

Detroit Water and Sewerage Department

FY2024 CW SRF Projects

Schoolcraft and West Chicago
Stormwater Improvements



Water & Sewerage
Department



Funding Opportunity

SRF Program and Federal Grants



SRF Program Overview (2024)

State Loan Program with Principal Forgiveness Grants

- \$1.0B Funded via SRF/America Rescue Plan Act (ARPA)
- \$500 Million funded via Infrastructure Investment Jobs Act

City of Detroit is well positioned to receive significant grants.

- **Scoring Criteria**
 - Preference to CSO correction projects
 - Significantly Overburdened Community - Detroit qualifies
- **ARPA funds must be obligated by 2024 (spend by 2026)**
 - *ARPA Grants of up to \$20M per project*
 - *DWSD has developed 4 projects to maximize grant dollars.*

Why SRF Program?

- The State of Michigan is using the SRF Program to route Grant Dollars. SRF requirements will apply to all projects which includes:
 - Development of a Project Plan and NEPA Compliance on Federal Crosscutting Rules
 - Strict Adherence to fixed project milestones as negotiated by EGLE and DWSD
 - Compliance with Buy America, Davis Bacon Wages, DBE Participation Requirements

Clean Water State Revolving Fund Project Presentation

Required Information



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Clean Water State Revolving Fund Project Presentation



Requirements:

- Provide a description of the water quality problems to be addressed by the project and the principal alternatives that were considered.
- Provide a description of the recommended alternative, including its capital costs and a cost breakdown by project components (e.g., treatment plant, sewer system).
- Include a discussion of project financing and costs to users, including the proposed method of project financing and estimated monthly debt retirement; the proposed annual, quarterly, or monthly charge to the typical residential customer; and any special fees that will be assessed.
- Provide a description of the anticipated social and environmental impacts associated with the recommended alternative and the measures that will be taken to mitigate adverse impacts.

Project Locations

Schoolcraft and West Chicago



District 1

Brightmoor

Schoolcraft
Project

Eliza Howell

I-96

Castle Rouge

Telegraph

West Chicago
Project

West Outer Drive Plymouth Rd

Outer Drive

Rouge Park

District 7

Project Areas

- West Chicago (2 Projects)
 - West Outer Dr Neighborhood
 - Combined Sewer Outfalls B064 & B063
- Schoolcraft (2 Projects)
 - Castle Rouge Neighborhood
 - Combined Sewer Outfalls B070 & B069



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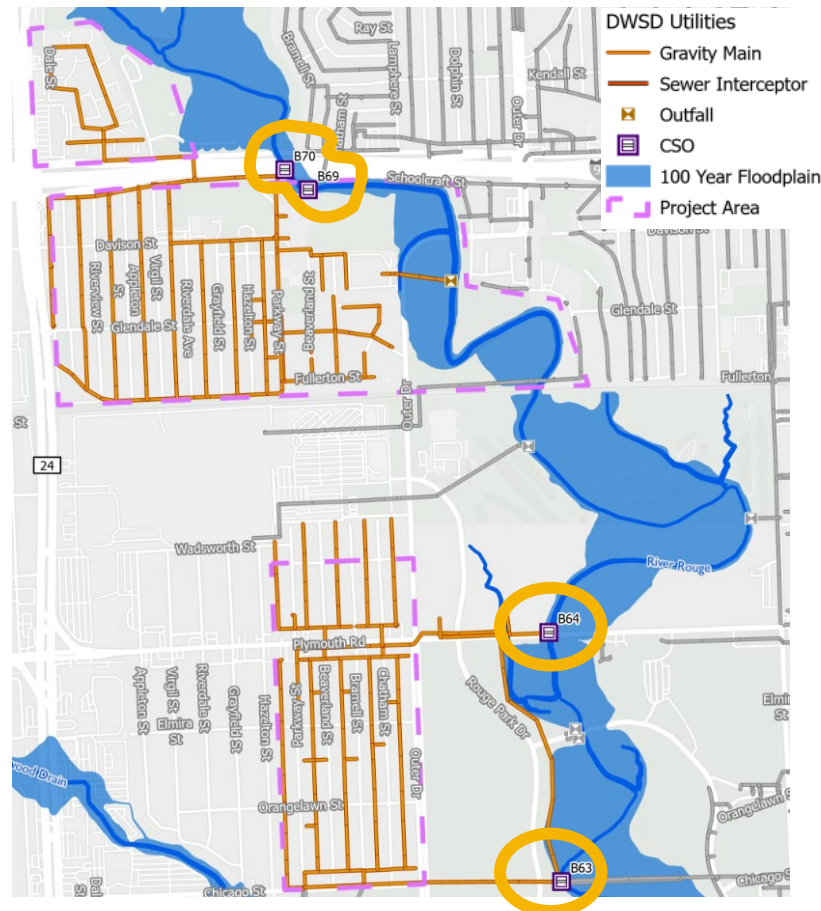
Addressing Water Quality

