

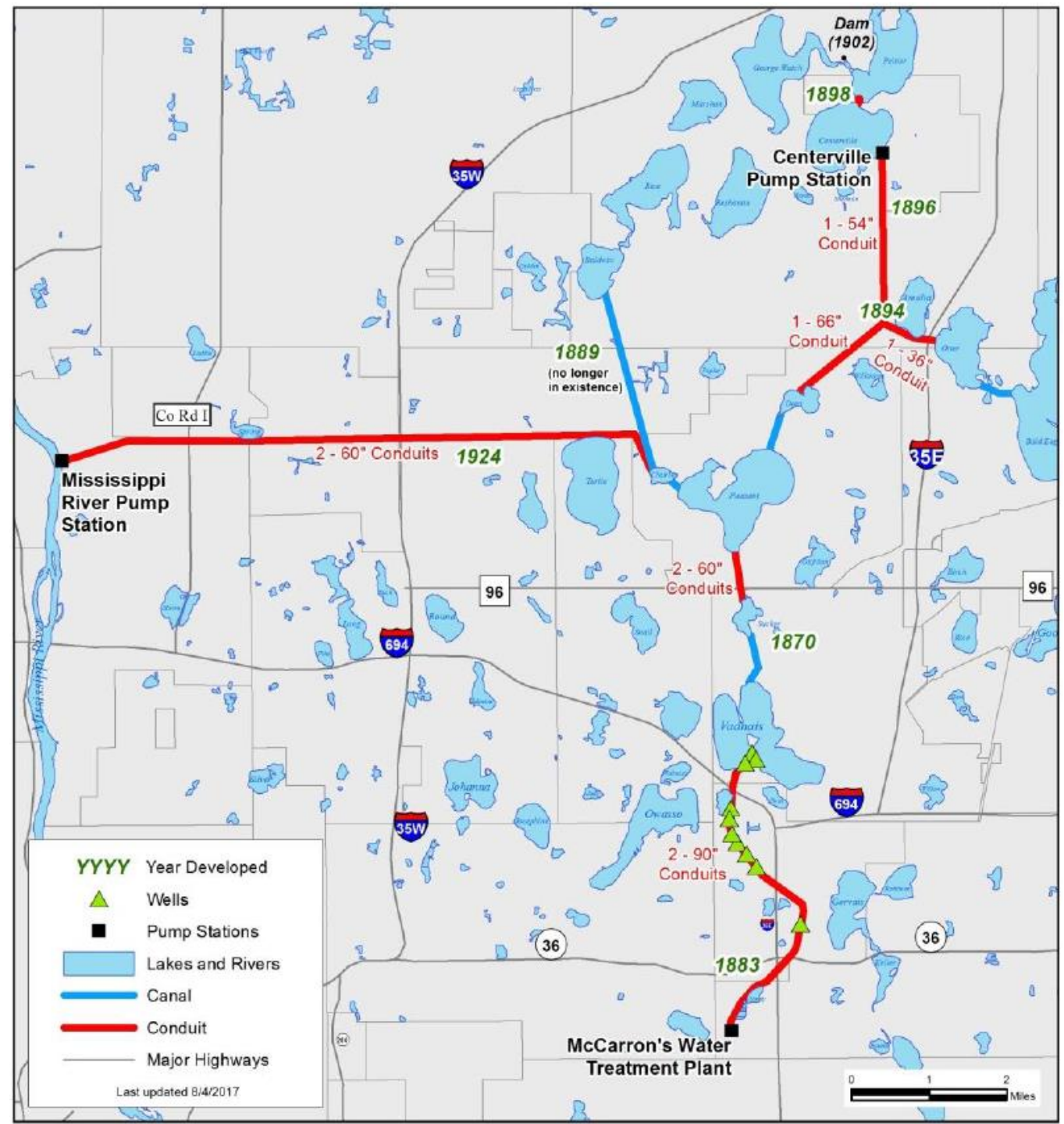
Centerville Water Supply Assessment

Determine a direction for the Centerville Water Supply System

Saint Paul Regional Water Services and Bolton & Menk Consultants

Centerville Supply System

- Built in late 1800's
- Provided water to SPRWS prior to development of Mississippi River system
- Not used in a significant degree since the 1980's

