



STORMWATER MANAGEMENT COMMISSION

MEMORANDUM

To: Watershed Management Board Members

From: Kurt Woolford, Chief Engineer

RE: ***December 4, 2019 WMB Meeting 6:00 P.M.***

Date: November 15, 2019

The Lake County Watershed Management Board (WMB) will meet at 6:00 PM December 4, 2019 at Lake County Stormwater Management Commission, 500 W. Winchester Road, Libertyville.

YOU ARE A WATERSHED MANAGEMENT BOARD MEMBER IF YOU ARE:

- ✓ **THE CHIEF ELECTED OFFICIAL OF ANY LAKE COUNTY MUNICIPALITY**
- ✓ **A LAKE COUNTY TOWNSHIP SUPERVISOR**
- ✓ **THE PRESIDENT OF AN ACTIVE LAKE COUNTY DRAINAGE DISTRICT**
- ✓ **A LAKE COUNTY BOARD MEMBER**
- ✓ **A DELEGATE OF ONE OF THE ABOVE (See delegate form enclosed)**

The primary purpose of this annual WMB meeting is to evaluate and recommend WMB project funding for 2020. Project recommendations will be forwarded to the Stormwater Management Commission (SMC) for approval in January of 2020. Please review the attached project proposal summaries and staff recommendations in this packet prior to the meeting. Application summaries are included, and the full applications are available upon request. SMC staff will present the projects at the meeting. Project applicants are welcome to provide additional information as desired. Staff will also provide a brief update on the status of this year's projects at the meeting.

WMB members who are unable to attend, but have not yet delegated an alternate, may do so by submitting a delegate form (enclosed) prior to the meeting. You can reach me at 847-377-7720 if you have any questions. Delegate forms may be submitted by e-mail to kwoolford@lakecountyiil.gov.



STORMWATER MANAGEMENT COMMISSION

**DES PLAINES RIVER, FOX RIVER, LAKE MICHIGAN &
NORTH BRANCH CHICAGO RIVER
WATERSHED MANAGEMENT BOARD
REPRESENTATIVE APPOINTMENT FORM**

Name of Chief Elected Officer: _____

Representing: _____
(City, village, township, active drainage district)

Watershed(s): _____

Appointed Delegate: _____

Address: _____

Phone: _____

FAX: _____

e-mail: _____

The above named shall be my representative on the Watershed Management Board(s) in my absence and may vote on my behalf during my term of office, or until otherwise notified.

(Signature of Chief Elected Officer)

(Date)



STORMWATER MANAGEMENT COMMISSION

**WATERSHED MANAGEMENT BOARD
ANNUAL MEETING**

December 4, 2019
6:00 PM

Lake County Stormwater Management Commission
500 W. Winchester Road
Libertyville, IL

Meeting Agenda

- 1.0 CALL TO ORDER**
Changes/Additions to Agenda
- 2.0 ELECT CHAIRMAN PRO-TEM**
Pledge of Allegiance
Self-introductions of all meeting attendees and identification of voting members
- 3.0 APPROVAL OF MINUTES - December 5, 2018**
- 4.0 STAFF REPORTS/ PROJECT STATUS UPDATES**
FY2019 WMB Projects – Kurt Woolford
FY2020 Budget and Policy Update
- 5.0 OLD BUSINESS**
- 6.0 NEW BUSINESS**
FY2020 WMB project proposals
SMC staff evaluation and recommendations
Public comment and information
WMB Project recommendations to the Stormwater Management Commission
- 7.0 ADJOURNMENT**



STORMWATER MANAGEMENT COMMISSION

**WATERSHED MANAGEMENT BOARD
ANNUAL MEETING
MINUTES**

December 5, 2018

1.0 CALL TO ORDER

Kurt Woolford opened the meeting at 6:10 p.m. by welcoming everyone and called the meeting to order. The procedures for the meeting were explained. Kurt asked if there were any changes or additions to the agenda. Hearing none, he moved on to the next agenda item.

2.0 ELECTION OF A CHAIRMAN PRO-TEM

Kurt Woolford asked for nominations for the Chairman Pro-Tem to conduct the meeting; Jessica Vealitzek nominated Jennifer Clark. Kurt asked for any other nominations. There were none. There was a vote for Jennifer Clark to be Chairman Pro-Tem, all were in favor, none opposed.

Jennifer Clark led the Pledge of Allegiance and then asked for everyone to introduce themselves and state what entity they represented. Self-introductions followed.

3.0 APPROVAL OF THE MINUTES-DECEMBER 6, 2017

Jennifer Clark asked if there were any corrections, comments or changes to the minutes. Hearing none, she asked for a motion to approve the minutes of the December 6th, 2017 meeting. A motion was made by David Parro and seconded by Jessica Vealitzek.

4.0 STAFF REPORTS/PROJECT STATUS UPDATE

Kurt Woolford gave a summary of ongoing and completed WMB projects. He explained the difference between the WMB and the SIRF program and process for staff SIRF recommendations. Kurt announced the Lake County Board approved an increase in annual WMB funding noting the amounts are given in the WMB /WMAG Application Summary & Recommendation spreadsheet. Lastly, The SMC Commission approved a change to the WMB Policy regarding unallocated funds. Based on an analysis completed this year, unallocated funds in any watershed after staff recommendations for funding all the projects that meet this minimum score, can be recommended by staff or allocated to an 'above minimum score project' in another watershed. Staff recommendations would follow the needs-based priority order of 1-Fox, 2-Des Plaines, 3-North Branch, 4-Lake Michigan.

5.0 OLD BUSINESS

There was no old business to report.

6.0 NEW BUSINESS

Kurt Woolford stated there were 15 WMB project applications with a combined total project cost of \$5 million, \$400,000 of WMB funds requested, and \$183,000 of WMB funding available. Kurt also explained project scoring procedure and staff recommendations noting that the WMB Board can accept and approve staff funding recommendations or the board has the option to change funding allocation to projects, however, the total amount of WMB funding available is fixed at \$183,000.

WATERSHED MANAGEMENT ASSISTANCE PROJECTS FOR FY2019

Sharon Østerby presented the WMAG application received. It was as follows:

1. Squaw Creek Watershed Planning (recommended)

DES PLAINES RIVER WATERSHED

Juli Crane presented the three project applications in the Des Plaines Watershed. They were as follows:

1. Conservation @home (recommended)
2. Chickamauga Drainage Improvements (SIRF recommended)
3. VOLZ Kildeer Creek (recommended)

NORTH BRANCH CHICAGO RIVER WATERSHED

Ashley Strelcheck presented the project application in the North Branch Chicago River Watershed.

They were as follows:

1. Dady Slough Flood Control Project (recommended)

FOX RIVER WATERSHED

Sharon Østerby presented the eight project applications received in the Fox River Watershed. They were as follows:

1. Larkdale Stormsewer Rehabilitation Project (SIRF recommended)
2. Farm Trails HOA Drainage Project (SIRF recommended)
3. Millennium Park Water Quality Improvement Project (recommended)
4. Duck Lake Channel & Shoreline Improvement Project (recommended)
5. Tower Takes Drainage Study
6. Riverwalk Rill System Maintenance Project
7. Grass Lake Wetland Restoration Project
8. Lake Marie Shoreline Erosion Project

LAKE MICHIGAN WATERSHED

Kelcey Traynoff presented the two project applications received in the Lake Michigan Watershed. They were as follows:

1. Shiloh Park Senior Center Site improvements (recommended)
2. Bull Creek North Branch Cleanup Project

FY2019 WMB PROJECT COMMENTS AND QUESTIONS

David Parro asked how much funding there is for SIRF. Kurt Woolford responded that the SIRF program funding is \$100,000 each fiscal year. David Parro asked if projects can be re-submitted next year. Sharon Østerby acknowledged that projects can be re-submitted next year. Jessica Vealitzek asked why a project in the Fox with a score of 300 was funded but another project in Lake Michigan with score of 380 was not funded. Kurt Woolford responded that funding allocation for each watershed is based on the equalized assessed value of property, therefore revenue from each watershed will stay within that watershed. Scott Anderson asked how funding is recommended to for projects (e.g. half to one project and half to another). Kurt Woolford responded that available funding is recommended for the highest scoring project. He also noted that the WMB has the discretion to change funding recommendations.

FY2019 WMB FUNDING RECOMMENDATION APPROVALS

A motion was made by David Parro, and seconded by Jessica Vealitzek, to accept the staff recommended projects and funding levels. FY19 WMB Project recommendations will be recommended to the Stormwater Management Commission at the January 2019 meeting.

7.0 ADJOURNMENT

There being no further comments, questions or reports, a motion was made by Jessica Vealitzek, and seconded by David Parro, to adjourn the meeting at 6:57 p.m.

WMB Meeting Attendees

Name

Jessica Vealitzek
Jennifer Clark
Ron Gurak
Grant Benjamin
Scott Anderson
David Lothspeich
David Parro
Monika Jalowiecka
Amy Wagner
Sarah Surroz

Representing

Lake Co. District 10
Lake Co. District 15
Squaw Creek Clean Water Alliance
Squaw Creek Clean Water Alliance
James Anderson Company-West Skokie Drainage District
Village of Long Grove
Village of Tower Lakes
Village of Round Lake Beach
Resident of Island Lake
Openlands

SMC Staff

Mike Warner
Kurt Woolford
Juli Crane
Sharon Østerby
Michelle Pope
Ashley Strelcheck
Kelcey Traynoff

WMB PROJECT STATUS SUMMARY

WATERSHED	WMAG PROJECTS	PROJECT STATUS- COMPLETION DATE
Fox River	FY19 Squaw Creek Watershed Plan	Target Completion in 2020
WATERSHED	WMB PROJECTS	PROJECT STATUS- COMPLETION DATE
Des Plaines River	FY16 Lakeridge Restoration Association-ADID Wetland Project	Completed in 2019
	FY17 Dady & Decker HOA Shoreline Protection Project	Target Completion in 2020
	FY17 Diamond Lake Coop. Preservation Strategy	Completed in 2019
	FY17 SIRC Greenbay Terrace & Maplewood Stormsewer Project	Completed in 2019
	FY17 Grandwood Park Northern Berm Project	Completed in 2019
	FY18 Buffalo Creek Stream Restoration Project	Completed in 2019
	FY18 SIRC Countryside Manor Swale Maintenance Project	Target Completion in 2020
	FY18 DPR Hydrologic Rest. & Enhancement Project	Completed in 2019
	FY19 Conservation @Home Project	Target Completion in 2020
	FY19 VOLZ Kildeer Creek Project	Target Completion in 2020
	FY19 SIRC Chickamauga Drive Drainage Improvement Project	Target Completion in 2020
North Branch Chicago River	FY15 Banbury Lake Outlet/Cranbrook Rd. Ditch Improvements	Target Completion in 2020
	FY18 Whispering Lake-Stormwater Management Initiative Project	Target Completion in 2020
	FY18 I-94 Stormwater Creek & Wetland Restoration Project	Target Completion in 2019
Fox River	FY16 Timber Lake Bioswale & Stream Restoration Project	Completed in 2019
	FY17 Fish Lake Drain Dredging & Shoreline Improvements	Completed in 2019
	FY17 SIRC Columbia Bay Dr. Drainage Improvements	Target Completion in 2020
	FY18 SIRC N. Cedar Crest Drive Project	Target Completion in 2020
	FY18 TLIA Wagner Park Bioswale/Wetland Restoration Project	Completed in 2019
	FY19 Millennium Park Water Quality Improvement Project	Target Completion in 2020
	FY19 Duck Lake Channel & Shoreline Restoration Project	Target Completion in 2020
	FY19 SIRC Larkdale Stormsewer Rehabilitation Project	Target Completion in 2020
Lake Michigan	FY18 McCormick Ravine Stormwater Improvement Project	Target Completion in 2019
	FY19 Shiloh Park Senior Center Site Improvement Project	Target Completion in 2020

FISCAL YEAR 2020

WMAG/WMB APPLICATION SUMMARY & RECOMMENDATIONS

WATERSHED MANAGEMENT ASSISTANCE (\$12,000 Available)

Project	Applicant	Score	Total Cost	Requested Amount	Funds Available	SMC Staff Recommended Funding
Lake Napa Suwe Strategic Sustainability Improv. Plan	Lake Napa Suwe Association	340	\$7,200	\$7,200		\$7,200
Chain O' Lakes WBP- Stakeholder Growth & Dev.	Fox Waterway Agency	315	\$21,540	\$12,000		\$5,000
WMAG TOTAL			\$28,740	\$19,200	\$12,000	\$12,200
<i>CONTINGENCY FUNDS TRANSFERRED TO WMAG</i>					\$200	
					\$12,200	\$12,200

DES PLAINES RIVER (\$72,912 available)

Forest Creek HOA Bank Stabilization Project	Forest Creek HOA	320	\$80,604	\$22,000		\$22,000
Brookside HOAs BMP Project	Brookside HOAs	295	\$109,700	\$37,088		\$37,088
Grayslake Central HS Drainage Relief Project	Grayslake Community HS District 127	290	\$70,000	\$34,000		Recommended to SIRF
Starry Lane Drainage Improvement Project	Ela Twp. Highway Dept	290	\$321,632	\$160,000		Recommended to SIRF
Meadow Haven Creek Drainage Improvement Project	Village of Green Oaks	265	\$315,000	\$15,000		Recommended to SIRF
Harding & Willow Area Flood Reduction Project	Village of Libertyville	205	\$15,140	\$7,540		
Butler Lake Park Wet Prairie Enhancement Project	Village of Libertyville	185	\$17,202	\$8,500		
DES PLAINES RIVER WATERSHED WMB TOTAL			\$929,277	\$284,128	\$72,912	\$59,088
<i>UNALLOCATED FUNDS TRANSFERRED TO FOX RIVER WATERSHED</i>					-\$13,824	
TOTAL DES PLAINES WATERSHED FUNDING					\$59,088	\$59,088

NORTH BRANCH CHICAGO RIVER (\$36,456 available)

Kenton Lane Stormwater Conveyance Improvements	Green Oaks / RHMG	240	\$180,000	\$20,000		\$20,000
NORTH BRANCH CHICAGO RIVER WMB TOTAL			\$180,000	\$20,000	\$36,456	\$20,000
<i>UNALLOCATED FUNDS TRANSFERRED TO FOX RIVER WATERSHED</i>					-\$16,456	
TOTAL NORTH BRANCH WATERSHED FUNDING					\$20,000	\$20,000

FOX RIVER (\$36,456 available)

H&H Study, Lake Gauge, & Project Prioritization	Village of Tower Lakes	360	\$32,000	\$15,500		\$15,500
Cuba Marsh Hydrologic Restoration & Enhancement	LCFPD	350	\$76,150	\$8,000		\$8,000
Creek Maintenance of E. Branch of Flint Creek	Fox Point HOA	295	\$34,000	\$17,000		\$17,000
Timber Lake Bioswales & Rock Checks Phase II	Timberlake Estates Civic Association	275	\$200,824	\$10,000		\$10,000
Long Lake Outfall Plantings	Grant Township Highway Department	265	\$50,000	\$20,000		\$20,000
Felters Subdivision Stormwater Filtration	Friends of Catherine and Channel Lakes	240	\$40,490	\$20,244		
Green Forest Lake Stream Stabil. & Infrastructure Repair	Village of Deer Park	170	\$88,595	\$36,500		
Orchard Hills Aerators for Ponds	Orchard Hills HOA	125	\$19,943	\$9,601		
FOX RIVER WATERSHED WMB TOTAL			\$542,002	\$136,845	\$36,456	\$70,500
<i>UNALLOCATED FUNDS TRANSFERRED FROM DES PLAINES RIVER WATERSHED</i>					\$13,824	
<i>UNALLOCATED FUNDS TRANSFERRED FROM NORTH BRANCH CHICAGO RIVER WATERSHED</i>					\$16,456	
<i>CONTINGENCY FUNDS TO FOX WATERSHED</i>					\$3,764	
TOTAL FOX RIVER WATERSHED FUNDING					\$70,500	\$70,500

LAKE MICHIGAN (\$27,776 available)

Rosemary Road Ravine Project Design	City of Lake Forest	280	\$77,750	\$29,800		\$27,776
Ringwood Road Ravine Project Design	City of Lake Forest	275	\$44,500	\$29,800		
1515 MacArthur Drive Drainage Swale	City of Waukegan	255	\$30,000	\$20,000		Recommended to SIRF
LAKE MICHIGAN WATERSHED WMB TOTAL			\$152,250	\$79,600	\$27,776	\$27,776
TOTAL LAKE MICHIGAN WATERSHED FUNDING					\$27,776	\$27,776

FY20 TOTAL WMB (\$189,600 AVAILABLE)

*\$4,000 Contingency Included	WMB GRAND TOTAL		\$1,803,529	\$520,573	\$189,564	\$189,564
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STORMWATER MANAGEMENT COMMISSION

MEMORANDUM

November 7, 2019

To: Watershed Management Board Members
From: Michelle Pope, GIS Specialist/Engineering Technician
Re: FY2020 WMB Requests; Funding Recommendations for Watershed Management Assistance Grants

SMC received two requests for Watershed Management Assistance Grant (WMAG) funding. A total of \$12,000 is available for Watershed Management Assistance Grants (WMAG) for Fiscal Year 2020. The primary purpose of the WMAG program is to support the growth and sustainability (i.e., organizational capacity) of local watershed partnerships in Lake County. For the purposes of the program, a “watershed partnership” is defined as an inclusive, enduring, diverse, community-based group organized to identify and resolve watershed problems and issues. The attached table, “WMB Funding Evaluation – Watershed Management Assistance Grant Requests,” provides SMC staff’s evaluation of submitted WMAG applications based on the WMB-approved prioritization criteria for WMAG requests.

The prioritization criteria are:

1. **Participant Involvement**-Explanation of how stakeholders representing interests and perspectives reflective of the watershed community will be involved in developing sound approaches and lasting solutions to identified problems.
2. **Problem Identification**-Identification of one or more clearly defined watershed problems that will be addressed.
3. **Desired Results**-Identification of realistic and clear goals and objectives.
4. **Progress Measures**-Identification of a method for evaluating the immediate and long-term effects of the partnership.
5. **Outreach Efforts**-Demonstration of how the proposed actions will develop the partnership and increase its sustainability.
6. **Action Plan**-Development of a clear work plan with tasks, end results, products to be completed, and a time frame.