Schoolcraft and West Chicago



Addressing Water Quality

- Four (4) active untreated Combined Sewer Overflow (CSO) outfalls.
 - West Chicago – B064 & B063
 - Schoolcraft – B070 & B069
- SRF Projects will reduce the CSO volume discharged into the Rouge River, improving water quality in the Rouge River.
- EGLE requiring that high priority CSOs are eliminated by 2037.



Addressing Permit Compliance and Water Quality

Current Data (2018-2022)

Location	CSO Number	Average Volume (MG)	Average Frequency of Discharge per Year
West Chicago North (Plymouth Road)	B064	42.7	25
West Chicago South (West Chicago)	B063	13.4	12
Schoolcraft North	B070	0.2	1
Schoolcraft South	B069	37.2	30

Note: Data provided by GLWA and Wade Trim

Alternatives

Schoolcraft and West Chicago



FY2024 CW SRF Alternatives

- **No Action Alternative**
 - Not considered a viable option and does not address water quality concerns in Rouge River.
- **Optimum Performance of Existing System Alternative**
 - Cleaning and unclogging of downstream system. Provides improvement to the system but does not address water quality, CSO reduction or capacity enhancement of the combined sewer system.
- **Regionalization Alternative**
 - GLWA operates the regional wastewater collection system. The City of Detroit and surrounding communities are served by GLWA. There are adjacent systems viable for a regionalized improvement.
- **Design Alternative 1**
 - Stormwater Management with CSO reduction/elimination
- **Design Alternative 2**
 - Stormwater Management with CSO reduction

West Chicago

- Overview and Comparison of Alternative 1 and 2



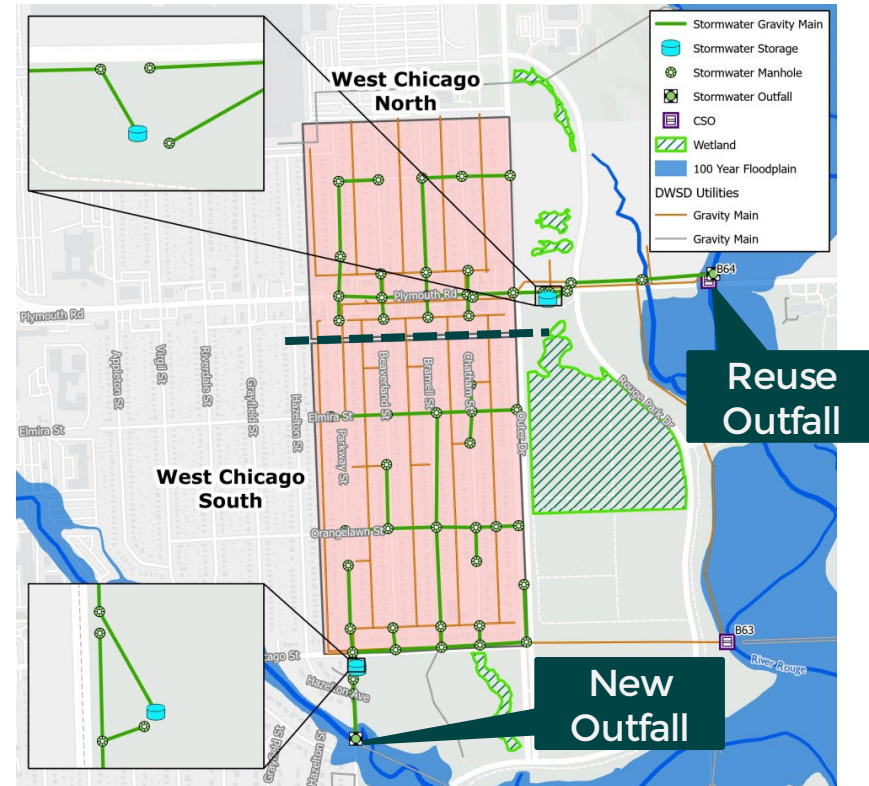
FY2024 CW SRF Alternatives – Design Alternative 1

- West Chicago North (CSO B064)

- \$17M Project
- Storm sewer, GSI, water quality treatment, stormwater detention and new combined sewer to divert flow.
- Repurposes outfall to the Rouge for stormwater system
- Eliminates CSO B064

