

FY2022 Drinking Water Revolving Fund Public Meeting June 23, 2021

Ypsilanti Pump Station Improvements Project



Topics

1. Overview
 - a) Project Overview
 - b) Site Location
2. Improvement Alternatives
3. Alternatives Evaluation
4. Estimated Project Cost
5. Implementation Schedule

Project Overview

Ypsilanti Pump Station (YPS) System

- YPS boosts the water pressure from the Wick Road PS in the southwest portion of the GLWA system
- YPS Capacity:
 - Firm: 36 million gallons per day (mgd)
 - Installed: 56 mgd
- Construction in mid 1980's to replace older temporary PS
- Mid-1990's connection to Joy Road PS was added
- The YPS pumps and associated equipment have reached the end of their useful lives

Ypsilanti Study Area

- YPS provides water to the Ypsilanti Community Utilities Authority (YCUA) who services customers in southwest area of GLWA's system
 - City of Ypsilanti
 - Ypsilanti Township
 - Augusta Township
 - Pittsfield Township
 - Superior Township
- Other communities in the study area not served by YPS
 - York Township
 - Willow Run Airport
 - Cape Apartment in Van Buren Township
 - City of Ann Arbor
- Total Potential Service Area Population – 290K

Existing YPS Site Location



Improvement Alternatives

- *Alternative 1 – No Action: This alternative would not rehabilitate or improve the existing YPS*
- *Alternative 2 – Preplace the existing PS on the current site*
- *Alternative 3 – Replace the existing PS near the Wick Road PS – This alternative would replace both the YPS and Wick Road PS.*
- *Alternative 4 – Replace the existing PS on a new site on a portion of the Willow Run Airport*



Alternatives Evaluation

Selected Alternative – Alternative 4

Alternative 4 was the selected alternative because it meets each functional requirement for GLWA now and in the future.

Alternative 3 can provide flow and pressure under existing conditions and combines two stations into one. However, this combined station is limited by the transmission system which would limit future expansion requiring a new PS near the current YPS location at some future time.

Functional Requirement	Alternative 1: No Action	Alternative 2: New YPS Within The Current Property Boundary	Alternative 3: New Combined PS To Replace Existing Wick Road PS and Ypsilanti PS	Alternative 4: New YPS Northwest Corner of Beck Road and D Street
No. 1 Property Acquisition				
No. 4 Hydraulics/System Operations				
No. 5 Sewer/Utilities Access				
No. 6 Constructability				
No. 9 Wetlands Issues				
No. 10 Environmental Issues				
No. 11 JHA Items				
No. 12 Expandability				
Average Score	3.25	3.4	3.5	4.0

Scale

= 1 = 2 = 3

= 4 = 5

Estimate Project Costs

Summary of Cost	
Cost Item	Alternative 4: Construct New YPS at D Street and Beck Road
Construction Cost*	\$35 Million
Estimate Range*	\$17.5 - \$70 Million
Design/Planning Cost	\$3,000,000
Construction Administration	\$700,000

**Based on an AACE Class 5 Estimate with an accuracy range of -50% to +100%*

Implementation Schedule

Project Activity	Project Milestone
Post Draft DWRF Project Plan and Public Hearing Notice (Start of 30-Notice Period)	May 17, 2021
Public Hearing	June 23, 2021
Submit Project Plan to EGLE	July 1, 2021
Design Complete and Bidding Begins	March 2022
Start of Construction Phase 1	November 2022
Complete Construction	April 2025



GLWA
Great Lakes Water Authority