Below is a brief summary of the proposed projects, describing how the application addresses the six prioritization criteria and containing staff’s recommendation to the WMB regarding each project:

1. **Lake Napa Suwe Strategic Sustainability Improvement Plan.** An application was submitted by the Lake Napa Suwe Association. The estimated project cost is \$7,200, of which \$7,200 is requested. There is no local match requirement for the WMAG. The proposed project scope includes retrieving information about the lake, development of remedies, consideration of attainable goals and prioritization of the measures needed. The Lake Napa Suwe Strategic Sustainability Improvement Plan is supported by multiple HOAs surrounding the lake.

Project evaluation:

1. The application lists the representative watershed stakeholders (HOAs) that are and will be involved with the partnership.
2. The application defines poor water quality conditions in the lake as watershed problems to be addressed.

WATERSHED MANAGEMENT ASSISTANCE

3. The application identifies a specific goal and measurable objectives to complete the planning process for the lakes management plan.
4. The application identifies that progress which will be measured through the adoption, approval, and implementation of the lakes management plan.
5. The lakes management plan will help to further develop the organization's relationship with their members/homeowners and the community at large and should increase the long-term sustainability of this group and watershed planning efforts.
6. The application includes a work plan describing the tasks to be completed and the expected outcomes.

This project **IS RECOMMENDED** for WMB funding in the amount of \$7,200.

2. **Chain O' Lakes Watershed Plan – Stakeholder Growth & Development.** An application was submitted by the Fox Waterway Agency. The estimated project cost is \$12,000, of which \$12,000 is requested. There is no local match requirement for the WMAG. The proposed project scope includes identifying primary and secondary stakeholders that communicate effectively with its base, develop educational presentations that communicate the importance of watershed-based landscape practices, and develop partnerships with communities, townships, agencies, property owners, businesses and non-governmental organizations. Multiple entities have already pledged to support this plan.

Project evaluation:

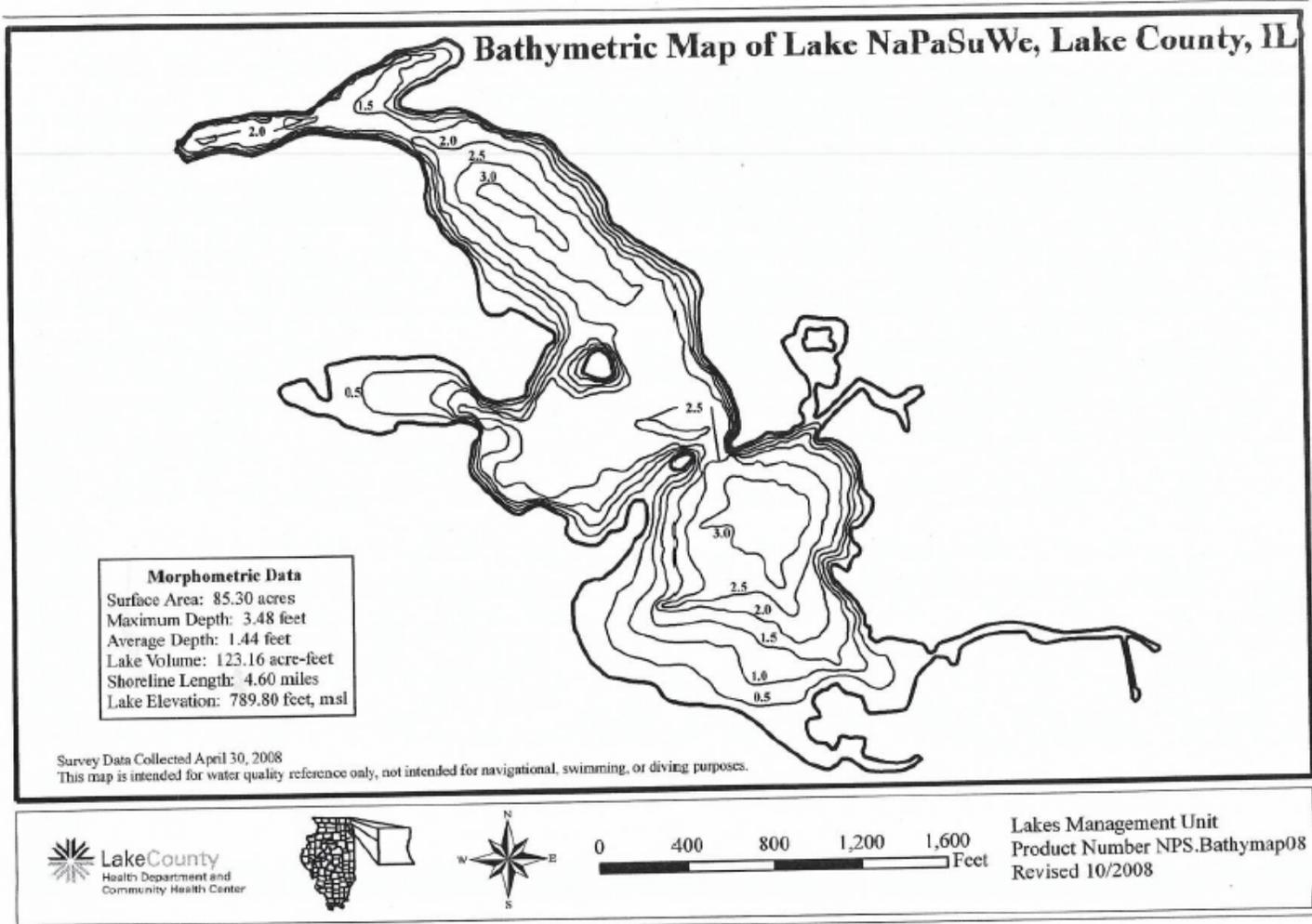
1. The application lists the representative watershed stakeholders (communities, townships, etc) that are and will be involved with the partnership.
2. The application defines lake impairments as watershed problems to be addressed.
3. The application identifies specific goals and measurable objectives to complete the planning process for the Chain O' Lakes Watershed Plan.
4. The application identifies that progress which will be measured through the attendance at meetings, feedback through questionnaires, social media interaction, and polls.
5. The Chain O' Lakes Watershed Plan will help to further develop the organization's relationship with their members/homeowners and the community at large and should increase the long-term sustainability of this group and watershed planning efforts.
6. The application includes a work plan describing the tasks to be completed and the expected outcomes.

This project **IS RECOMMENDED** for WMB funding in the amount of \$5,000.

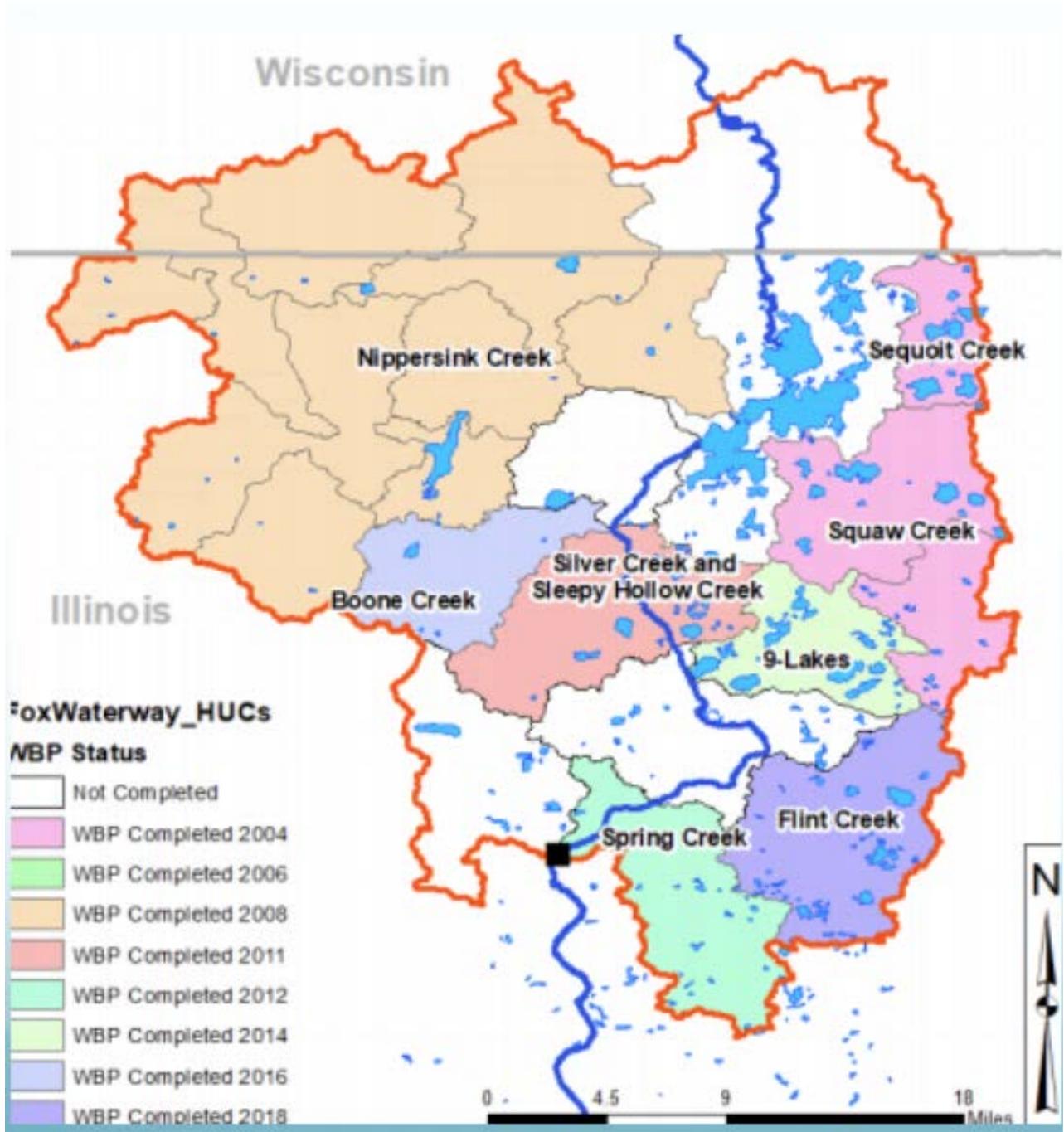
WMAG			Lake Napa Suwe Association		Fox Waterway Agency		WMAG Total
Rank	Prioritization Criteria	Maximum Possible Weight	Rating	Score	Rating	Score	
1	Participant involvement	20	3	60	3	60	
2	Problem identification	20	4	80	2	40	
3	Desired results	15	4	60	4	60	
4	Progress measures	15	3	45	3	45	
5	Outreach efforts	15	3	45	4	60	
6	Action plan	10	3	30	3	30	
Bonus	First-time WMAG funding	5	1	5	0	0	
Bonus	Subwatershed representation	5	0	0	1	5	
Bonus	Local unit of government support	5	1	5	1	5	
Bonus	Outside funding utilization	5	0	0	0	0	
Bonus	Demonstrate partnership sustainability	5	1	5	1	5	
Bonus	Includes restoration plan component	5	1	5	0	0	
Bonus	Project in Environmental Justice Area	5	0	0	1	5	
Weighted Score Total							
(Minimum score greater than 210 required for funding)			340		315		
Total project cost			\$7,200		\$12,000		\$19,200
Applicant in-kind hours			0		0		0
Applicant cost share			\$0		\$0		\$0
Applicant's WMB funding request			\$7,200		\$12,000		\$19,200
Applicant's request for SMC in-kind hours			0		0		0
Total Available Funds for the program =		\$ 12,000					\$12,000
Staff recommendation for watershed funding			7200		\$5,000		\$12,200
Staff recommendation for SMC in-kind hours			\$0		\$0		0

Rating: 0=no effect, 1=minimal effect, 2=below average effect, 3=average effect,4= above average effect, 5=maximum effect practicable

Lake Napa Suwe Strategic Sustainability Improvement Plan



Chain O' Lakes Watershed Plan – Stakeholder Growth & Development





STORMWATER MANAGEMENT COMMISSION

MEMORANDUM

November 8, 2019

TO: Watershed Management Board Members
FR: Juli E. Crane, Principal Wetland Specialist
RE: FY2020 WMB Requests; Funding Recommendations for Projects in Des Plaines River Watershed

SMC received seven requests for WMB funding for projects in the Des Plaines Watershed, with total project costs of \$929,277 and requested funding in the amount of \$284,128. The amount of funding allocated for projects in the Des Plaines Watershed for Fiscal Year 2020 is \$72,912. SMC staff recommends WMB funding for two of the projects and alternate funding for three projects.

1. **Interjurisdictional Benefits** - Benefit multiple jurisdictions (government entities, HOAs, not-for-profits), will have interjurisdictional impacts, and/or will benefit the major "trunk"/regional scale drainage system of the watershed. ("Trunk" defined as that part of the drainage system that drains more than 100-acre drainage areas and has the potential to have inter-jurisdictional impacts.)
2. **Flood Hazard Reduction Benefits** - Have beneficial results or impacts, including non-transportation related flood hazard reduction, during flood events up to and including 100-year events. (A 100-year event being a flood event with the probability of occurrence in any given year of 1%.)
3. **Structural Damage Reduction** - Mitigate structural damages due to floods and other stormwater related causes with consideration of the number of structures affected including, but not limited to, removing, elevating, flood-proofing or otherwise protecting buildings from future danger of flood damage or structural damage related to flood-induced erosion. Also, these criteria include Lake Michigan Watershed specific mitigation of damages due to stormwater, flood and wave induced problems on bluff, ravine and lakeshore areas.
4. **Water Quality Benefits** - Reduce surface water quality impairments utilizing best management practices.
5. **Natural Resource Benefits** - Benefit the environment with an emphasis on non-structural natural resource protection strategies.
6. **Nuisance Flood Reduction** - Alleviate major nuisance flooding and/or blocked transportation access.
7. **Multiple Use Benefits** - Provide multiple-use benefits to communities such as recreation, public education, data collection or others.
8. **Outside Funding Utilization** - Utilize federal, state, and/or other private funding to the maximum extent possible.

9. **Phosphorus Public Education Component** - Include a public education and outreach effort aimed at reducing the amount of phosphorus contained in stormwater runoff. This may include reducing the amount of fertilizer applied to lawns, using phosphorus-free fertilizers, and establishing buffer strips along lake shores, stream banks, and wetlands. Applicants may also choose to adopt an ordinance banning the use of fertilizers and detergents containing phosphorus.

SMC staff also awarded bonus credit to those applications satisfying the following five WMB-approved criteria:

- Projects that protect or alleviate structural damages to critical facilities.
- Projects for which the applicant's share of the estimated total project cost exceeds 50%.
- Projects located within an Environmental Justice Area.
- Projects that are recommended in a SMC-adopted watershed plan.
- HOAs that document they are currently implementing stormwater best management practices.

The following summaries describe how each application addresses the nine WMB prioritization criteria. The SMC staff funding recommendation follows each summary:

1. **Forest Creek HOA Bank Stabilization Project.** This application was submitted by the Forest Creek Homeowners Association. The estimated project cost is \$80,604, with local share of \$58,604 and a requested WMB amount of \$22,000. The proposed project scope involves removing built-up sediment within the creek bottom and installing seawall sections and natural boulders to protect the bridge and inflection points of the streambank. The proposed project has interjurisdictional, flood hazard reduction, water quality, natural resources, nuisance flooding, and multiple use benefits.

Project Evaluation:

1. The project will have significant interjurisdictional benefits.
2. The project will provide moderate flood hazard reduction benefits.
3. The project will not provide structural damage reduction benefits.
4. The project will provide moderate water quality benefits.
5. The project will promote moderate natural resource benefits.
6. The project will provide moderate nuisance-related flood reduction benefits.
7. The project will provide moderate multiple use benefits.
8. The project will not use outside (non-WMB or Applicant cost share) funding.
9. The project will not provide phosphorus public education benefits.

This project received bonus credits for >50% non-SMC cost-share and for current HOA BMP implementation.

SMC staff **RECOMMENDS** WMB funding for the Forest Creek Shoreline Stabilization Project in the amount of \$22,000.

2. **Brookside HOAs BMP Project.** This application was submitted jointly by three neighborhood homeowner's associations within the Brookside development. The estimated project cost is \$109,700, with local share of \$72,612.50 and a requested WMB amount of \$37,098.50. The proposed project scope involves converting/expanding 1,726 l.f. of turfgrass shoreline around three ponds to natives; repairing/resetting 8 flared end sections (4 each at two ponds); installing

two rain gardens, educational signage and bird houses; providing an educational seminar for all Lake County residents; and repairing two walking paths used for educational and recreational purposes. The proposed project has interjurisdictional, water quality, natural resource, multiple use, and phosphorus public education benefits.

Project Evaluation:

1. The project has moderate interjurisdictional benefits.
2. The project will not provide flood hazard reduction.
3. The project will not provide structural damage reduction.
4. The project will provide moderate water quality benefits.
5. The project will promote significant natural resource benefits.
6. The project will not provide nuisance-related flood reduction benefits.
7. The project proposes moderate multiple use benefits.
8. The project proposes to use outside (non-WMB or Applicant cost share) funding.
9. The project proposes moderate phosphorus public education benefits.

This project received bonus credits for >50% non-SMC cost-share, aligning with goals/objectives of the Bull Creek-Bull's Brook Watershed-based Plan and the Des Plaines River Watershed-based Plan, and current HOA BMP implementation.

SMC staff ***RECOMMENDS*** WMB funding for the Brookside HOAs BMP Project in the amount of \$37,088.

- 3. Grayslake Central High School Drainage Relief Project.** This application was submitted by the Grayslake Central High School District 127. The estimated project cost is \$70,000, with local share of \$36,000 and a requested WMB amount of \$34,000. The proposed project scope involves reducing the frequency of downstream flooding at several properties by regrading swales, expanding existing flood storage area on school property from 0.06 ac-ft to 0.3 ac-ft, and constructing an enhanced berm on most flood-prone lots. Supports other improvements implemented by District to reduce drainage to this area. The proposed project has interjurisdictional, flood hazard reduction, water quality, natural resource, and nuisance flood reduction benefits.

