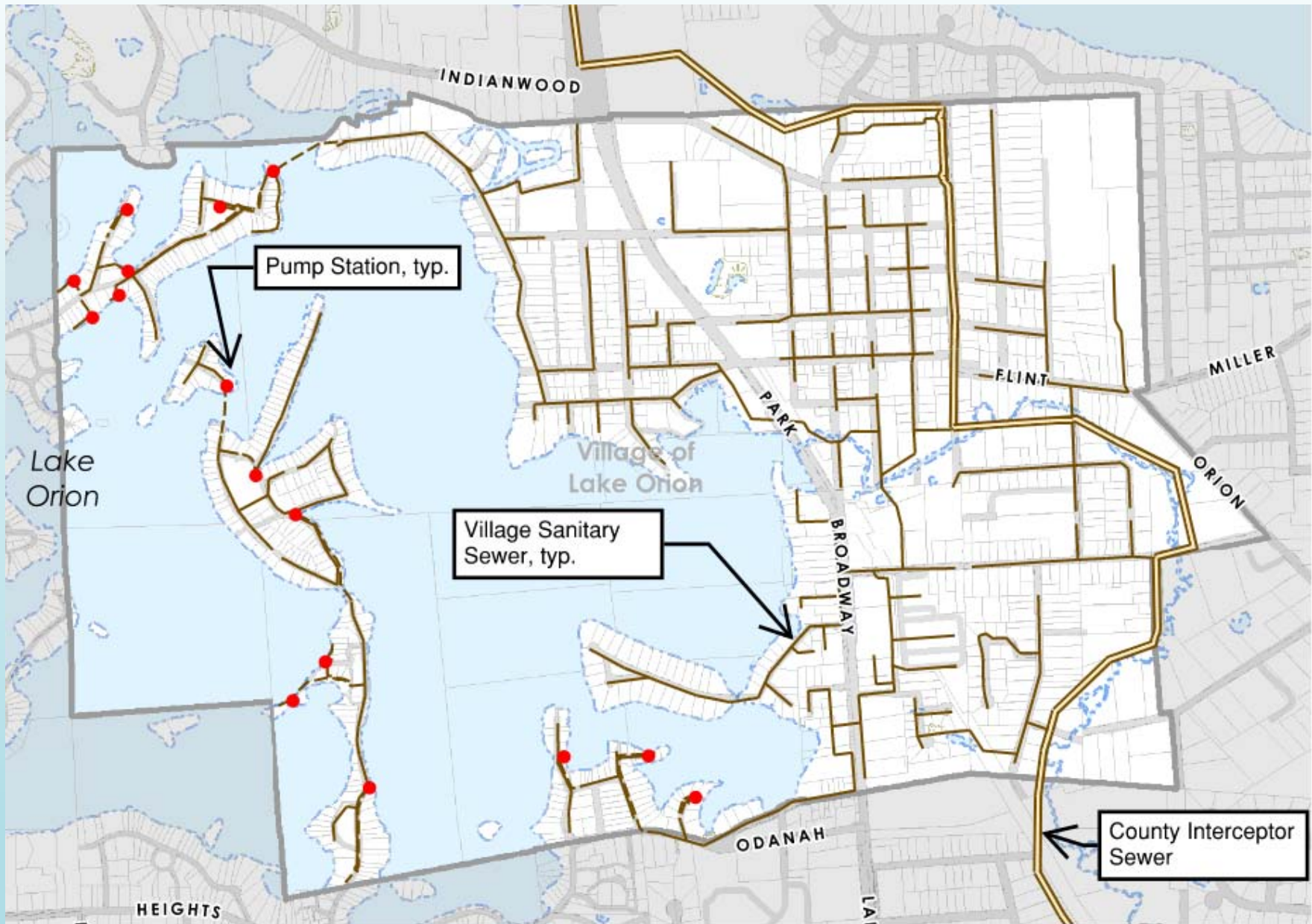


Pump Station Improvements



Village of Lake Orion
January 2024



Sewer System Map

History of Project

- ❖ **Sanitary system constructed in the early 1970's to address widespread septic system failures**
- ❖ **County maintains the system, no major capital improvements to stations in past 50 years.**
- ❖ **VLO received SAW Grant October 2015 to develop an Asset Management Plan (AMP)**
- ❖ **Asset Management Plan and Capital Improvement Plan (CIP) finalized and presented November 2018**
- ❖ **Findings: all 16 Pump Stations have exceeded design life, require complete rehabilitation**

Recap Specific Problems

- ❖ **50-Year-Old Lift Stations and Force Mains**
 - **Equipment obsolete, parts unavailable**
 - **Electrical no longer code compliant, impedes access**
 - **Corrosion of structure & components**
 - **Risk of failure and potential contamination**



Project Recap & Update

- ❖ October 2022 HRC engaged to design rehabilitation plans & specifications, est. \$6.4 Million
- ❖ May 2023 Village applied for CWSRF low interest loan, est. \$7.3 Million
- ❖ October 2023 final Project Priority List issued, VLO project not funded by CWSRF
- ❖ December 2023 100% Design Plans and Specifications received, FINAL EST. \$9.1 Million
- ❖ Project bid approximately March 2024
- ❖ Construction to begin summer 2024