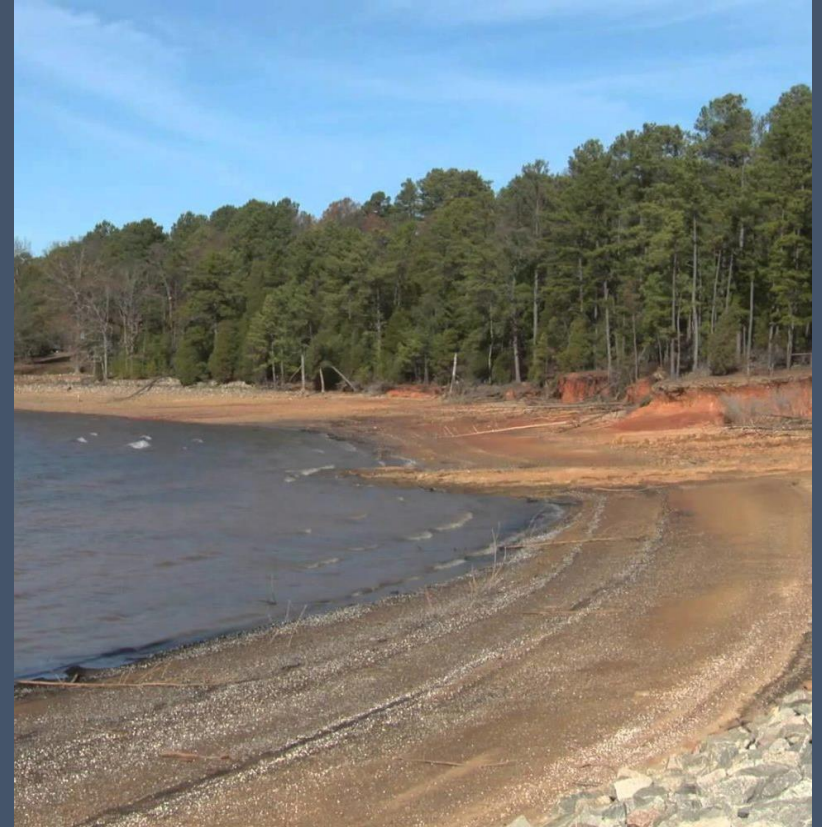




Water Quality



Infrastructure Condition



Water Quantity

Three Analysis Aspects

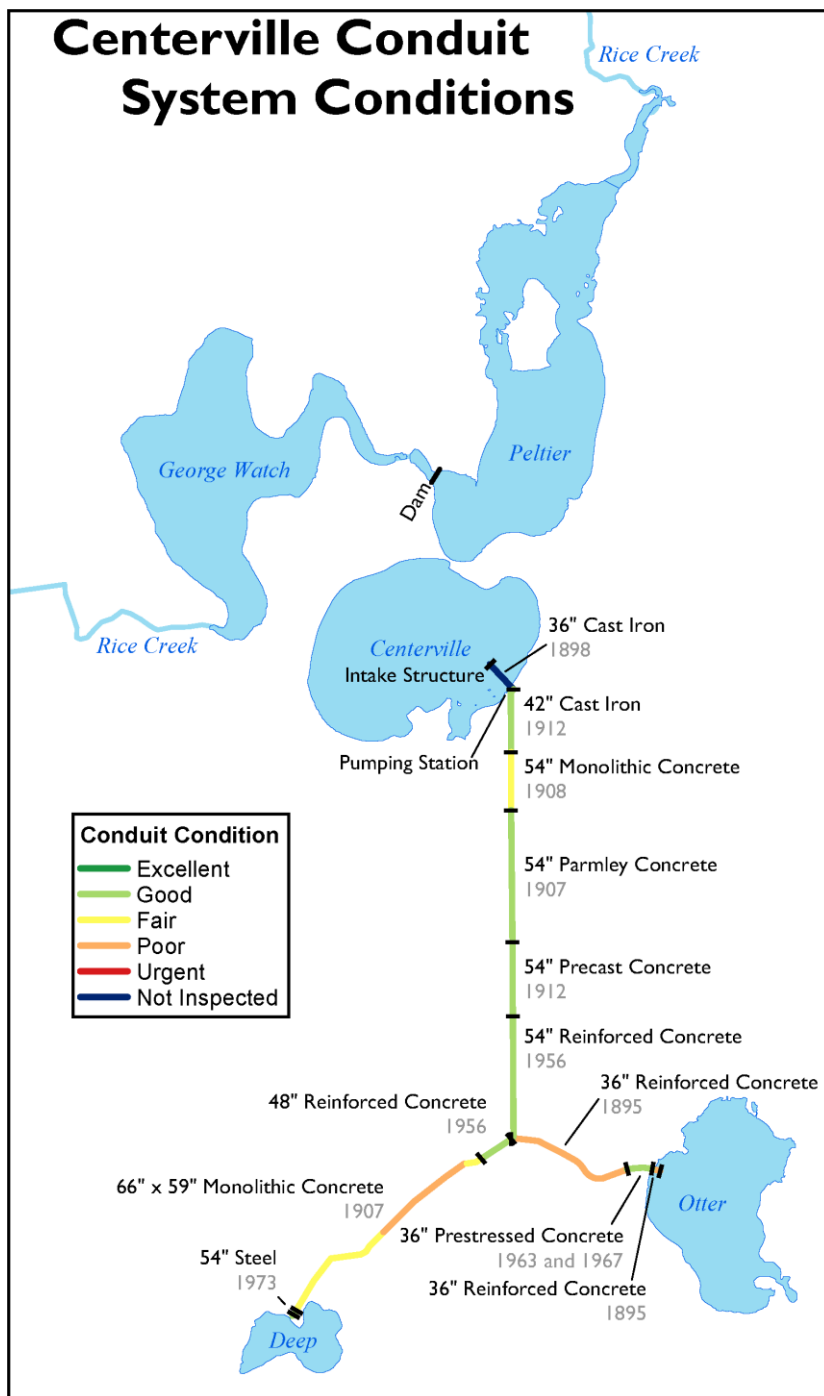


Inspection of
pumping stations,
intake structures,
conduits.



Infrastructure Condition
Assessment

Centerville Conduit System Conditions



Conduit Condition

- Centerville conduit – generally good condition with some rehab. needed
- Otter Lake conduit – Mostly not inspectable due to water filling conduit
- Deep Lake conduit – some severe deterioration, not operable at present



