.

Photo 23 – Stream inlet approx. 4 ft. wide.

Photo 24 – Removed all ground and leaf cover across slope. No apparent erosion, but a poor practice.

Photo 25 – A-frame house on bluff. Rock work to stabilize toe of slope. Also see Photos 26, 27.

Photo 26 – See Photo 25 description.

Photo 27 – See Photo 25 description.

Photo 28 – Moderate erosion severity, approx. 50 ft. long. Low priority.

Photo 29 – 36 in. wide, 20 in. tall FES, with trash rack, outlets at water level.

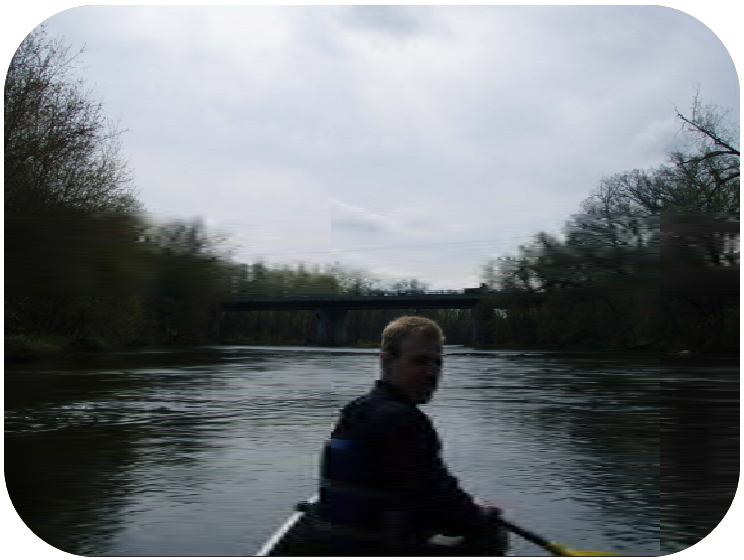

Photo 30 – County Highway 24 bridge in St. Francis.

Photo 31 – Outfall with concrete water break and rock apron. Also see Photo 32.

Photo 32 – See Photo 31 description.

Photo 33 – Approx. 10 ft. by 10 ft. deck cantilevered over water's edge. No apparent erosion.

Photo 34 – Grass mowed to water's edge. Poor practice.

Photo 35 – Outlet 18-24 in diam. with flow separator. Large rock below, no apparent erosion. Also see Photo 36.

Photo 36 – See Photo 35 description.

Photo 37 – Outlet with flared end section 66 in. wide, 32 in. tall with trash rack.

Photo 38 – 12” pipe at toe of bank. Moderate erosion with homeowner-attempted repair. Also see Photo 39.

Photo 39 – See Photo 38 description.

Photo 40 – Driven piling flood wall to eliminate outer bank erosion. Also see Photos 41 and 42.

Photo 41 – See Photo 40 description.

Photo 42 – See Photo 40 description.

Photo 43 – Outlet, 8 in. plastic pipe exiting lower 1/3 of bank overhanging water. No apparent erosion.

Photo 44 – Approx. 24 in. flared end section exiting bank at midpoint of slope with concrete apron.

Photo 45 – Stream inlet approx. 8 ft. wide.

Photo 46 – Severe erosion. Also see Photos 47, 48, 49, 50, 51, 52, and 53.

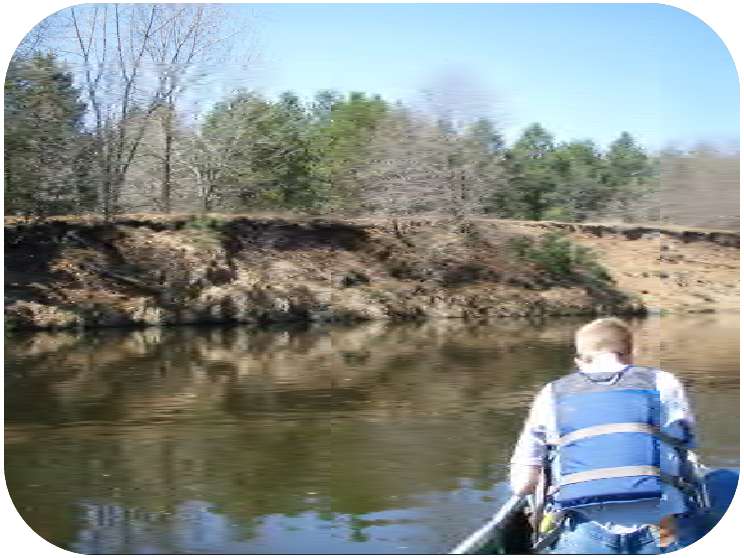

Photo 47 – See Photo 46 description.

