Riverview Pond Options

NICK VANDE HEY, PE
4/12/2023

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Federal Clean Water Act



- US Environmental Protection Agency requires each state to identify water bodies that are not 'fishable or swimmable'
- Each state also needs to identify the pollutants causing the water body impairment

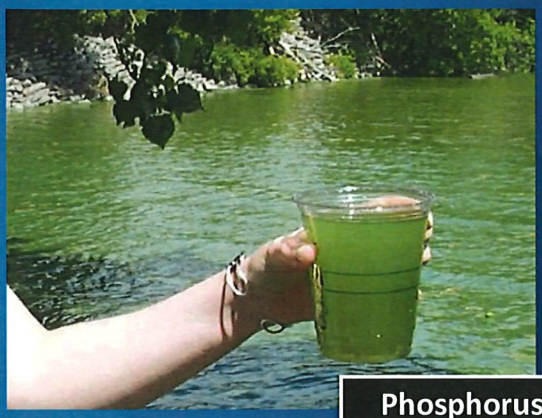
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Pollutants Causing Impairment



Sediment

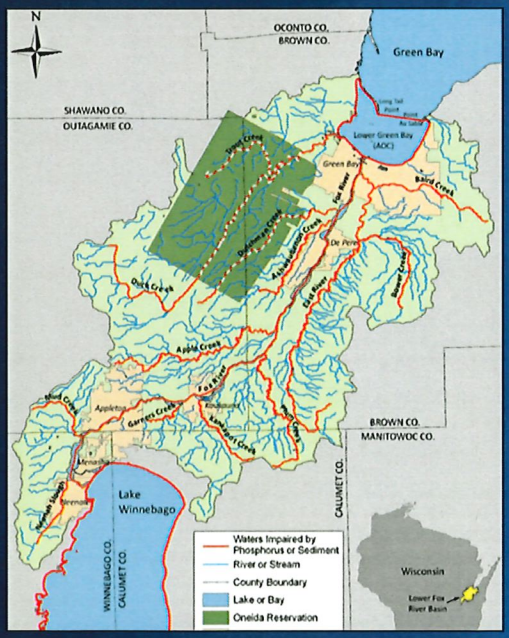


Phosphorus

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Total Maximum Daily Load (TMDL)

- Lower Fox River Basin TMDL for phosphorus and sediment pollutants was approved by US Environmental Protection Agency on May 18, 2012

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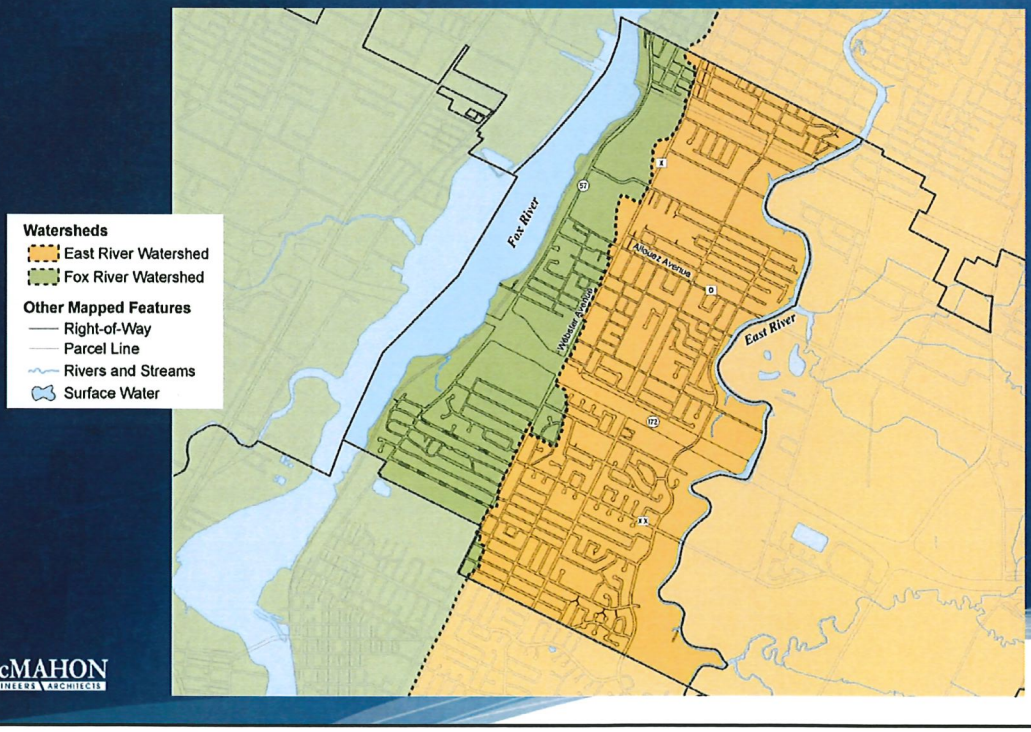
Municipal Stormwater Permit