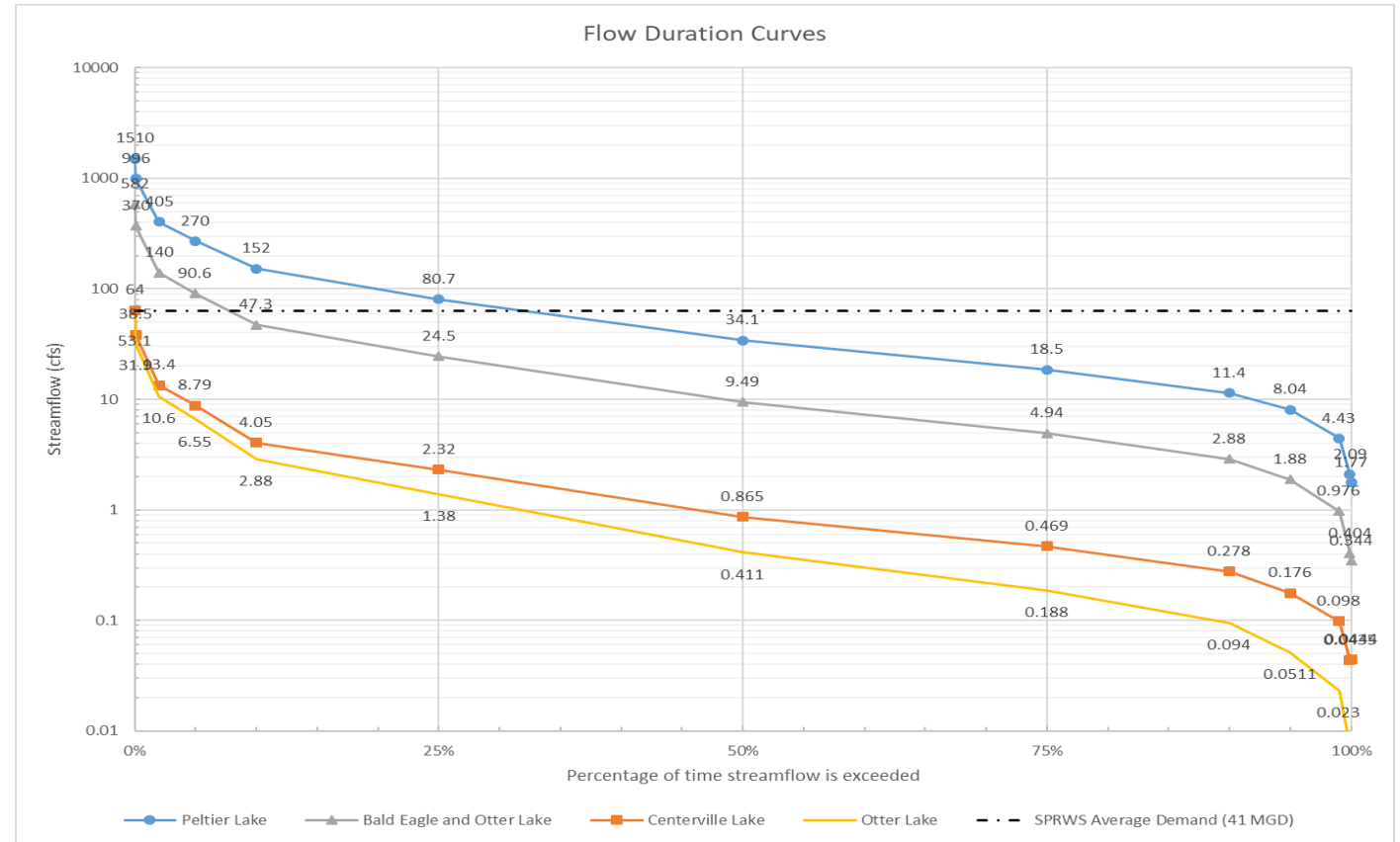
Pump Station and Intake Structure

- *“The motors and pumps are considered to be in good condition.”*
- *“The electrical and control systems for the pumping station appear to be in poor condition and operationally questionable”*
- *“The intake structure is in poor condition...”*



