



Engineering Quality of Life®



Water System Resiliency

Countryside Lake, Forest Lake, and Glennshire Subdivision (Hawthorn Woods/HW)



Agenda

- › Project Impetus
- › System Background
- › Required Improvements
- › JAWA Connection
- › Interim Design Options and Costs
- › Potential Funding Sources
- › Timeline and Next Steps



Project Impetus

- › LCPW initiated a system resiliency study for Forest (FL) Lake and the Glennshire Subdivision (HW) due to Aqua system outages in Summer of 2022.
 - Included storage, fire flow, and interconnect evaluations/recommendations.
- › July 2, 2023 – Aqua system outage resulted in boil order for nearly one week
 - Minimal information and transparency provided to County and customers
 - Aqua could not locate issue for several days.
- › Summer, 2023, LCPW expanded scope to include Countryside Lake and evaluate potential CLCJAWA connection for all systems.

Daily Herald
Suburban Chicago's News Source

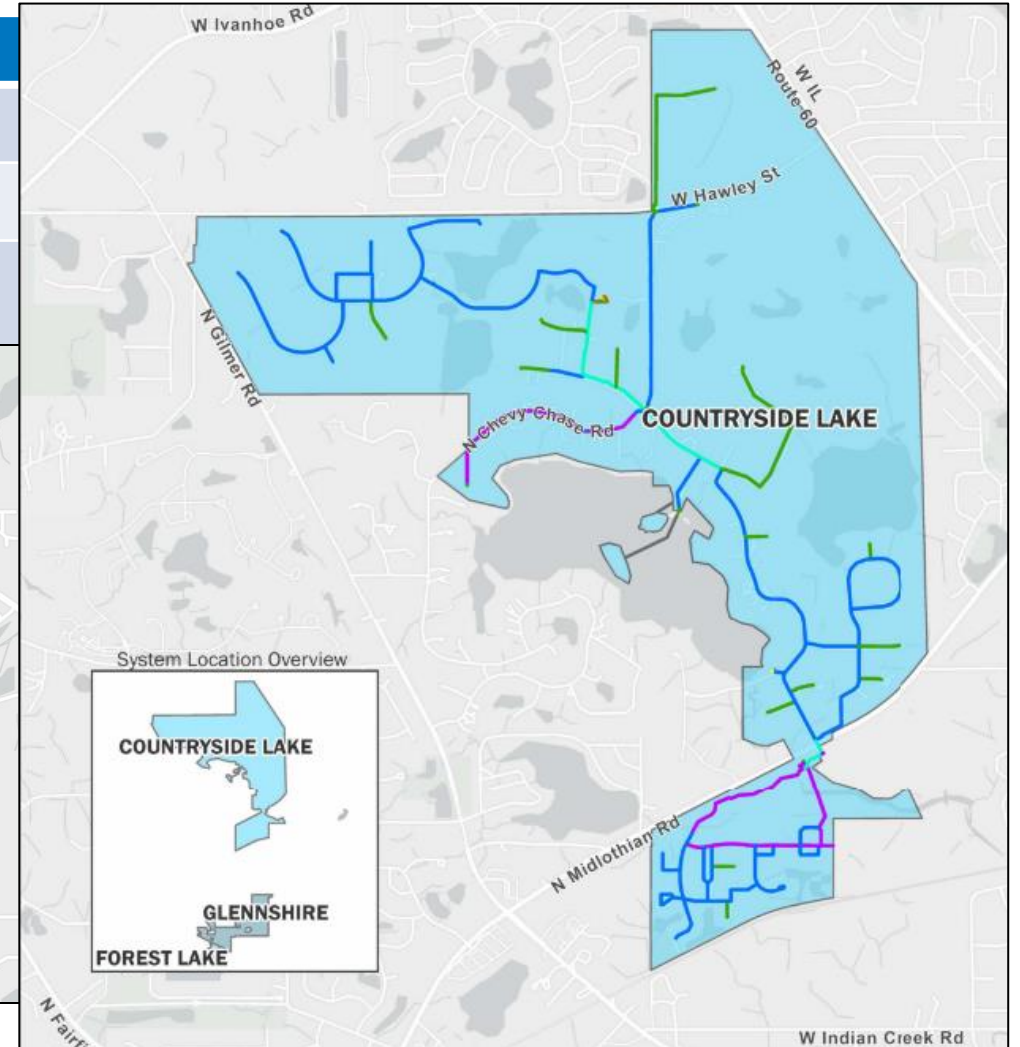
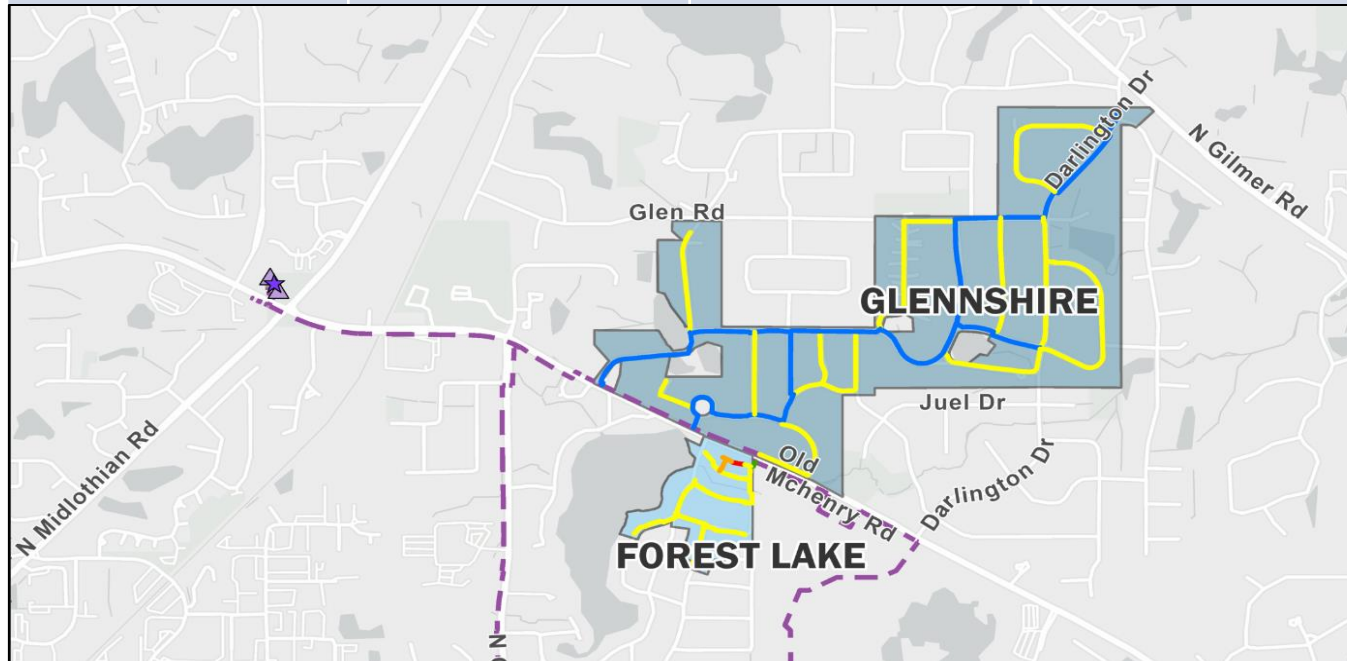
'Unacceptable': Lake County water crisis hits fifth day