Cost Discussion

❖ 40% Design Estimate \$6.4 Million

- Did not include Force Main replacement

❖ CWSRF Estimate \$7.3 Million

- Did not include Full Updated Electrical
 - *2020 SCADA update expected to reuse “as is”*

❖ 100% Design Estimate \$9.1 Million

- Includes Force Main replacement at lake crossings
 - *Initially placed on lakebed surface, no cover/protection*
- Includes Full Updated Electrical
 - *SCADA Replacement (more cost effective than reconfiguration)*
 - *Separate Power and Controls Cabinets*
 - *Relocated Emergency Power switch & receptacle*
- Additional Scope & Inflation
 - *Includes lining suction piping while accessible*
 - *Pump Equipment, Electrical & Controls costs increased ~40%*

Cost Estimate 100% Design



1/3/2024

Jim Nash
**Project Cost Estimate for
Lake Orion Lift Stations
PRJ1-3381
December 2023**

	<u>Total Cost</u>	<u>% of Construction</u>
1) Construction Project Construction Cost (Est)	\$ 7,246,000	
2) Project Development: Engineering Consulting	\$ 367,000	5.06%
3) Project Financing & Legal	\$ 99,000	1.37%
3) Right-of-Way Services	\$ 128,000	1.77%
4) Exclusive County Services	\$ 435,000	6.00%
5) Subtotal:	\$ 8,275,000	
6) Contingency (10%)	\$ 828,000	11.43%
	<u>Total Project Cost</u>	<u>Total % Admin & Contingency</u>
	\$ 9,103,000	25.63%

Current Project Funding

❖ 2024 Congressional Community Projects Funding

- \$1.75 Million funding recommendation
- Awaiting final Congressional Approval, Signature

❖ Water and Sewer Fund

- Fund Balance not sufficient for Project
- Rate increases necessary

❖ CWSRF Low-interest Loan

- Project Plan good for 5 years, can reapply if phased
- Priority Rating unlikely to rise **UNLESS** system failure occurs