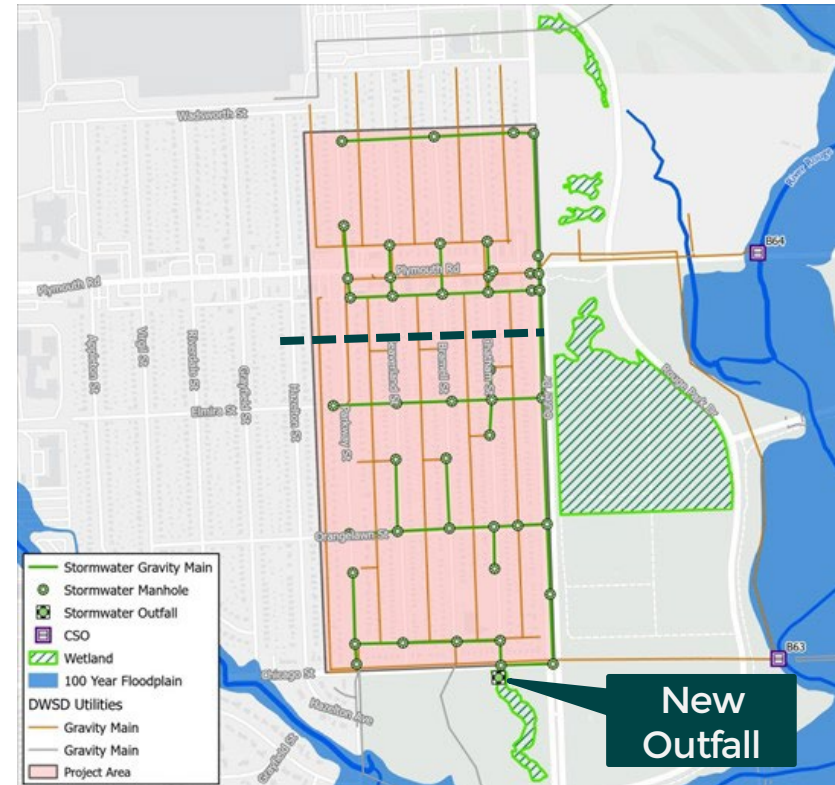
- West Chicago South (CSO B063)

- \$19M Project
- Storm sewer, GSI, water quality treatment and stormwater detention .
- New treated stormwater outfall to the Ashcroft Sherwood Drain
- Reduction of CSO activity at B063.



FY2024 CW SRF Alternatives – Design Alternative 2

- West Chicago North (CSO B064)
 - \$14M Project
 - Storm sewer, GSI, water quality treatment and conveyance to south drainage area.
 - Reduction of CSO Activity at B064
- West Chicago South (CSO B063)
 - \$23M Project
 - Storm sewer, GSI, water quality treatment.
 - New treated stormwater outfall to a ravine wetland area near West Chicago and Chatham tributary to the Rouge River
 - Reduction of CSO Activity at B063



Differences Between Alternative 1 & 2

- **CSO Impacts**

- **Alternative 1** will eliminate outfall B064 and reduce all other activity.
- **Alternative 2** will maintain all outfalls with reduced activity.

- **Stormwater Outfall Points**

- **Alternative 1** will utilize existing outfalls and discharge directly to surface waters at the Ashcroft/Sherwood drain.
- **Alternative 2** will discharge to a ravine/floodplains and require streambank stabilization.

