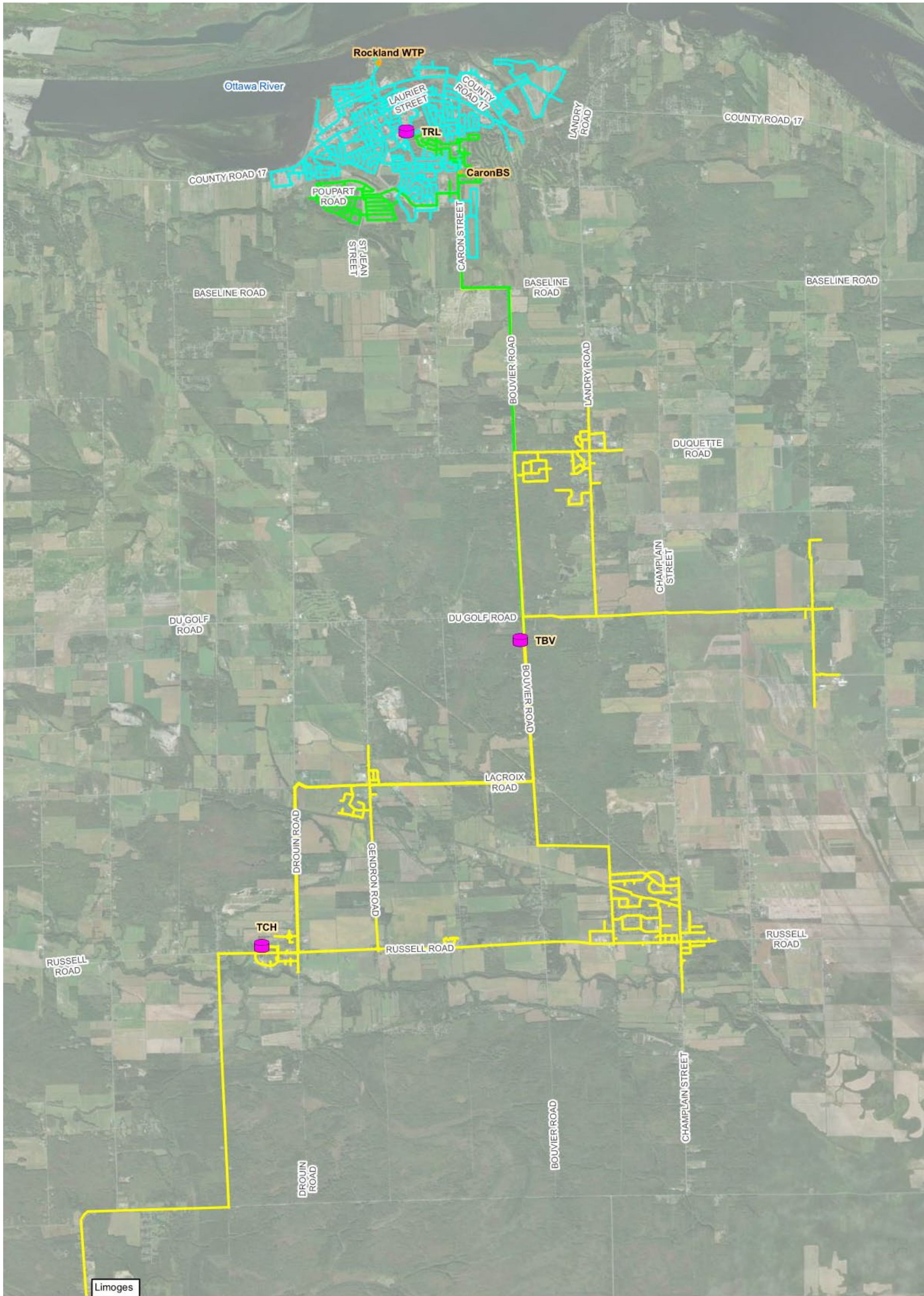




Welcome to the Expansion of the Rockland Water Treatment Plant and Upgrade of the Caron Booster Pumping Station

Public Information Centre #1

Jacobs

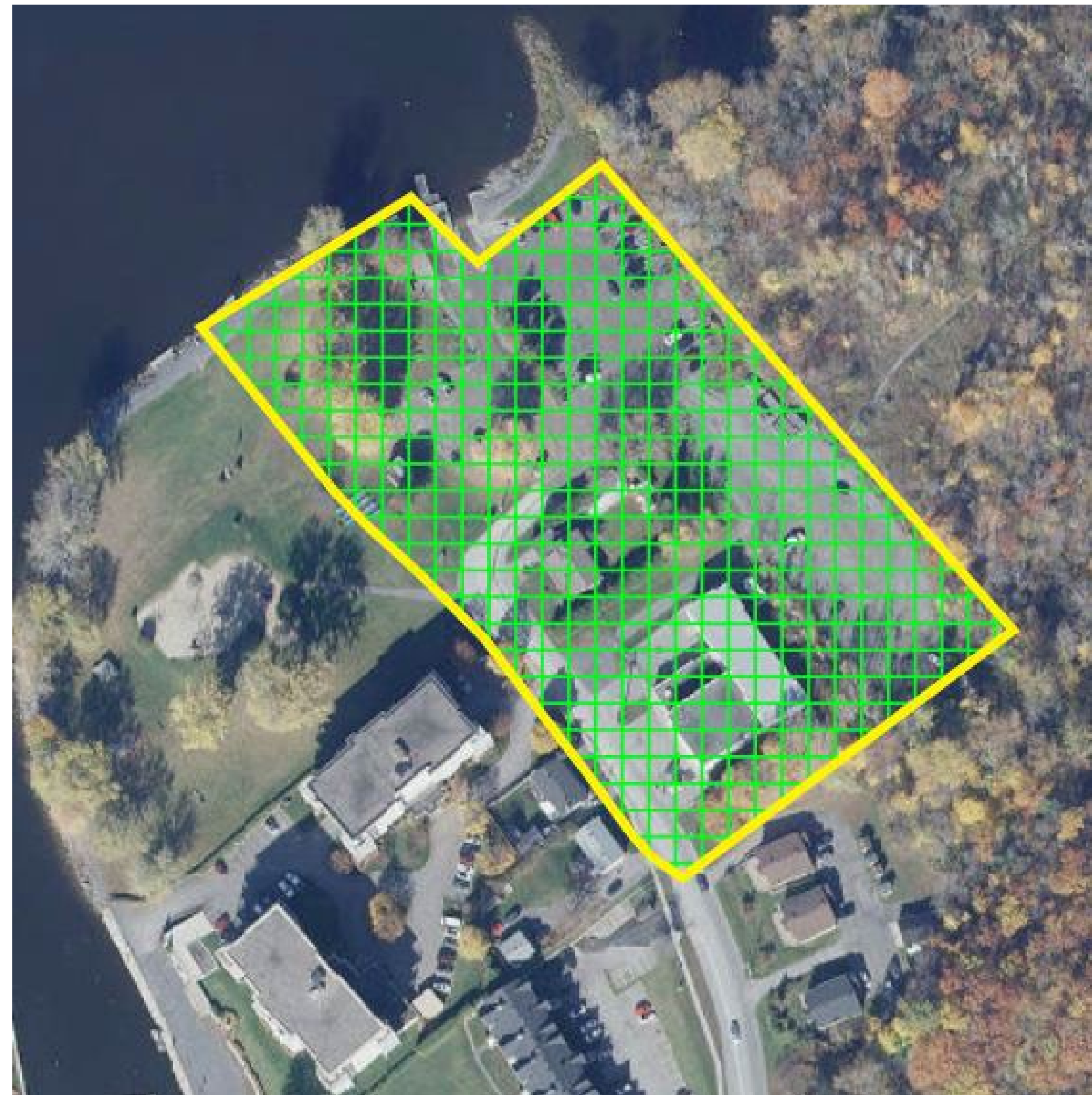
Study Area

The Rockland Water Treatment Plant (WTP) services the City of Clarence-Rockland and five hamlets (Clarence Creek, St. Pascal, Hammond, Bourget, and Cheney). The Rockland WTP also supplies water to the Nation Municipality (Limoges) through a Joint Water Use Agreement.