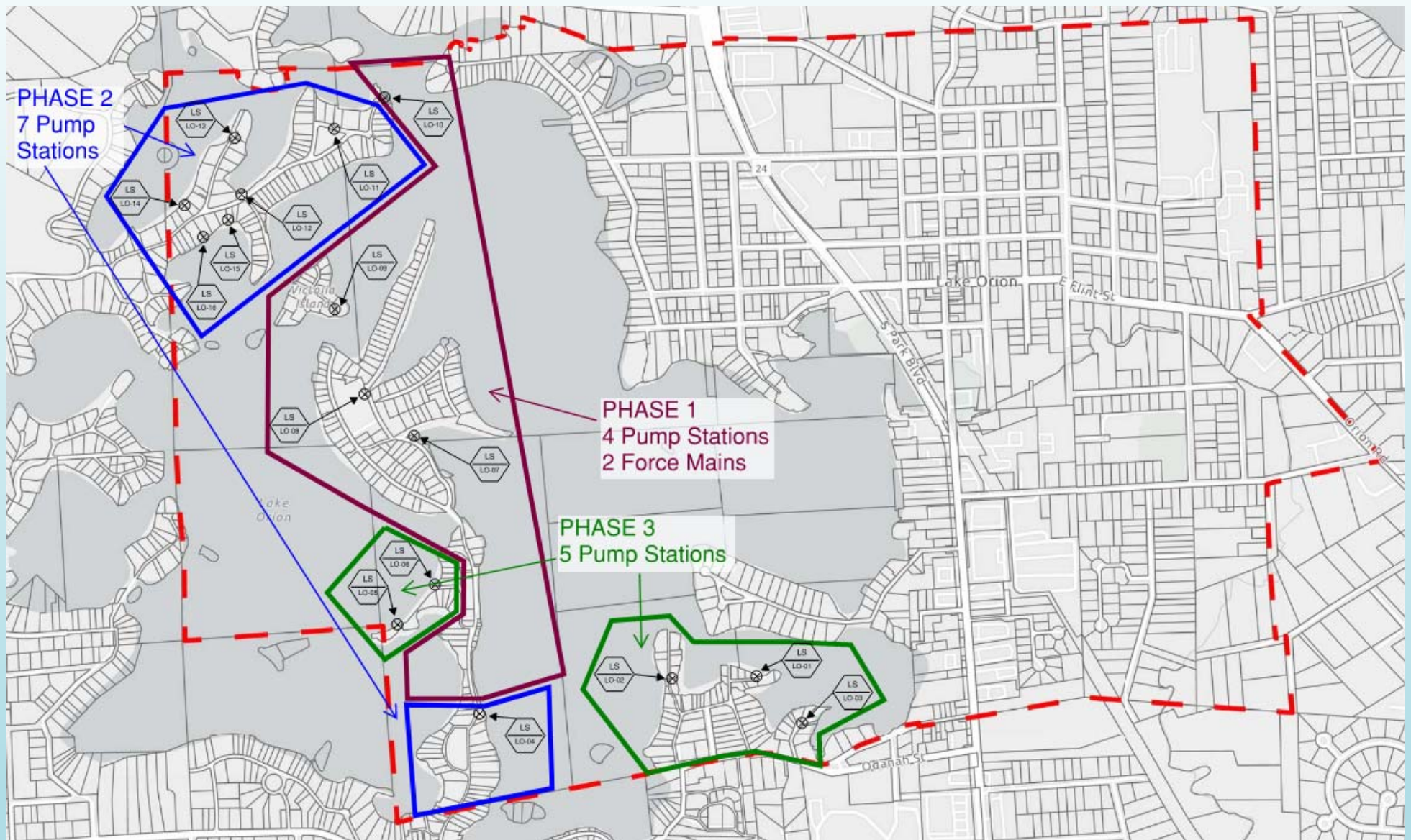
❖ Bond Sale Required

- \$9.1 Million* - \$1.75 Million = \$7.35 Million Village Cost

***Assumes project bid and constructed under a single contract / phase this year**

Potential Phasing / Funding

- ❖ **Congressional Community Projects Funding**
 - Apply for Congressional Projects Funding in 2025 and 2026
 - If received, CPF grants allowed to cover up to 80% of project costs
 - **HOWEVER**, phasing increases overall project costs
 - *Inflation, labor & materials*
 - *Additional bonding, contracting, administrative costs*
- ❖ **Pursue CWSRF Low-interest Loans**
 - **Revise Project Plan, limit to Phase 2 and Phase 3**
 - *Additional Cost to Village for revisions*
 - **Priority Rating unlikely to rise UNLESS system failure occurs**
- ❖ **Project Phasing would allow rate increases to be phased over time as well**



Potential Project Phasing

Worst-Case Phasing Cost

❖ Phase 1 – 2024

Phase 1 (LO-9 through LO-7 & LO-10, FM 9 and FM 10, Victoria Island & Bellevue peninsula minus Westpointe, excludes LO-4)

Construction Costs	25.63% "Admin"	1.50% Add'l Bonding	20.00% Inflation	Phase Cost	CPF Grant	Final Cost
\$2,020,000	\$517,684	\$30,300	\$0	\$2,567,984	\$1,750,000	\$817,984

❖ Phase 2 – 2025

Phase 2 (LO-16 through LO-11, All of Central & Peninsular, plus LO-4 on Bellevue)

Construction Costs	25.63% "Admin"	1.50% Add'l Bonding	20.00% Inflation	Phase Cost	CPF Grant	Final Cost
\$3,015,000	\$772,682	\$45,225	\$603,000	\$4,435,907	\$0	\$4,435,907

❖ Phase 3 - 2026

Phase 3 (LO-1 through LO-3 plus LO-5 and LO-6)

Construction Costs	25.63% "Admin"	1.50% Add'l Bonding	20.00% Inflation	Phase Cost	CPF Grant	Final Cost
\$2,211,000	\$566,634	\$33,165	\$442,200	\$3,252,999	\$0	\$3,252,999

Total 3-year cost \$8,506,890

Potential Additional Costs if NO grants received \$1,153,890

❖ **Analysis based on project bid and constructed in three phases, no additional CPF Grants**

Best-Case Phasing Cost

❖ Phase 1 – 2024

	Construction Costs	25.63% "Admin"	1.50% Add'l Bonding	20.00% Inflation	Phase Cost	CPF Grant	Final Cost
Phase 1 (LO-9 through LO-7 & LO-10, FM 9 and FM 10, Victoria Island & Bellevue peninsula minus Westpointe, excludes LO-4)	\$2,020,000	\$517,684	\$30,300	\$0	\$2,567,984	\$1,750,000	\$817,984

❖ Phase 2 – 2025

	Construction Costs	25.63% "Admin"	1.50% Add'l Bonding	20.00% Inflation	Program Cost	80% CPF Grant	Final Cost
Phase 2 (LO-16 through LO-11, All of Central & Peninsular, plus LO-4 on Bellevue)	\$3,015,000	\$772,682	\$45,225	\$603,000	\$4,435,907	\$3,548,726	\$887,181

❖ Phase 3 - 2026

	Construction Costs	25.63% "Admin"	1.50% Add'l Bonding	20.00% Inflation	Program Cost	80% CPF Grant	Final Cost
Phase 3 (LO-1 through LO-3 plus LO-5 and LO-6)	\$2,211,000	\$566,634	\$33,165	\$442,200	\$3,252,999	\$2,602,399	\$650,600

Total 3-year cost \$2,355,765

Potential Savings if MAXIMUM grants received \$4,997,235

❖ Analysis based on project bid and constructed in three phases, maximum add'l CPF Grants

Phasing Risks / Rewards

❖ RISKS

- **Additional costs to Village residents > \$1,150,000**
- **Larger increase in sewer rates**
- **Increased risk of failure due to deferred rehab**
- **Potential for emergency response costs**

❖ REWARDS

- **Possible savings to Village up to \$4,990,000**
- **Lower increase in sewer rates**
- **Rate increases spread over three year project**

Thank You