- Village received its initial Municipal Stormwater Permit from Wisconsin DNR in late 2006
- Wisconsin DNR renewed the Village's Municipal Stormwater Permit in 2019
- TMDL phosphorus and sediment allocations implemented thru Municipal Stormwater Permit

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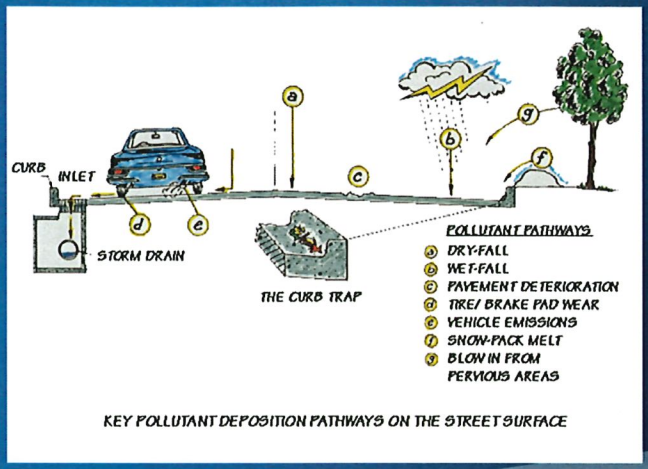
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Stormwater Pathways





KEY POLLUTANT DEPOSITION PATHWAYS ON THE STREET SURFACE

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Permit Requirements

- Public Education
- Public Involvement
- Illicit Discharge Detection & Elimination
- Construction Site Pollutant Control
- Post-Construction Stormwater Management
- Municipal Pollution Prevention
- Stormwater Quality Management

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

WISCONSIN DEPT. OF NATURAL RESOURCES

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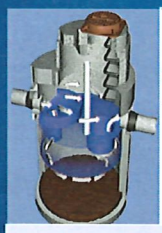
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Best Management Practices