System Backgrounds

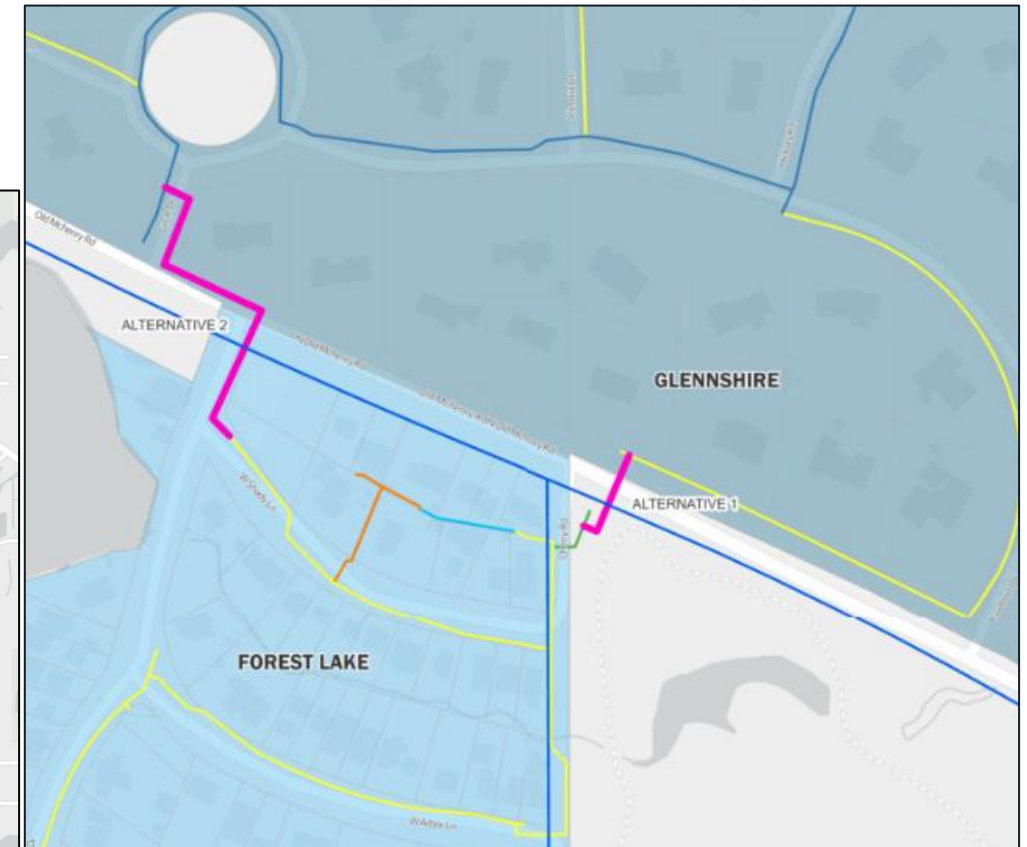
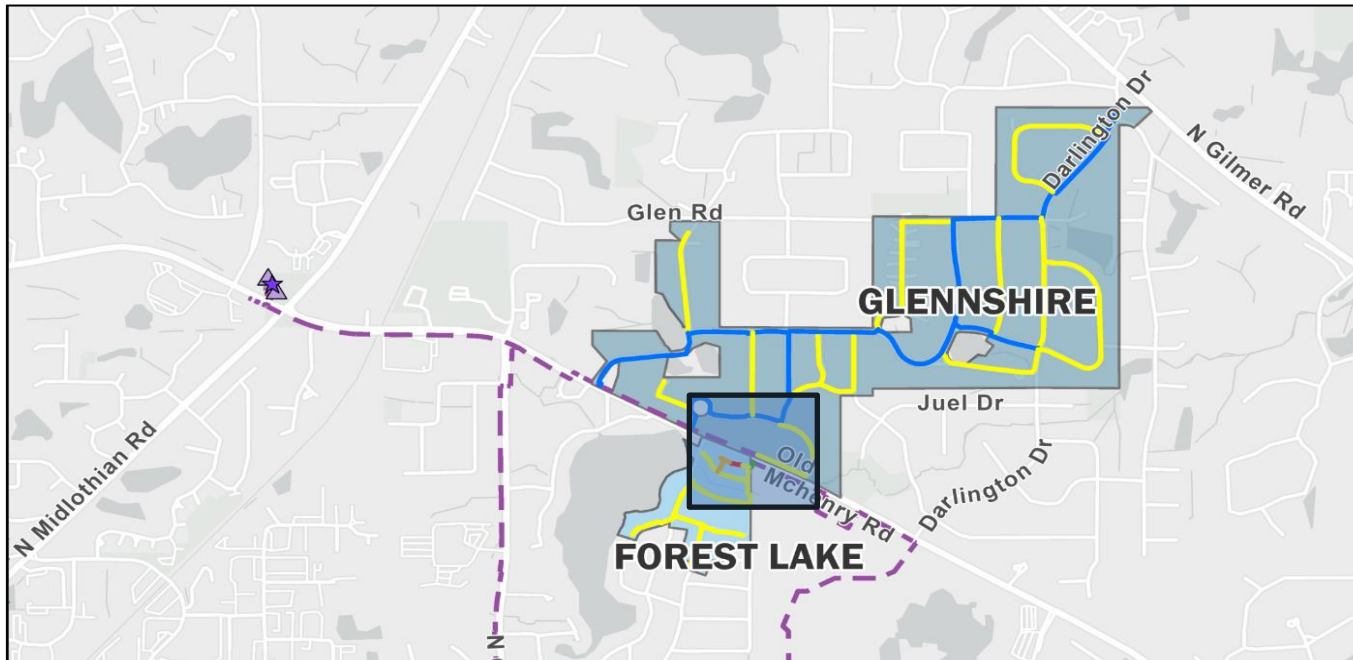
System	Connections	Water Source	Storage
Countryside Lake	426	Well (4 ea)	250,000 gal
Forest Lake	72	Purchase – Aqua	None
Glennshire Subd. (HW)	225	Purchase - Aqua	None



