

GRASSY BROOK SECONDARY PLAN

EXISTING CONDITIONS AND BACKGROUND REVIEW



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1. Introduction and Background

Project Background

The City of Niagara Falls is one of 12 lower-tier municipalities forming part of the Regional Municipality of Niagara. Located along the Niagara River, and home to one of the great wonders of the world, the City is an international gateway for consumer goods and is recognized as a popular tourist destination. The City is also a great place to call home, with over 94,415 people living in in the Falls, based on the 2021 Census of Population recently released by Statistics Canada.

Both the Region of Niagara and the City of Niagara Falls have completed a number of underpinning studies to inform growth at the Regional and local scales to the 2051 planning horizon and beyond. At the Regional level, this included the Municipal Comprehensive Review (MCR) and New Niagara Region Official Plan; and, at the local level this included the preparation of an Employment Lands Strategy and a Housing Strategy. All of these studies have pointed to the need for the City to accommodate a significant amount of new population and employment growth over the next 30 years.

Proactive planning for the appropriate range and mix of land uses in key areas of focus, through the development of detailed secondary planning processes, will be of critical importance for the City. This detailed planning allows the City to be best-positioned to respond to the changing needs of the community and ensure residents have a balance of opportunities to live, work and play in Niagara Falls.

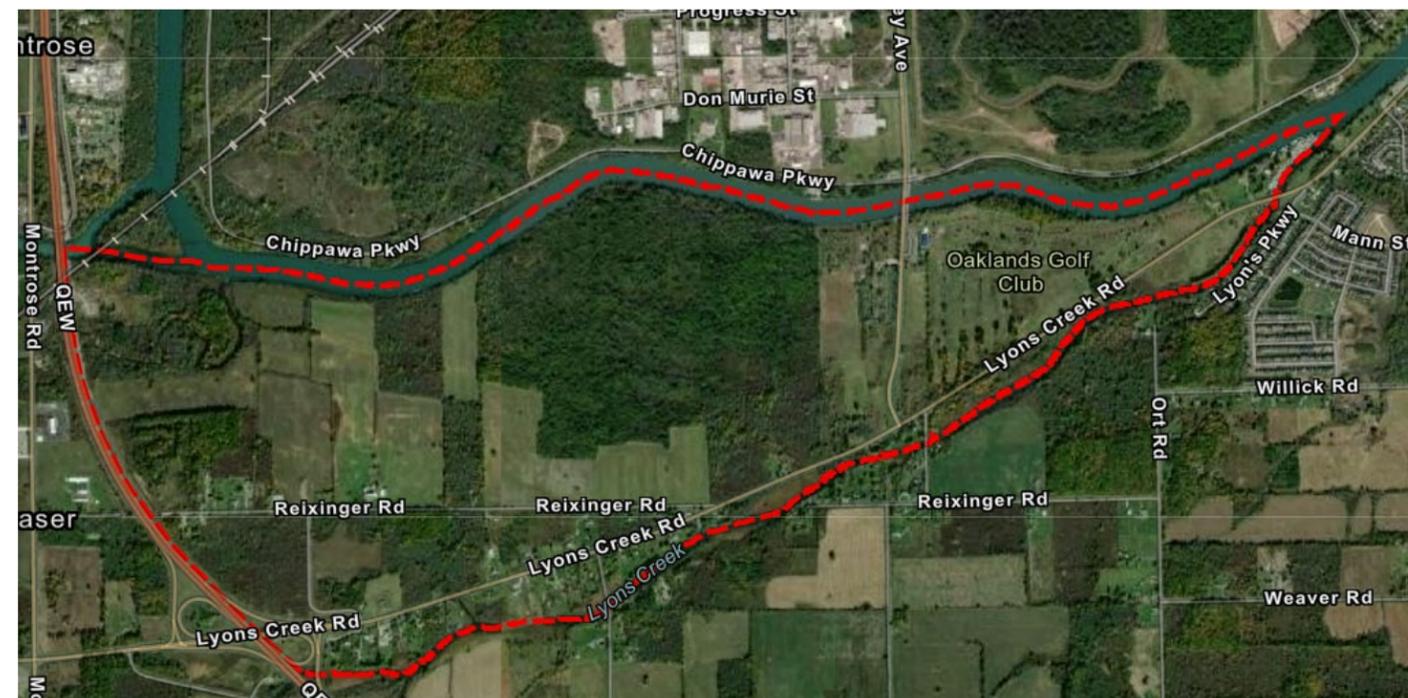
One of the priority areas of focus for detailed secondary planning identified by the City is the Grassy Brook Secondary Plan (GBSP) area. The City has retained the consulting team of Dillon Consulting Limited (Dillon), Aquafor Beech, ARA and Watson and Associates Economists Limited (Watson) to comprehensively study the area as part of the secondary planning process.