Project Evaluation:

1. The project will provide moderate interjurisdictional benefits.
2. The project will provide moderate flood hazard reduction benefits.
3. The project will not provide structural damage reduction benefits.
4. The project will provide moderate water quality benefits.
5. The project will promote moderate natural resource benefits.
6. The project will provide moderate nuisance-related flood reduction benefits.
7. The project will not provide multiple use benefits.
8. The project does not propose using outside (non-WMB or Applicant cost share) funding.
9. The project will not provide phosphorus public education benefits.

This project received bonus credits for >50% non-SMC cost-share and for aligning with goals/objectives of the 2014 Mill Creek Watershed and Flood Mitigation Plan as well as the Des Plaines River Watershed-based Plan.

SMC Staff referred this project to SMC's Stormwater Infrastructure Repair Fund (SIRF) program due to the nature and scope of the work. SMC staff recommends SIRF funding for the Grayslake Central High School Drainage Relief Project.

SMC staff does **NOT RECOMMEND** WMB funding for the Grayslake Central High School Drainage Relief Project.

4. **Starry Lane Drainage Improvement Project.** This application was submitted by Ela Township Highway Department. The estimated project cost is \$321,631.50, with local share of \$161,631.50 and a requested WMB amount of \$160,000. The proposed project scope addresses depressional flooding in a residential area affecting seven properties by installing storm sewer running two blocks to gravity feed into an existing system. The proposed project has interjurisdictional, flood hazard reduction, structural damage reduction, and phosphorus public education benefits.

Project Evaluation:

1. The project has significant interjurisdictional benefits.
2. The project will have significant flood hazard reduction benefits.
3. The project will have maximum structural damage reduction benefits.
4. The project will not provide water quality benefits.
5. The project will not promote natural resource benefits.
6. The project will not provide maximum nuisance-related flood reduction benefits.
7. The project will not have multiple use benefits.
8. The project does not propose using outside (non-WMB or Applicant cost share) funding.
9. The project proposes moderate phosphorus public education benefits.

This project received bonus credits for >50% non-SMC cost-share.

SMC Staff referred this project to SMC's Stormwater Infrastructure Repair Fund (SIRF) program due to the nature and scope of the work. SMC staff recommends SIRF funding for the Starry Lane Drainage Improvement Project.

SMC staff does **NOT RECOMMEND** WMB funding for the Starry Lane Drainage Improvement Project.

5. **Meadow Haven Creek Drainage Improvement Project.** This application was submitted by the Village of Green Oaks. The estimated project cost is \$315,000, with local share of \$300,000 and a requested WMB amount of \$15,000. The proposed project scope involves replacing three failing culverts (one culvert each on Shannondale Road, Heathercliff Drive, and Guerin Road), clearing invasive species and regrading 275 l.f. of creek channel to a trapezoidal shape, installing two riffle checks, and revegetating disturbed areas with native plants. The proposed project has interjurisdictional, structural damage reduction, and nuisance flood reduction benefits.

Project Evaluation:

1. The project will provide moderate interjurisdictional benefits.
2. The project will not provide flood hazard reduction benefits.
3. The project will not provide structural damage reduction benefits.
4. The project will not provide water quality benefits.

5. The project will not provide natural resource benefits.
6. The project will provide moderate nuisance-related flood reduction benefits.
7. The project will not provide multiple use benefits.
8. The project does not propose using outside (non-WMB or Applicant cost share) funding.
9. The project will not have phosphorus public education benefits.

This project received bonus credits for >50% non-SMC cost-share.

SMC Staff referred this project to SMC’s Stormwater Infrastructure Repair Fund (SIRF) program due to the nature and scope of the work. SMC staff recommends SIRF funding for the Meadow Haven Creek Drainage Improvement Project.

SMC staff does **NOT RECOMMEND** WMB funding for the Meadow Haven Creek Drainage Improvement Project.

6. **Harding & Willow Flood Area Reduction Project.** This application was submitted by the Village of Libertyville. The estimated project cost is \$15,140, with local share of \$7,600 and a requested WMB amount of \$7,540. The proposed project scope involves curb reconstruction to prevent overland flow from reaching rear yards of a Village “Flood Study Area” and causing basement flooding in four residences. The proposed project has interjurisdictional, flood hazard reduction, and nuisance flood reduction benefits.

Project Evaluation:

1. The project has moderate interjurisdictional benefits.
2. The project will provide significant flood hazard reduction benefits.
3. The project will not provide structural damage reduction benefits.
4. The project will not provide water quality benefits.
5. The project will not promote natural resource benefits.
6. The project will provide moderate nuisance-related flood reduction benefits.
7. The project proposes moderate multiple use benefits.
8. The project does not propose using outside (non-WMB or Applicant cost share) funding.
9. The project does not propose phosphorus public education benefits.

This project received bonus credits for >50% non-SMC cost-share.

SMC staff **DOES NOT RECOMMEND** WMB funding for the Harding & Willow Flood Area Reduction Project.

7. **Butler Lake Park Wet Prairie Enhancement Project.** This application was submitted by the Village of Libertyville. The estimated project cost is \$17,291.60, with local share of \$8,791.60 and a requested WMB amount of \$8,500. The proposed project scope involves site preparation, purchase and installation of native plant plugs in a 0.2 acre area near Lake Street. The proposed project has moderate water quality and natural resources benefits.

Project Evaluation:

1. The project has will not provide interjurisdictional benefits.
2. The project will not provide flood hazard reduction benefits.
3. The project will not provide structural damage reduction benefits.

4. The project will provide moderate water quality benefits.
5. The project will provide moderate natural resource benefits.
6. The project will not provide nuisance-related flood reduction benefits.
7. The project will not provide multiple use benefits.
8. The project will not use outside (non-WMB or Applicant cost share) funding.
9. The project will not provide phosphorus public education benefits.

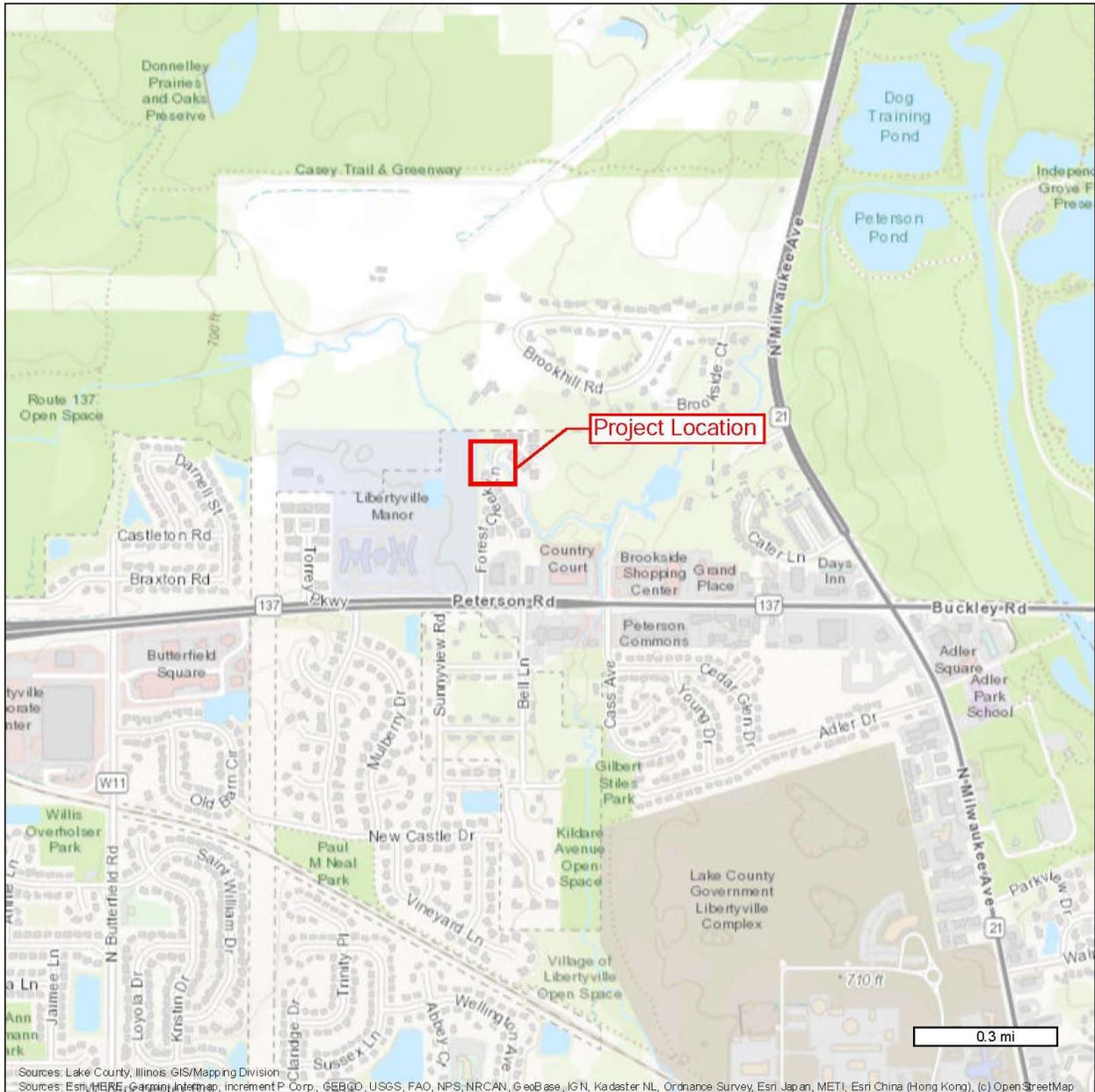
This project received bonus credits for >50% non-SMC cost-share.

SMC Staff does **NOT RECOMMEND** WMB funding for the Butler Lake Wet Prairie Enhancement Project.

WMB FY2020 Funding Evaluation – Des Plaines River Watershed

Des Plaines River Watershed			Forest Creek HOA Bank Stabilization		Brookside HOAs BMP		Grayslake Central HS Drainage Relief		Starry Lane Drainage Improvement		Meadow Haven Creek Drainage Improvement		Harding & Willow Flood Area Reduction		Butler Lake Park Wet Prairie Enhancement		Watershed Total	
Rank	Prioritization Criteria	Max. Possible Weight	Rating	Score	Rating	Score	Rating	Score	Rating	Score	Rating	Score	Rating	Score	Rating	Score		
1	Interjurisdictional benefits	25	4	100	3	75	3	75	4	100	4	100	3	75	2	50		
2	Flood hazard reduction benefits	20	3	60	2	40	3	60	4	80	2	40	4	80	2	40		
3	Structural damage reduction	15	2	30	2	30	3	45	5	75	3	45	1	15	0	0		
4	Water quality benefits	15	3	45	3	45	3	45	0	0	2	30	1	15	3	45		
5	Natural resource benefits	10	3	30	4	40	3	30	0	0	2	20	0	0	3	30		
6	Nuisance flood reduction	5	3	15	1	5	3	15	5	25	3	15	3	15	1	5		
7	Multiple use benefits	5	3	15	3	15	1	5	0	0	0	0	0	0	2	10		
8	Outside funding utilization	5	1	5	3	15	0	0	0	0	0	0	0	0	0	0		
9	Phosphorus public education component	5	2	10	3	15	1	5	1	5	2	10	0	0	0	0		
	Bonus Credit: Critical Facilities	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	Bonus Credit: Greater than 50% non-SMC cost share	5	1	5	1	5	1	5	1	5	1	5	1	5	1	5		
	Bonus Credit: Within Environmental Justice Area	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	Bonus Credit: Measure recommended in SMC adopted Watershed Management Plan	5	0	0	1	5	1	5	0	0	0	0	0	0	0	0		
	HOA Bonus Credit: Current stormwater BMP implementation	5	1	5	1	5	0	0	0	0	0	0	0	0	0	0		
	Weighted Score Total (Minimum score greater than 210 required for funding)		320		295		290		290		265		205		185			
	Total project cost		\$80,604		\$109,700		\$70,000		\$321,632		\$315,000		\$15,140		\$17,292			
	Applicant in-kind hours		0		232		0		0		0		0		0			
	Applicant cost share		\$58,604		\$72,613		\$36,000		\$161,632		\$300,000		\$7,600		\$8,792			
	Applicant's WMB funding request		\$22,000		\$37,088		\$34,000		\$160,000		\$15,000		\$7,540		\$8,500			
	Applicant's request for SMC in-kind hours		0		0		0		0		0		0		0		0	
	Total Available Funds for the watershed =	\$72,912																\$72,912
	Staff recommendation for watershed funding		\$22,000		\$37,088		SIRF		SIRF		SIRF		\$0		\$0		\$37,088	
	Staff recommendation for SMC in-kind hours																	0

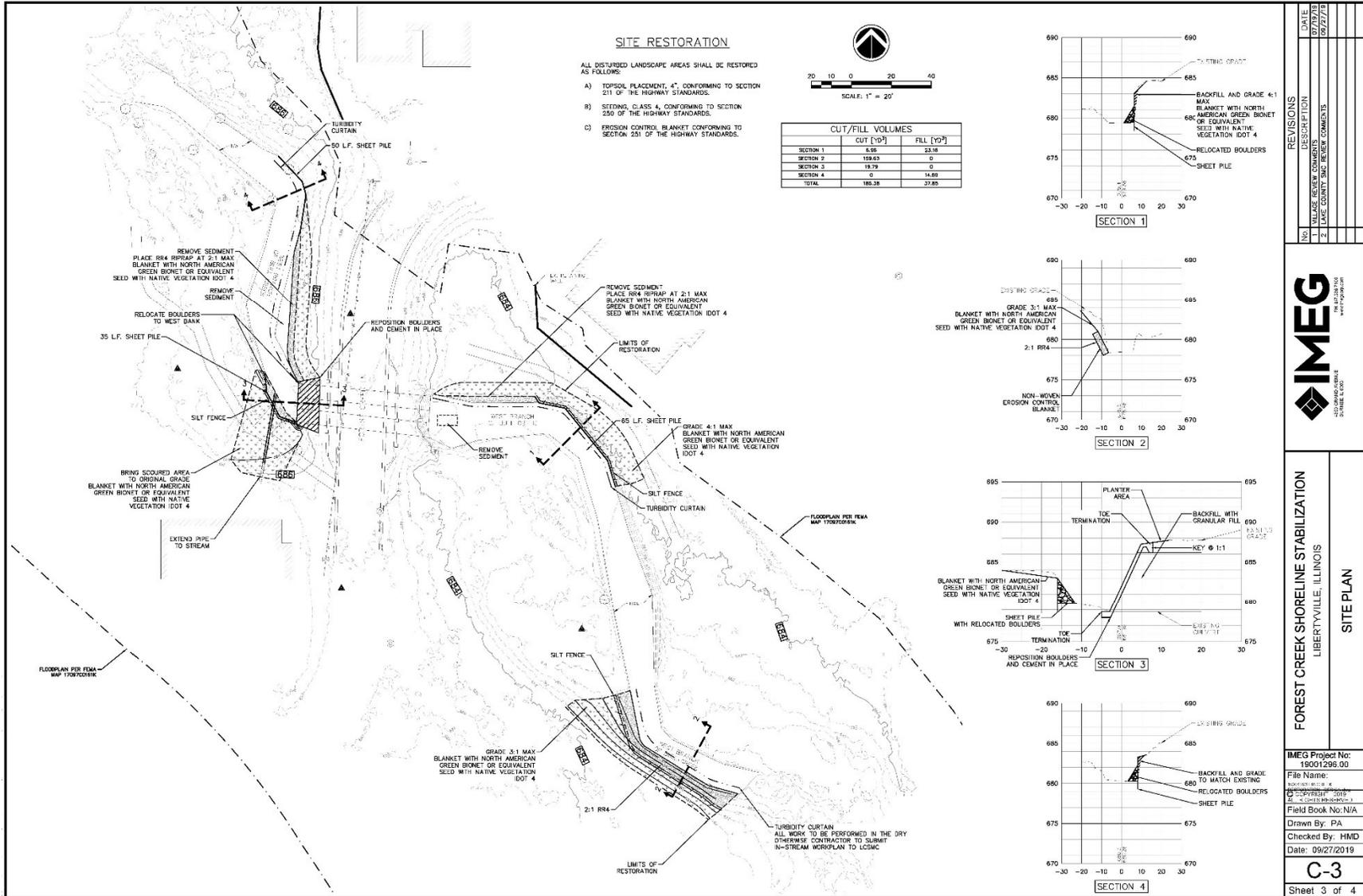
Project Location: Forest Creek HOA Bank Stabilization Project, Libertyville



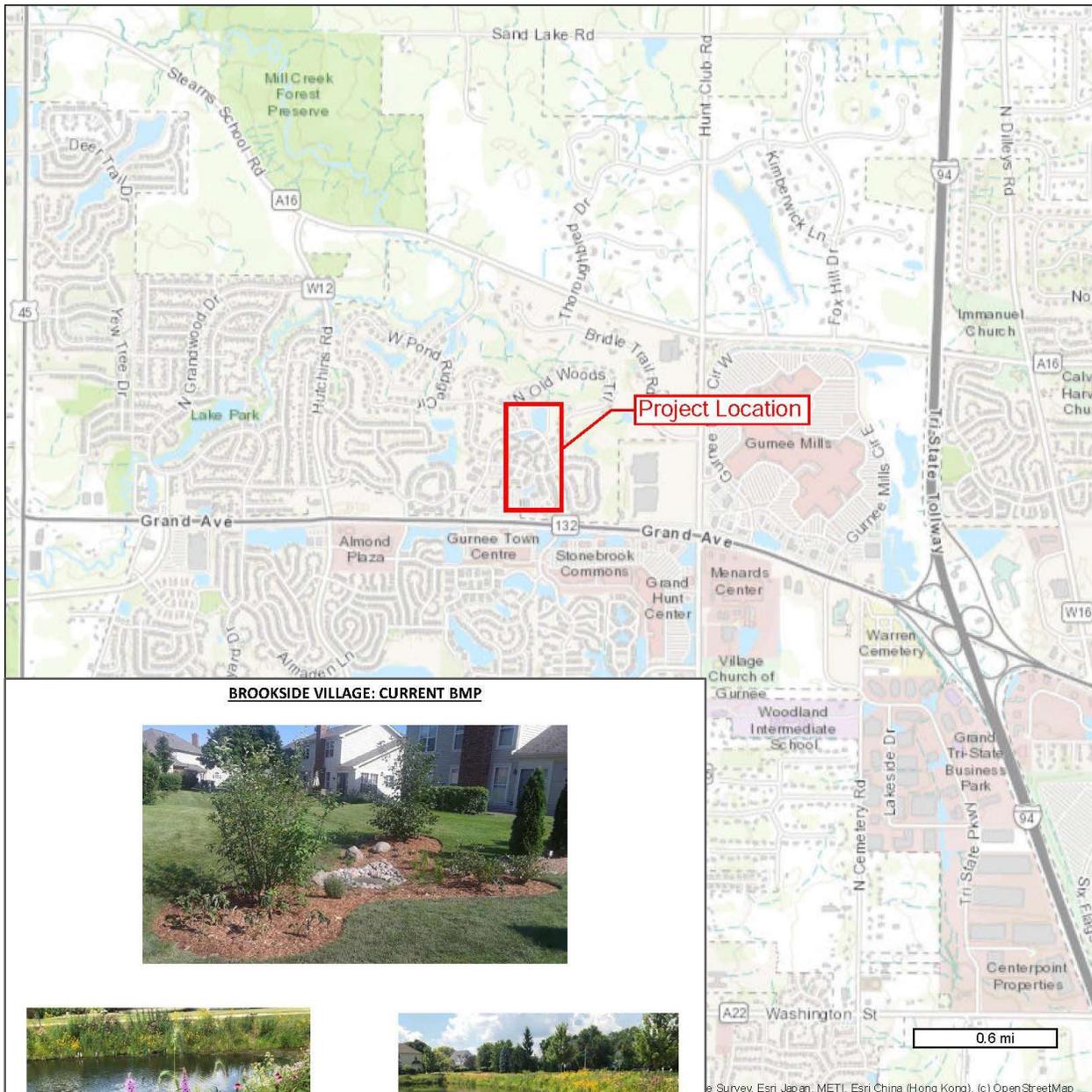
Example Issues at Forest Creek HOA



Proposed Improvements at Forest Creek HOA Bank Stabilization Project, Libertyville