Street Sweeping



Proprietary Devices



Stream Stabilization



Grass Swales / Filters



Biofilters / Rain Gardens



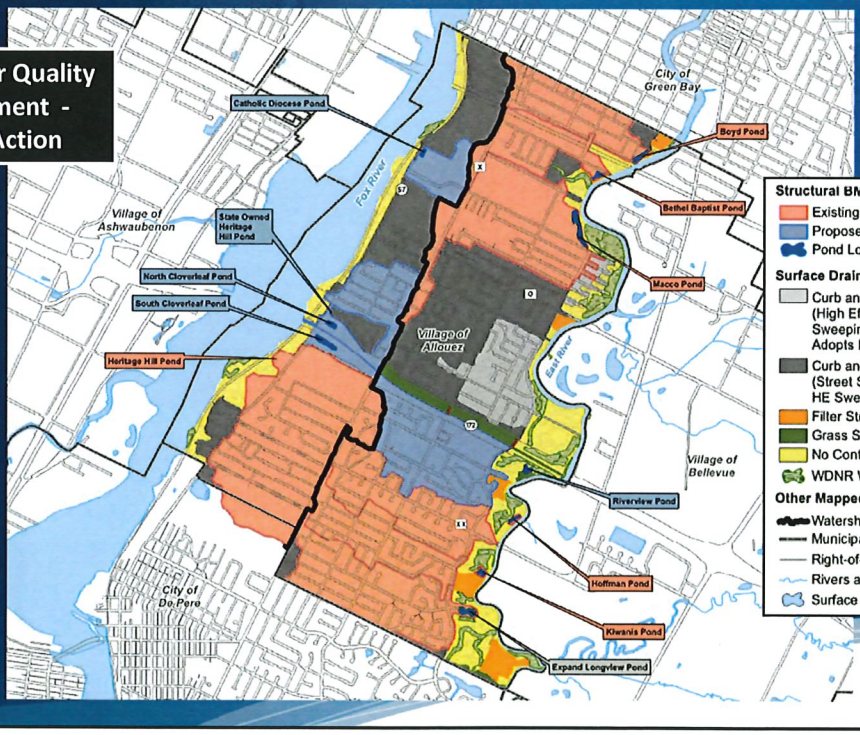
Wetlands / Wet Ponds

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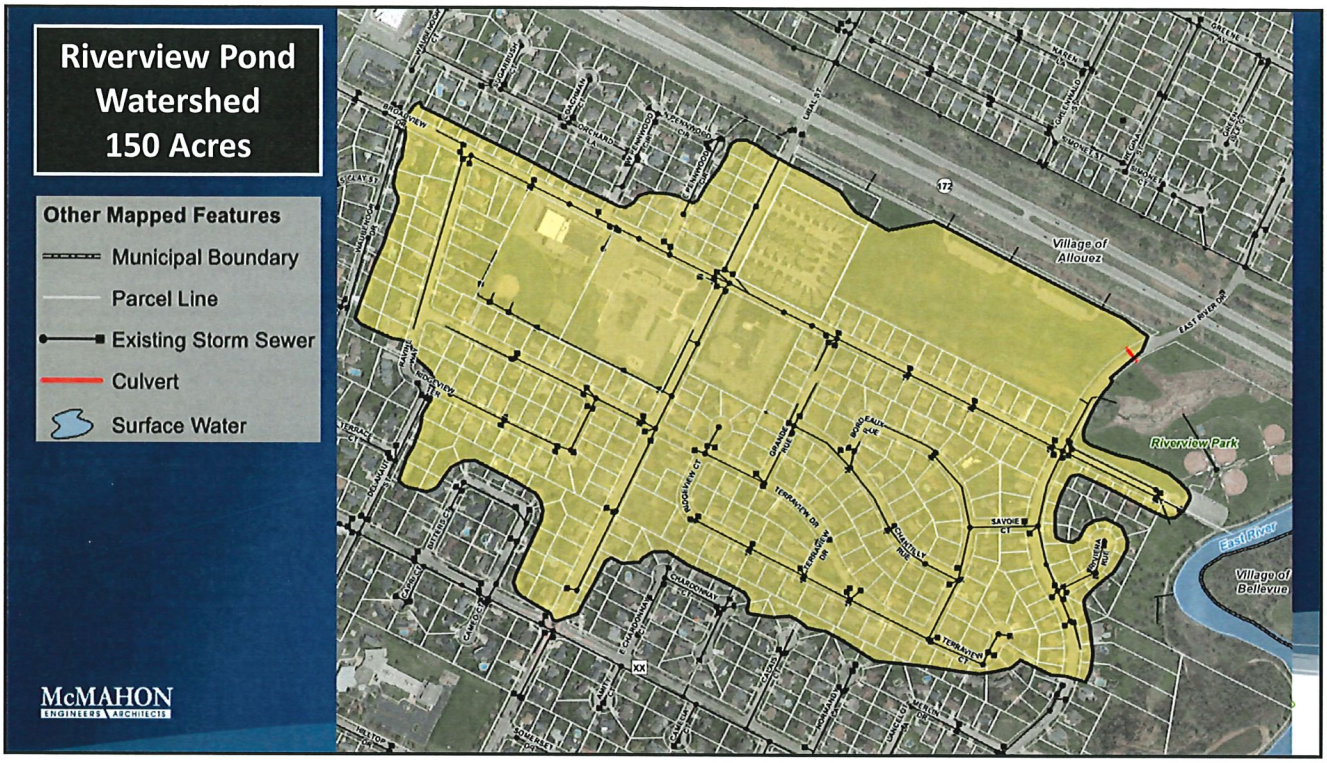
Stormwater Quality Management - Plan of Action