Water System Improvements – Forest Lake and Glennshire Subdivision (HW)

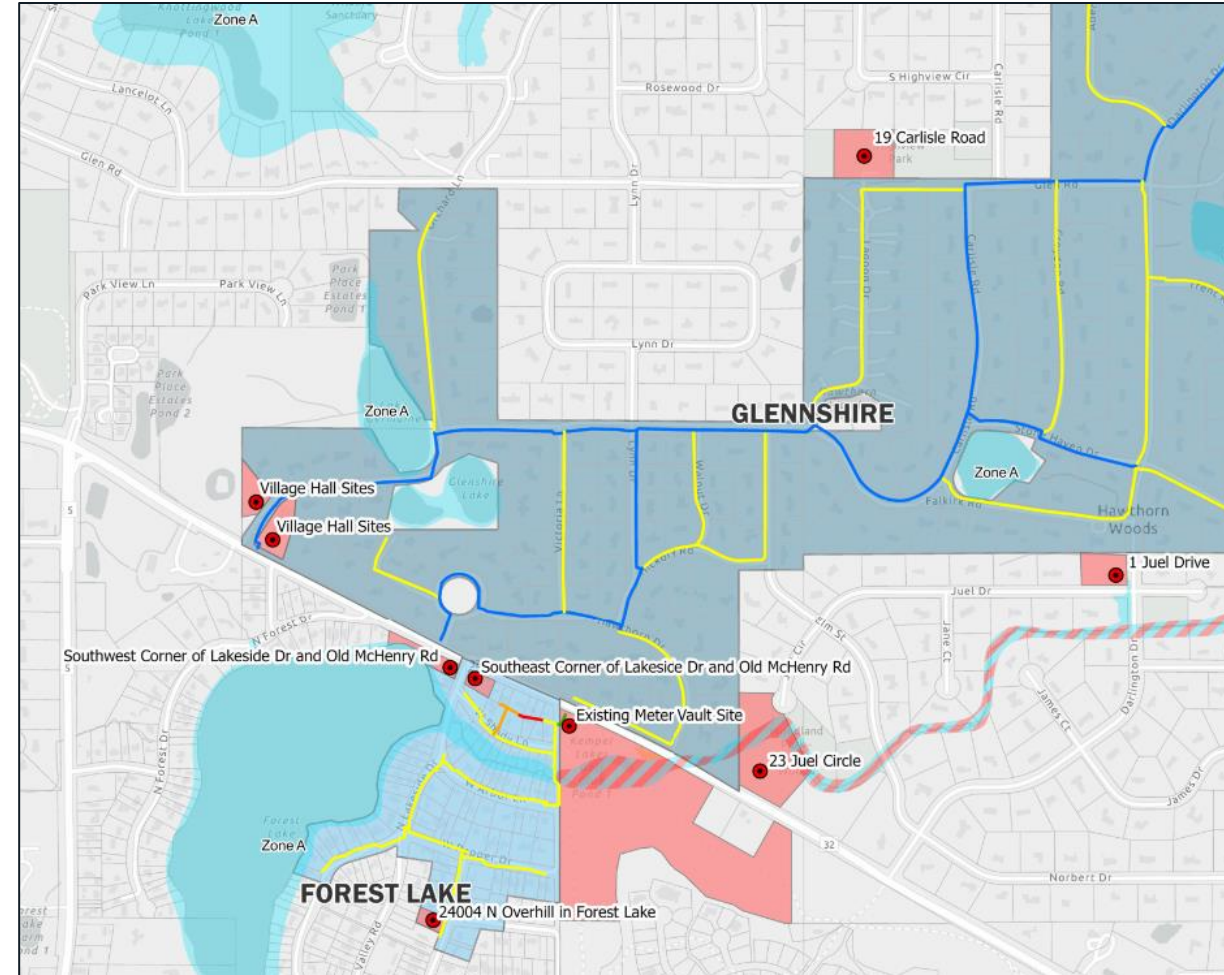
› FL – Glennshire/HW System Interconnect