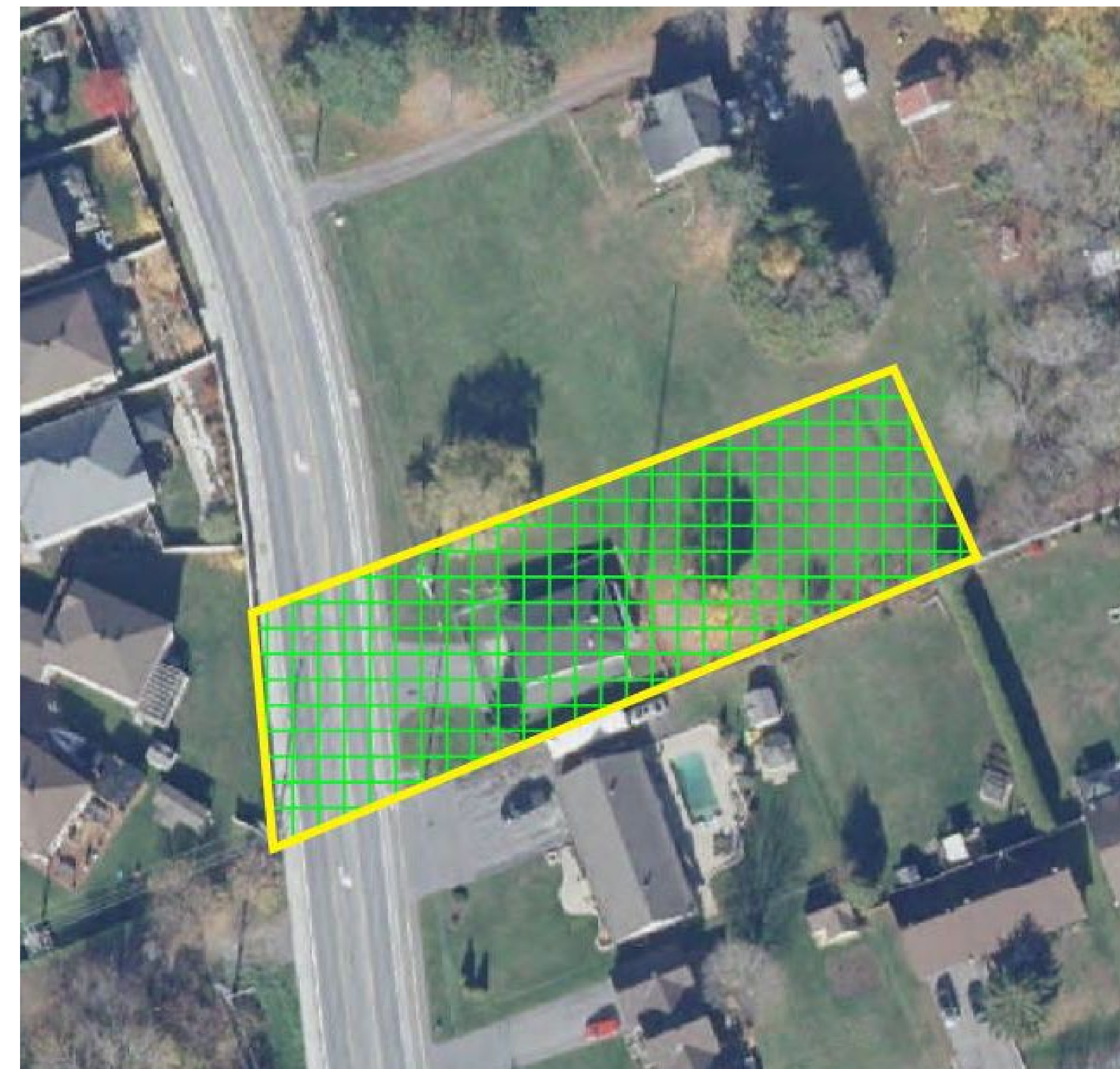
The Caron Booster Pumping Station (BPS) in the distribution system provides pressure to the regional feeder main servicing the five hamlets and Limoges.

The Study Area for this project includes the existing Rockland WTP site and the Caron Booster Pump Station site as illustrated in these figures:

Rockland WTP (147 Edwards St., Rockland, ON)



Caron BPS (1441 Caron St., Rockland, ON)



