

**Springwells Water Treatment Plant, Low-Lift and High-Lift Pumping Station Improvements**

- Innovation
- Water MP Right Sizing
- Reliability/Redundancy
- NEWTP Repurposing

**Project Status** Active

**CIP Type** Project

**Project New To CIP**

High Lift Station viewed from Low Lift Station operating floor showing high lift pump pits and windows to be replaced.



**Project Engineer/Manager** Erich Klun

**Manager** Grant Gartrell

**Managing Dept** Water Eng

**Date Original Business Case Prepared** 3/29/2004

**Year Project Added to CIP** 2004

**Budget** Water

**Class Lvl 1** Water

**Class Lvl 2** Treatment Plants and Facilities

**Class Lvl 3** Springwells

**Location** Wayne County - Outside Detroit

**Fund and Cost Center** Water - 5519-882111

**Project Significance** Existing low- and high-lift pumping system electrical switchgear is original (1930s) and are well beyond their useful service life. This switchgear is unsafe, not reliable and is oversized for current and projected demands. In addition, the existing pumping units are a mix of 1930s and 1950s units and are also in need of either replacement or in the case of the pumps rehabilitation. The exterior windows on the pumping plant building are also original (1930s), are in poor condition and are not well insulated. As a result, all of the exterior windows on the pumping plant building need to be replaced with new, energy efficient windows.

**Scope of Work** The electrical gear at the Springwells WTP high and low lift stations is old and parts are no longer available. The outdated equipment also poses safety issues. Furthermore, the pumps may be right-sized to provide more efficient pumping systems.

**Challenges** Complicated sequence of construction required to replace electrical gear while maintaining system demands throughout construction. During construction, new costly equipment will be operating next to existing equipment/facilities to be demolished

**Related Project** Contract No. CS-103 with CDM Smith Design and Construction Administration Services

**Lookup Driver** 1 - Condition

**Explanation** Not provided.

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**PM Weighted Score**

**78.6**

Criteria	Score	Comment
Condition	5	
Efficiency and Innovation	4	
Financial	4	
O&M	5	
Performance (Service Level/Reliability)	5	
Public Benefit	3	
Public Health & Safety	5	
Regulatory (Environmental/Legal)	1	

**RC Weighted Score**

**69.2**

Criteria	Score	Comment
Condition	5	
Efficiency and Innovation	3	
Financial	1	
O&M	5	
Performance (Service Level/Reliability)	5	
Public Benefit	2	
Public Health & Safety	5	
Regulatory (Environmental/Legal)	1	



Springwells Water Treatment Plant, Low-Lift and High-Lift Pumping Station Improvements

**Phase** not applicable

**Contract** NA

**Status** Closed Out

**Title** Prior Year Actual Expenses

**Phase Budget**

**Phase Status**

**Start Date**

**End Date**

**Cost Allocation**

**Funding Source**

**Fund**

**Useful Life >20Yrs?**

**Tot. Federal Loan Amount**

**Cost Estimation Information**

**Cost Est. Class**

**Cost Est. Date**

**Cost Est. Source**

**Cost Est. Prepared By**

**Program/Allowance Task Information**

**Project Manager**

**CIP Number**

**Description**

Cost Type	Fiscal Year	Expense	Fringe Benefit	NonPersonne	Comment
Engineering Services	FY18-	\$468			FY18
Unknown	FY18-	\$22			FY17
GLWA Salaries CIP2020	FY18-	\$7	1	0	FY18

Prior Yr Actuals	FY19	FY20	FY21	FY22	FY23	FY24	FY25+	Total
498								498

**Phase Total Expenses By FY (All figures are in \$1,000's)**



Springwells Water Treatment Plant, Low-Lift and High-Lift Pumping Station Improvements

**Phase** Construction

**Contract** NA

**Status** Future Planned Start

**Title** SPW WTP - Low Lift and High Lift Pump Station

**Phase Budget**

**Phase Status**

**Start Date**

**End Date**

**Cost Allocation**

**Funding Source**

**Fund**

**Useful Life >20Yrs?**

**Tot. Federal Loan Amount**

**Cost Estimation Information**

**Cost Est. Class**

**Cost Est. Date**

**Cost Est. Source**

**Cost Est. Prepared By**

**Program/Allowance Task Information**

**Project Manager**

**CIP Number**

**Description**

Cost Type	Fiscal Year	Expense	Fringe Benefit	NonPersonne	Comment
Construction	FY20	\$3,590			2020CIP
Construction	FY21	\$8,157			2020CIP
Construction	FY22	\$13,079			
Construction	FY23	\$13,079			
Construction	FY24	\$25,000			
Construction	FY25+	\$40,000			2020CIP