Available Quantity of Water Supply

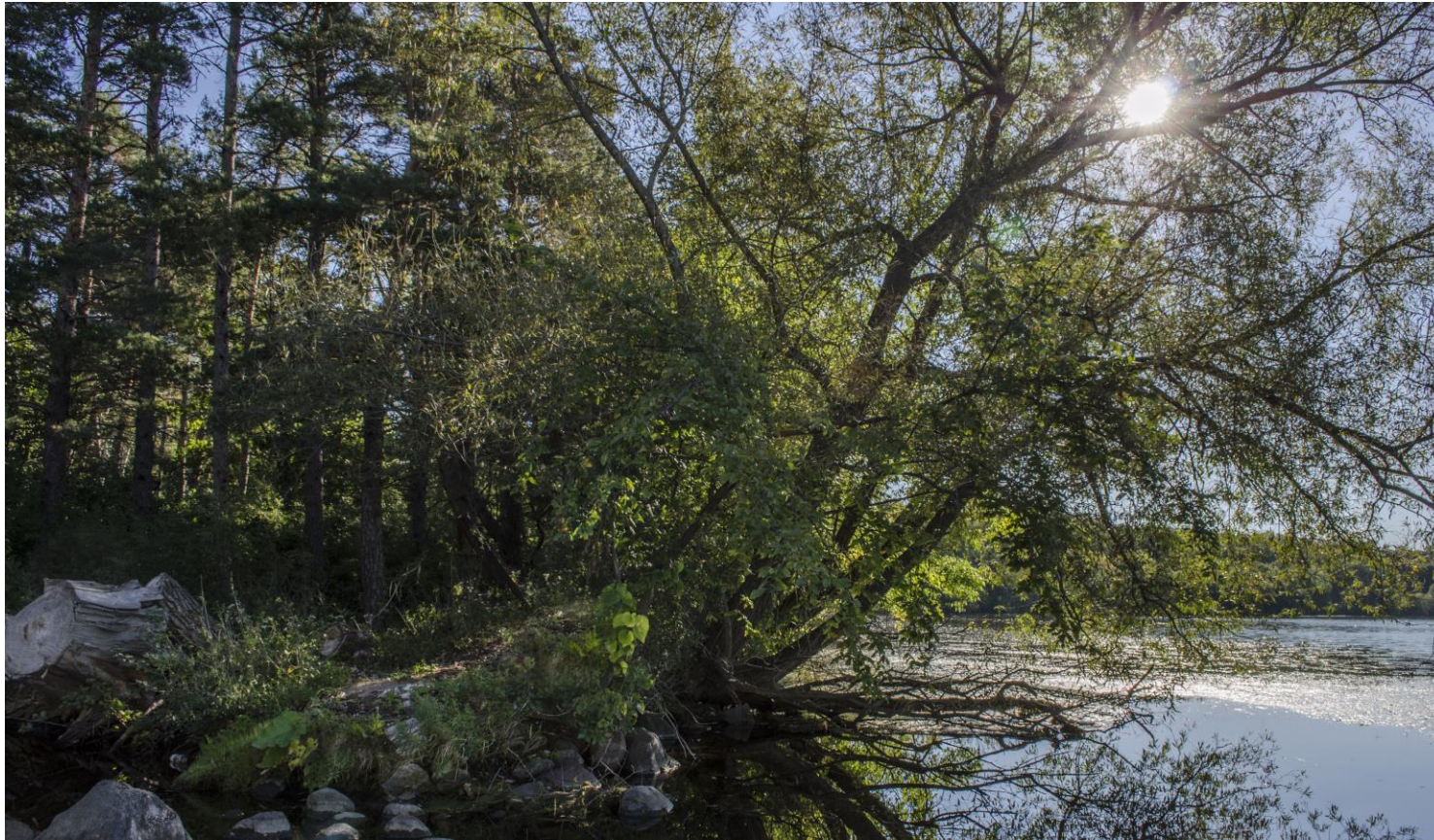
- “SPRWS needs 41 MGD of raw water to satisfy the average annual demand. Although this flowrate is always available in the Mississippi River, it is only available in Rice Creek at Peltier 32% of the time.”*



Water Quality

- **Chlorides:** *“The Chloride levels in Centerville lake are double that in Vadnais lake and it will be important for SPRWs to have a plan to address this, yet there are no reasonably feasible alternatives for addressing these higher levels... chloride levels are a major hurdle to the cost effective use of the Centerville system as a raw water source.”*
- **Phosphorus:** Phosphorus concentrations are significantly higher in Centerville Lake and Peltier Lake than they are in Vadnais Lake. *“Water quality improvement plans for Centerville and Peltier are underway (by the RCWD), but progress will take time and significant expense (\$29 Million)”*