- Improve Redundancy
- Allow one storage solution for both systems
- Recommended regardless of water source (Aqua, well, Lake Michigan Water - LMW)



Water System Improvements – Forest Lake and Glennshire Subdv. (HW)

- Forest Lake and Glennshire Subdv. (HW)
 - FL-GS System Interconnect
 - Improve Redundancy
 - Allow one storage solution for both systems
 - Recommended regardless of water source (Aqua, well, LMW)
 - Ground storage – 121,000 gallons (both systems)
 - New well(s)
 - To be constructed on storage site
 - Detailed evaluation required to determine treatment requirements and additional system improvements
- Interconnect and Storage recommended regardless of water source.
- Well(s) required for well system or LMW source.

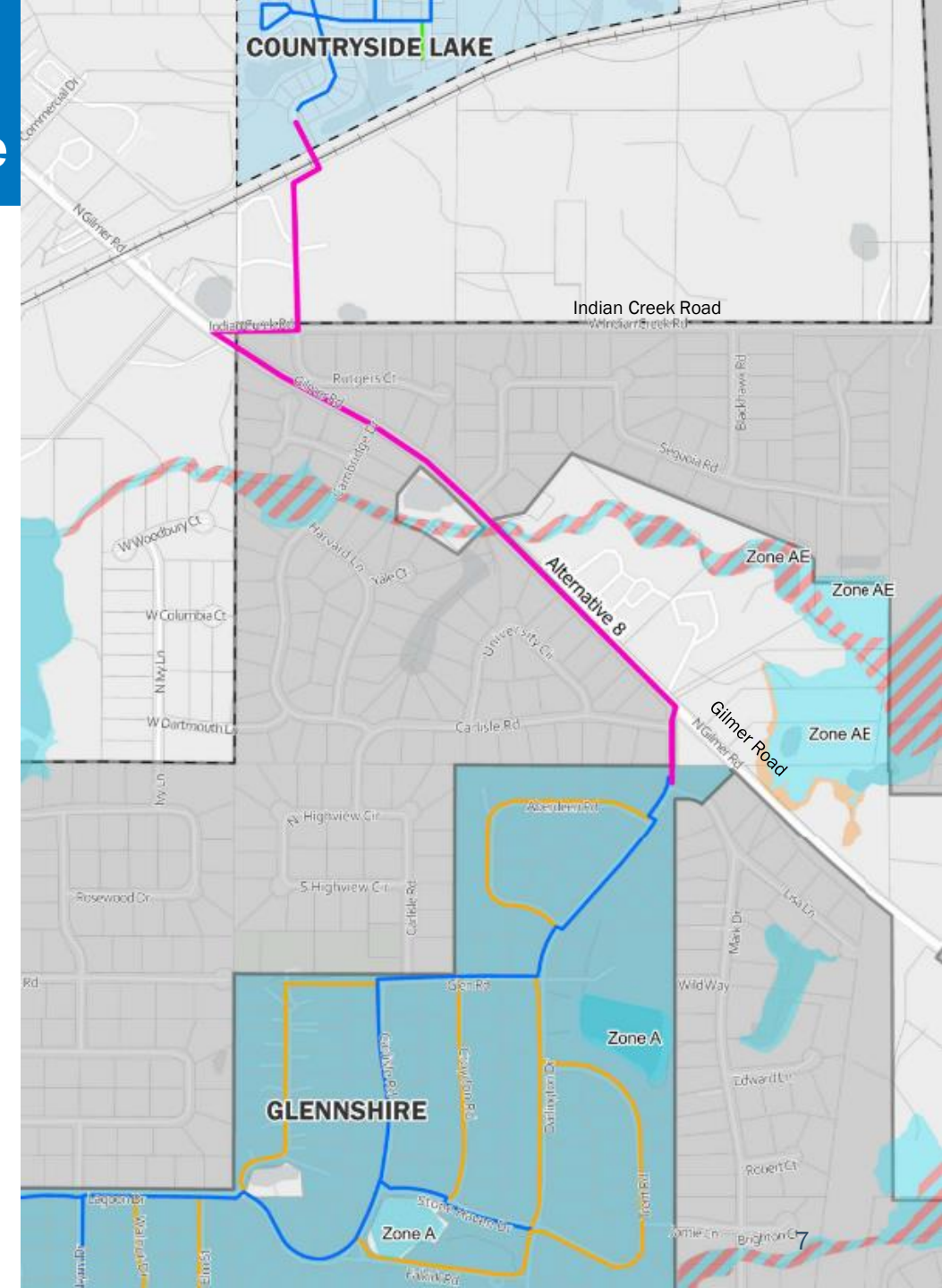




Water System Improvements

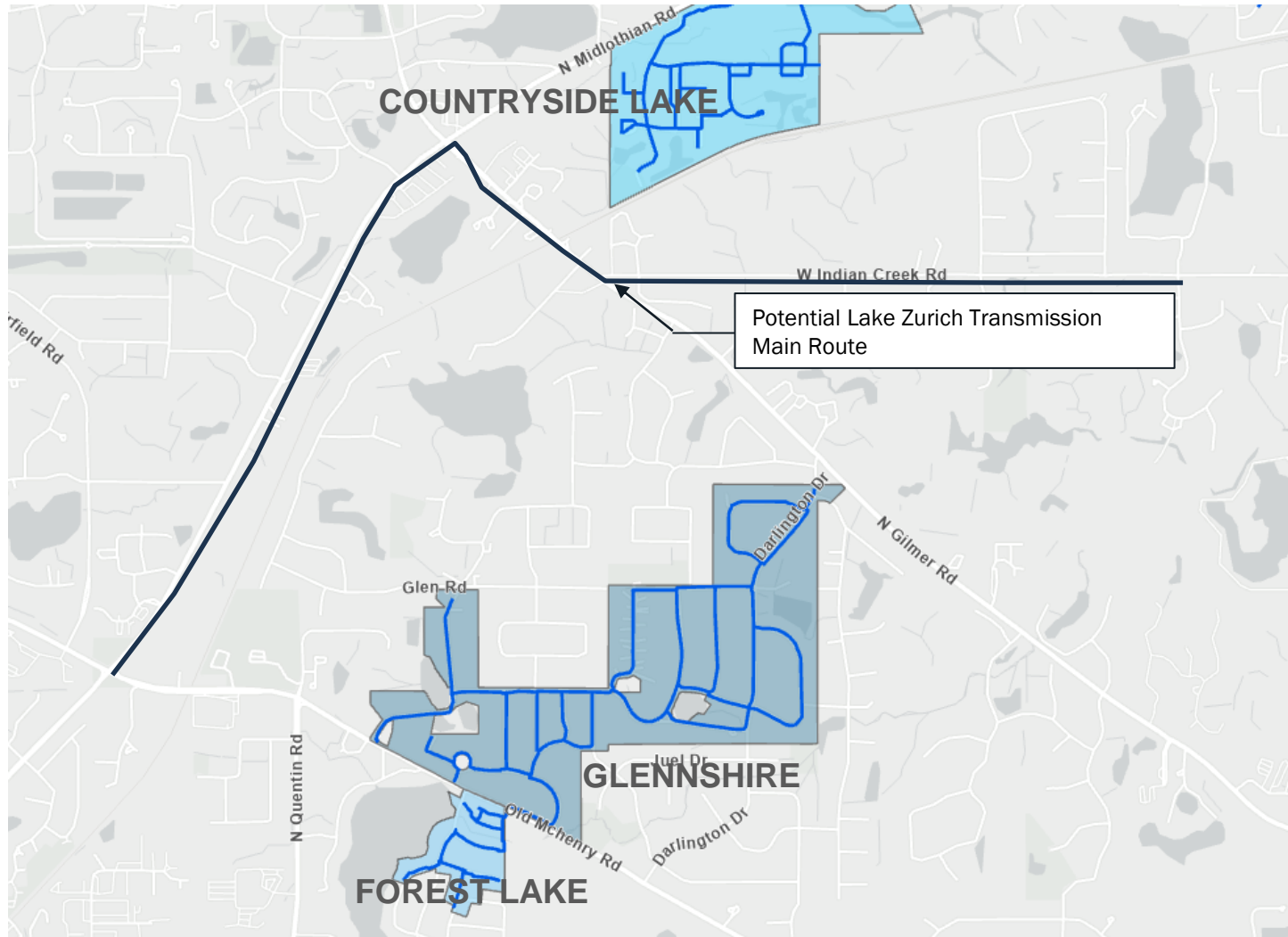
Forest Lake, Glennshire Subdv., Countryside Lake