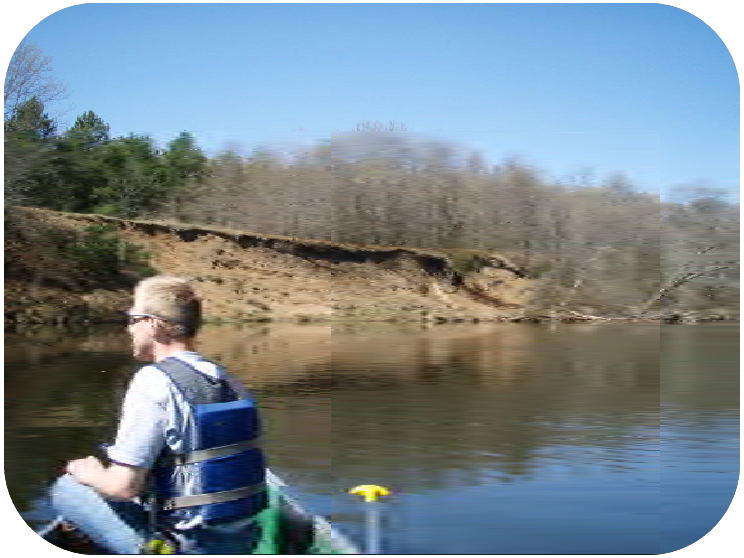

Photo 48 – See Photo 46 description.

Photo 49 – See Photo 46 description.

Photo 50 – See Photo 46 description.

Photo 51 – See Photo 46 description.

Photo 52 – See Photo 46 description.

Photo 53 – See Photo 46 description.

Photo 54 – Scenic photo.

Photo 55 – Scenic photo.

Photo 56 – Scenic photo.

Photo 57 – Small, gravel, private boat launch.

Photo 58 – Seelye Brook inlet.

Photo 59 – Scenic photo.

Photo 60 – Actively flowing inlet stream, approx. 2 ft. wide.

Photo 61 – Actively flowing inlet stream, approx. 2 ft. wide.

Photo 62 – Scenic photo. Good example of clearing only small trees.

Photo 63 – Sunken boat pulled onto bank. Also see Photo 64.

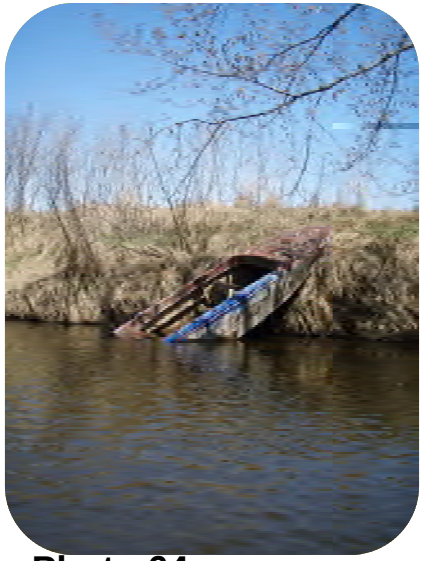

Photo 64 – See Photo 63 description.

Photo 65 – Actively flowing inlet stream approx. 5-8 ft. wide.

Photo 66 – Scenic photo. Fallen trees. Also see Photo 67.

Photo 67 – See Photo 66 description.

Photo 68 – Scenic photo.

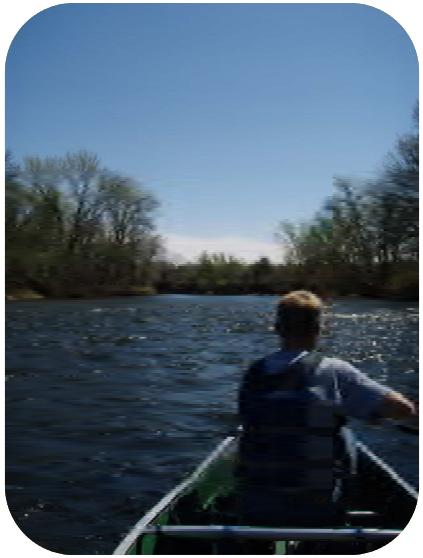

Photo 69 – Scenic photo.

Photo 70 – High bank with good tree cover. No recommended action. Also see Photos 71, 72, 73, and 74.

Photo 71 – See Photo 70 description.

Photo 72 – See Photo 70 description.

Photo 73 – See Photo 70 description.

Photo 74 – See Photo 70 description.

Photo 75 – Erosion along side of stairs leading to water.

Photo 76 – Approx. 3 in. diam. PVC outlet near toe of slope with high flow and erosion.