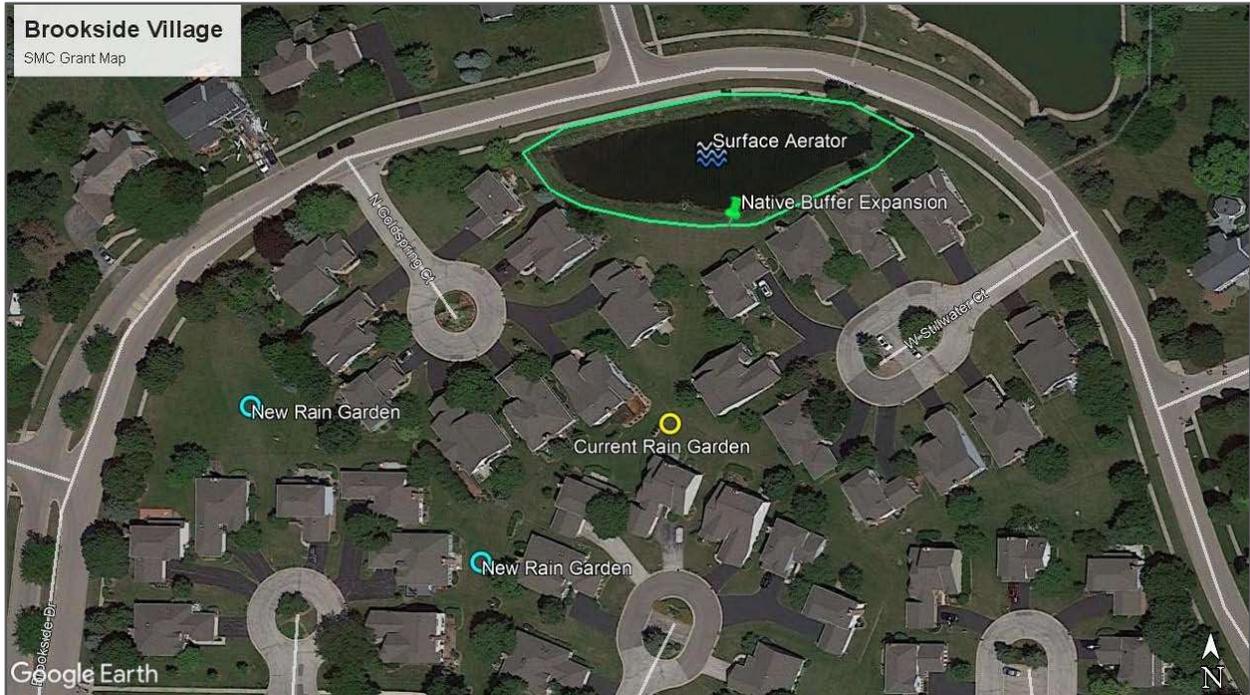
Project Area Location: Brookside HOAs BMP Project, Unincorporated Lake County.



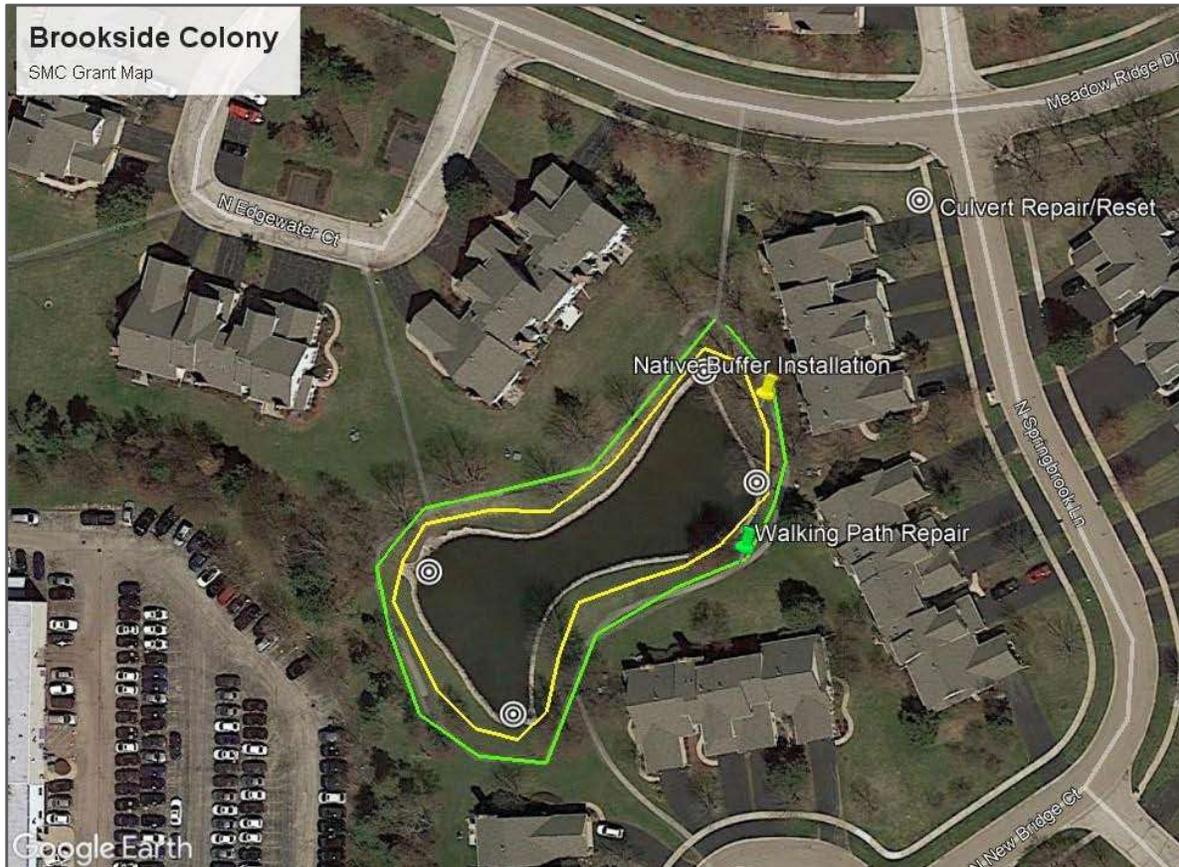
BROOKSIDE VILLAGE: CURRENT BMP



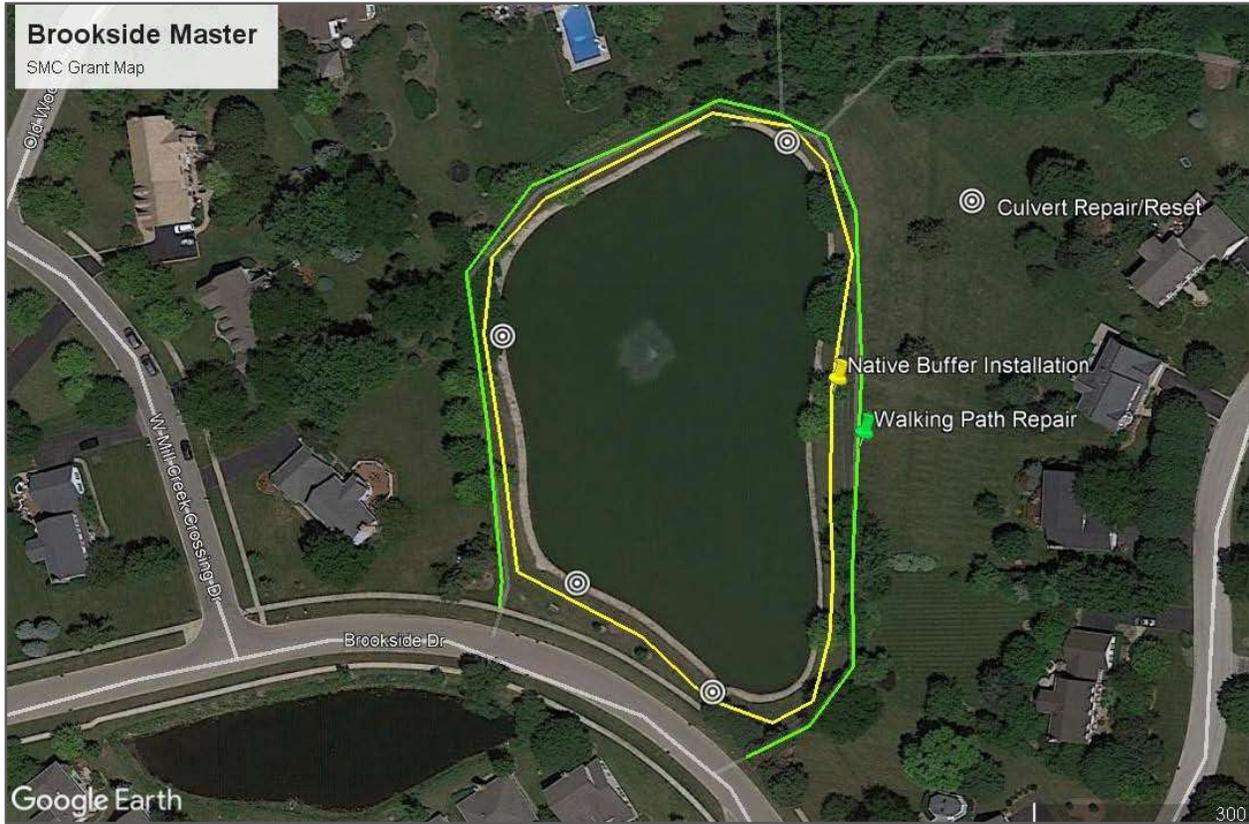
Proposed Improvements at Brookside Village, Unincorporated Lake County



Proposed Improvements at Brookside Colony, Unincorporated Lake County

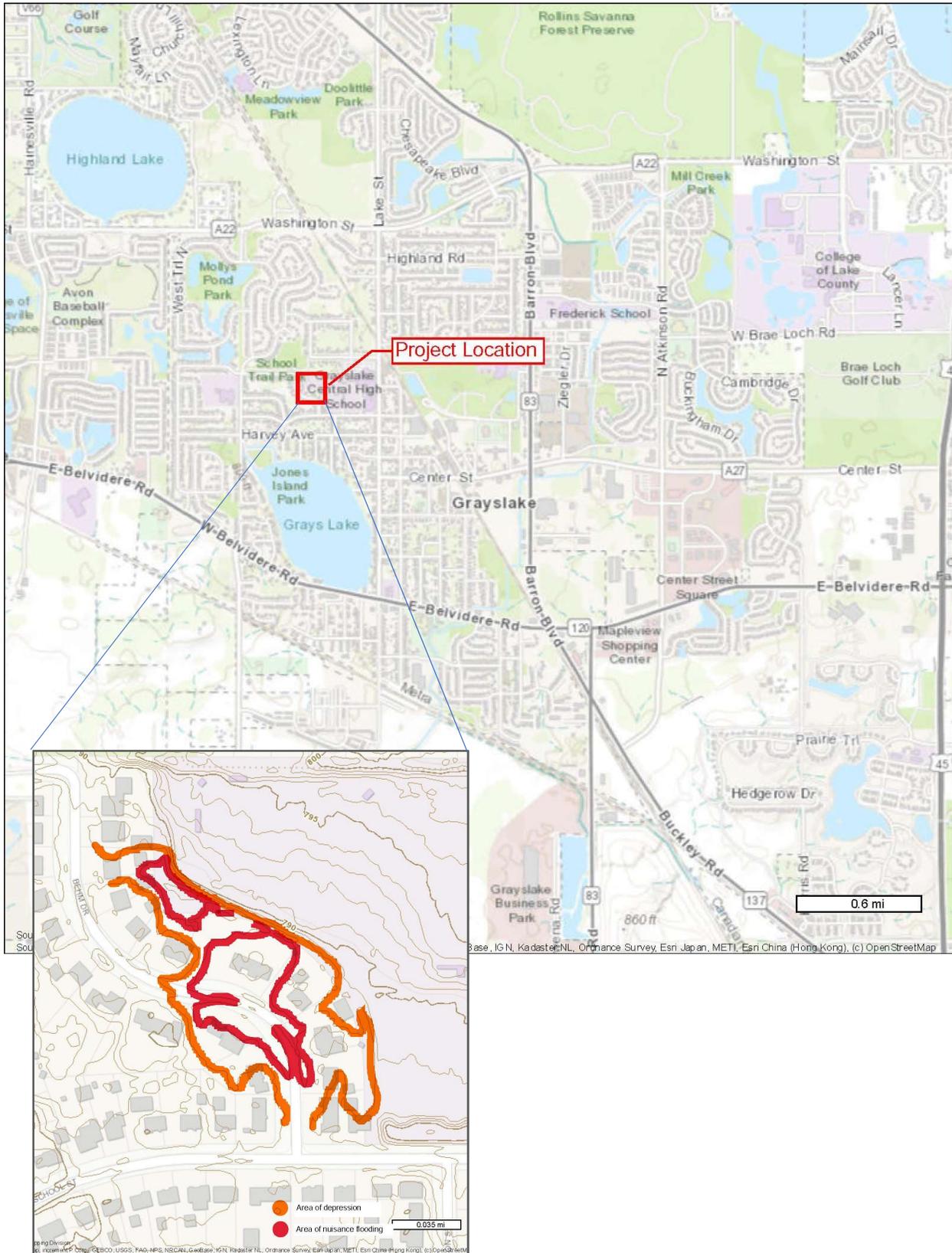


Proposed Improvements at Brookside Master, Unincorporated Lake County



Example Issues

Project Location: Grayslake Central High School Drainage Relief Project, Grayslake





Dry Conditions
2019-05-16
Drainage Swale

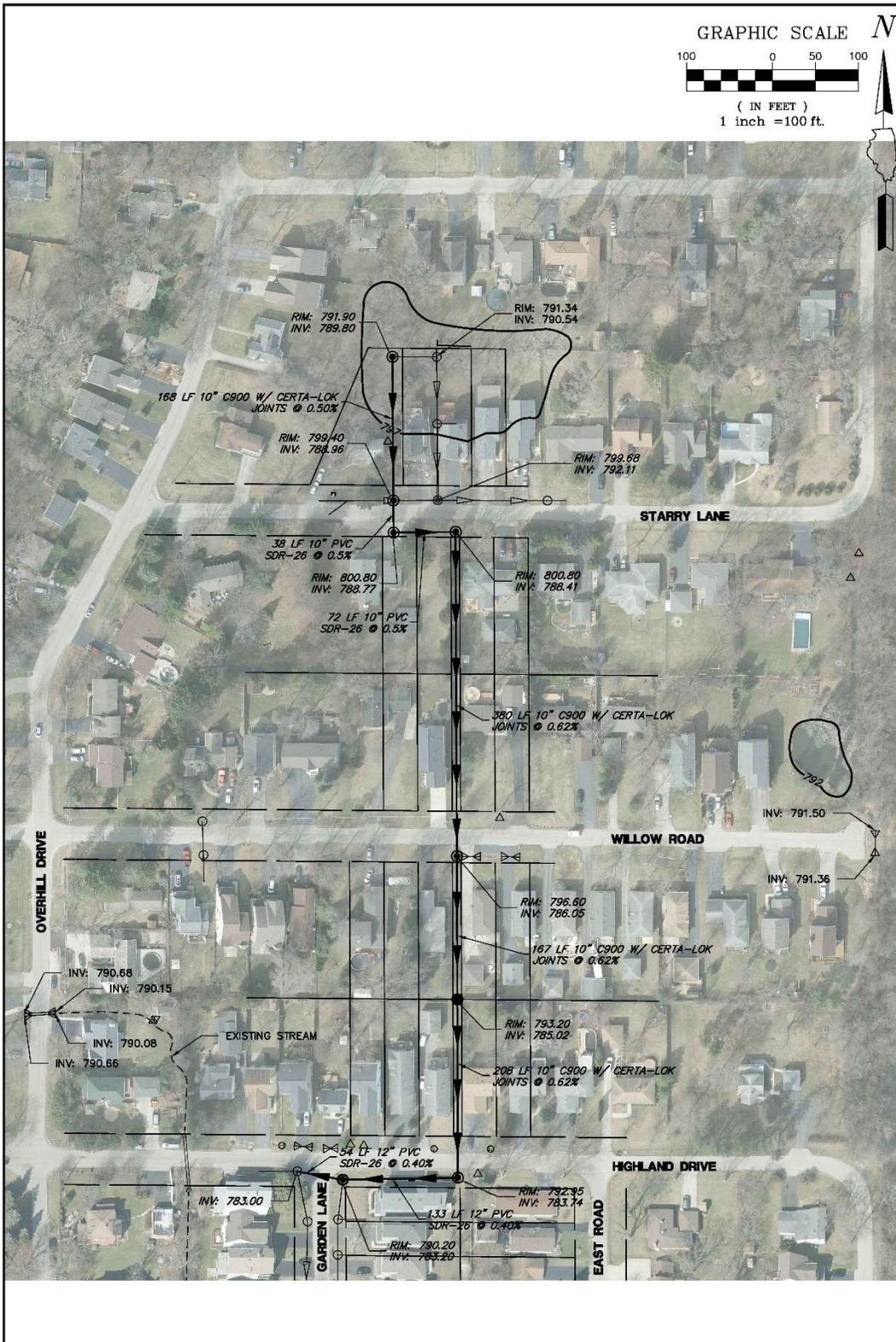


2019-09-10
~ 1.5" Rainfall

Flooding Conditions at Starry Lane Drainage Improvements Project, Unincorporated Ela Township