- Construct system interconnect between Countryside Lake, Forest Lake, and Glennshire Subdivision
 - Several alternatives were examined during this evaluation
 - The following criteria were used to make a final decision: cost, constructability, improved resiliency, O/M efforts, Environmental Impact, Public Perception, and Permitting Requirements.
 - Each alternative was scored, and the alternative pictured on the right received the best score.





Water System Improvements – CLCJAWA Connection



› Connection to CLCJAWA Transmission Main

- Connect Countryside Lake to future Village of Lake Zurich CLCJAWA transmission main with delivery structure near Intersection of Gilmer and Indian Creek Road
- One delivery structure can be utilized for Countryside Lake, Forest Lake, and Glennshire Subdv. (HW)
- Glennshire Subdv. (HW) and Forest Lake can be connected to Countryside Lake System/LMW with interconnect along Old McHenry Road



Water System Improvements – Preliminary Costs

› System Improvement and JAWA Connection Costs

- Operation costs not included
- Land acquisition costs for storage are not included
- System modeling has not been performed. Additional improvements may be necessary.
- CLCJAWA Transmission main and connection fees are predicated on preliminary estimates by others and subject to CLCJAWA board approval.

Component	Forest Lake, Glennshire Subdv. (HW) , & Countryside Lake Connection to CLCJAWA ⁽³⁾
System Interconnects	\$3,767,000
System Improvements (Storage) ⁽⁴⁾	\$2,431,000
System Improvements ⁽⁵⁾	\$2,161,000
CLCJAWA Connection Fees and Transmission Main	\$11,606,000
TOTAL Cost	\$19,965,000



Near Term Design Planning

› Water Model Initial Setup – all three systems	\$70,000 - \$80,000
› Delivery structure location and connection to Countryside Lake	\$30,000
› Well and storage location(s)	\$35,000
› Land Acquisition (Countryside Lake to JAWA Main)	\$20,000-\$40,000
› Forest Lake – Glennshire Subdv. (HW) Interconnect (design)	\$34,000
› Route Study/Preliminary Engineering Report for Countryside Lake and Forest Lake/Glennshire Subdv. (HW) Interconnect	\$45,000
› Meter Installation in Countryside Lake	\$50,000

All costs Approximate (Total = \$314,000)

Potential Funding Sources

- › IEPA State Revolving Fund
 - Low interest loans with principal forgiveness, competitive.
- › American Rescue Plan Act (ARPA)
 - Funds must be obligated by December 31, 2024 and expended by December 31, 2026
- › Community Development Block Grant Funds
 - Income threshold needs to be met – not applicable for the water systems in question
- › Community Project Funding
 - “Earmark,” Discretionary through Congress
- › Special Service Area (SSA)
 - A law that provides for the creation of Special Service Area when necessary public improvements will benefit certain property owners. A tax is levied to pay for the services or debt incurred.

Tentative Project Schedule

- › March 2024 – CLCJAWA Allocation Secured (complete)
- › Establish funding source for design & construction
- › IDNR allocation process/permit
- › Preliminary design
- › Final design
- › Construction duration (2 years)
- › May 12 2026 (Glennshire/HW), June 14 2028 (FL) – notice to Aqua due date
- › May 12 2029 (Glennshire/HW), June 14 2031 (FL) - Aqua contract expiration date
- › CLCJAWA extension timeline – Lake Zurich/JAWA control



Thank you.

Questions