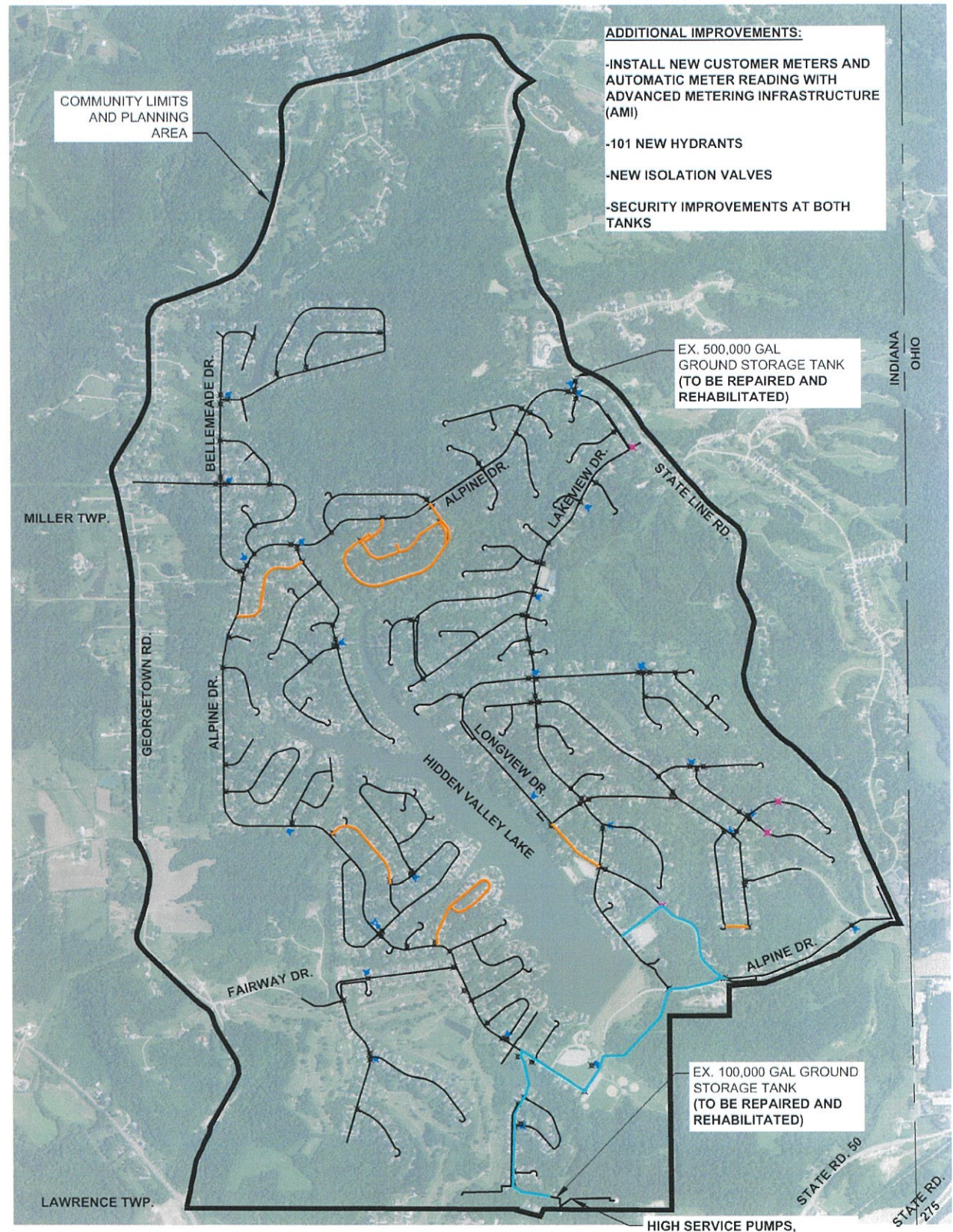


Z:\Shared\IN Clients M--\Valley Rural Utility Company\0 W21136 Water Utility Improvements\06 CAD\3 PER Resoms\1 Figures\VALLEY FIGURES 1--8--24.dwg PRINTED: 3/16/2024 15:01 AM BY: Arlene Remmers



ADDITIONAL IMPROVEMENTS:

- INSTALL NEW CUSTOMER METERS AND AUTOMATIC METER READING WITH ADVANCED METERING INFRASTRUCTURE (AMI)
- 101 NEW HYDRANTS
- NEW ISOLATION VALVES
- SECURITY IMPROVEMENTS AT BOTH TANKS