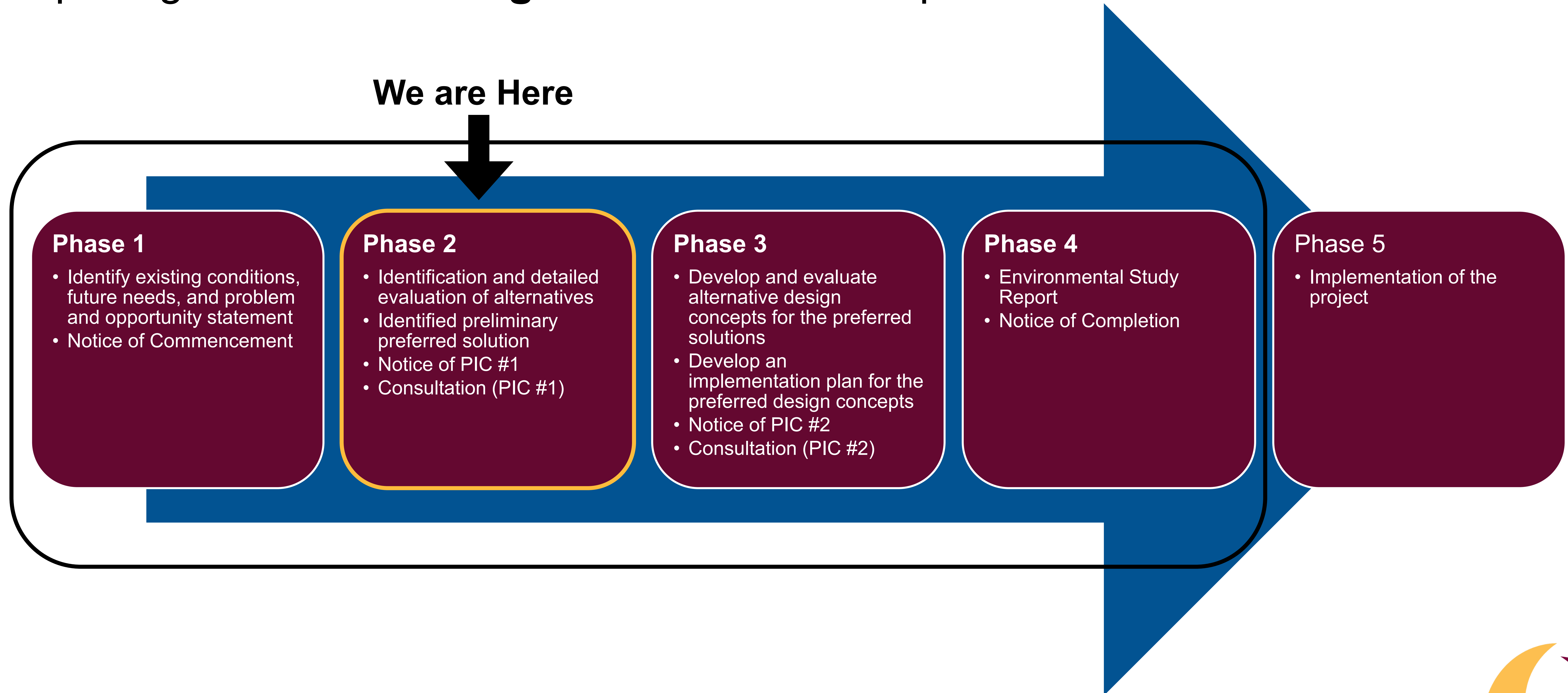
Existing Rockland Water Treatment Plant

- The existing Rockland WTP draws raw water from the Ottawa River and treats it using coagulation, flocculation, sand filtration, and UV/chlorine disinfection
- The WTP has a capacity of 13.5 million litres per day
- The original WTP was built in 1970 but extensively upgraded and expanded in 2002



Class Environmental Assessment (EA) Process

The Project will be completed as a Schedule C Class EA, completing **Phases 1 through 4** of the Class EA process.



Problem and Opportunity Statement

The City of Clarence-Rockland is growing rapidly, resulting in a significant increase in water demand requiring additional supply and capacity. The current Rockland WTP and Caron BPS do not have the capacity to meet future water demand needs.

The Schedule C Environmental Assessment study represents an opportunity for the following:

- Evaluate alternatives for the Rockland WTP and Caron BPS that will provide for current and future water demands of the Clarence-Rockland water supply system
- Evaluate alternatives capable of supplying more water to the Nation (Limoges) and expanding the service area to potentially include neighboring communities

The expansion of the facilities and additional water provides the following opportunities:

- Municipalities may expand development within their communities, enabling them to build housing and businesses
- During expansion, condition-based needs may be addressed through asset renewal
- The Rockland WTP expansion may be implemented in phases



Identification of Alternatives – Rockland WTP

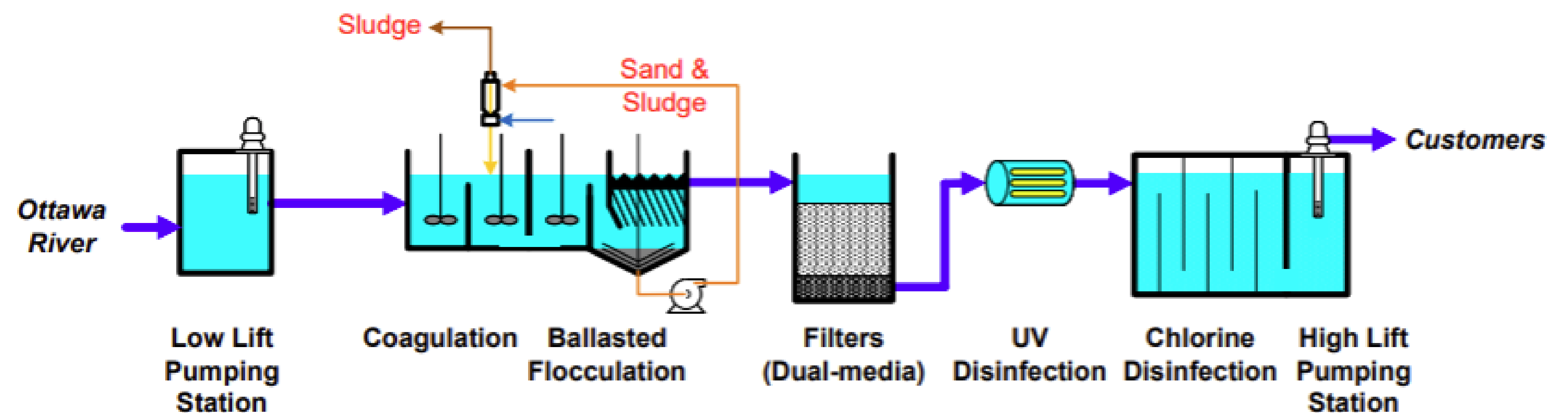
Water treatment alternatives were developed to address the overall water treatment strategy as reflected in the Problem and Opportunity Statement and to meet the future water demand projections related to the service areas.

Alternative 1: Do Nothing

- Continue to maintain and rehabilitate existing facility based on the state of assets in the Clarence-Rockland Water Master Plan and scoping study
- Does not allow for growth in Clarence-Rockland or increasing flows to Limoges, and eliminates the opportunity to service neighboring communities

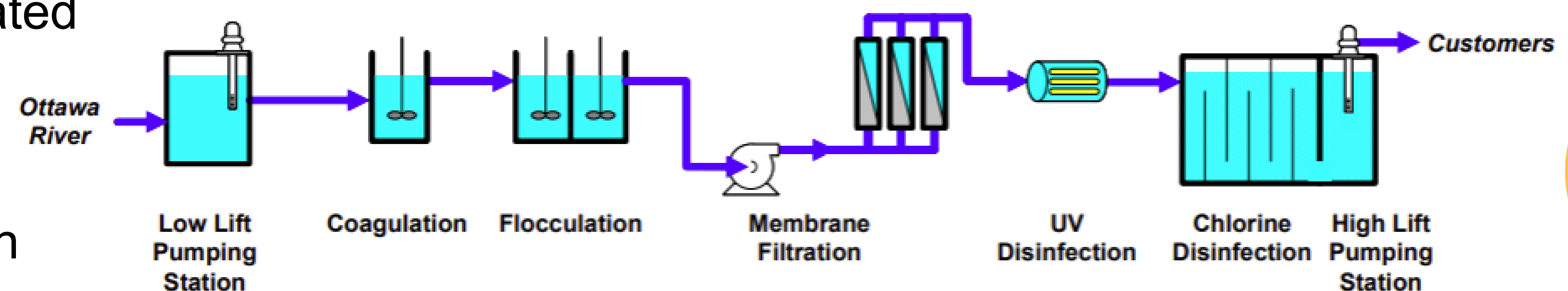
Alternative 2: High-Rate Conventional Filtration

- Includes a range of process technologies (ex: DAF, plate settlers, ActiFlo ballasted flocculation) and a multi-media filter
- For this evaluation, the alternative will be defined assuming ActiFlo ballasted flocculation and filtration (which are the current technologies being used at the Rockland WTP)