Photo 77 – Approx. 18 in. outlet at midpoint of slope with flowing water, rock above and below, and no erosion.

Photo 78 – Viking Blvd. bridge and approx. 18 in. outlet onto concrete slab approx. 4 ft. above water.

Photo 79 – Zip line spanning river.

Photo 80 – Scenic photo.

Photo 81 – Actively flowing stream inlet approx. 5-10 ft. wide. Also see Photo 82.

Photo 82 – See Photo 81 description.

Photo 83 – Actively flowing stream inlet approx. 3 ft. wide.

Photo 84 – Gas pipeline crossing. Also see Photo 85.

Photo 85 – See Photo 84 description.

Photo 86 – Rum River Central County Park boat landing.

Photo 87 – Moderate erosion in forested area. Also see Photos 88, 89, and 90.

Photo 88 – See Photo 87 description.

Photo 89 – See Photo 87 description.

Photo 90 – See Photo 87 description.

Photo 91 – Severe erosion, 20 ft. back with fence over water. Also see Photos 92, 93, 94, 95, and 96.

Photo 92 – See Photo 91 description.

Photo 93 – See Photo 91 description.

Photo 94 – See Photo 91 description.

Photo 95 – See Photo 91 description.

Photo 96 – See Photo 91 description.

Photo 97 – Mild erosion. Also see Photo 98.

Photo 98 – See Photo 97 description.

Photo 99 – Moderate erosion. Also see Photos 100, 101, and 102.

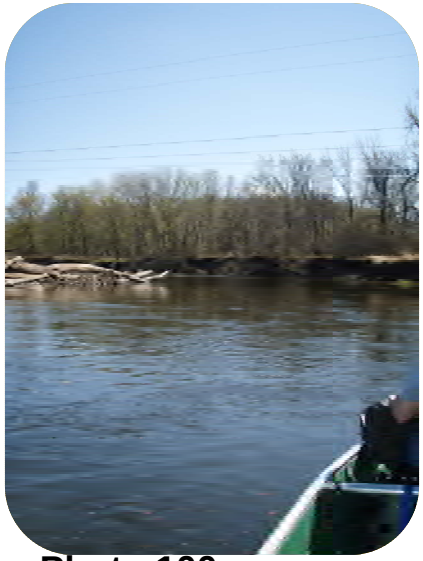

Photo 100 – See Photo 99 description.

Photo 101 – See Photo 99 description.

Photo 102 – See Photo 99 description.

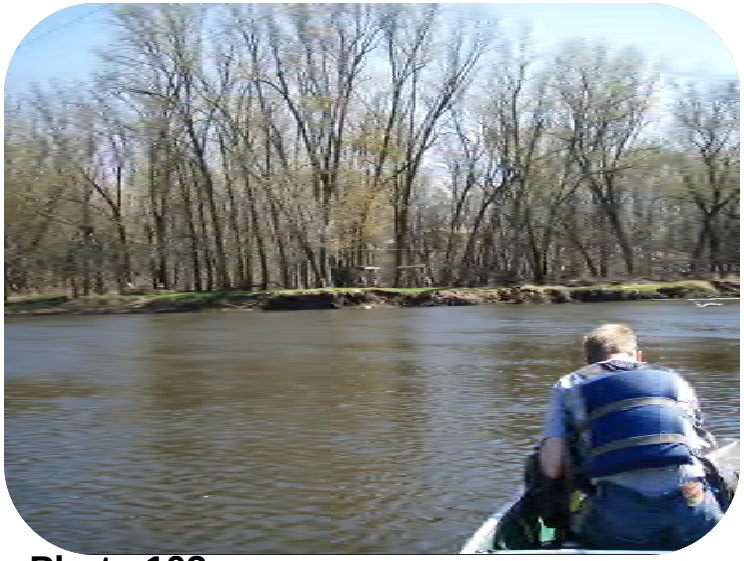

Photo 103 – Mowed turf grass to water's edge. Also see Photo 104.

Photo 104 – See Photo 103 description.

Photo 105 – Cedar Creek inlet.

Photo 106 – Observation platform/deck overhanging the water's edge.

Photo 107 – Creek inlet.

Photo 108 – Mod. erosion, mowed to water edge.

Photo 109 – Approx. 24” flared end section and yard waste piled above. Also see Photos 110, 111, 112, 113.

Photo 110 – See Photo 109 description.

Photo 111 – See Photo 109 description.

Photo 112 – See Photo 109 description.

Photo 113 – See Photo 109 description.

Photo 114 – Moderate erosion. Also see Photo 115.

Photo 115 – See Photo 114 description.

Photo 116 – Stream inlet.

Photo 117 – Mild erosion.

Photo 118 – County Road 7 bridge.