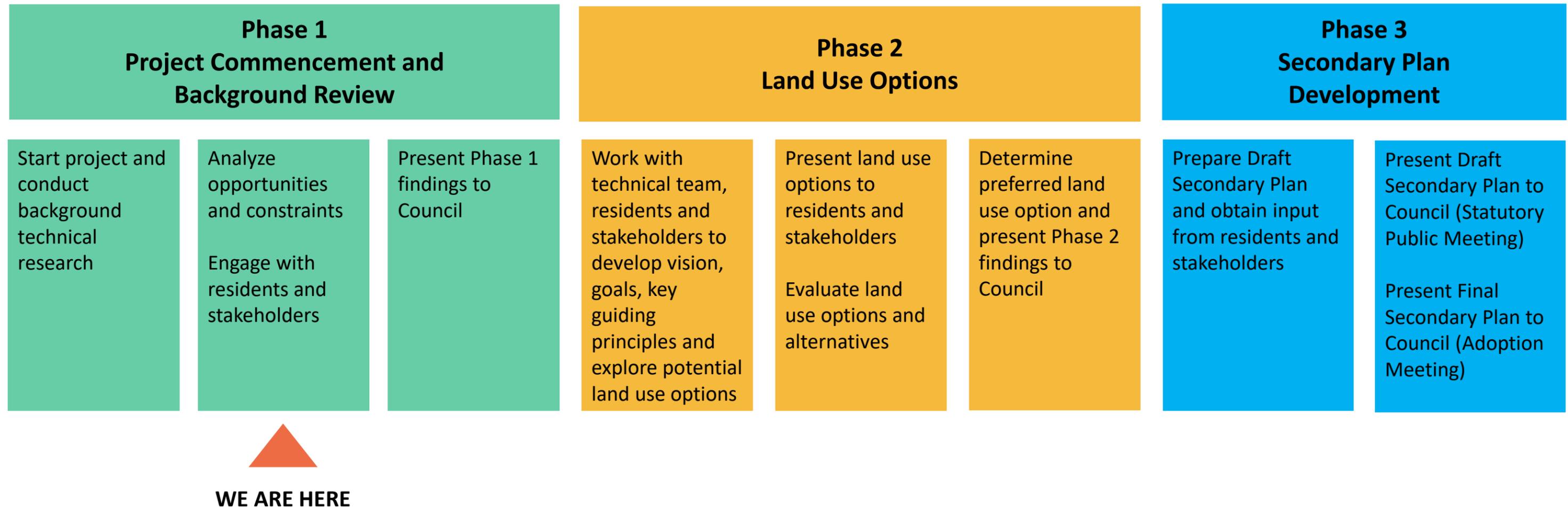
Project Purpose

This project will consider the local context, environmental conditions, infrastructure investment, land use compatibility, urban design, cultural heritage, and other elements to provide a proactive policy framework and direction for employment and residential development in the area. The goal for this project is to work with City staff, Regional staff, the Niagara Peninsula Conservation Authority, Council, residents and stakeholders as part of an iterative and transparent land use planning process to create a vision and associated policies to guide future development of Grassy Brook.



The City is expected to accommodate a total of 141,650 persons and 58,110 jobs by 2051. The Grassy Brook Area is where some of this growth will occur. Proactive secondary planning will allow the City to balance the need for environmental preservation, protection of employment areas and providing opportunities for residential growth.





The GBSP and associated studies will be conducted in a series of phases, informed by detailed technical analysis and public and stakeholder consultation. The project will be complemented by a Technical Advisory Committee (TAC) comprised of representatives from various City and Regional departments; and, a Community Focus Group (CFG), comprised of representatives from the broader community and stakeholder groups. In addition, Council and residents will be informed and engaged throughout the project, with broader public engagement and Council presentations provided for in each phase.

The GBSP technical work includes a subwatershed study, cultural heritage evaluation review, archaeological assessment, transportation and infrastructure study, policy and land use planning review, land use compatibility analysis and urban design review. The fiscal impact/market analysis was also a separate tool that also assisted in this process. Each of these will serve as inputs into the development of objectives, vision, goals, guiding principles and land use options to be further vetted by residents, stakeholders and the public. The project team will use the technical analysis and input to determine the preferred land use option to form the basis for the development of the Secondary Plan. The Secondary Plan will be presented in draft form for input through the formal engagement process; and, finalized for adoption by Council. Secondary planning exercises take time to complete, and the consulting team and the City want to take the time through an iterative process to allow for a successful final outcome. It is anticipated that this project will be complete in a two-year timeframe.

What is a Secondary Plan?

Secondary Plans are more detailed plans for specific areas within a community that identify land use planning, community design, transportation and municipal infrastructure needs to accommodate long term growth. They are built on significant community consultation and can assist in achieving a variety of land use planning objectives to support complete communities. Secondary Plans are adopted into the Official Plan and have status under the *Planning Act*.

Why do we need a Secondary Plan?

Grassy Brook is one of the City's last unplanned, unserviced urban Designated Greenfield Areas (DGAs). There are a number of existing land uses in this area, which will cease over time to allow for new, coordinated, development and change to occur. Some of the changes have already been confirmed. South Niagara Falls is expected to see significant new growth; new facilities, such as the South Niagara Falls Hospital, will form part of the broader landscape in proximity to the Grassy Brook Area; a new wastewater treatment plant to service the growth will exist within the Grassy Brook Area; and, the area will contribute to the growth of South Niagara Falls by providing opportunities for prestige employment uses. Some of the elements remain unknown at this time:

- What are the existing natural heritage conditions in the area?
- What environmental features need to be protected?
- How will Grassy Brook fit within the existing and planned development context of the City?
- What is the most appropriate layout and land use pattern for the area to support complete communities?
- How can matters of land use compatibility be managed?

A secondary plan will allow for the proactive and effective management of the new growth anticipated for Grassy Brook while considering these unique and localized factors to provide a level of certainty for the type of change that is expected for this area over the long-term.