Alternative 3: Membrane Filtration

- Membrane filtration is used to physically remove particulate matter and coagulated organics from raw water
- Filtration process operates under pressure (or vacuum) and is based on size exclusion theory opposed to depth filtration



Identification of Alternatives – Caron BPS

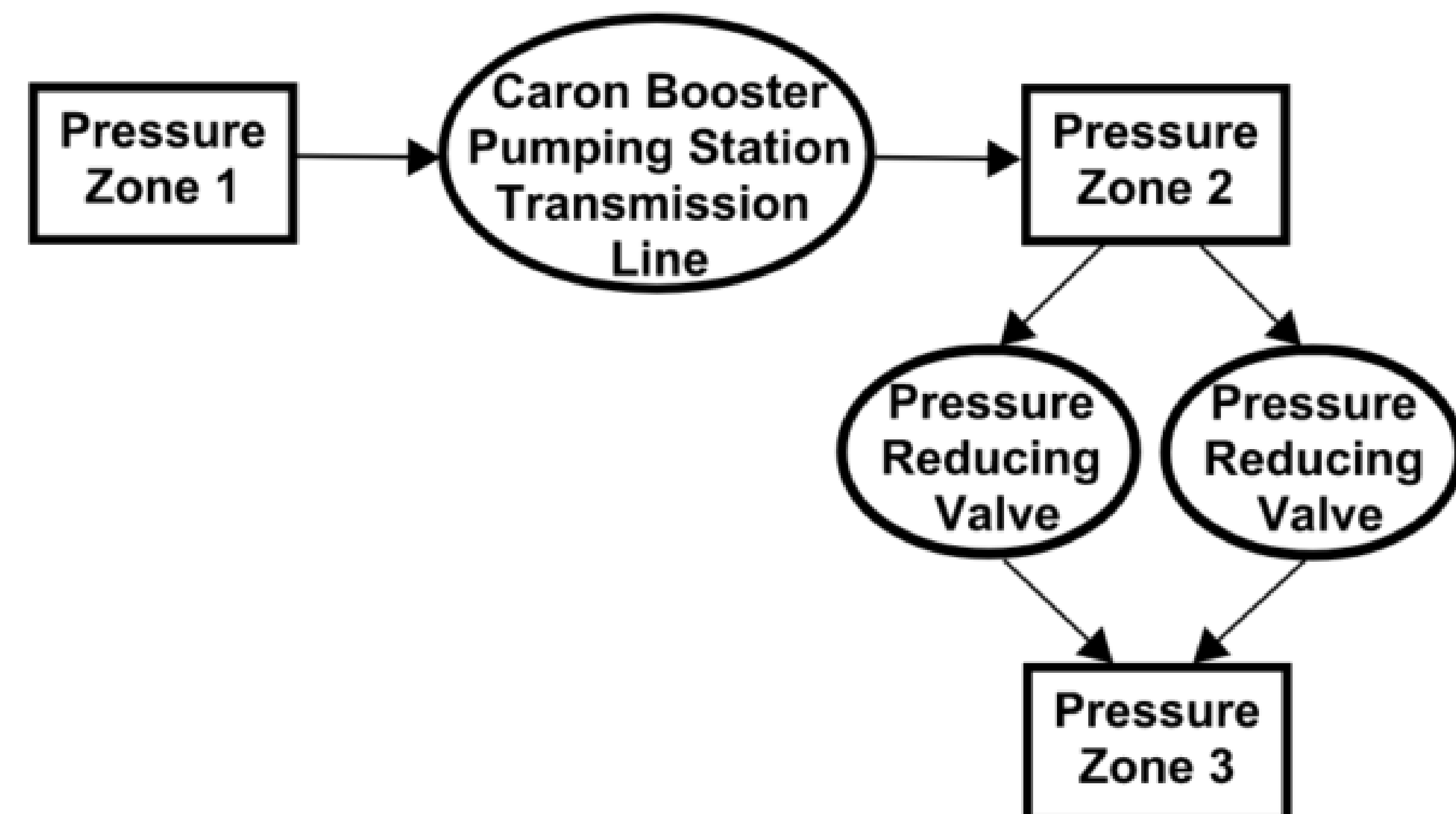
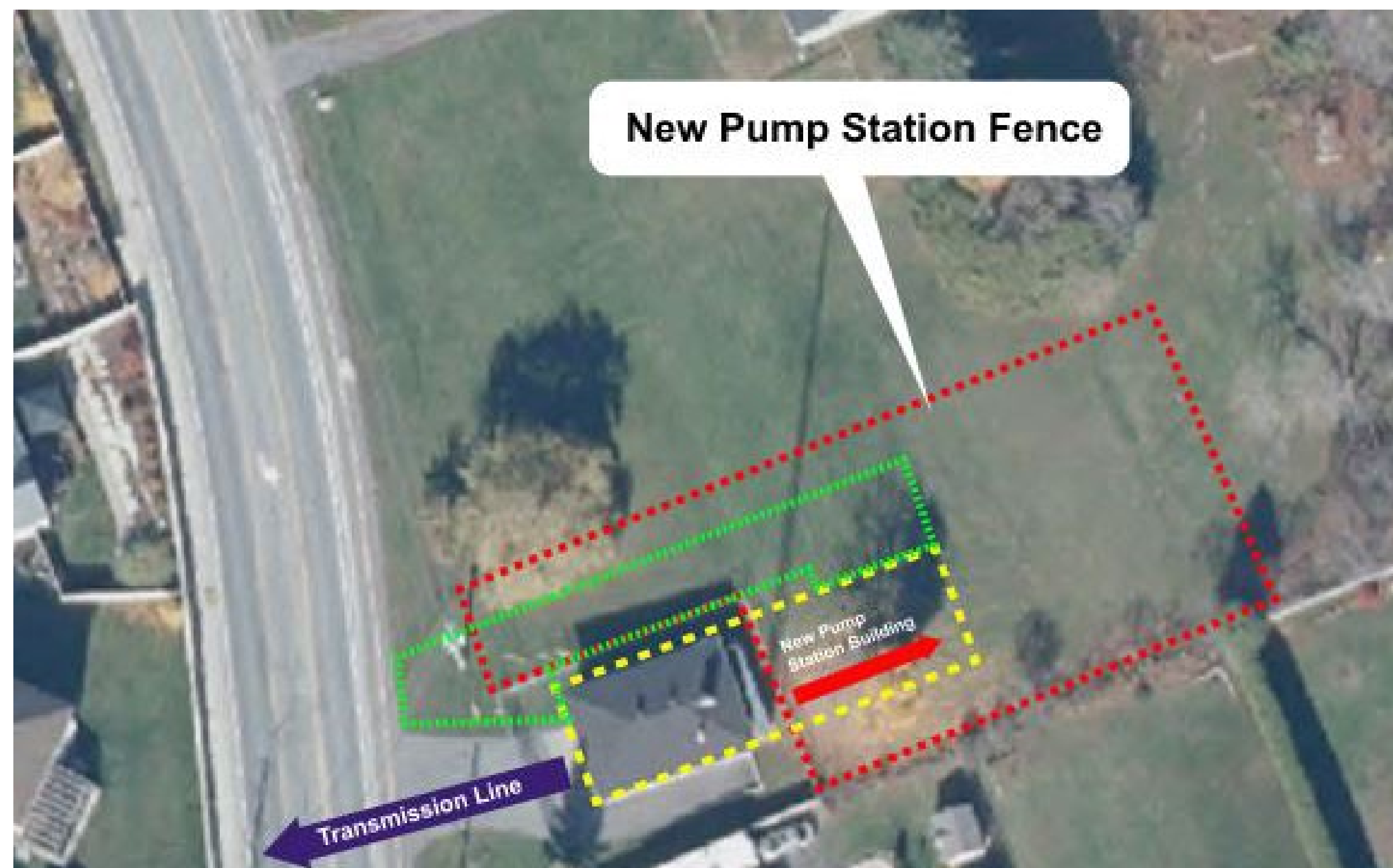
Water conveyance alternatives were developed to address the overall water conveyance strategy as reflected in the Problem and Opportunity Statement and to meet the future water demand projections related to the service areas.