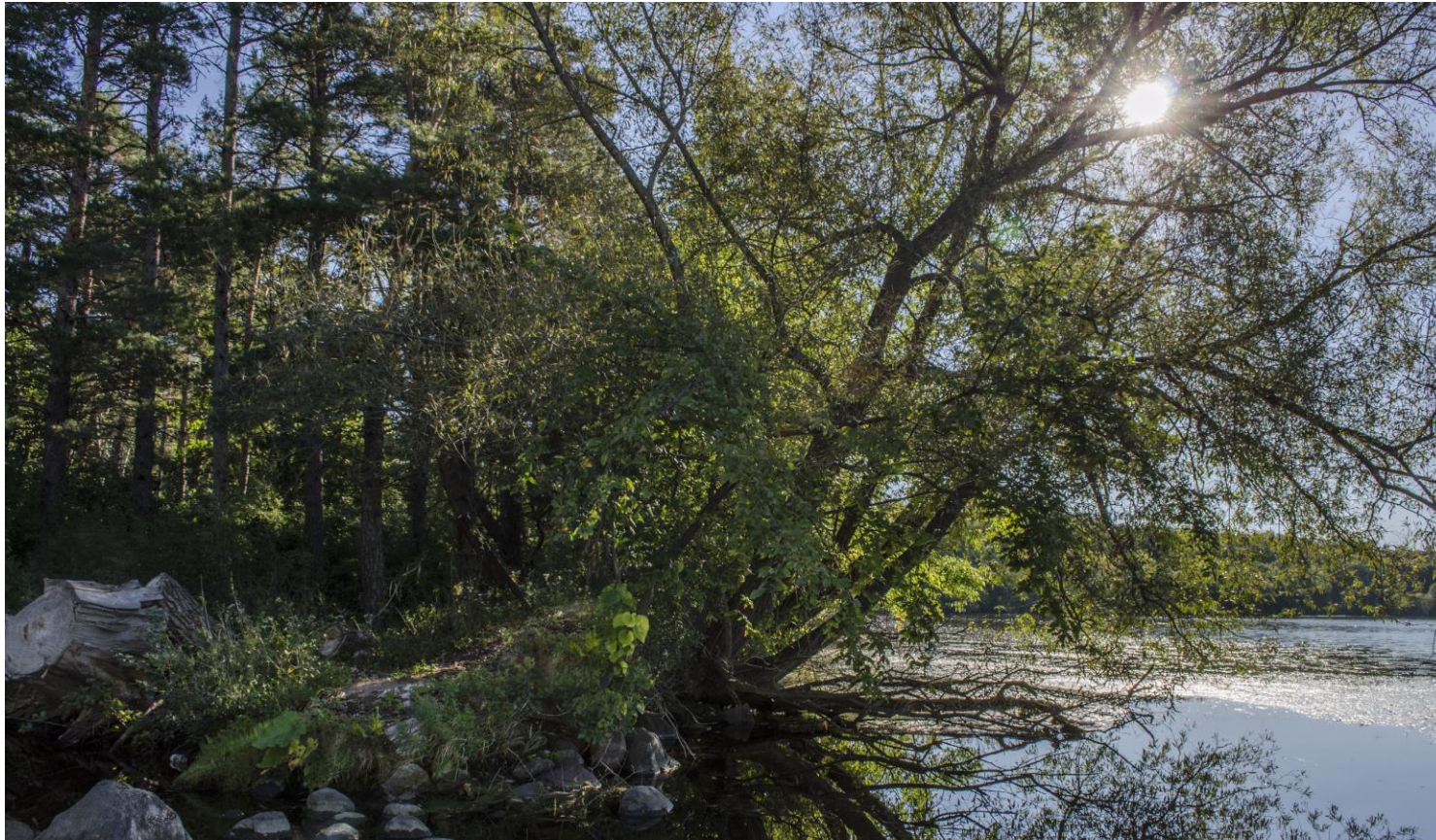
Restore vs Decommission

- Cost to make Centerville Lake system operational: \$19M
- Cost to decommission the Centerville source: \$2.6M
 - Station & Intake: \$276k
 - Centerville Conduit: \$1.1M
 - Otter Lake Conduit: \$515k
 - Deep Lake Conduit: \$763k

A person is riding a bicycle away from the camera on a paved path. The path has yellow dashed lines on the left side. The surrounding area is filled with green grass and various trees, including some tall, thin evergreens on the right. The sky is blue with scattered white clouds. A large, semi-transparent white circle is overlaid on the left side of the image, containing text.

Future Land Use Considerations for the Conduit Corridor

Removal of the conduits would allow for roadway and utility interconnections with future development as well as potential local & regional trail development



Value in this historical
Centerville source relative to
the Boards overall supply
infrastructure

Input and comments from the
Board with final
recommendation in July

Moving Forward...