Task	Start Date	End Date	Duration
Scope Development	9/29/2020	12/28/2020	90
Procurement	12/29/2020	7/2/2021	185
Project Execution	7/6/2021	6/1/2026	1791
Project Closeout	6/2/2026	8/31/2026	90

Prior Yr Actuals	FY19	FY20	FY21	FY22	FY23	FY24	FY25+	Total
	0	3,590	8,157	13,079	13,079	25,000	40,000	102,905

**Phase Total Expenses By FY (All figures are in \$1,000's)**



Springwells Water Treatment Plant, Low-Lift and High-Lift Pumping Station Improvements

**Phase** Study and Design and Construction Assistance

**Contract** CS-103

**Status** Under Procurement

**Title** CS-103, SPW WTP - Low Lift and High Lift Pump Station

**Phase Budget**

**Phase Status**

**Start Date**

**End Date**

**Cost Allocation**

**Funding Source**

**Fund**

**Useful Life >20Yrs?**

**Tot. Federal Loan Amount**

**Cost Estimation Information**

**Cost Est. Class**

**Cost Est. Date**

**Cost Est. Source**

**Cost Est. Prepared By**

**Program/Allowance Task Information**

**Project Manager**

**CIP Number**

**Description**

Cost Type	Fiscal Year	Expense	Fringe Benefit	NonPersonne	Comment
Engineering Services	FY19	\$2,462			
Engineering Services	FY20	\$2,250			
Engineering Services	FY21	\$1,000			
Engineering Services	FY22	\$500			
Engineering Services	FY23	\$500			
Engineering Services	FY24	\$1,000			
Engineering Services	FY25+	\$2,686			2020CIP

Task	Start Date	End Date	Duration
Scope Development	11/2/2016	1/31/2017	90
Procurement	2/1/2017	2/1/2018	365
Project Execution	2/2/2018	6/1/2026	3041
Project Closeout	6/2/2026	8/31/2026	90

Prior Yr Actuals	FY19	FY20	FY21	FY22	FY23	FY24	FY25+	Total
	2,462	2,250	1,000	500	500	1,000	2,686	10,398



Springwells Water Treatment Plant, Low-Lift and High-Lift Pumping Station Improvements

Phase Total Expenses By FY (All figures are in \$1,000's)

Phase GLWA Employees Project management

Contract NA

Status Active

Title GLWA Salaries

Phase Budget

Phase Status

Start Date

End Date

Cost Allocation

Funding Source

Fund

Useful Life >20Yrs?

Tot. Federal Loan Amount

Cost Estimation Information

Cost Est. Class

Cost Est. Date

Cost Est. Source

Cost Est. Prepared By

Program/Allowance Task Information

Project Manager

CIP Number

Description

Cost Type	Fiscal Year	Expense	Fringe Benefit	NonPersonne	Comment
GLWA Salaries CIP2020	FY19	\$100	40	5	
GLWA Salaries CIP2020	FY20	\$100	40	5	
GLWA Salaries CIP2020	FY21	\$100	40	5	
GLWA Salaries CIP2020	FY22	\$100	40	5	
GLWA Salaries CIP2020	FY23	\$100	40	5	
GLWA Salaries CIP2020	FY24	\$100	40	5	
GLWA Salaries CIP2020	FY25+	\$100	40	5	2020CIP

Prior Yr Actuals	FY19	FY20	FY21	FY22	FY23	FY24	FY25+	Total
	145	145	145	145	145	145	145	1,015

Phase Total Expenses By FY (All figures are in \$1,000's)

Project Total Expenses By FY Compared to Prior CIPs (All figures are in \$1,000's)

CIP	FY16	FY17	FY18	FY19	FY20	FY21	FY22	FY23	FY24	FY25	Total
2018			1,500	2,000	12,500	22,000	21,500	26,500	0	0	86,000



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CIP	FY16	FY17	FY18	FY19	FY20	FY21	FY22	FY23	FY24	FY25	Total
2019	0	22	463	1,433	2,481	1,453	11,228	8,675	59,748	0	85,503
2020	0	0	498	2,607	5,985	9,302	13,724	13,724	26,145	42,831	114,816