Alternative 1: Do Nothing

- Continue to maintain and rehabilitate existing facility based on the state of assets in the Clarence-Rockland Water Master Plan and scoping study
- Does not allow for additional water conveyance to Clarence-Rockland, Limoges, or neighboring communities

Alternative 2: Single-Zone

- Includes the expansion of the pump station footprint to include one set of larger pumps supplying a single pressure zone
- The second pressure zone is supplied through a pressure reducing valve (PRV) in the transmission main located approximately 400 m south of the Caron BPS

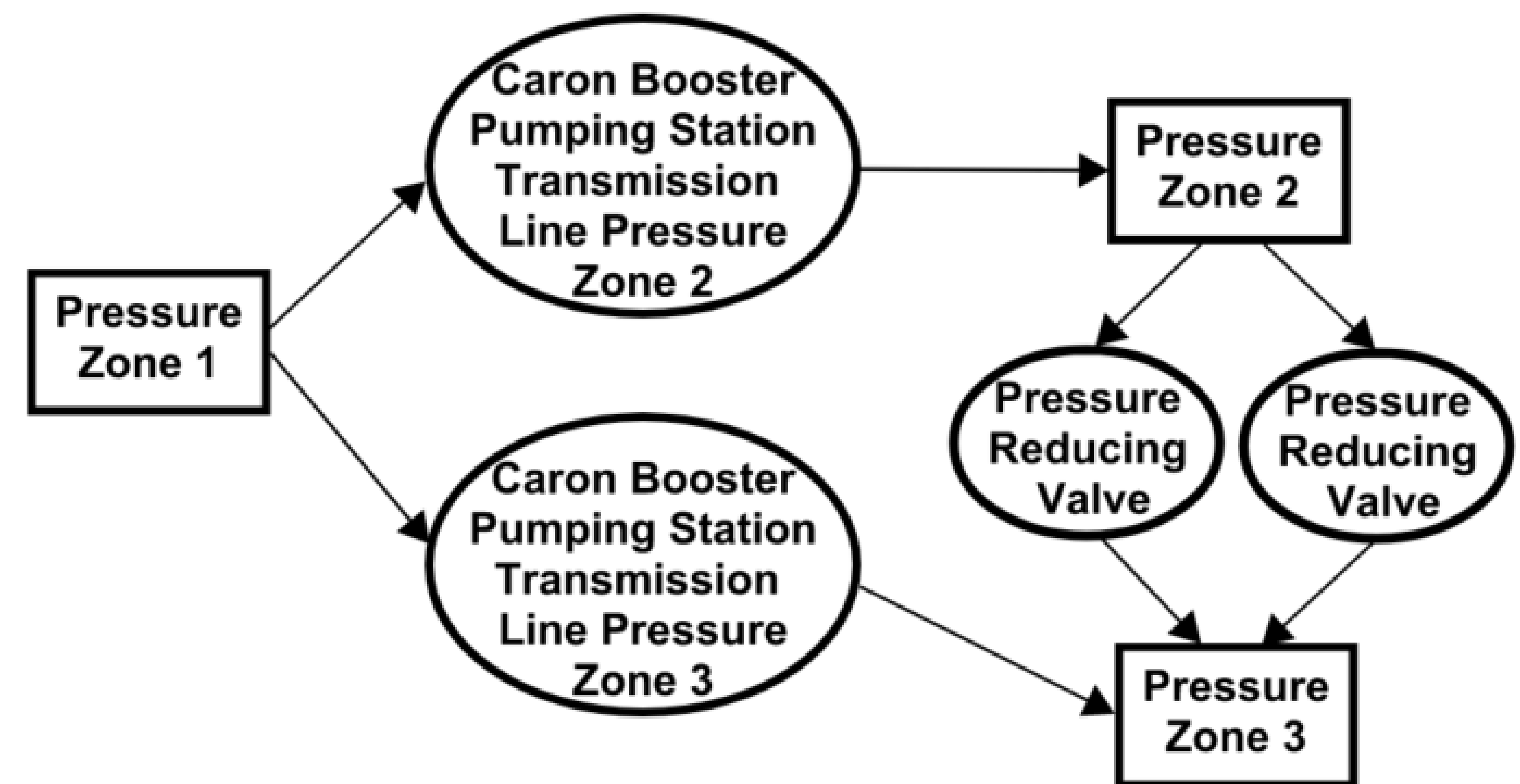
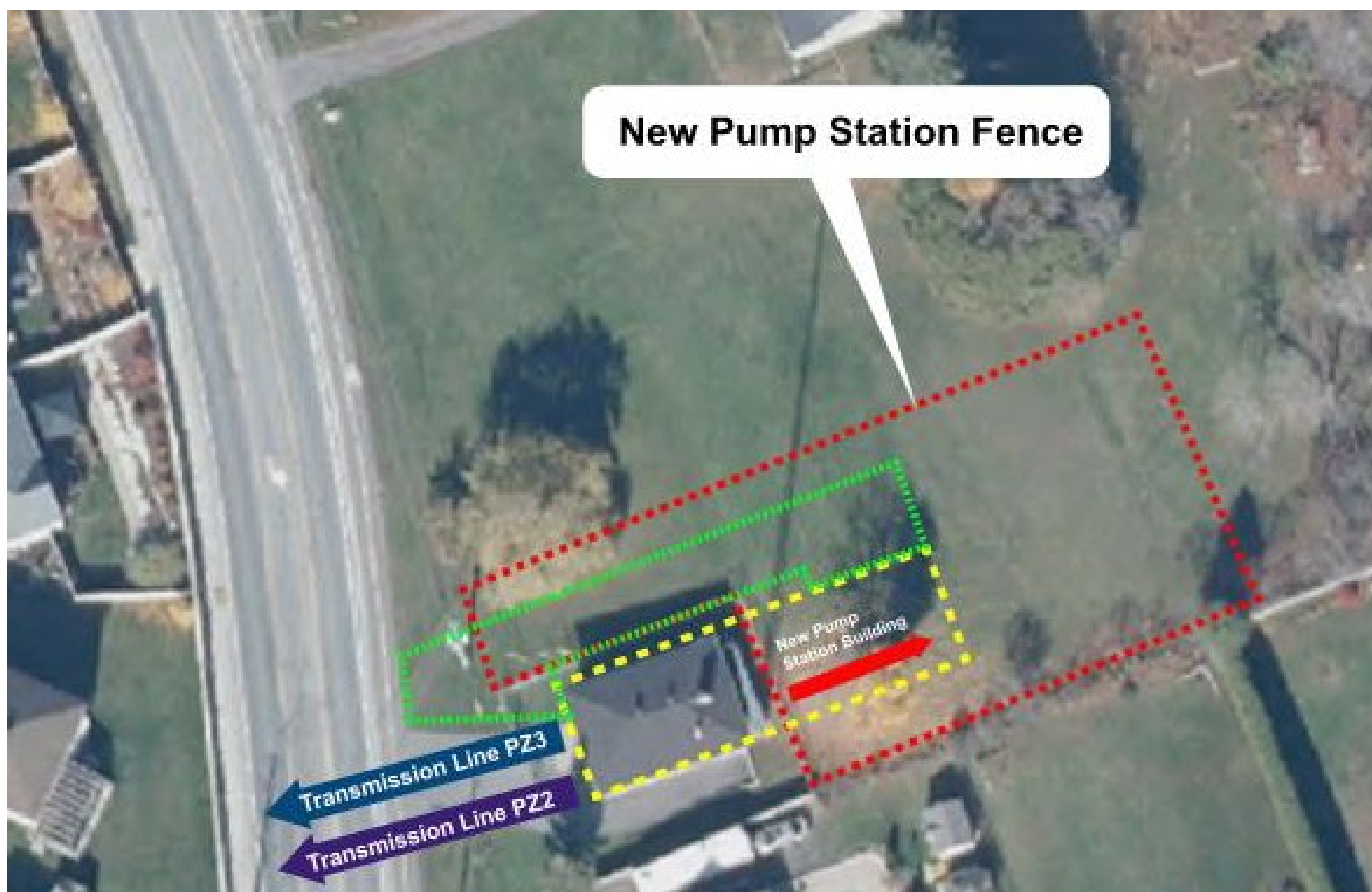