1. Vision, Goals/Objectives

2. Land Use



3. Transportation and Infrastructure

4. Urban Design



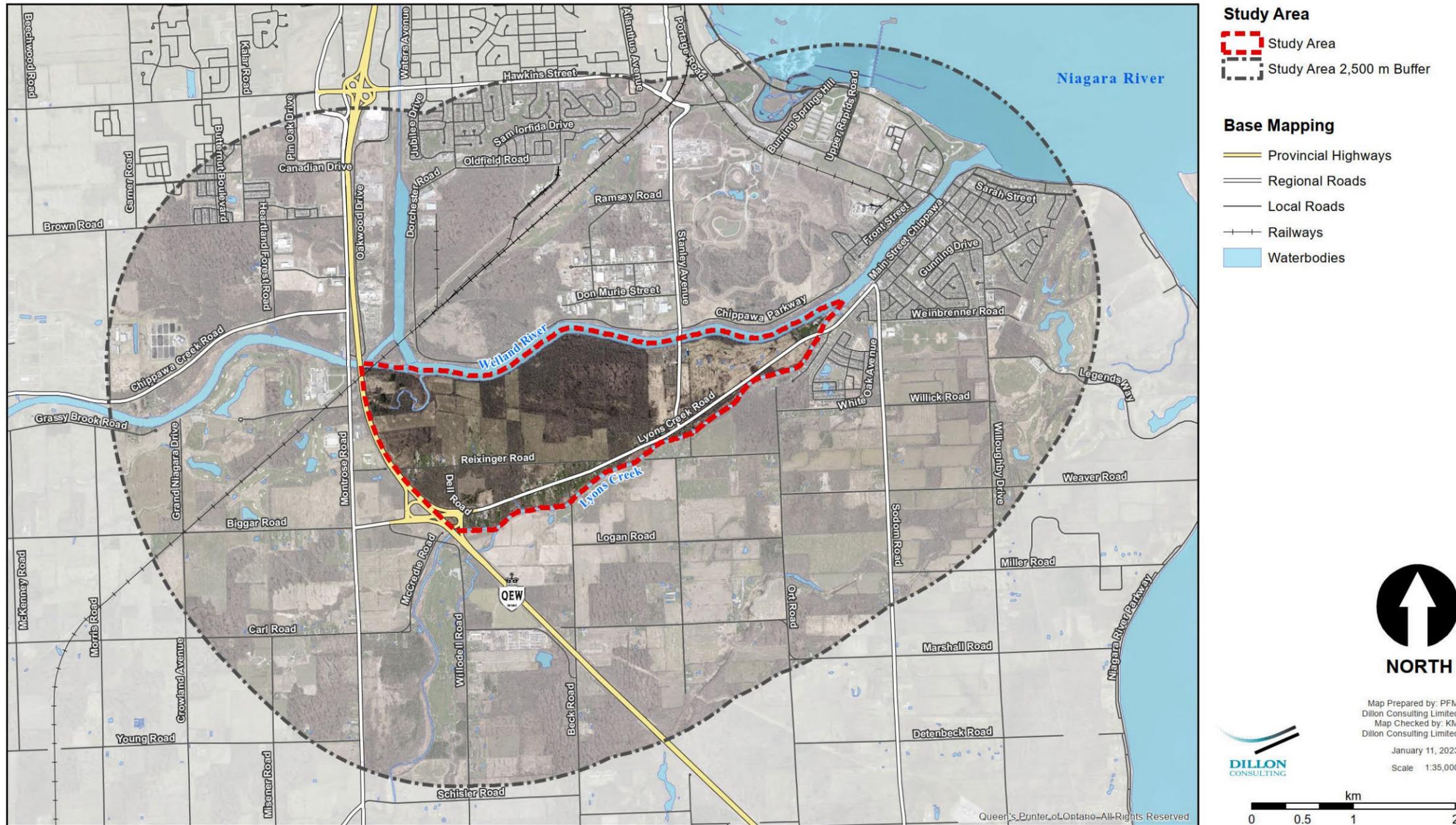
5. Environmental Protection and Enhancements



What is the Intended Future Use of the Grassy Brook Area?

Based on the work completed by the City, through the Employment Lands Strategy; and, the Region, through the Municipal Comprehensive Review and Provincially Approved Niagara Region Official Plan (NOP), a significant proportion of the lands within the Grassy Brook Area are identified as an Employment Area to accommodate future employment growth. While the primary intended purpose of this area is to support broader economic development objectives and employment growth, there may be opportunities to provide for other land uses, including residential, that will assist in meeting complete community objectives for the City.

Figure 1: Study Area



The Grassy Brook Area is located east of the Queen Elizabeth Way (QEW) and is bordered by the Welland River to the north and Lyon’s Creek to the south. It comprises approximately 495 hectares (ha) of land and represents one of the City’s unplanned, unserved Designated Greenfield Areas. Lands within the Grassy Brook Area are currently designated Resort Commercial, Environmental Conservation Area, Environmental Protection Area, Open Space and Residential; while they are generally zoned Industrial and Environmental Protection Area. There are a number of existing uses in the area, including residential, agricultural, campground, public parks, and a cemetery. The Study Area is delineated on **Figure 1**.

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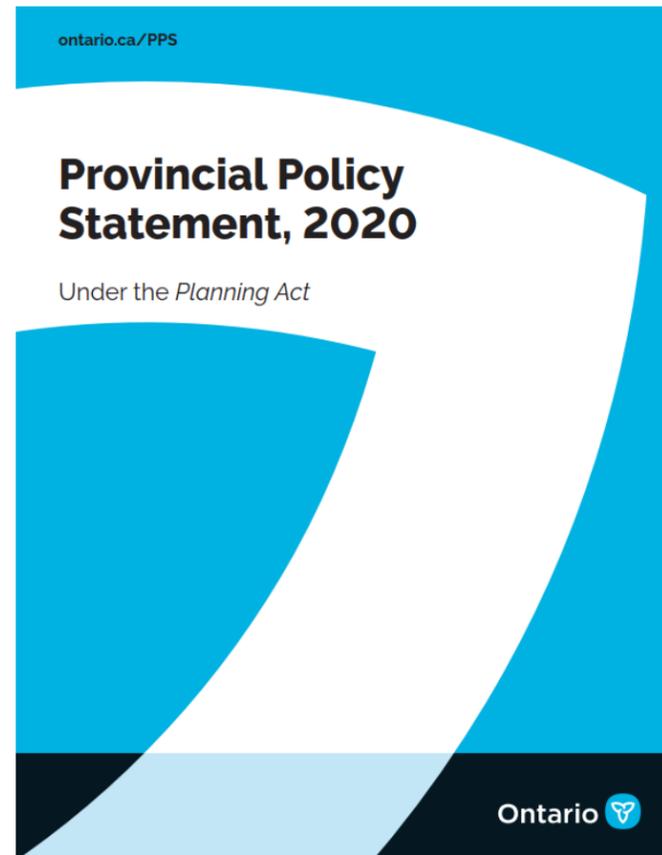
What is our Consultation and Engagement Plan for this Project?

An engagement plan has been developed to present the approach that the Project Team will take to conduct meaningful engagement throughout the project, and identify how feedback from the public and stakeholders will be captured. This engagement plan is an internal dynamic working document that the Project Team will utilize throughout the project lifecycle. The plan is flexible in nature, and can be revisited, from time to time, to respond to changing needs. A number of objectives will guide how we engage and consult throughout the project.