EX. 500,000 GAL GROUND STORAGE TANK (TO BE REPAIRED AND REHABILITATED)

EX. 100,000 GAL GROUND STORAGE TANK (TO BE REPAIRED AND REHABILITATED)

HIGH SERVICE PUMPS, VALVES AND PIPING TO BE REPLACED. NEW VFD'S TO BE INSTALLED

LEGEND:

- EX. WATER MAIN
- EX. WATER MAIN TO BE REPLACED WITH 6"
- NEW 8" REDUNDANT FEED LINE
- ▼ EX. WATER HYDRANTS
- × EX. GATE VALVES
- × EX. PRV

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VALLEY RURAL UTILITY COMPANY
DEARBORN COUNTY, INDIANA
PRELIMINARY ENGINEERING REPORT
RECOMMENDED PROJECT
FIGURE ES-2



INDIANA
OHIO

STATE RD. 50
STATE RD. 215

A. Financial Requirements Total Project Cost Estimate (Engineer’s Opinion of Probable Cost)

Table ES-7 shows the estimate of probable construction and non-construction costs (collectively referred to as project cost) for the recommended project. Construction costs include a 10% contingency. SRF funding that is awarded for Fiscal Year 2025 will be required to meet the requirements of the Build America Buy America Act (BABA). Costs reflect current pricing inflated to be inclusive of BABA at an estimated 10% of project costs.

**Table ES-7
Estimate of Project Cost**

Item	Estimated Cost
Construction Costs	
New Meters and Automatic Meter Reading with Advanced Metering Infrastructure (AMI)	\$1,380,600
Replace Areas of Concern	\$6,158,500
Add a Redundant Feed Line on South Side of Dam	\$2,309,000
Replace High Service Pumps, Add VFDs, and Associated Piping, Valves, and Appurtenances	\$283,350
Perform Storage Tank Repairs and Rehabilitation	\$553,000
BABA (10%)	\$1,068,000
Contingencies (10%)	\$1,068,000
Total Construction Costs	\$12,820,450
Non-Construction Costs	
Design	\$1,046,000
Bidding and Negotiation	\$52,000
Construction Engineering	\$240,000
Construction Inspection	\$400,000
Geotechnical Investigation	\$50,000
Construction General Stormwater Permit (CGSP / SWPPP)	\$10,000
Record Drawings - CAD	\$10,000
Post Construction	\$10,000
IDNR Permit	\$10,000
Field Investigation & Survey	\$60,000
Land Acquisition & Easements Assistance	\$20,000
ROW Verification	\$10,000
Financial / Legal Assistance	\$10,000
Regulatory Assistance	\$20,000
American Iron and Steel and BABA Compliance	\$30,000
Green Project Reserve	\$10,000

Item	Estimated Cost
Labor Standards	\$40,000
Rate Consultant	\$60,000
Legal Counsel	\$60,000
Bond Counsel	\$70,000
Land Acquisition and Easement Preparation	\$10,000
General Administration	\$20,000
Total Non-Construction Cost	\$2,248,000
Total Project Cost	\$15,071,000

A. Proposed Project Schedule

Table ES-8 shows a proposed schedule for the recommended project.

**Table ES-8
Proposed Schedule for Utility System Improvements Project**

Item	Date to be Completed
Utility Files SRF Application	March 2024
Utility Receives SRF Approval of the PER and is placed on the PPL	July 2024
Utility Authorizes Design	May 2024
Completion of Final Design	Jan 2025
Utility Applies for Required Permits (Including Construction Permit from IDEM)	Jan 2025
Utility Obtains Required Permits (Including Construction Permit from IDEM)	Feb 2025
Utility Advertises for Construction Bids	March 2025
Utility Receives Construction Bids	April 2025
Utility Closes on SRF Loan and Authorizes Construction	June 2025
Utility Substantially Completes Construction and Close Out SRF Loan	June 2026

B. Project Funding

As illustrated in **Table ES-9**, the project requires a significant upfront cost. Therefore, monies will have to be secured to finance the design and construction of this project. Funding scenarios are presented herein for planning purposes along with their estimated impact on the monthly billing. The values presented in **Table ES-9** below are engineering estimates and are for discussion purposes only. A full rate analysis shall be completed by the Utility's financial advisor to determine the rate impact of the proposed project.

Estimated monthly user rates for the proposed water system improvements project will be calculated for different funding scenarios. These rates are preliminary in nature and are presented only to provide the Utility with an estimated user rate following the completion of the proposed project. Additional rate studies will be

completed by the Utility's financial advisor to determine a more accurate monthly user rate.