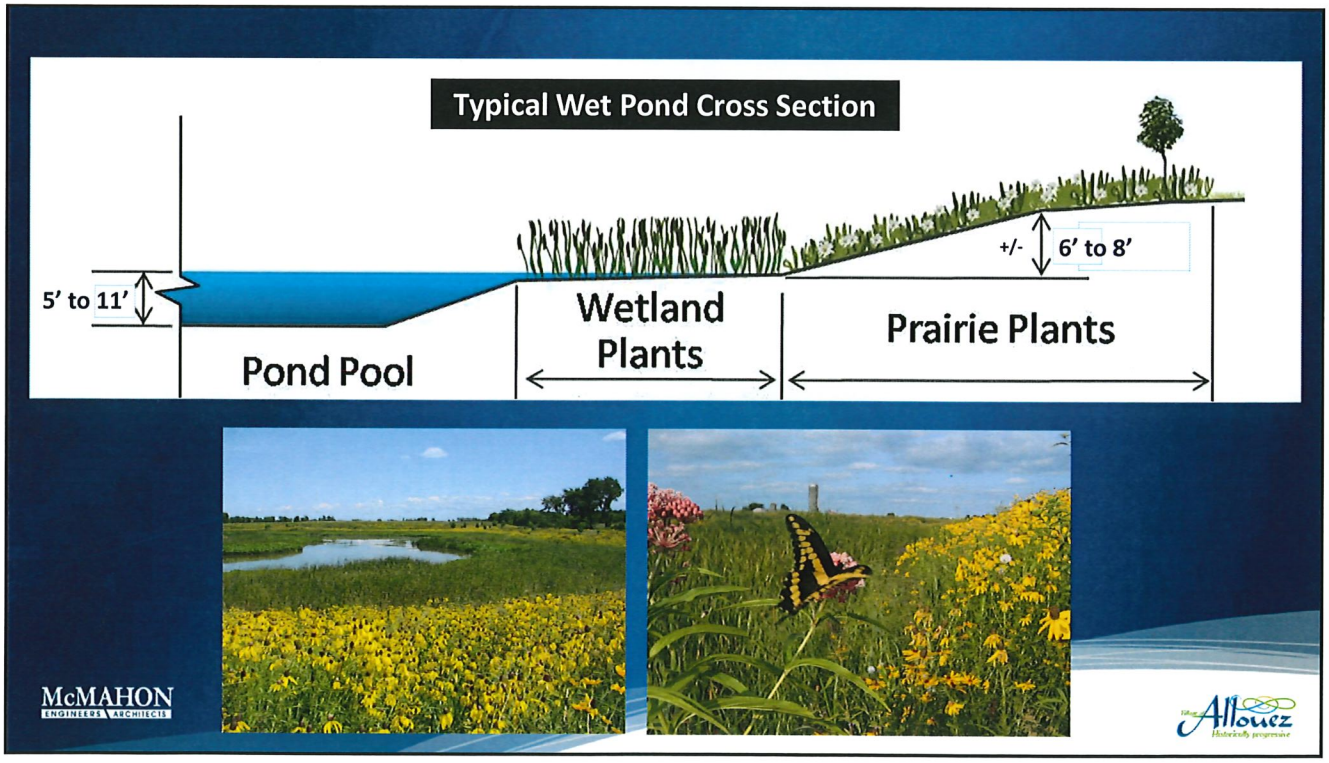
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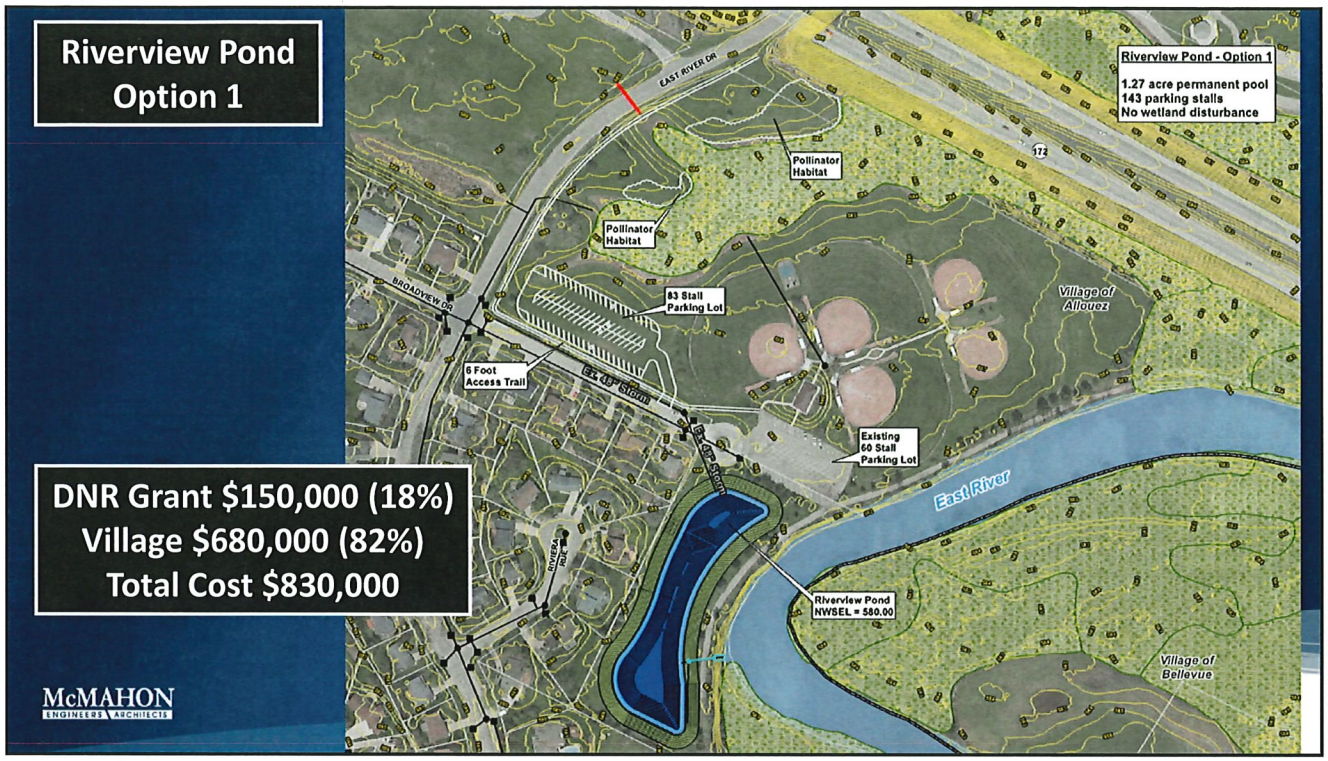
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Riverview Pond
Watershed
150 Acres
Other Mapped Features
Municipal Boundary
Parcel Line
Existing Storm Sewer
Culvert
Surface Water
Village of Allouez
Riverview Park
East River
Village of Bellevue
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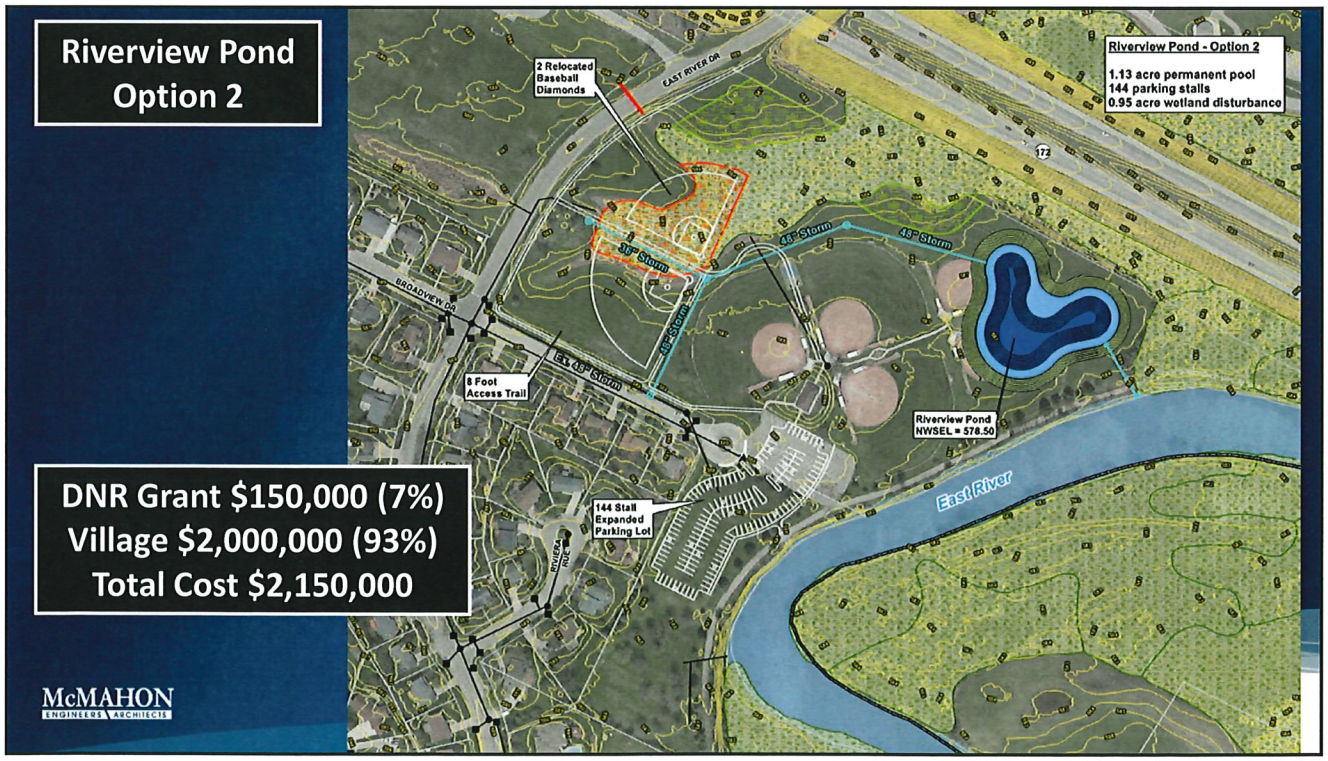
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Typical Wet Pond Cross Section
5' to 11'
Pond Pool
Wetland Plants
Prairie Plants
+/-
6' to 8'