- 1. Open and Transparent:** We will provide a visible, open, and transparent process. The decision-making process, including how participant feedback will be considered will be clearly communicated throughout the process, in particular at the onset to establish a clear understanding of the engagement goals and objectives.
- 2. Collaborative:** The Grassy Brook Secondary Plan will reflect input from stakeholders and the community, to create a shared plan that everyone can collectively stand behind.
- 3. Meaningful Involvement:** Participants will be engaged early and provided with the information they need to participate in a meaningful way, and guided on what key aspects of the process they can provide feedback on. Education and outreach to create clear connections between the Secondary Plan and how decisions get made down the line will be a central part of the process.
- 4. Educational:** We will build awareness and inform residents about the purpose, objectives, outcomes, land use options and other elements of the Secondary Plan, as appropriate, throughout the project lifecycle.
- 5. Inclusive:** We will reach out to a wide variety of people and involve diverse voices in the conversation. We will work diligently to remove or reduce barriers, the best that we can, to ensure that diverse voices are heard throughout this engagement process. This includes people from across the community of different ages, ethnicities/cultures, Indigenous communities, socioeconomic standings and gender identities/sexual orientations.

2. Policy Context



The Provincial Policy Statement, 2020 (PPS) is issued under Section 3 of the *Planning Act* and came into effect on May 1, 2020. The PPS establishes the policy framework for regulating the development and use of land in Ontario and provides direction for matters of provincial interest related to land use planning and development. It provides a vision for land use planning in Ontario that encourages an efficient use of land, resources and public investment and infrastructure. In accordance with the *Planning Act*, all decisions affecting planning matters “shall be consistent with” the PPS policy statements. The PPS supports a comprehensive, integrated and long-term approach to planning and provides a policy framework for appropriate development while protecting resources of provincial interest, public health and safety, and the quality of the natural and built environment.

The PPS policy framework focuses growth and development within urban and rural settlement areas, promoting the wise use of land and efficient development patterns in order to ensure the full range of current and future residents’ needs can be met. This includes optimizing land, resources, infrastructure and public service facilities; promoting a mix of housing, employment, recreation, parks and open spaces and transportation choices that prioritize active transportation over other modes of travel; and, protecting natural heritage resources, water resources, agricultural resources, aggregate resources, and cultural heritage and archaeological resources.

While the PPS does not specifically set out rules of compliance for secondary plans, it does by proxy influence secondary plans as secondary plans must conform to the OPs that the PPS provides policy guidance for. Secondary Plans must focus on managing growth, employment, housing and economic prosperity in such a way that the following are accommodated for:

- The provision of an appropriate mix of housing types (including housing which is affordable to low and moderate income households) and densities to meet growth needs;
- An appropriate range and mix of land uses to meet growth needs for a time horizon of up to 25 years, informed by provincial guidelines; and,
- The promotion of economic development and competitiveness through opportunities for economic development and community investment-readiness.

Grassy Brook is one of the City’s last unplanned, unserviced urban Designated Greenfield Areas and will accommodate future employment growth, and residential growth, as appropriate, to support the development of this area as a complete community. With this in mind, the secondary plan process provides a unique opportunity to study the area at a detailed level to determine how best to accommodate a mix of land uses and manage city and regional priorities for investment and economic growth, while ensuring land use compatibility between those uses.



The Grassy Brook Area has potential to ensure long term economic prosperity as the area has capacity to accommodate future employment growth that existing employment areas do not have capacity for. Its proximity to highways renders it an ideal candidate for sufficient and timely movement of goods and services, and the surrounding residential land use provides an opportunity to collectively achieve the density target upheld by the Growth Plan.

Similar to the PPS, the guiding principles of the Growth Plan focus on achieving complete communities, stimulating economic growth, prioritizing intensification and higher densities to optimize infrastructure investments, and mitigating the adverse impacts of climate change. Grassy Brook is an area that is included within the boundaries applicable to policies within the Growth Plan and its planning horizon to 2051. Of particular relevance to this report are the following policies:

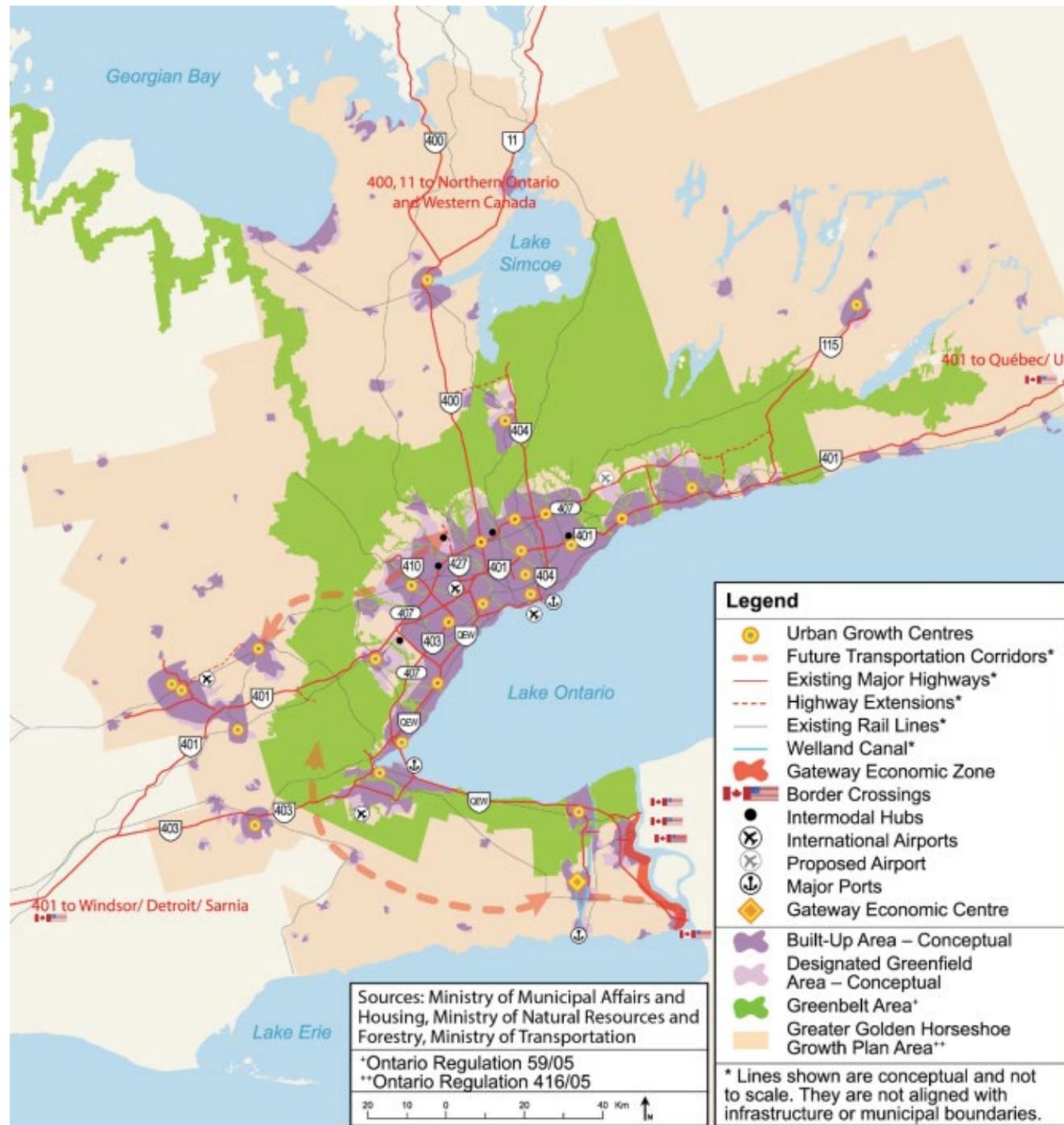
Employment Area

Grassy Brook has been identified as an employment area. As the study area illustrates, these lands have prominent visibility off of a major goods movement facility, namely the Queen Elizabeth Way, and is in close proximity to other significant local and Regional transportation networks. Within the Growth Plan, Employment Areas are intended to;

- Be located adjacent to or near major goods movement facilities and corridors, including major highway interchanges, as areas for manufacturing, warehousing and logistics, and appropriate associated uses and ancillary facilities;
- Be protected for appropriate employment uses over the long-term. For greater certainty, employment area designations may be incorporated into upper- and single-tier official plans by amendment at any time in advance of the next municipal comprehensive review, and through policies within the Grassy Brook Secondary Plan;
 - a) prohibit residential uses and prohibit or limit other sensitive land uses that are not ancillary to the primary employment use;
 - b) prohibit major retail uses or establish a size or scale threshold for any major retail uses that are permitted and prohibit any major retail uses that would exceed that threshold; and
 - c) Provide an appropriate interface between employment areas and adjacent non-employment areas to maintain land use compatibility.

In terms of density targets, the Growth Plan states that municipalities must establish minimum density targets for all employment areas within settlement areas that:

- a) are measured in jobs per hectare;
- b) reflect the current and anticipated type and scale of employment that characterizes the employment area to which the target applies;
- c) reflects opportunities for the intensification of employment areas on sites that support active transportation and are served by existing or planned transit; and
- d) will be implemented through official plan policies and designations and zoning by-laws.



Designated Greenfield Area

As a Designated Greenfield Area, the Grassy Brook Secondary Plan must reflect the goals and visions set out for these areas as indicated in the Growth Plan to the 2051 horizon. Designated Greenfield Areas within the Niagara Region are intended to achieve a minimum density target that is not less than 50 residents and jobs combined per hectare. This target is measured over the entire Designated Greenfield Area, excluding the following:

- Natural heritage features and areas, natural heritage systems and floodplains, provided development is prohibited in these areas;
- Rights-of-way for: electricity transmission lines; energy transmission pipelines; freeways, as defined by and mapped as part of the Ontario Road Network; and railways;
- Employment areas; and
- Cemeteries.

These areas must function to support the achievement of complete communities, active transportation; and encourage the integration and sustained viability of transit services.

Gateway Economic Zone

In recognition of the importance of cross-border trade with the United States, the Growth Plan recognizes a Gateway Economic Zone and Gateway Economic Centre near the Niagara-United States border which includes Grassy Brook. The Grassy Brook Secondary Plan will need to support economic diversity and promote increased opportunities for cross-border trade, movement of goods, and tourism through the planned 2051 horizon of the Growth Plan.



The Niagara Official Plan requires local municipalities to prepare secondary plans in new Designated Greenfield Areas and sets out what these must include.

Table 1: Niagara Official Plan Growth Forecasts

Municipality	Population	Employment
Fort Erie	48,050	18,430
Grimsby	37,000	14,960
Lincoln	45,660	15,220
Niagara Falls	141,650	58,110
Niagara-on-the-Lake	28,900	17,610
Pelham	28,830	7,140
Port Colborne	23,230	7,550
St. Catharines	171,890	79,350
Thorold	36,690	12,510
Wainfleet	7,730	1,830
Welland	83,000	28,790
West Lincoln	38,370	10,480
Niagara Region	694,000	272,000