Proposed Starry Lane Drainage Improvements Project, Unincorporated Ela Township



GHA GEWALT HAMILTON ASSOCIATES, INC. 625 Forest Edge Drive • Vernon Hills, IL 60061 Tel.: 847.478.9700 • Fax: 847.478.9701	STARRY LANE PROPOSED STORM SEWER EXHIBIT		FILE: 3847.049_PR1.dwg
	FOREST LAKE S/D DRAINAGE IMPROVEMENTS		DRAWN BY: CAS GHA PROJECT #
	PHASE 1		DATE: 9-16-19 3847.049
	ELA TOWNSHIP, ILLINOIS		CHECKED BY: DJS SCALE 1"=100'

Project Location: Meadow Haven Creek Drainage Improvement Project, Green Oaks

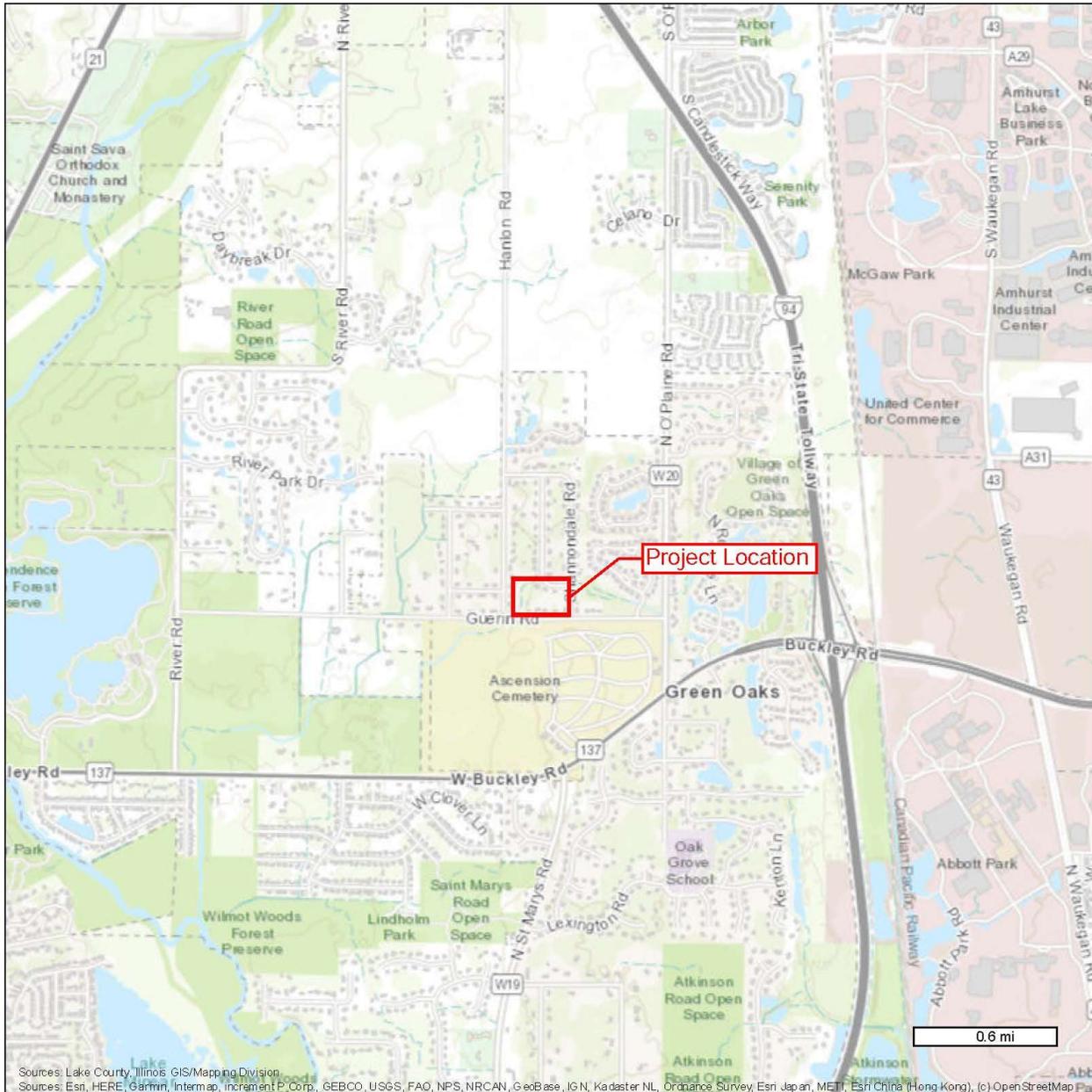




Photo 1 – Looking northeast at the intersection of Heathercliff and Shannondale Drives



Photo 2 – Looking west from Heathercliff Drive along Meadowhaven Creek



Photo 3 – Meadow Haven Creek – Downed tree across channel



Photo 4 – Meadow Haven Creek – vegetation along flow line

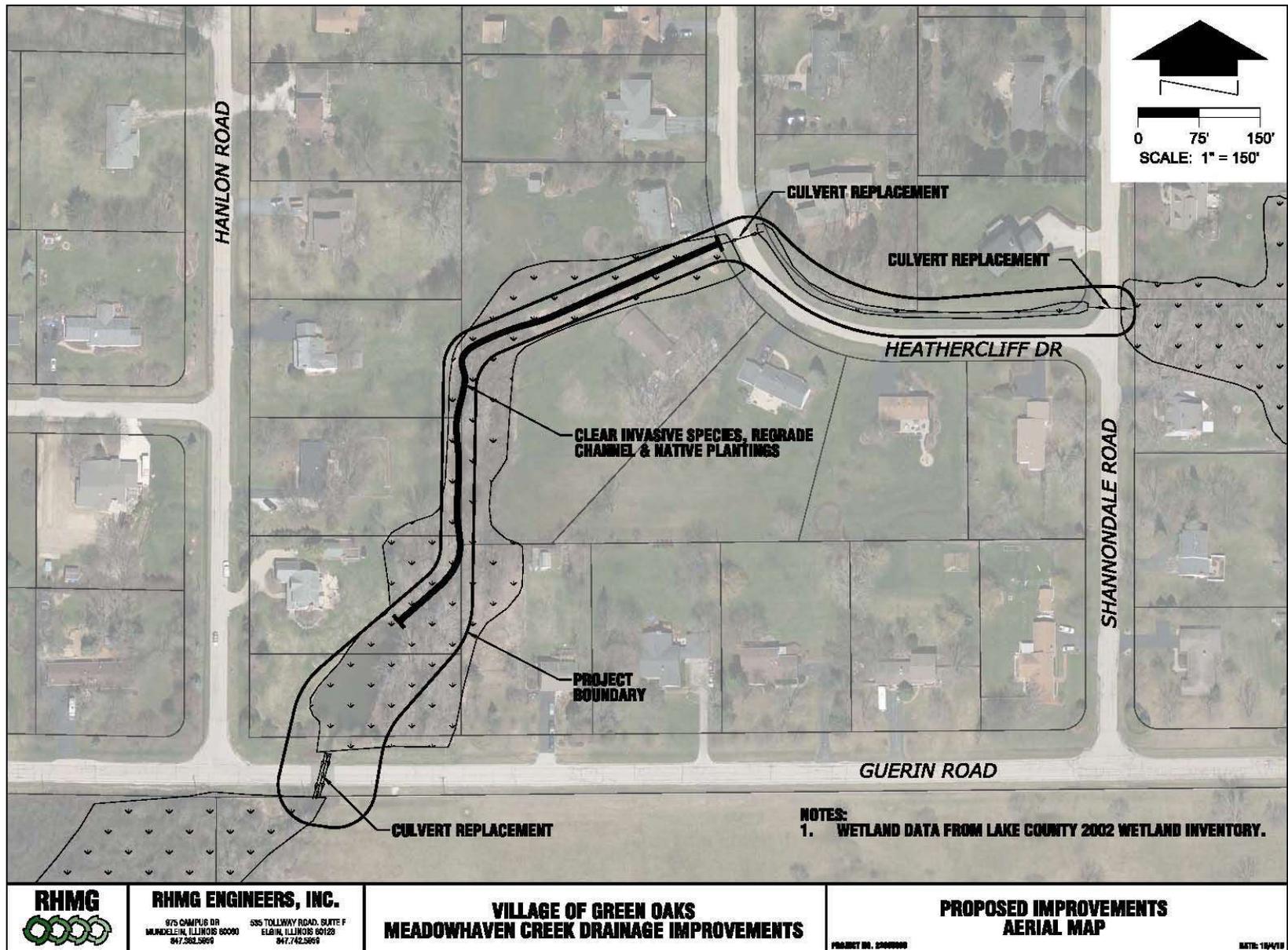


Photo 5 – Culvert Crossing at Guerin Road

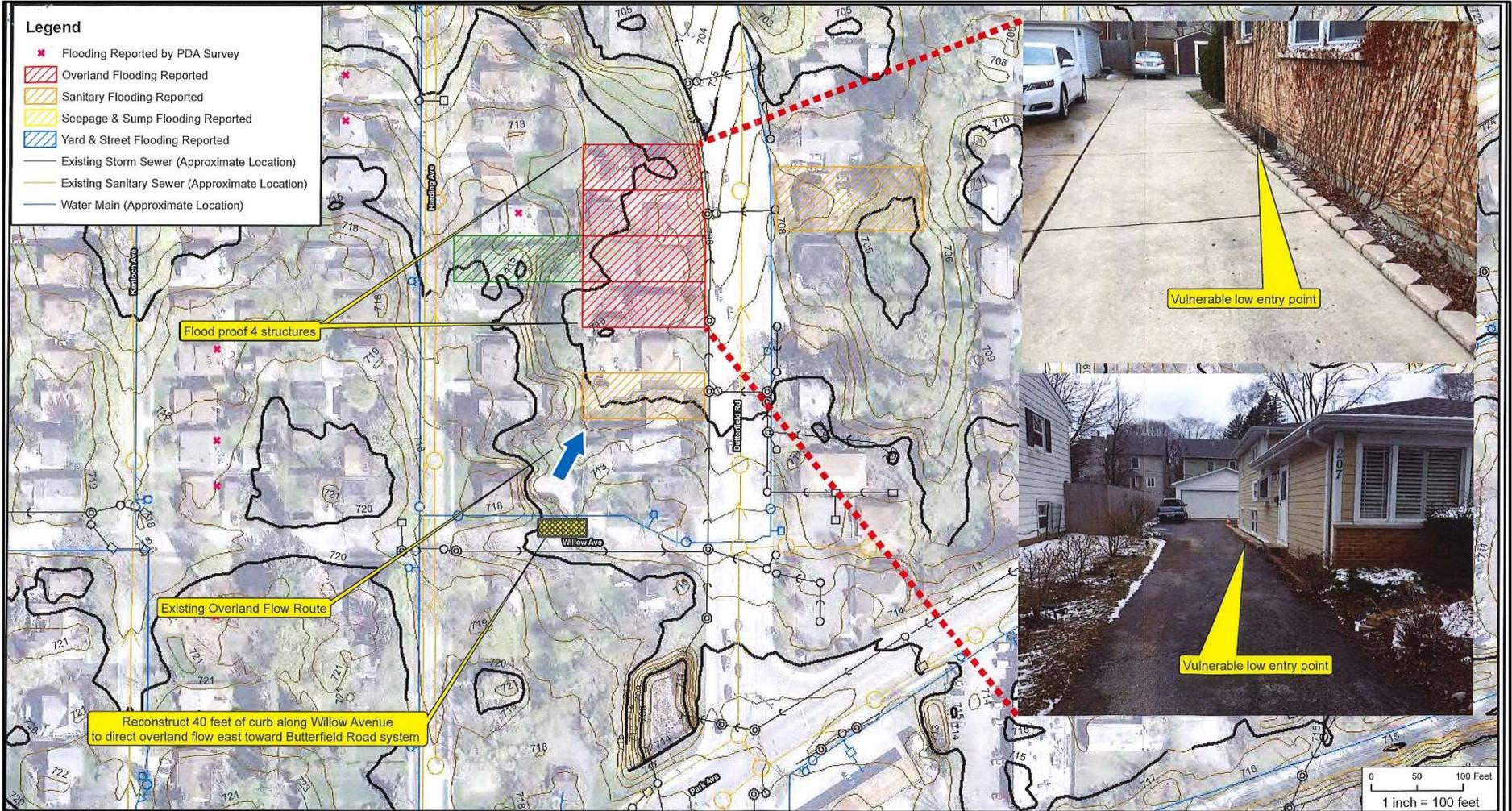


Photo 6 – Culvert under Guerin Road – bottom of culvert is rusted out

Proposed Meadow Haven Creek Drainage Improvements Project, Green Oaks



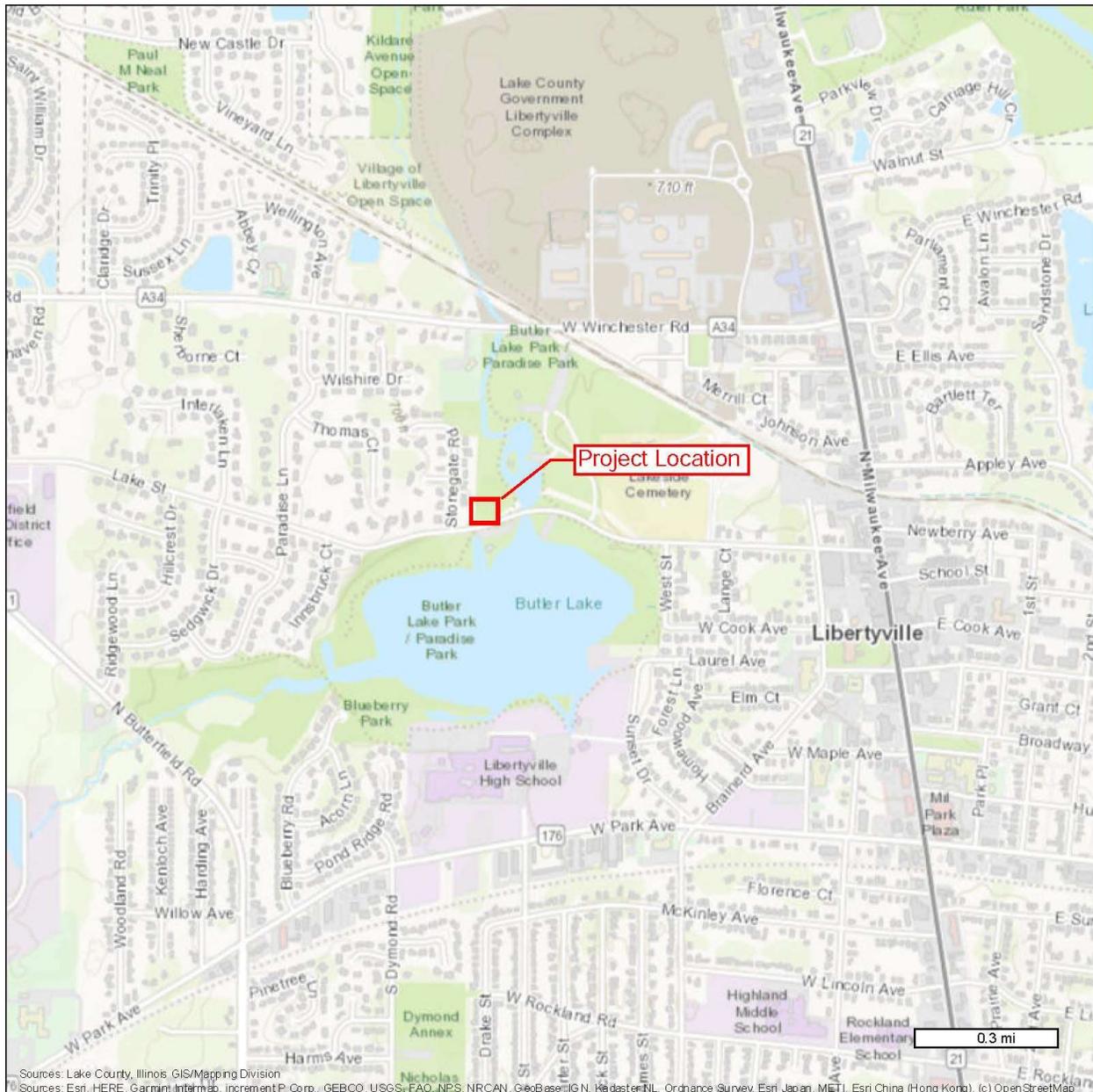
Proposed Improvements at Harding & Willow Area Flood Area Reduction Project, Libertyville



Document Path: N:\LIBERTYVILLE\170001\GIS\Exhibits\Proposed Exhibits\Harding & Willow.mxd

	CLIENT Village of Libertyville	PROJECT NO. 170001	DSGN.	DRB	CHKD.	DTO
	TITLE Harding and Willow Proposed Drainage Improvements					
	DATE 07/13/18					
EXHIBIT 33						