Identification of Alternatives – Caron BPS (continued)

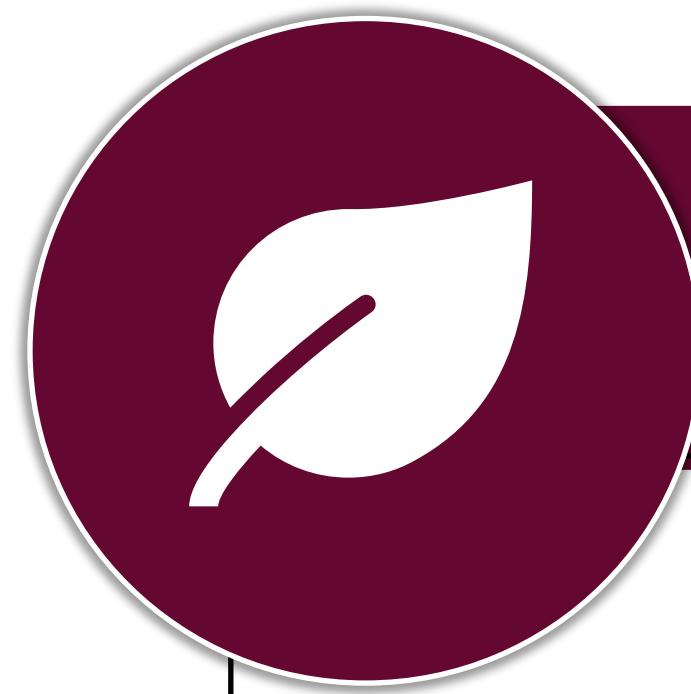
Water conveyance alternatives were developed to address the overall water conveyance strategy as reflected in the Problem and Opportunity Statement and to meet the future water demand projections related to the service areas.

Alternative 3: Dual-Zone

- Includes the expansion of the pump station footprint to include two sets of new pumps and two transmission mains, new (Transmission line PZ 3) and existing (Transmission Line PZ 2)
- One set of pumps and transmission main will supply each pressure zone separately



Decision-Making Process - Criteria



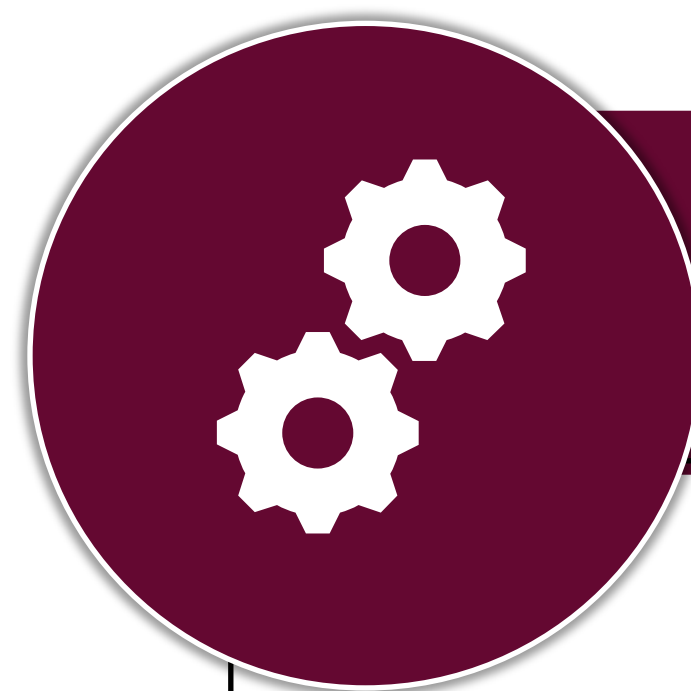
Natural Environment

- Water, soil, and air quality
- Climate change impacts and adaptation



Economic Environment

- Capital cost
- Operations and maintenance cost



Technical Environment

- Integration with existing operations
- Constructability
- Risk and reliability
- Adaptability
- Operation and Maintenance Complexity
- Ability for phased implementation
- Impacts on treated water quality