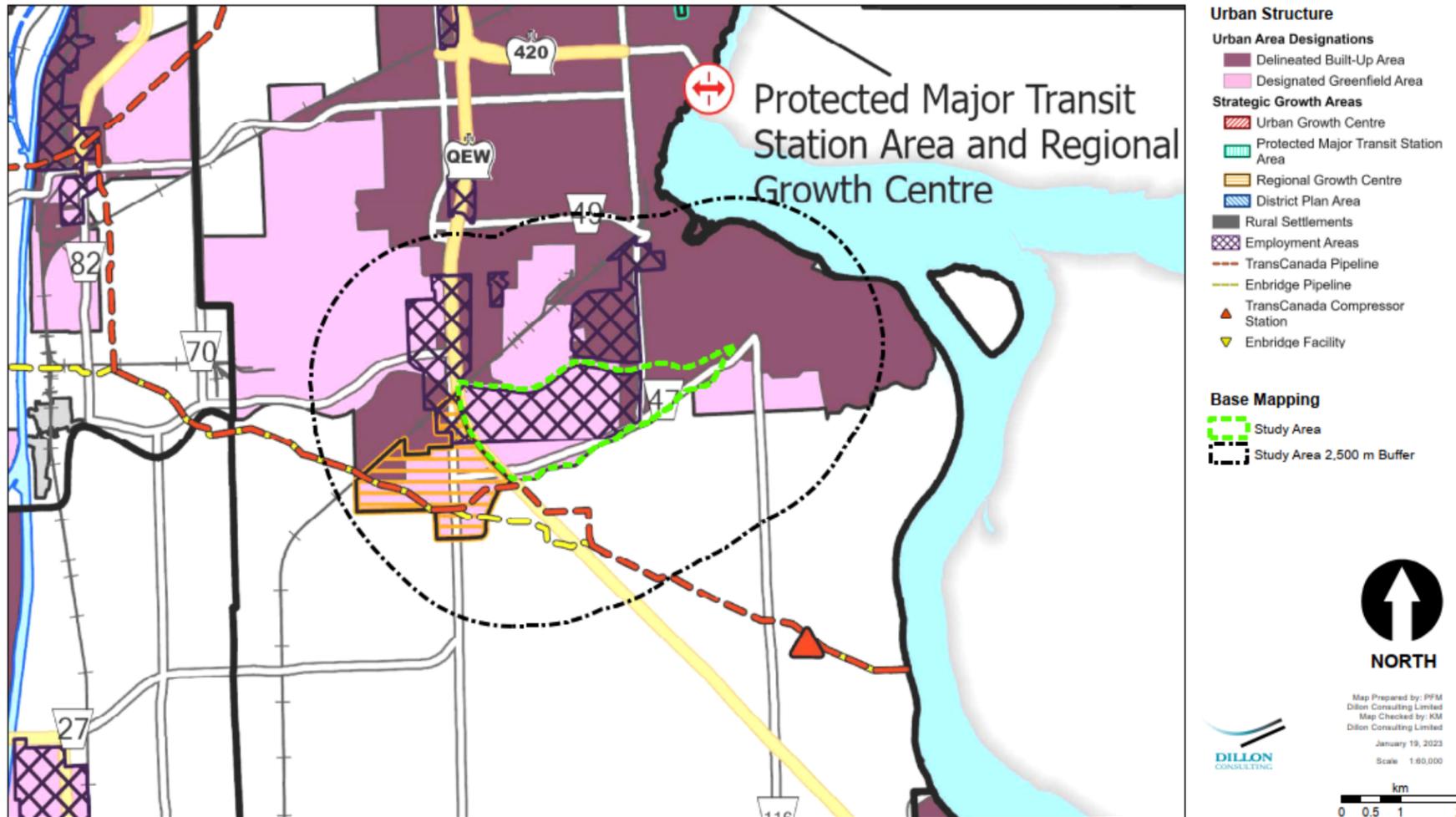
The Niagara Official Plan provides a long-term land use planning framework to shape and define the region for future generations. It sets out a growth strategy for the Region to the 2051 planning horizon, allocating population and employment growth and local intensification, density and employment targets to be met in order to achieve the Regional vision for growth and applicable Provincial legislation, policies and directives. Following the completion of the Regions municipal Comprehensive Review (MCR), The Niagara Official Plan was approved by Regional Council on June 23, 2022 and sent to the Province of Ontario’s Ministry of Municipal Affairs and Housing for approval; and, was approved by the Province, with modifications, on November 4, 2022. Current land use planning legislation requires that all local Official Plans, amendments, land-use related by-laws and all future development must conform to the Niagara Official Plan.

Table 2-1 of the Niagara Official Plan provides population and employment forecasts by local area municipality, which form the basis for land use planning decisions to 2051 and is reproduced herein and-shown on the left hand side of this page (**Table 1**). These forecasts are minimums that local municipalities must demonstrate can be achieved through updates to their Official Plans and through detailed secondary planning processes, as applicable. They are to be used to determine the location and capacity of infrastructure, public service facilities, and the delivery of related programs and services required to meet the needs of Niagara’s current and future residents. Based on Table 2-1, Niagara Falls is positioned to have the second highest population and employment increases in the Region, after St. Catharines, representing 20% of the Region’s overall population growth and 21% of the Region’s overall employment growth.

The Niagara Official Plan requires local municipalities to prepare secondary plans for Designated Greenfield Areas, with policies and schedules that must ensure the following: a diversity and mix of uses, a mix of built form, high quality urban design and public realm, provision of parks and open space, appropriate refinement and implementation of the Region’s natural environment system, adequate provision of infrastructure, including transit and active transportation, and co-location of public service facilities within community hubs, where appropriate, and adapting existing public service facilities and spaces as a priority.

A number of elements of the Natural Environment System are also identified in the Niagara Official Plan. Grassy Brook’s Natural Environmental System will need to be studied in greater detail as part of the Subwatershed Study, and incorporated into the Secondary Plan.

Figure 2: Policy Context Niagara Region Official Plan: Urban Structure.



Schedule B of the Niagara Official Plan identifies the Regional Structure (shown on **Figure 2**). The Grassy Brook Area forms part of the following components of the Regional Structure:

- Designated Greenfield Area bound by the Welland River and Lyons Creek between the Queen Elizabeth Way and Stanley Avenue, excluding the property located at Lyons Creek and Stanley Avenue (currently King Waldorf Campground);
- Built up Area bound by the Welland River and Lyons Creek, including the property located at Lyons Creek (Currently King Waldorf Campground) and all lands on the east side of Stanley Avenue; and,
- Employment Area bound by the Welland River and Lyons creek between the Queen Elizabeth Way and Stanley Avenue.