Presently, the Valley Rural Water Utility has a rate of \$32.68 per month for an average residential user at 4,000-gallons per month. This will be used as a base to calculate the estimated future user rates resulting from this project. The loan interest rate assumed is the DWSRF Tier I for User Rates of \$30-\$50.

**Table ES-9
Project Funding Scenarios**

	100% Loan	75% Loan
Total Project Cost	\$15,071,000	\$15,071,000
Less Grant	\$0	\$3,767,750
Total Bonds Issued	\$15,071,000	\$11,303,250
Annual Debt Repayment (20 years at 2.42% interest)	\$959,471	\$719,603
Increase in Annual O&M&R Cost	\$45,740	\$45,740
Debt Service Reserve (10%)	\$95,947	\$71,960
Total Annual Cost	\$1,101,158	\$837,303
Total Monthly Cost	\$91,763	\$69,775
Number of Equivalent Dwelling Units	2,136	2,136
Estimated Monthly User Rate Increase For Project	\$42.96	\$32.67
Current Monthly Rate (4000 gallons)	\$32.68	\$32.68
Total Monthly User Rate	\$75.64	\$65.35

ES-6 Permit Requirements

It is anticipated that the following permits may be required for construction of this project, including:

- CSGP (Erosion Control Permit)
- IDEM NOI for Water Main Extension
- County Right of Way Permit, if required
- Section 401/404 Permit, if required
- IDNR Construction in a Floodway Permit, if required
- County Regulated Drain Permit, if required

ES-7 Annual O&M Costs

The table below shows the new annual estimated O&M costs for the Utility. Because this project includes replacement of existing infrastructures the new O&M is minimal.

**Table ES-10
New Annual Estimated O&M Cost**

Item	Cost
Meter Reading / New AMI	-\$2,000
Total	(\$2,000.00)

ES-8 Reserves

The table below shows the new annual estimated short-lived assets.

**Table ES-11
New Annual Short-Lived Assets Cost**

Description	Estimated Cost	Replacement Interval	Estimated Annual Cost
5/8" - 3/4" Meter with Encoder	\$77,000	10	\$5,133
5/8" - 3/4" Encoder	\$592,000	10	\$39,467
1" Encoder	\$400	10	\$27
1-1/2" Encoder	\$400	10	\$27
2" Encoder	\$800	10	\$53
VFDs	\$66,000	15	\$2,933
Pressure Switch	\$2,250	15	\$100
Total			\$47,740

Section 1 – Project Planning

This section defines the project Planning Area and the planning period as well as current characteristics of the Planning Area. This information is important to the engineering analyses and the decision-making processes discussed in subsequent sections. The planning period for this study is 20 years.

1.1 Location

Valley Rural Utility Co. (Utility) is a private water utility servicing the private residential community of Hidden Valley Lake (HVL). HVL is located in Dearborn County, Indiana. It is accessible by State Road 1, and it touches the Indiana-Ohio border approximately 24 miles east of Cincinnati. **Table 1-1 – Project Location** presents the pertinent USGS quadrangle map information. The Service Area is roughly equivalent to the Corporate Limits - shown in **Figure 1-1 – General Location Map**, **Figure 1-2 – Planning Area**, and **Figure 1-3 – Topographic Map**.

**Table 1-1
Project Location**

County	U.S.G.S. Quadrangle Map	Township	Range	Section
Dearborn	Hooven	6N	1W	11, 13, 14, 15, 22, 23, 24, 25, 26, 27, 35, 36

1.2 Environmental Resources Present

A. Disturbed/Undisturbed Land

The land use within the Planning Area is primarily low, medium, high intensity and open developed land, as shown in **Figure 1-4 – Land Use Map**. The remaining land within the Planning Area is primarily deciduous forest and open water. Project areas are all within developed areas. The recommended improvements are located on property owned by the Utility, on road right-of-way, in existing easements or in areas where easements will be obtained. Projects proposed as part of this report will not impact established land use plans, policy, or regulations of any agency with jurisdiction over the project.

Indiana Map was utilized to locate any brownfield remediation sites within the Planning Area. No brownfield sites were noted in the Planning Area.

The majority of recommended improvements will take place on land that has been previously disturbed. The new redundant feedline has portions that are likely to be installed in undisturbed land. Construction projects are not expected to have any detrimental, long-term impacts on the soils. Short-term impact associated with material and equipment transport and installation is expected and will be mitigated through appropriate techniques.