- **Costs**

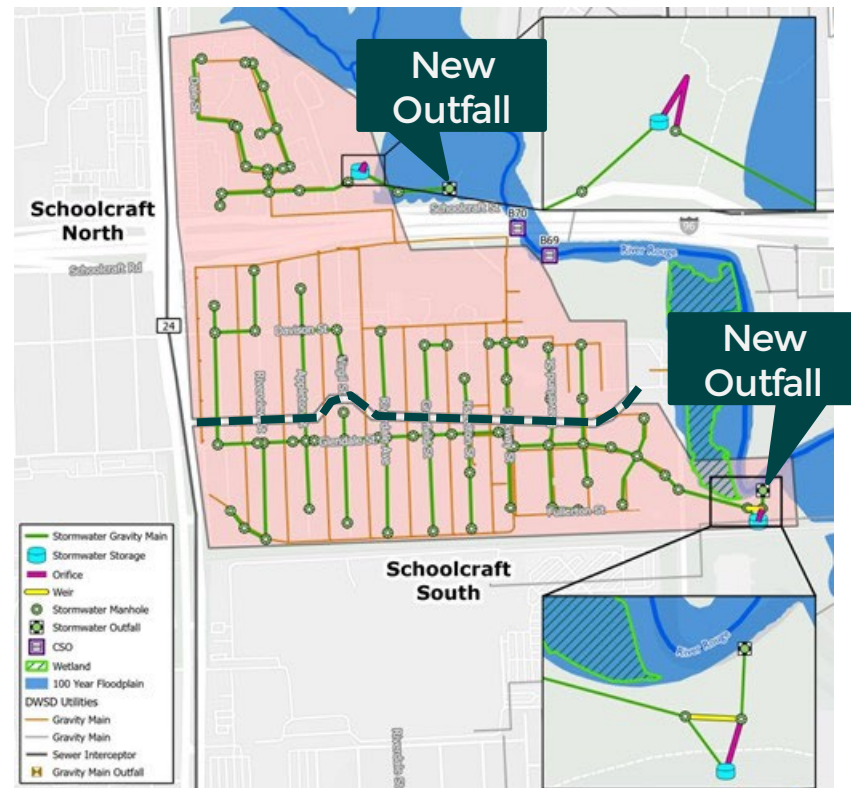
- **Alternative 1** is \$36M and **Alternative 2** is \$37M

Schoolcraft

- Overview and Comparison of Alternative 1 and 2

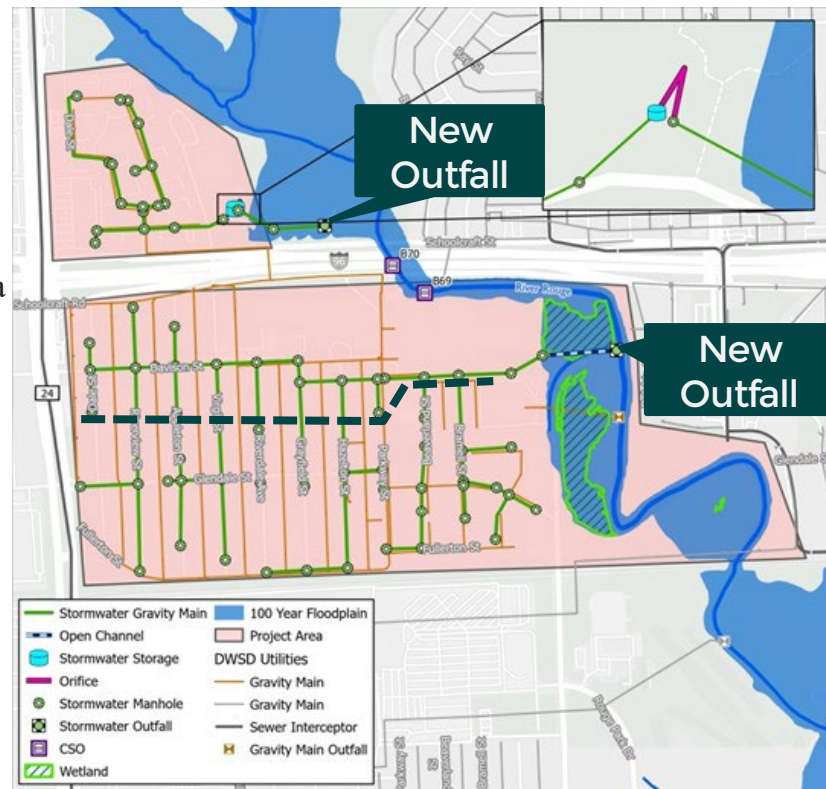
FY2024 CW SRF Alternatives – Design Alternative 1

- Schoolcraft North (CSO B070)
 - \$20M Project
 - Storm sewer, GSI, water quality treatment. Neighborhood drainage will be conveyed to the south.
 - New stormwater treatment basin within Eliza Howell Park with an outfall to the Rouge.
 - Reduction of CSO Activity at B070
- Schoolcraft South (CSO B069)
 - \$22M Project
 - Storm sewer, GSI, water quality treatment and new combined sewer to mitigate construction impacts.
 - New treated outfall to the Rouge River north of CSX Railroad.
 - Reduction of CSO Activity at B069



FY2024 CW SRF Alternatives – Design Alternative 2

- Schoolcraft North (CSO B070)
 - \$20M Project
 - Storm sewer, GSI, water quality treatment. Neighborhood drainage will be conveyed to the south.
 - New stormwater treatment basin within Eliza Howell Park with an outfall to the Rouge.
 - Reduction of CSO activity at B070.
- Schoolcraft South (CSO B069)
 - \$33M Project
 - Storm sewer, GSI, water quality treatment and new combined sewer due to construction impacts.
 - New treated outfall to wetland floodplain north of Outer Drive.
 - Reduction of CSO activity at B069.