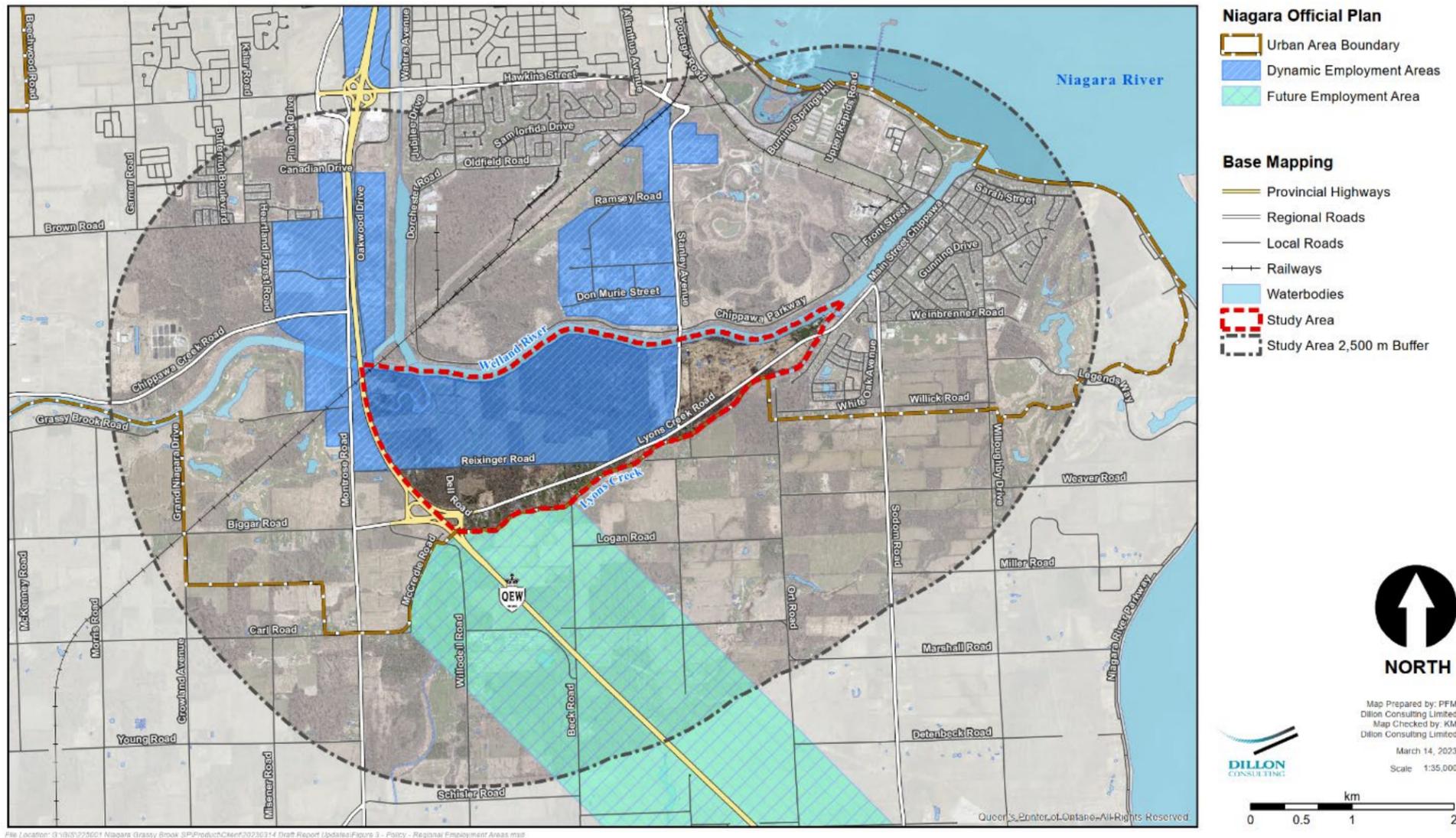
A number of targets and policies apply to these structure elements. The Grassy Brook Secondary Plan will need to incorporate a framework that ensures these targets can be achieved.

Designated Greenfield Areas must be planned to achieve or exceed the minimum target of 50 residents and jobs per hectare over the entire Designated Greenfield Area. These areas must be planned as complete communities.

In Niagara Falls, the Region requires Built up Areas to accommodate growth through intensification at a rate of 50%. The minimum number of units assigned to the City of Niagara Falls' Built up Areas is 10,100 (Table 2-2 of the Niagara Official Plan). A portion of those units will need to be accommodated in the Grassy Brook Built up Area.

Employment areas are to be protected for employment uses over the long term. Residential uses, major retail/ major commercial uses; and, major office uses are prohibited in employment areas. Conversion of employment lands to non-employment uses are prohibited by the Region's plan, as well as other Provincial policies.

Figure 3: Policy Context Niagara Region Official Plan: Employment Areas



Schedule G of the Niagara Official Plan identifies a more detailed framework for employment areas, classifying them into three types: Core, Dynamic and Knowledge and Innovation. The Grassy Brook employment area is designated as 'Dynamic' in the Niagara Official Plan (**Figure 3**). Dynamic Employment Areas support clusters of traditional and lighter industrial uses, with a broader mix of employment uses including office parks and institutional uses that can function without limiting the viability of one another. A mix of complementary employment uses will be encouraged through development or redevelopment within dynamic employment areas that do not limit the ability for other employment uses within the employment area to grow or expand.

More broadly, the Niagara Official Plan requires that planning tools to achieve compatibility between employment and non-employment and should be planned to consider improved connectivity with transit and active transportation, a mix of amenities and open space to serve the workforce, and achieve alignment with economic development strategies to retain and attract investment.

Minimum density targets for employment areas are found in Table 4-2 of the Niagara Official Plan. Table 4-2 sets the density target for the Dynamic Employment Area at 20 jobs per hectare. This is the minimum density the area must achieve in order to accommodate the employment growth assigned to the City by the Region in Table 2-1. Local municipalities must designate Employment Areas shown on Schedule G (**Figure 3**). They must also plan for employment areas to achieve minimum density targets. The Grassy Brook Secondary Plan will need to delineate the Dynamic Employment Area and include policies to implement the 20 jobs per hectare target assigned to the City for this area. It will also need to ensure appropriate land use compatibility measures are put in place.



The City of Niagara Falls Official Plan outlines the long-term objectives and policies for the City to guide growth and development of the urban lands; the protection of agricultural lands; the conservation of natural heritage areas; and, the provision of necessary infrastructure to a 2031 planning horizon.

The current Official Plan was approved by the Ministry of Municipal Affairs on October 6, 1993 and has been amended and updated from time to time since then. Amendments have been both City-initiated, to address matters of local conformity, as well as through privately-initiated site-specific amendments to facilitate development. The most recent consolidation of the Official Plan occurred in April 2019, which includes all approved City-initiated and privately-initiated amendments up to that date.