Project Location: Butler Lake Park Wet Prairie Enhancement Project, Libertyville



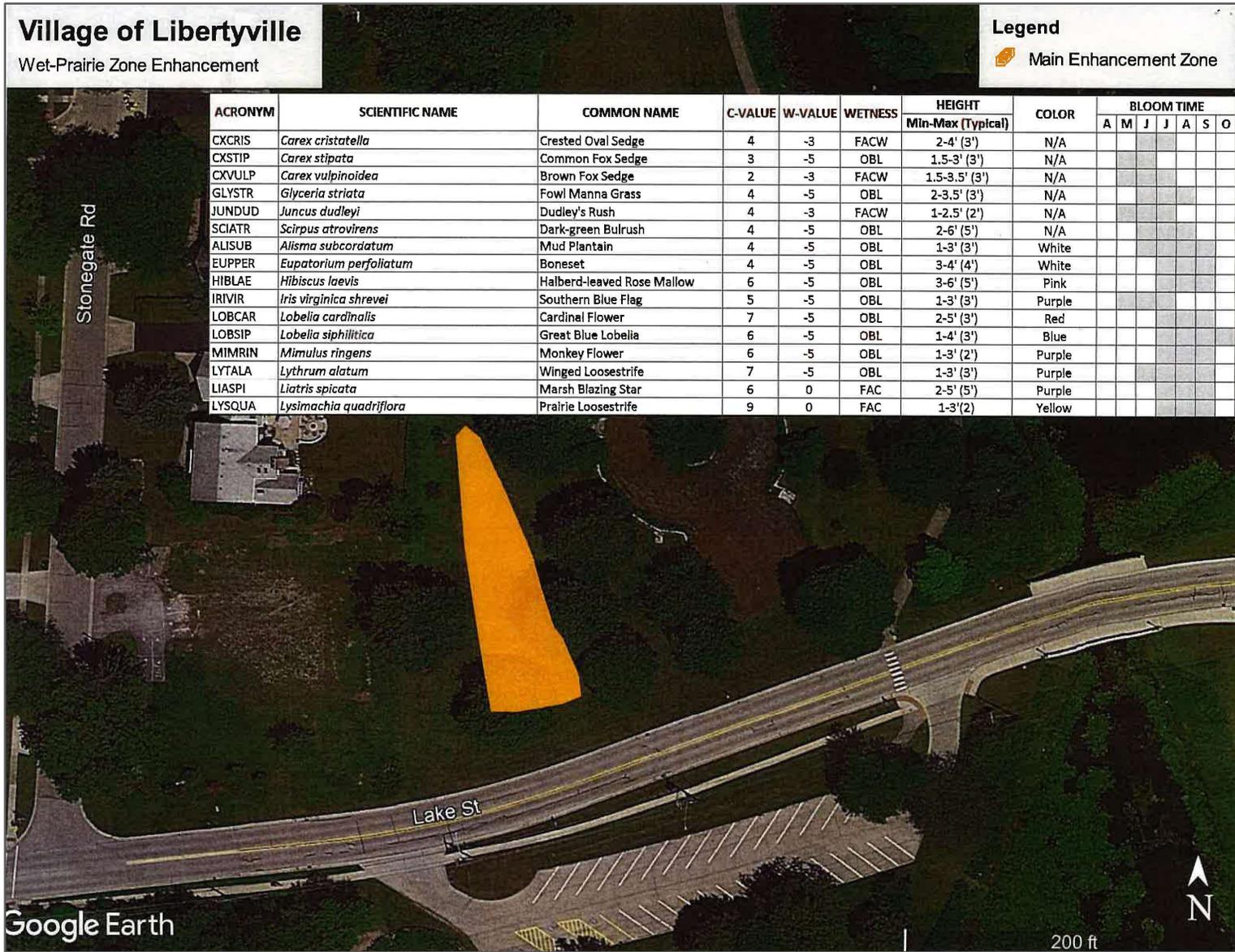
Butler Lake Park low area facing north June 4, 2019



Butler Lake Park after 1" rainfall on June 5, 2019



Improvements Proposed for the Butler Lake Wet Prairie Enhancement Project, Libertyville





STORMWATER MANAGEMENT COMMISSION

MEMORANDUM

November 5, 2019

To: North Branch Chicago River Watershed Management Board
From: Ashley Strelcheck, Water Resource Professional
Re: FY2020 WMB Grant – Funding Recommendations for Projects in the North Branch Chicago River Watershed

SMC received one application for a project in the North Branch Chicago River Watershed with a total project cost of \$180,000 and requested funding in the amount of \$20,000. The available funding for projects in the North Branch of the Chicago River Watershed for Fiscal Year 2020 is \$36,456. SMC staff recommends this project. The attached table, "WMB Funding Evaluation-North Branch Chicago River Watershed", provides the SMC staff evaluation of submitted application based on the following prioritization criteria:

1. **Interjurisdictional Benefits** - Benefit multiple jurisdictions (government entities, HOAs, not-for-profits), will have interjurisdictional impacts, and/or will benefit the major "trunk"/regional scale drainage system of the watershed. ("Trunk" defined as that part of the drainage system that drains more than 100-acre drainage areas and has the potential to have inter-jurisdictional impacts.)
2. **Flood Hazard Reduction Benefits** - Have beneficial results or impacts, including non-transportation related flood hazard reduction, during flood events up to and including 100-year events. (A 100-year event being a flood event with the probability of occurrence in any given year of 1%.)
3. **Structural Damage Reduction** - Mitigate structural damages due to floods and other stormwater related causes with consideration of the number of structures affected including, but not limited to, removing, elevating, flood-proofing or otherwise protecting buildings from future danger of flood damage or structural damage related to flood-induced erosion. Also, these criteria include Lake Michigan Watershed specific mitigation of damages due to stormwater, flood and wave induced problems on bluff, ravine and lakeshore areas.
4. **Water Quality Benefits** - Reduce surface water quality impairments utilizing best management practices.
5. **Natural Resource Benefits** - Benefit the environment with an emphasis on non-structural natural resource protection strategies.
6. **Nuisance Flood Reduction** - Alleviate major nuisance flooding and/or blocked transportation access.
7. **Multiple Use Benefits** - Provide multiple-use benefits to communities such as recreation, public education, data collection or others.
8. **Outside Funding Utilization** - Utilize federal and/or state funding to the maximum extent possible.

9. **Public Education Component** - Include a public education and outreach effort aimed at reducing the amount of phosphorus contained in stormwater runoff. This may include reducing the amount of fertilizer applied to lawns, using phosphorus-free fertilizers, and establishing buffer strips along lake shores, stream banks, and wetlands. Applicants may also choose to adopt an ordinance banning the use of fertilizers and detergents containing phosphorus.

SMC staff also awarded bonus credit to those applications satisfying the following five WMB-approved criteria:

- Projects that protect or alleviate structural damages to critical facilities.
- Projects for which the applicant's share of the estimated total project cost exceeds 50%.
- Projects located within an Environmental Justice Area.
- Projects that are recommended in a SMC-adopted watershed plan.
- HOAs that document they are currently implementing stormwater best management practices.

Below is a brief summary of each proposed project, describing how each application addresses the WMB-approved prioritization criteria. SMC staff recommendations are also presented below.

1. **Kenton Lane Stormwater Conveyance Improvements.** An application was submitted by the Village of Green Oaks. The estimated project cost is \$180,000, of which \$160,000 is the applicant's share. \$20,000 is currently being requested from the WMB. The proposed project scope of work includes construction of a new outlet control structure at the northeast corner of the Doe Lake; located on the south side of Kenton Lane in Green Oaks. In addition, the project shall reshape the ditch and replace one driveway culvert along the south right-of-way of Kenton Lane from the outlet control structure extending to Cranbrook Road. The grading and culvert replacement will improvement positive drainage conveyance and reduce local drainage issues. The ditches downstream of Doe Lake have been previously improved and other local drainage projects have been implemented in this area.

Project evaluation:

1. The project will provide inter-jurisdictional benefits.
2. The project will provide some flood hazard reduction benefits.
3. The project will provide minimal structural damage reduction benefits.
4. The project will provide water quality benefits.
5. The project will provide some natural resource benefits.
6. The project will provide significant nuisance-related flooding reduction benefits.
7. The project will not provide multiple use benefits.
8. Public education and outreach on reducing phosphorus loads is proposed.

Bonus credit was awarded to this project due to the project being recommended in the North Branch of the Chicago River Watershed-Based Plan and providing greater than 50% of non-SMC cost share funding.

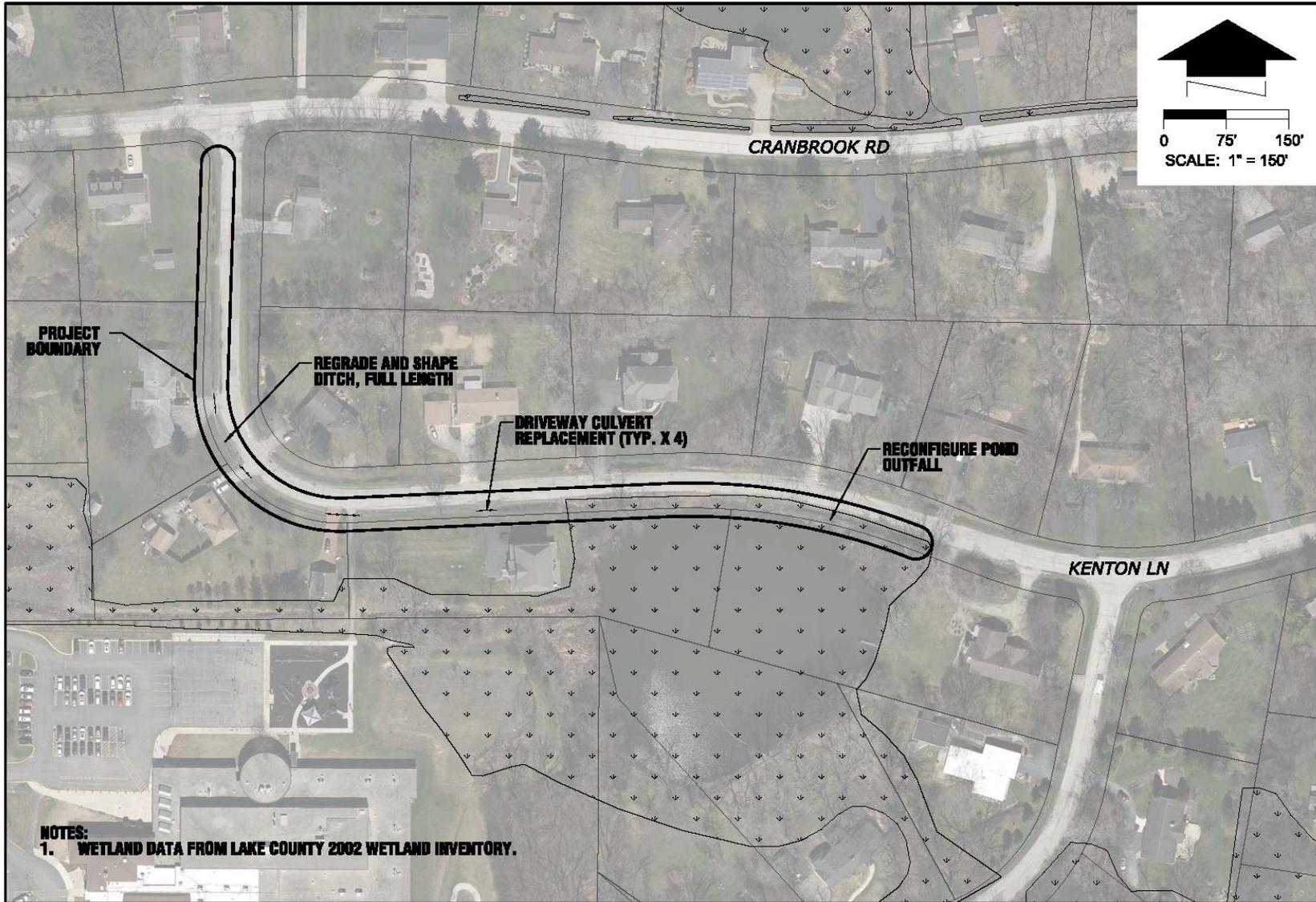
This project **IS RECOMMENDED** for WMB funding in the amount of \$20,000.

If you have any questions regarding these projects, please contact Ashley Strelcheck at (847) 377-7710 or astrelcheck@lakecountyil.gov.

WMB Funding Evaluation – FY20 North Branch Chicago River Watershed

North Branch Watershed			Kenton Lane Stormwater Conveyance Improvements	
Rank	Prioritization Criteria	Max. Possible Weight	Rating	Score
1	Interjurisdictional benefits	25	3	75
2	Flood hazard reduction benefits	20	2	40
3	Structural damage reduction	15	1	15
4	Water quality benefits	15	3	45
5	Natural resource benefits	10	2	20
6	Nuisance flood reduction	5	4	20
7	Multiple use benefits	5	0	0
8	Outside funding utilization	5	0	0
9	Phosphorus public education component	5	3	15
	Bonus Credit: Critical Facilities	5	0	0
	Bonus Credit: Greater than 50% non-SMC cost share	5	1	5
	Bonus Credit: Measure recommended in SMC adopted Watershed Management Plan	5	1	5
	HOA Bonus Credit: Current stormwater BMP implementation	5	0	0
Weighted Score Total (Minimum score greater than 210 required for funding)			240	
Total project cost			\$180,000	
Applicant in-kind hours			0	
Applicant cost share			\$160,000	
Applicant's WMB funding request			\$20,000	
Applicant's request for SMC in-kind hours			0	
Total Available Funds for the watershed =		\$36,456		
Staff recommendation for watershed funding			\$20,000	
Staff recommendation for SMC in-kind hours			0	

Kenton Lane Stormwater Conveyance Improvements Project Location



	RHMG ENGINEERS, INC. <small>578 CAMPUS DR. MUNDELLEN, ILLINOIS 60060 647.382.6969</small>	VILLAGE OF GREEN OAKS KENTON LANE DRAINAGE IMPROVEMENTS	PROPOSED IMPROVEMENTS AERIAL MAP <small>PROJECT NO. 230000</small>
		<small>DATE 10/19/18</small>	



STORMWATER MANAGEMENT COMMISSION

M E M O R A N D U M

November 6, 2019

To: Fox River Watershed Management Board
From: Michelle Pope, GIS Specialist/Engineering Technician
Re: FY2020 WMB Grant – Funding Recommendations for Projects in the Fox River Watershed

SMC received eight applications for projects in the Fox River Watershed with a total project cost of \$542,002 and requested funding in the amount of \$136,845. The available funding for projects in the Fox River Watershed for Fiscal Year 2020 is \$36,456. SMC staff recommends funding of five projects. The attached table, "WMB Funding Evaluation-Fox River Watershed," provides the SMC staff evaluation of submitted applications based on the following prioritization criteria:

- 1) **Interjurisdictional Benefits** - Benefit multiple jurisdictions (government entities, HOAs, not-for-profits), will have interjurisdictional impacts, and/or will benefit the major "trunk"/regional scale drainage system of the watershed. ("Trunk" defined as that part of the drainage system that drains more than 100-acre drainage areas and has the potential to have inter-jurisdictional impacts.)
- 2) **Flood Hazard Reduction Benefits** - Have beneficial results or impacts, including non-transportation related flood hazard reduction, during flood events up to and including 100-year events. (A 100-year event being a flood event with the probability of occurrence in any given year of 1%.)
- 3) **Structural Damage Reduction - Mitigate structural damages due to floods and other stormwater related causes** with consideration of the number of structures affected including, but not limited to, removing, elevating, flood-proofing or otherwise protecting buildings from future danger of flood damage or structural damage related to flood-induced erosion. Also, these criteria include Lake Michigan Watershed specific mitigation of damages due to stormwater, flood and wave induced problems on bluff, ravine, and lakeshore areas.
- 4) **Water Quality Benefits** - Reduce surface water quality impairments utilizing best management practices.
- 5) **Natural Resource Benefits** - Benefit the environment with an emphasis on non-structural natural resource protection strategies.
- 6) **Nuisance Flood Reduction** - Alleviate major nuisance flooding and/or blocked transportation access.
- 7) **Multiple Use Benefits** - Provide multiple-use benefits to communities such as recreation, public education, data collection or others.
- 8) **Outside Funding Utilization** - Utilize federal and/or state funding to the maximum extent possible.
- 9) **Public Education Component** - Include a public education and outreach effort aimed at reducing the amount of phosphorus contained in stormwater runoff. This may include reducing the amount of fertilizer applied to lawns, using phosphorus-free fertilizers, and establishing buffer

strips along lake shores, stream banks, and wetlands. Applicants may also choose to adopt an ordinance banning the use of fertilizers and detergents containing phosphorus.

SMC staff awarded bonus credit to those applications satisfying the following five WMB-approved criteria:

- Projects for which the applicant's share of the estimated total project cost exceeds 50%.
- Projects located in an Environmental Justice Area.
- Projects recommended in a SMC-adopted watershed plan.
- Projects that protect or alleviate structural damages to critical facilities.
- HOAs that document they are currently implementing stormwater best management practices.

Below are brief summaries of proposed projects, evaluation of project's prioritization criteria, and SMC staff recommendations for WMB project funding.

- 1. Hydraulic and Hydrologic Study, Lake Gauge, and Project Prioritization.** The Village of Tower Lakes and the TLIA have submitted this project application. The estimated cost of the project is \$32,000 of which \$16,500 is the applicant's share. The amount request from WMB is \$15,500. The proposed project scope of work includes a large-scale assessment of the lakes and watershed to assist with prioritizing projects identified in the watershed plan and possibly identifying additional projects. The proposed project has inter-jurisdictional, water quality, natural resource benefits, and nuisance flood reduction benefits.

Project evaluation:

1. The project will provide maximum inter-jurisdictional benefits.
2. The project will provide moderate flood hazard reduction benefits.
3. The project will provide some structural damage reduction benefits.
4. The project will provide moderate water quality benefits.
5. The project will provide moderate natural resource benefits.
6. The project will provide moderate nuisance-related flooding reduction benefits.
7. The project will provide minimal multiple use benefits.
8. The project will not utilize of outside (non-WMB or Applicant cost share) funding.
9. The project proposes some public education and outreach components for reducing phosphorus.

This project received bonus credits for proposing a cost-share greater than the required minimum 50% of the estimated total project cost, for the project being located in an environmental justice area, for a measure recommended in a SMC-adopted watershed-based plan, and for a current stormwater BMP implementation.

SMC Staff **RECOMMENDS** WMB funding for the Hydraulic and Hydrologic Study, Lake Gauge, and Project Prioritization project in the amount of \$15,500.