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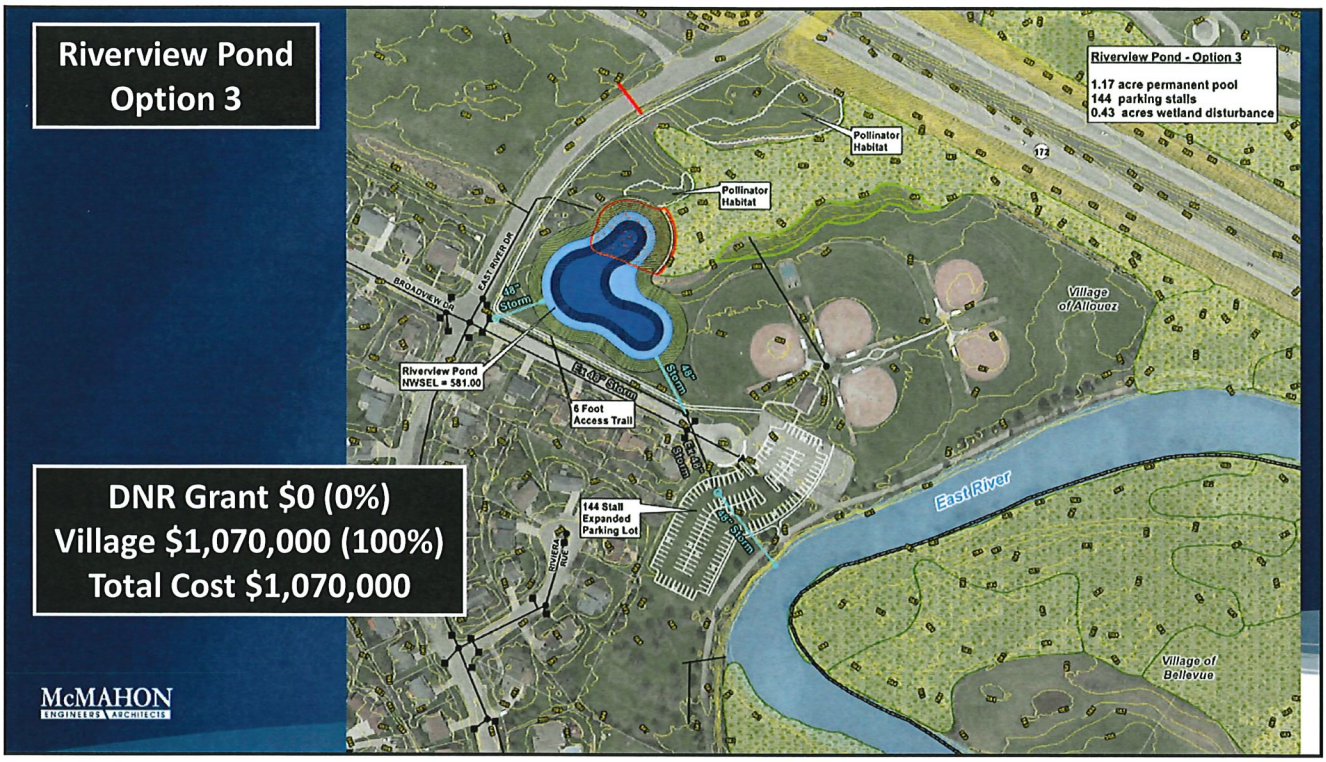
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Riverview Pond
Option 1
Riverview Pond - Option 1
1.27 acre permanent pool
143 parking stalls
No wetland disturbance
EAST RIVER DR
Pollinator Habitat
Pollinator Habitat
BROADVIEW DR
83 Stall Parking Lot
Village of Allouez
8 Foot Access Trail
Ex 48" Storm
Ex 48" Storm
Existing 60 Stall Parking Lot
East River
DNR Grant $150,000 (18%)
Village $680,000 (82%)
Total Cost $830,000
Riverview Pond NWSEL = 580.00
Village of Bellevue
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Riverview Pond
Option 2