Differences Between Alternative 1 & 2

- **CSO Impacts**

- Both alternatives will reduce CSO Activity for B069 and B070

- **Stormwater Outfall Points**

- Alternative 1 will create a new treated outfall and discharge directly to the Rouge River immediately northeast of the Detroit Diesel Facility at east of Outer Drive.
- Alternative 2 will create a new treated outfall and discharge north of Outer Drive to a wetland/floodplain area.
- Both alternatives will create a new basin and outfall to upland areas within Eliza Howell Park

- **Costs**

- Alternative 1 is \$44M and Alternative 2 is \$53M

Selected Alternative

Schoolcraft and West Chicago



Recommended Alternative

It is recommended that DWSD Proceed with Alternative 1 for the following reasons:

- **Cost:** The proposed improvements within Alternative 1 (\$78M) will attain CSO reductions at a reduced cost compared to Alternative 2 (\$88M). Alternative 2 would also result in an impact to rate payers within a significantly overburdened community.
- **Wetland and Park Property Impacts:** Alternative 1 will have reduced impacts to the existing wetlands and vegetation within the project area. This avoids the flagged wetland areas located north of Outer Drive. Alternative 1 also avoids impacts to wetlands located within a ravine immediately south of West Chicago and Chatham Streets.
- **Elimination of CSOs.** Alternative 1 will eliminate CSO B064 which currently discharges 40 MG per year annually to the Rouge River.



FY2024 CW SRF Design Alternatives

Project	Design Alternative 1	Design Alternative 2
West Chicago North	\$17M	\$14M
West Chicago South	\$19M	\$23M
Schoolcraft North	\$20M	\$20M
Schoolcraft South	\$22M	\$33M
TOTAL	~\$78M	~\$90M

Alternative 1 Project Highlights

- Projects were originally identified within the 2020 GLWA Wastewater Master Plan and will significantly reduce untreated combined sewer discharges at four active outfalls along the west bank of the Rouge River.
- The projects will utilize a mixture of proven infrastructure techniques to capture, treat, and manage stormwater.
- The projects minimize work within park spaces due to environmental limitations defined under CWSRF.
- Projects are initiated in anticipation of grant funding.
- **In the event that 100% grant funding is not secured, DWSD is under no obligation to move forward with the project.**
- **ARPA Grant dollars will no longer be available in FY2024 and must be spent by 2026.**

Project Financing

Schoolcraft and West Chicago



Project Financing

- DWSD is **asignificantly overburdened community**
- The City **MAY NOT** move forward with projects unless the projects are 100% grant funded.
- DWSD is willing to spend \$1 to \$2 Million above the grant funded projects.

Wastewater Bill	Project Dollars	Increase in Monthly bill	Annual Increase
User	\$2,000,000	\$0.65	\$7.80

Social and Environmental Impacts

Schoolcraft and West Chicago





Social & Environmental Impacts

- Qualitatively stormwater enhancement projects have an overall positive social impact.
- Reduction of untreated CSO outfalls in the Rouge River will improve the water quality and quality of life around the Rouge River including recreational use.
- Construction of selected alternatives have minimal impact to the environment.
- Construction activity will occur within right of way and DWSD easements.
- Water quality will be preserved through use of soil erosion control measures.



Schedule

Project Plan, Design and Construction



SRF Project Plan Schedule

Preliminary Engineering

- January 2023-February 2023

Draft Project Plan Public Meeting and Board Resolution

- March 15, 2023

GLWA Board Meeting and Board Resolution

- April 26, 2023

Final Project Plan

- May 2023

Draft Intended Use Plan /Notice of Grant Award Status

- September 2023

BOWC Resolution

Project Plan, Design and Construction



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Resolution Adopting Project Planning Document

- After the presentation of the Project Planning Document and the receipt of comments, the DWSD BOWC will be requested to accept the Project planning document via resolution.
 - The resolution will accept the CWSRF project plan and recommends that DWSD proceeds with Alternative 1.
 - The resolution will identify an Authorized Representative for all activities associated with the project, including the submittal of said Project Plan as the first step in applying to the State of Michigan for a revolving fund loan and grants to assist in the implementation of the selected alternative.
- Pending approval of the resolution, DWSD will submit the project plans to GLWA with final submittal to EGLE on or before **5/1/2023** .

Questions from the Public

Please state name and home address