- 2. Cuba Marsh Hydrologic Restoration and Enhancement Project.** The Lake County Forest Preserve submitted this project application. The estimated project cost is \$76,150 of which \$68,150 is the applicant's share. The amount requested from WMB is \$8,000. The proposed project scope of work consists of removal/disablement of approximately 2,500 linear feet of failing drain tiles, installation of stormwater infrastructure, replacement of a failed water control structure, installation of rip rap and rock grade structures to increase stormwater storage and reduce erosion, installation of native seed mix to the disturbed areas and management of invasive

species. The proposed improvements will have interjurisdictional, water quality, natural resource, and nuisance flood reduction benefits.

Project evaluation:

1. The project will provide moderate inter-jurisdictional benefits.
2. The project will provide moderate flood hazard reduction benefits.
3. The project will provide moderate structural damage reduction benefits.
4. The project will provide significant water quality benefits.
5. The project will provide maximum natural resource benefits.
6. The project will provide significant nuisance-related flooding reduction benefits.
7. The project will provide maximum multiple use benefits.
8. The project will not utilize outside (non-WMB or Applicant cost share) funding.
9. The project proposes public education and outreach components for reducing phosphorus.

This project received bonus credits for proposing a cost-share greater than the required minimum 50% of the estimated total project cost and for a measure recommended in a SMC-adopted watershed-based plan.

SMC Staff **RECOMMENDS** WMB funding for the Cuba Marsh Hydrologic Restoration and Enhancement Project in the amount of \$8,000.

- 3. Creek Maintenance of East Branch of Flint Creek.** The Fox Point HOA in Barrington submitted this project application. The estimated project cost is \$34,000 of which \$17,000 is the applicant's share. The amount requested from the WMB is \$17,000. The proposed project scope of work consists of creek maintenance of approximately 800 linear feet which includes removing 7 non-native and/or dead and defective trees, toe stabilization and reshaping of lower slopes, adding additional J-Hooks, bare areas to be replanted and vegetated areas to be supplemented with permanent natives. The proposed project will have interjurisdictional, water quality, natural resource, and nuisance-related flood reduction benefits.

Project evaluation:

1. The project will provide significant inter-jurisdictional benefits.
2. The project will provide minimal flood hazard reduction benefits.
3. The project will provide minimal structural damage reduction benefits.
4. The project will provide maximum water quality benefits.
5. The project will provide significant natural resource benefits.
6. The project will provide moderate nuisance-related flooding reduction benefits.
7. The project will provide moderate multiple use benefits.
8. The project will not utilize of outside (non-WMB or Applicant cost share) funding.
9. The project proposes some public education and outreach components for reducing phosphorus.

This project received bonus credits for a measure recommended in a SMC-adopted watershed-based plan.

SMC Staff **RECOMMENDS** WMB funding for the Creek Maintenance of East Branch of Flint Creek in the amount of \$17,000.

- 4. Timber Lake Bioswales and Rock Checks Phase II.** The Timberlake Estates Civic Association submitted this project application. The estimated cost of the project is \$200,824 of which \$100,412 is the applicant's share. The amount requested from WMB is \$10,412. The proposed project scope of work involves installing a bioswale, sediment forebay, a vegetated filter strip, and 40 rock checks at three different sites. This project aims to reduce NPS pollutants carried by stormwater runoff. The proposed project has inter-jurisdictional, water quality, natural resource benefits, and nuisance flood reduction benefits.

Project evaluation:

1. The project will provide moderate inter-jurisdictional benefits.
2. The project will provide minimal flood hazard reduction benefits.
3. The project will not provide structural damage reduction benefits.
4. The project will provide significant water quality benefits.
5. The project will provide moderate natural resource benefits.
6. The project will provide moderate nuisance-related flooding reduction benefits.
7. The project will provide significant multiple use benefits.
8. The project proposes to utilize outside (non-WMB or Applicant cost share) funding.
9. The project proposes moderate public education and outreach components for reducing phosphorus.

This project received bonus credits for proposing a cost-share greater than the required minimum 50% of the estimated total project cost, for the project being located in an environmental justice area, for a measure recommended in a SMC-adopted watershed-based plan, and for a current stormwater BMP implementation.

SMC Staff **RECOMMENDS** WMB funding for the Timber Lake Bioswales and Rock Checks Phase II project in the amount of \$10,412.

- 5. Long Lake Outfall Plantings.** The Grant Township Highway Department and SCCWA have submitted this project application. The estimated cost of the project is \$50,000 of which \$30,000 is the applicant's share. The amount request from WMB is \$20,000. The proposed project scope of work includes installing native plants at four priority locations where storm sewer outlets into Long Lake, two PVC outfall pipes will be cut back so they do not immediately outlet to the lake, and installing rip rap and native planting to stabilize area downstream of the outfalls. The proposed project has inter-jurisdictional, water quality, and natural resource benefits.

Project evaluation:

1. The project will provide maximum inter-jurisdictional benefits.
2. The project will not provide flood hazard reduction benefits.
3. The project will not provide structural damage reduction benefits.
4. The project will provide moderate water quality benefits.
5. The project will provide moderate natural resource benefits.
6. The project will provide some nuisance-related flooding reduction benefits.
7. The project will provide some multiple use benefits.
8. The project proposes to utilize outside (non-WMB or Applicant cost share) funding.
9. The project proposes moderate public education and outreach on reducing phosphorus.

This project received bonus credits for proposing a cost-share greater than the required minimum 50% of the estimated total project cost, for the project being in an environmental justice area, and for a measure recommended in a SMC-adopted watershed-based plan.

SMC Staff **RECOMMENDS** WMB funding for the Long Lake Outfall Plantings project in the amount of \$20,000.

- 6. Felters Subdivision Stormwater Filtration.** The Friends of Catherine and Channel Lakes submitted this project application. The estimated cost of the project is \$40,490, of which \$20,246 is the applicant's share. The amount requested from WMB is \$20,244. The proposed project scope of work includes installation of a sediment trap at a stormwater discharge point into Lake Catherine as well as a bioswale with rock checks that would filter stormwater before it flows into the lake. The proposed project has inter-jurisdictional and water quality benefits.

Project evaluation:

1. The project will provide moderate inter-jurisdictional benefits.
2. The project will provide some flood hazard reduction benefits.
3. The project will not provide structural damage reduction benefits.
4. The project will provide significant water quality benefits.
5. The project will provide some natural resource benefits.
6. The project will not provide nuisance-related flooding reduction benefits.
7. The project will provide some multiple use benefits
8. The project will not utilize outside (non-WMB or Applicant cost share) funding.
9. The project proposes some public education and outreach components on reducing phosphorus.

This project received bonus credits for proposing a cost-share greater than the required minimum 50% of the estimated total project cost, and for the project being in an environmental justice area.

SMC Staff does **NOT RECOMMEND** WMB funding for the Felters Subdivision Stormwater Filtration project.

- 7. Green Forest Lake Stream Stabilization and Infrastructure Repair.** The Village of Deer Park submitted this project application. The estimated cost of the project is \$88,595, of which \$52,500 is the applicant's share. The amount requested from WMB is \$36,500. The proposed project scope of work includes 40 linear feet of streambank stabilization, installation of riprap at three downstream culverts, and installation of a new grate upstream of the stabilization. The proposed project has interjurisdictional, water quality, and natural resource benefits.

Project evaluation:

1. The project will provide moderate some inter-jurisdictional benefits.
2. The project will not provide flood hazard reduction benefits.
3. The project will not provide structural damage reduction benefits.
4. The project will provide significant water quality benefits.
5. The project will provide moderate natural resource benefits.
6. The project will not provide nuisance-related flooding reduction benefits.
7. The project will not provide multiple use benefits
8. The project will not utilize outside (non-WMB or Applicant cost share) funding.

9. The project does not propose a public education and outreach component on reducing phosphorus.

This project received bonus credit for proposing a cost-share greater than the required minimum 50% of the estimated total project cost.

SMC Staff does **NOT RECOMMEND** WMB funding for the Green Forest Lake Stream Stabilization and Infrastructure Repair project.

8. **Orchard Hills Aerators for Ponds.** The Orchard Hills HOA in Wauconda submitted this project application. The estimated cost of the project is \$67,600, of which \$33,800 is the applicant's share. The amount requested from WMB is \$33,800. The proposed project scope of work includes installing and maintaining two pond aerators (Pond #2 & #11) within the subdivision in order to improve water quality. The proposed project has inter-jurisdictional and water quality benefits.

Project evaluation:

1. The project will provide some inter-jurisdictional benefits.
2. The project will not provide flood hazard reduction benefits.
3. The project will not provide structural damage reduction benefits.
4. The project will provide some water quality benefits.
5. The project will provide some natural resource benefits.
6. The project will not provide nuisance-related flooding reduction benefits.
7. The project will provide some multiple use benefits
8. The project will not utilize outside (non-WMB or Applicant cost share) funding.
9. The project proposes some public education and outreach components on reducing phosphorus.

This project received bonus credit for a measure recommended in a SMC-adopted watershed-based plan.

SMC Staff does **NOT RECOMMEND** WMB funding for the Orchard Hills Aerators for Ponds project.

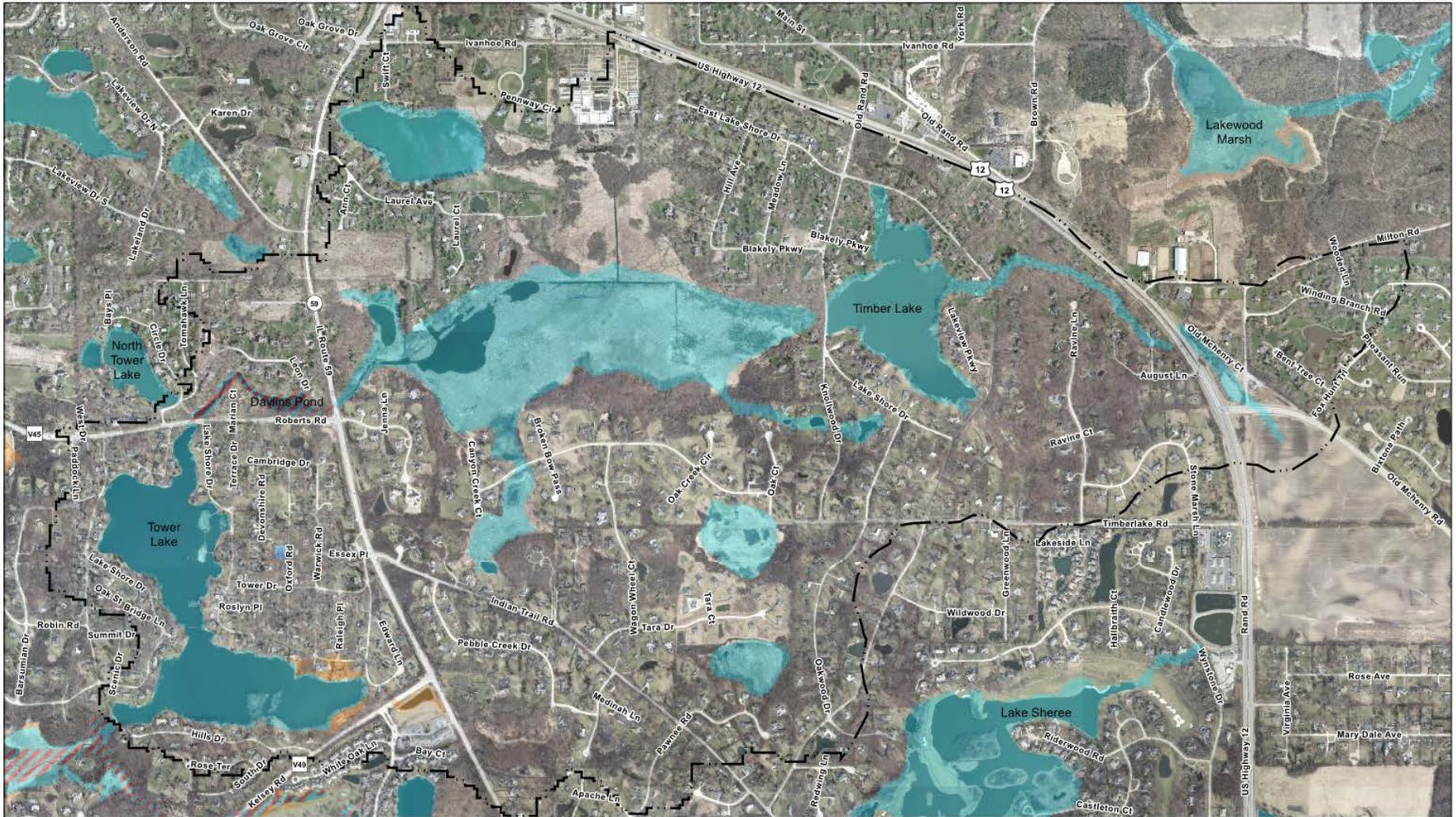
If you have any questions regarding these projects, please contact Michelle Pope at (847) 377-7730 or mpope@lakecountyil.gov.

WMB Funding Evaluation – Fox River Watershed

Fox River Watershed			Tower Lakes Village of Tower Lakes & TLIA Hydrologic & Hydraulic Study & Project Prioritization		LC Forest Preserve Cuba Marsh Cuba Marsh Hydrologic Restoration & Enhancement		Barrington Fox Point HOA Creek maintenance of E. branch of Flint Creek		Barrington Timberlake Estates Civic Asso. Bioswales & Rock Checks Phase 2		Grant Township Highway Department & SCCWA Long Lake Outfall Plantings		Antioch FOCCL Felters Subdivision Stormwater Filtration		Barrington Village of Deer Park Green Forest Lake Stream Stabil. & Infrast. Repair		Wauconda Orchard Hills HOA Orchard Hills Aerators for Ponds		Watershed Total
Rank	Prioritization Criteria	Max. Possible Weight	Rating	Score	Rating	Score	Rating	Score	Rating	Score	Rating	Score	Rating	Score	Rating	Score	Rating	Score	
1	Interjurisdictional benefits	25	5	125	3	75	4	100	3	75	5	125	3	75	3	75	2	50	
2	Flood hazard reduction benefits	20	3	60	3	60	1	20	1	20	0	0	2	40	0	0	0	0	
3	Structural damage reduction	15	2	30	3	45	1	15	0	0	0	0	0	0	0	0	0	0	
4	Water quality benefits	15	3	45	4	60	5	75	4	60	3	45	4	60	4	60	2	30	
5	Natural resource benefits	10	3	30	5	50	4	40	3	30	3	30	2	20	3	30	2	20	
6	Nuisance flood reduction	5	3	15	4	20	3	15	3	15	2	10	3	15	0	0	0	0	
7	Multiple use benefits	5	3	15	5	25	3	15	4	20	2	10	2	10	0	0	2	10	
8	Outside funding utilization	5	3	15	0	0	0	0	3	15	3	15	0	0	0	0	0	0	
9	Phosphorus public education component	5	1	5	1	5	2	10	4	20	3	15	2	10	0	0	2	10	
	Bonus Credit: Critical facilities	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	Bonus Credit: Greater than 50% non-SMC cost-share	5	1	5	1	5	0	0	1	5	1	5	1	5	1	5	0	0	
	Bonus Credit: Project in Environmental Justice Area	5	1	5	0	0	0	0	1	5	1	5	1	5	0	0	0	0	
	Bonus Credit: Measure Recommended in a SMC-adopted watershed management plan	5	1	5	1	5	1	5	1	5	1	5	0	0	0	0	1	5	
	HOA Bonus Credit: Current Stormwater BMP Implementation	5	1	5	0	0	0	0	1	5	0	0	0	0	0	0	0	0	
Weighted Score Total			360		350		295		275		265		240		170		125		
(Minimum score greater than 210 required)																			
	Total project cost		\$32,000		\$76,150		\$34,000		\$200,824		\$50,000		\$40,490		\$88,595		\$19,943		\$ 542,001
	Applicant in-kind hours		0		978		150		100		500		0		0		30		1758
	Applicant cost share		\$16,500		\$68,150		\$17,000		\$100,412		\$30,000		\$20,246		\$52,500		\$9,601		\$ 314,409
	Applicant's WMB funding request		\$15,500		\$8,000		\$17,000		\$10,412		\$20,000		\$20,244		\$36,500		\$9,601		\$ 137,257
	Applicant's request for SMC in-kind hours		0		8		0		0		0		0		0		0		8
	Total Available Funds for the watershed =	\$36,456																	\$36,456
	Staff recommendation for watershed funding		\$15,500		\$8,000		\$17,000		\$10,412		\$20,000		\$0		\$0		\$0		\$70,912
	Staff recommendation for SMC in-kind hours		0		8		0		0		0		0		0		0		8

Rating: 0=no effect, 1=minimal effect, 2=below average effect, 3=average effect, 4=above average effect, 5=maximum effect practicable

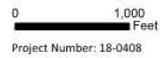
Hydraulic and Hydrologic Study, Lake Gauge, and Project Prioritization – Tower Lakes



Prepared by:

Hey and Associates, Inc.
Engineering, Ecology and Landscape Architecture

Scale:



Project Number: 18-0408

Orientation:



Date: 10/4/2018

Legend:

- Tower Lakes Watershed (HUC12 and StreamStats)
- Regulatory Floodway (FEMA NFHL)
- 1% Annual Chance Flood Hazard (FEMA NFHL)
- 0.2% Annual Chance Flood Hazard (FEMA NFHL)



Project Name:

TLIA Watershed Study

Prepared For:

Tower Lakes Improvement Association
Village of Tower Lakes

Information about exhibit:

2017 Aerial

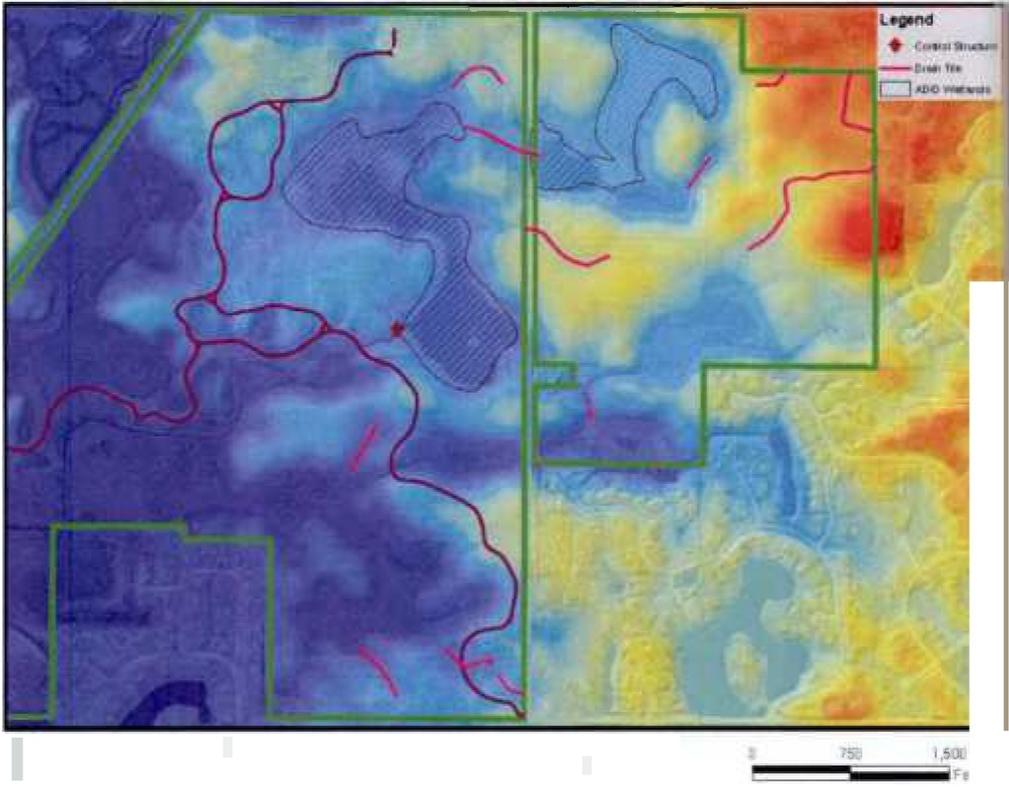
Exhibit Title:

Tower Lakes Drainage Area

Exhibit:

1

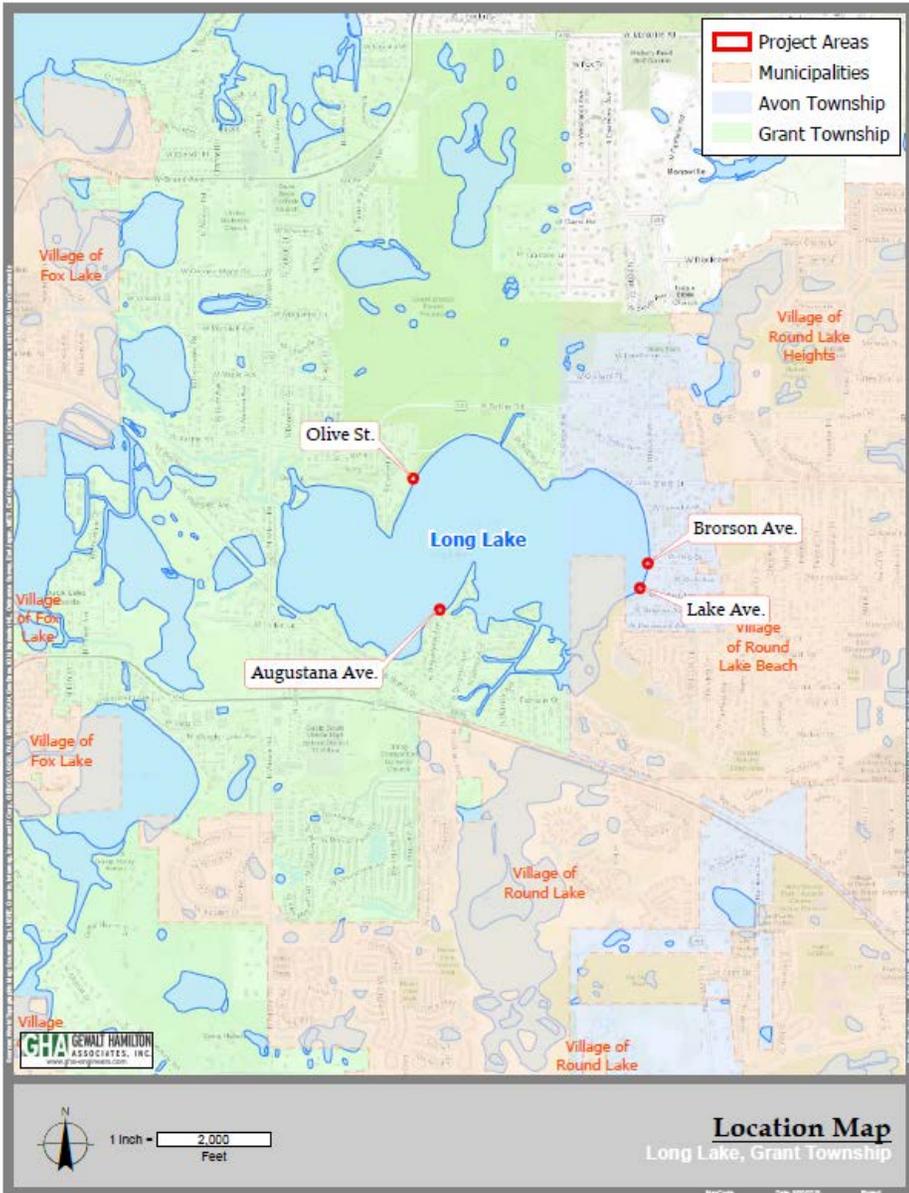
Cuba Marsh Hydrologic Restoration and Enhancement Project -LCFPD



Creek Maintenance of East Branch of Flint Creek -Fox Point HOA



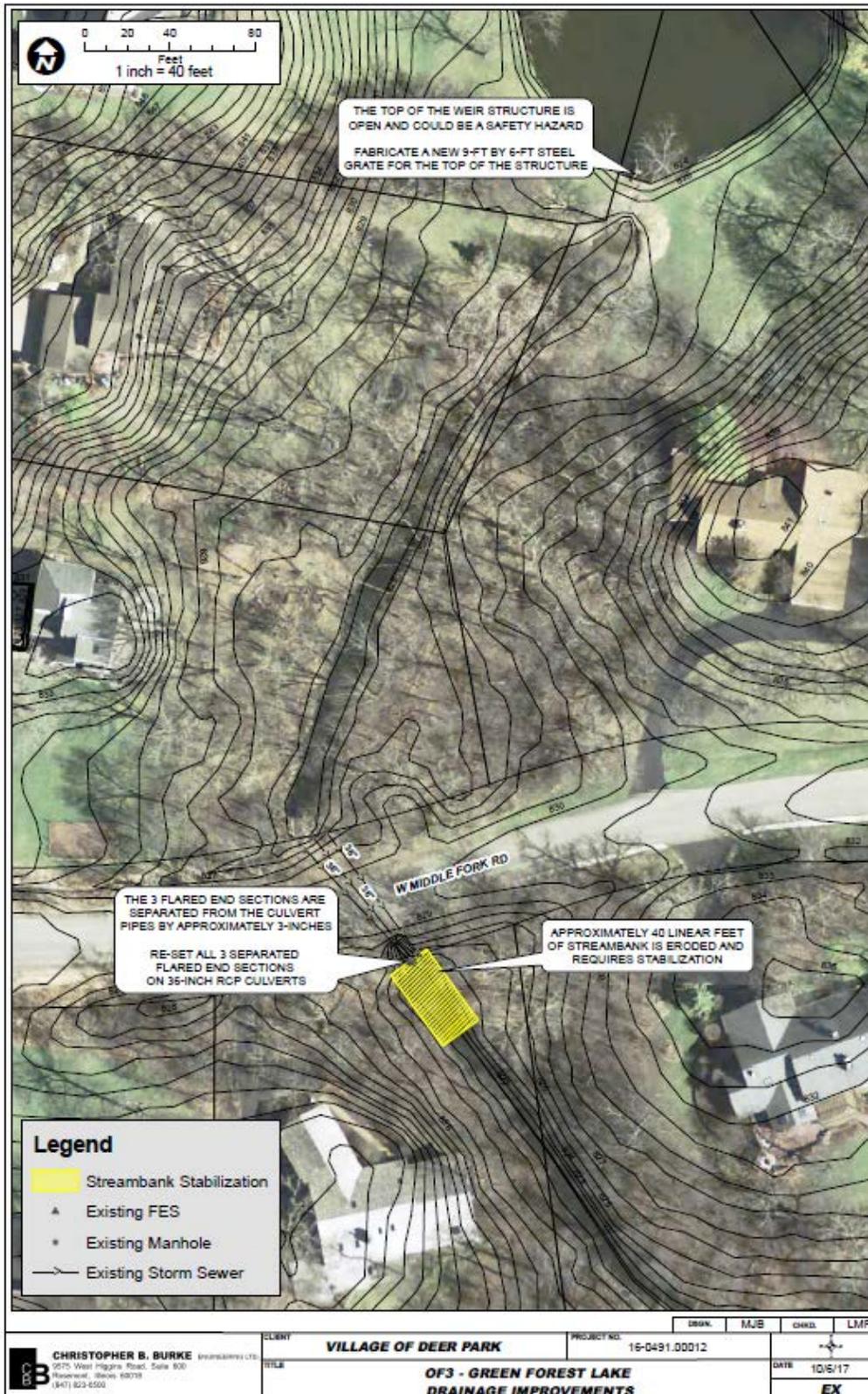
Long Lake Outfall Plantings – Grant Township Highway Dept. & SCCWA



Felters Subdivision Stormwater Filtration – FOCCL



Green Forest Lake Stream Stabilization and Infrastructure Repair – Deer Park



Orchard Hills Aerators for Ponds





STORMWATER MANAGEMENT COMMISSION

MEMORANDUM

November 7, 2019

To: Lake Michigan Watershed Management Board
From: Kelcey Traynoff, Regulatory Supervisor
Re: FY2020 WMB Grant – Funding Recommendations for Projects in the Lake Michigan Watershed

SMC received three applications for projects in the Lake Michigan Watershed with a total project cost of \$152,250 and requested funding in the amount of \$79,600. The available funding for projects in the Lake Michigan Watershed for Fiscal Year 2019 is \$27,776. SMC staff recommends funding of one project. The attached table, "WMB Funding Evaluation-Lake Michigan Watershed," provides the SMC staff evaluation of submitted applications based on the following prioritization criteria:

1. **Interjurisdictional Benefits** - Benefit multiple jurisdictions (government entities, HOAs, not-for-profits), will have interjurisdictional impacts, and/or will benefit the major "trunk"/regional scale drainage system of the watershed. ("Trunk" defined as that part of the drainage system that drains more than 100-acre drainage areas and has the potential to have inter-jurisdictional impacts.)
2. **Flood Hazard Reduction Benefits** - Have beneficial results or impacts, including non- transportation related flood hazard reduction, during flood events up to and including 100-year events. (A 100-year event being a flood event with the probability of occurrence in any given year of 1%.)
3. **Structural Damage Reduction** - Mitigate structural damages due to floods and other stormwater related causes with consideration of the number of structures affected including, but not limited to, removing, elevating, flood-proofing or otherwise protecting buildings from future danger of flood damage or structural damage related to flood-induced erosion. Also, these criteria include Lake Michigan Watershed specific mitigation of damages due to stormwater, flood and wave induced problems on bluff, ravine and lakeshore areas.
4. **Water Quality Benefits** - Reduce surface water quality impairments utilizing best management practices.
5. **Natural Resource Benefits** - Benefit the environment with an emphasis on non-structural natural resource protection strategies.
6. **Nuisance Flood Reduction** - Alleviate major nuisance flooding and/or blocked transportation access

7. **Multiple Use Benefits** - Provide multiple-use benefits to communities such as recreation, public education, data collection or others.
8. **Outside Funding Utilization** - Utilize federal and/or state funding to the maximum extent possible.
9. **Public Education Component** - Include a public education and outreach effort aimed at reducing the amount of phosphorus contained in stormwater runoff. This may include reducing the amount of fertilizer applied to lawns, using phosphorus-free fertilizers, and establishing buffer strips along lake shores, stream banks, and wetlands. Applicants may also choose to adopt an ordinance banning the use of fertilizers and detergents containing phosphorus.

SMC staff also awarded bonus credit to those applications satisfying the following 4 WMB-approved criteria:

- Projects for which the applicant's share of the estimated total project cost exceeds 50%.
- Projects that are recommended in a SMC-adopted watershed plan.
- Projects that protect or alleviate structural damages to critical facilities.
- HOAs that document they are currently implementing stormwater best management practices.

Below is a brief summary of each proposed project, describing how each application addresses the WMB-approved prioritization criteria. SMC staff recommendations are also presented below.

1. **1515 MacArthur Drive Drainage Swale.** An application was submitted by the City of Waukegan. The estimated project cost is \$30,000, of which \$10,000 is the applicant's share. \$20,000 is currently being requested from the WMB. The proposed project scope includes replacing a 15-inch pipe with a swale to carry storm water from approximately 40 acres of tributary area. The proposed improvements will help to alleviate flooding and associated damage caused by the storm water flow. These efforts will also help to reduce structural damage and provide inter-jurisdictional benefits. The location of this project also falls within the buffer of an IEPA Environmental Justice Area.

Project evaluation:

1. The project will provide some inter-jurisdictional benefits.
2. The project will provide significant flood hazard reduction benefits.
3. The project will provide significant structural damage reduction benefits.
4. The project will not provide water quality benefits.
5. The project will not provide natural resource benefits.
6. The project will provide significant nuisance-related flood reduction benefits.
7. The project will not provide significant multiple use benefits.
8. The project will not utilize any outside funding.
9. Public education and outreach on reducing phosphorus loads is not proposed.

Due to the scope and character of this project, it has been referred to SMC's Stormwater Infrastructure Repair Fund (SIRF) program for potential SIRF funding.

This project **IS NOT RECOMMENDED** for WMB funding.

- 2. Ringwood Road Ravine Project Design.** An application was submitted by the City of Lake Forest. The estimated project cost is \$44,500, of which \$14,700 is the applicant's share. \$29,800 is currently being requested from the WMB. The proposed project scope includes creating a design to re-build the crushed end of the box culvert, the failed retaining wall, and to correct the ravine slide that has occurred on the slope. The proposed improvements will help to reduce structural damage and improve water quality. These efforts will also provide interjurisdictional and natural resource benefits.

Project evaluation:

1. The project will provide inter-jurisdictional benefits.
2. The project will provide some flood hazard reduction benefits.
3. The project will provide significant structural damage reduction benefits.
4. The project will provide significant water quality benefits.
5. The project will provide natural resource benefits.
6. The project will provide minimal nuisance-related flood reduction benefits.
7. The project will not provide multiple use benefits.
8. The project will not utilize any outside funding.
9. Public education and outreach on reducing phosphorus loads is not proposed.

Bonus credit was awarded to this project due to it being recommended in the Lake Michigan Watershed Management Plan.

This project **IS NOT RECOMMENDED** for WMB funding.

- 3. Rosemary Road Ravine Project Design.** An application was submitted by the City of Lake Forest. The estimated project cost is \$77,750, of which \$47,950 is the applicant's share. \$29,800 is currently being requested from the WMB. The proposed project scope includes creating a design to repair the ravine slope and the storm water culvert to ensure the proper conveyance of stormwater and to protect the structural integrity of Rosemary Road. The proposed improvements will help to reduce structural damage and improve water quality. These efforts will also provide interjurisdictional and natural resource benefits.

Project evaluation:

1. The project will provide inter-jurisdictional benefits.
2. The project will provide some flood hazard reduction benefits.
3. The project will provide significant structural damage reduction benefits.
4. The project will provide significant water quality benefits.
5. The project will provide natural resource benefits.
6. The project will provide minimal nuisance-related flood reduction benefits.
7. The project will not provide multiple use benefits.
8. The project will not utilize any outside funding.
9. Public education and outreach on reducing phosphorus loads is not proposed.

Bonus credit was awarded to this project due to it being recommended in the Lake Michigan Watershed Management Plan and for providing greater than 50% of non-SMC cost share funding.

This project **IS RECOMMENDED** for WMB funding in the amount of \$27,776.

If you have any questions regarding these projects, please contact Kelcey Traynoff at (847) 377-7711 or ktraynoff@lakecountyil.gov.

WMB Funding Evaluation – Lake Michigan Watershed

Lake Michigan Watershed			1515 MacArthur Drive Drainage Swale		Ringwood Road Ravine Project Design		Rosemary Road Ravine Project Design		Watershed Total
Rank	Prioritization Criteria	Max. Possible Weight	Rating	Score	Rating	Score	Rating	Score	
1	Interjurisdictional benefits	25	2	50	3	75	3	75	
2	Flood hazard reduction benefits	20	5	100	2	40	2	40	
3	Structural damage reduction	15	5	75	4	60	4	60	
4	Water quality benefits	15	0	0	4	60	4	60	
5	Natural resource benefits	10	0	0	3	30	3	30	
6	Nuisance flood reduction	5	5	25	1	5	1	5	
7	Multiple use benefits	5	0	0	0	0	0	0	
8	Outside funding utilization	5	0	0	0	0	0	0	
9	Phosphorus public education component	5	0	0	0	0	0	0	
	Bonus Credit: Environmental Justice Area	5	1	5	0	0	0	0	
	Bonus Credit: Greater than 50% non-SMC cost share	5	0	0	0	0	1	5	
	Bonus Credit: Measure recommended in SMC adopted Watershed Management Plan	5	0	0	1	5	1	5	
	HOA Bonus Credit: Current stormwater BMP implementation	5	0	0	0	0	0	0	
Weighted Score Total (Minimum score greater than 210 required for funding)			255		275		280		
Total project cost			\$30,000		\$44,500		\$77,750		\$152,250
Applicant in-kind hours					0		0		0
Applicant cost share			\$10,000		\$14,700		\$47,950		\$72,650
Applicant's WMB funding request			\$20,000		\$29,800		\$29,800		\$79,600
Applicant's request for SMC in-kind hours			0		0		0		0
Total Available Funds for the watershed =			\$27,776						\$27,776
Staff recommendation for watershed funding			SIRF		\$0		\$27,776		\$27,776
Staff recommendation for SMC in-kind hours			0		0		0		0

1515 MacArthur Drive Drainage Swale Location Map



Ringwood Road Ravine Project Design Location Map



Rosemary Road Ravine Project Design Location Map