2 Relocated Baseball Diamonds
EAST RIVER DR
Riverview Pond - Option 2
1.13 acre permanent pool
144 parking stalls
0.95 acre wetland disturbance
48" Storm
48" Storm
36" Storm
BROADVIEW DR
48" Storm
8 Foot Access Trail
Ex 48" Storm
Riverview Pond NWSEL = 578.50
144 Stall Expanded Parking Lot
East River
DNR Grant $150,000 (7%)
Village $2,000,000 (93%)
Total Cost $2,150,000
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Riverview Pond Summary

	Option 1	Option 2	Option 3
Wet Pond - Open Water	1.27 Acre	1.13 Acre	1.17 Acre
Wetland Impact	0.00 Acre	0.95 Acre	0.43 Acre
Parking Lot	143 Stalls	144 Stalls	144 Stalls
Potential DNR Grant	$150,000	$150,000	$0
Potential Village Cost	$680,000	$2,000,000	$1,070,000
Potential Total Cost	$830,000	$2,150,000	$1,070,000

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Village Wide Summary

Watershed	Acres	Required TP	Provided TP	Required TSS	Provided TSS
East River	1,929	41%	33%	52%	48%
Fox River	763	41%	25%	72%	36%

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Pond Project Schedule

- Apply for DNR Grant: April 15, 2024
- Construction Start: April 15, 2025
- Construction End: September 15, 2025
- Prairie & Wetland Planting: Summer and Fall, 2026



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