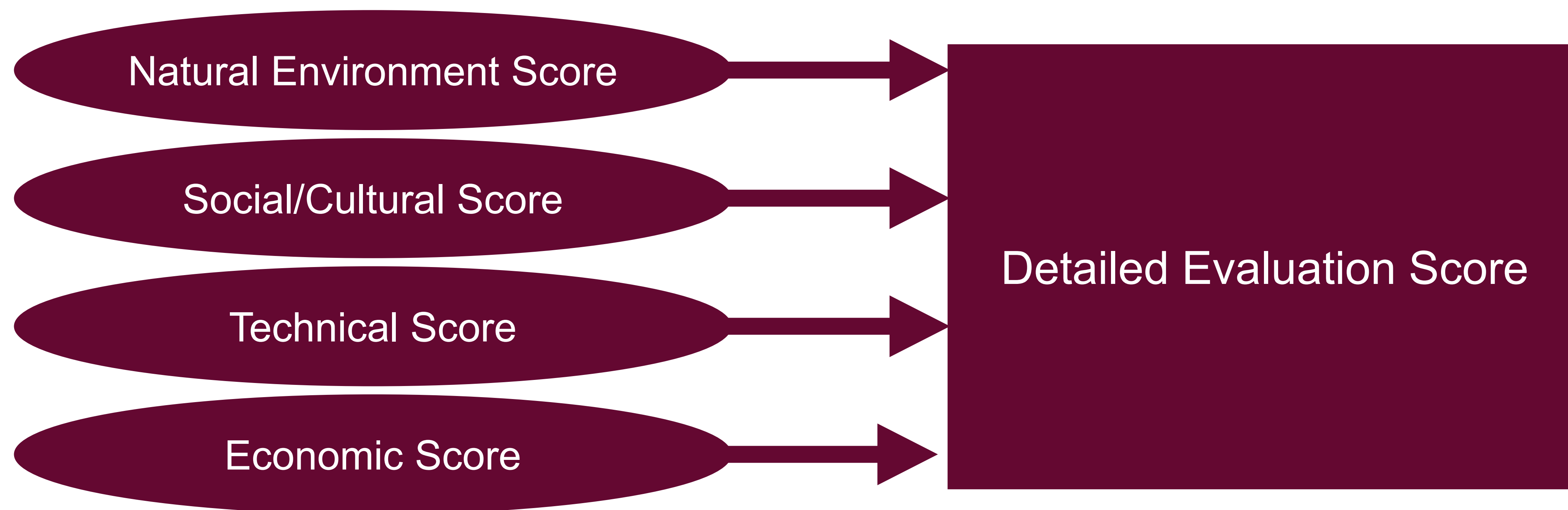
Social/Cultural Environment

- Noise, odour, traffic
- Health and Safety
- Archaeological, built heritage resources, and cultural heritage landscapes
- Private and public land impacts
- Public perception

Decision-Making Process - Scoring

A long-list of alternative solutions was developed and screened as part of the 2021 Water Master Plan. This eliminates alternatives that are not feasible for the Rockland WTP and Caron BPS from consideration. The shortlisted alternatives were identified for further detailed evaluation through this assignment.

The shortlisted alternatives were evaluated against the natural environment, social/cultural, technical, and economic criteria, presenting the “detailed evaluation score” for each alternative.

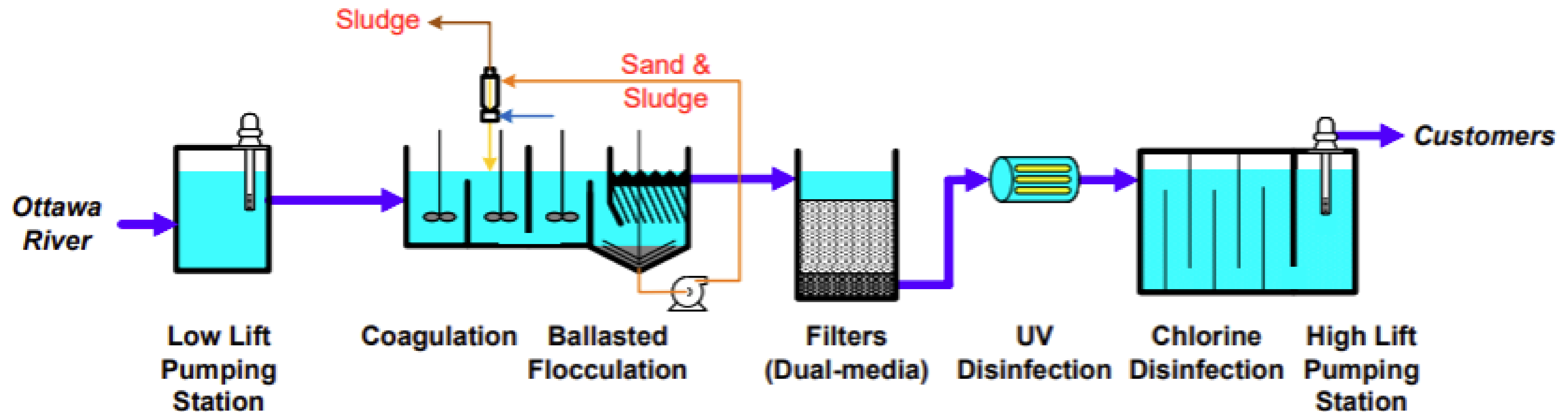


A performance scale was defined for each criterion including a definition and a performance scale defining how the score for each criterion was applied to each alternative. A rationale was provided to explain the assigned score for each criterion. The performance scale used for this evaluation is generally defined as follows:

- 0 represents the lowest score
- 5 represents the moderate score
- 10 represents the highest score

Preferred Alternative – Rockland WTP

Alternative 2: High-Rate Conventional Filtration



The advantages of the alternative include the following:

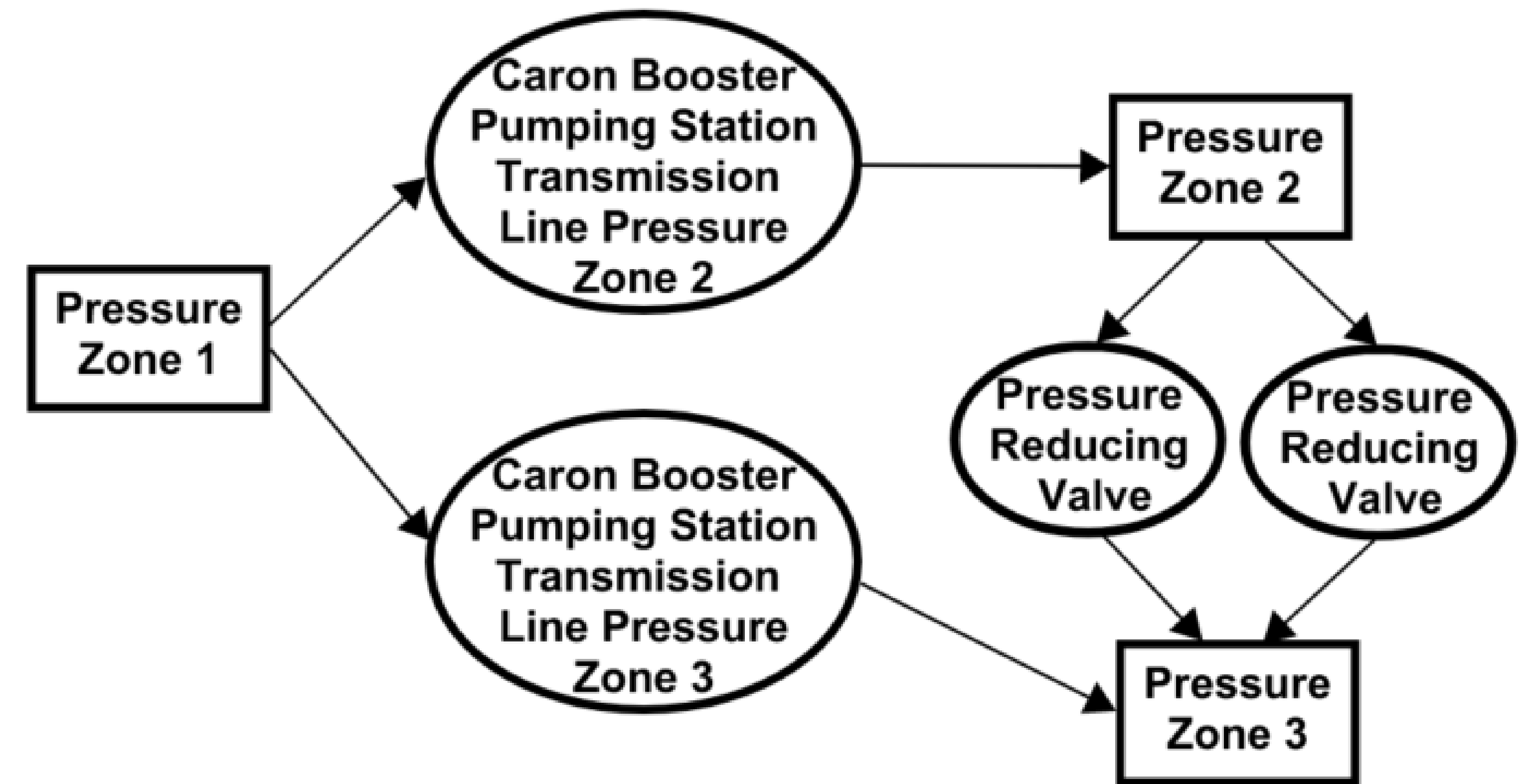
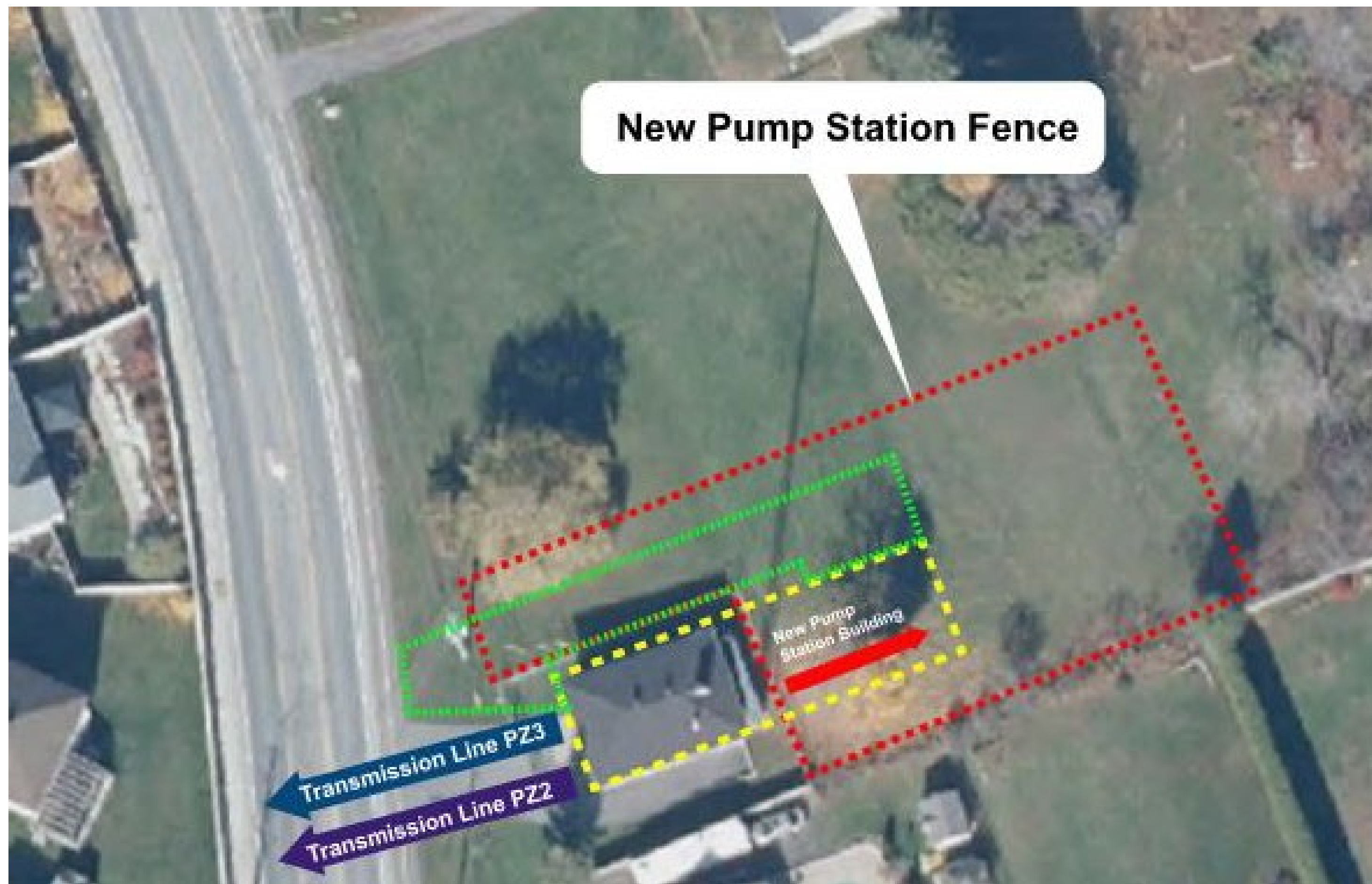
- The expanded Rockland WTP will serve the current servicing area of Clarence-Rockland and Limoges and provides the opportunity to service neighboring communities.
- The alternative involves expanding the facility using the same process flow and trains of similar size, therefore simplifying the integration to the existing treatment process (ex. same backwash pumps and blowers can be used).
- This alternative can be implemented in phases and includes provisions for future expansions.
- Operation and maintenance of the expanded facility will be relatively simple as the operations staff at the facility are familiar with the equipment.

Rockland WTP Proposed Site Plan



Preferred Alternative – Caron BPS

Alternative 3: Dual-Zone



The advantages of the alternative include the following:

- This alternative increases the rated capacity of the Caron BPS to service the existing customers and provides additional capacity to service growth in Limoges
- Dual-zones will provide greater redundancy as there will be two transmission mains available for distribution
- Provides greater energy efficiency as there is less energy lost within the distribution system (as pressure reducing valves are not required)

Next Steps

Thank you for your interest in the Expansion of the Rockland WTP and Upgrade of the Caron BPS project.

Your Feedback is an important part of the EA process and will be considered in completing the Environmental Study Report.

- To receive email updates as the project progresses subscribe to www.clarence-rockland.bcity.com or provide your contact information (name and email) to the contacts below.
- In the next phase of the project, we will develop and evaluate alternative design concepts for the preferred solutions and develop and implementation plan for the preferred design concepts. This will include PIC #2 (which is scheduled to be held in January 2026).

Charles Bonneau

Coordinator, Capital Projects

City of Clarence-Rockland

1560 Laurier St.

Rockland, ON, K4K 1P7

T: 613-446-6022 x2425

cbonneau@clarence-rockland.com

André Bourque, P. Eng.

Project Manager

Jacobs

1565 Carling Avenue, Suite 200

Ottawa, ON, K1Z 8R1

T: 613-762-9723

CR.WaterSupply@jacobs.com

Jacobs