In accordance with the current Official Plan, the City is expected to grow by over 106,000 people and over 50,000 thousand jobs into 2031, with tourism being the most dominant driver of economic investment and prosperity since the decline of the manufacturing sector within the Region.

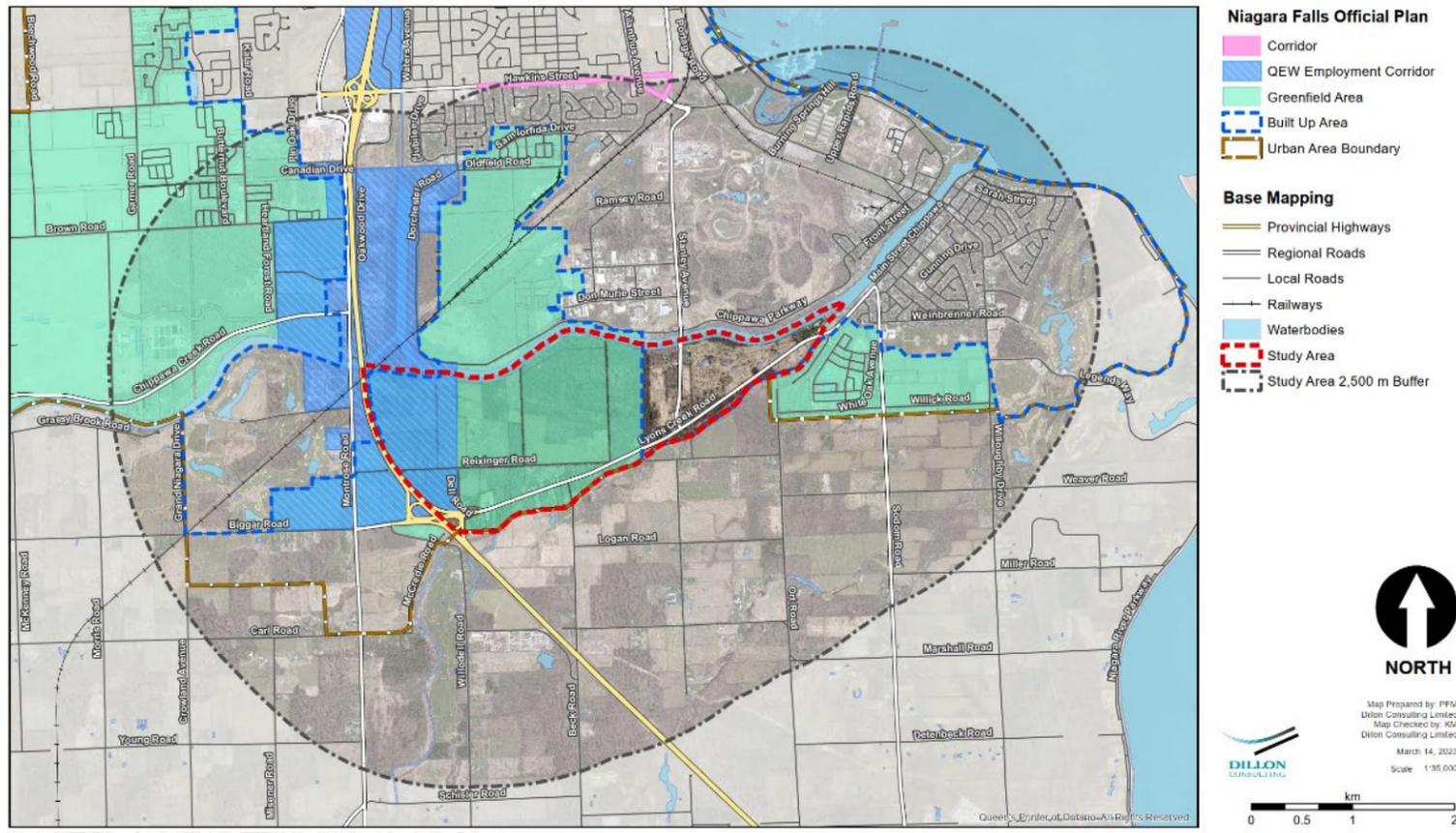
The City of Niagara Falls Official Plan establishes an urban structure and land use planning framework that implements the Region's 2031 growth framework and ensures a balance of priorities through integrated land use compatibility policies dedicated to facilitating smooth transitions between employment and urban areas.

Given that the Province has recently approved the Niagara Official Plan, the City will need to complete a future conformity exercise to ensure that the local Official Plan implements the Region's 2051 growth framework. While some local policies will continue to be relevant and applicable to the Secondary Plan process, the project team will also need to rely on the Niagara Official Plan to ensure that the 2051 Regional planning vision can be achieved.

It is also important to note that Bill 23 recently received Royal Assent, and implementation of Bill 23 may have implications for the City's Official Plan conformity exercise, as well as this Secondary Planning Process. Provincial directions arising from Bill 23 will be monitored by the project team as the project evolves.



Figure 4: Policy Context: Local Official Plan



Schedule A2 of the City of Niagara Official Plan outlines the urban structure throughout the city. Components of the Urban Structure in the Official Plan include Corridors, Greenfield Areas, Urban Areas and the QEW Employment Corridor. The study area includes three different urban structure elements: the QEW Employment Corridor, Greenfield Area, and Urban Area, which are shown on **Figure 4**.

The QEW represents a major transportation corridor within the Region of Niagara. It is the Region’s main connector to the rest of the Greater Golden Horseshoe and is a significant contributor to the local economy through the movement of goods, services and people. Lands within the corridor are intended to serve as areas for future economic development, as exposure to the QEW provides sufficient access to routes for both visitors and goods and service movement. The overarching goal of the policies is the establishment of employment uses on and in proximity to these lands to support economic development objectives.

Lands in the Greenfield Areas are intended to develop as complete communities at a smaller scale than their urban area counterparts. These areas have a target density of no less than 53 people and jobs per hectare. A diverse range of uses is encouraged to be provided. Secondary planning is to be the primary implementation tool for development of the Greenfield Area. Lands within the Built up Area, intensification is required and is to be designed to integrate into the surrounding neighborhood and provide a range and mix of housing types, tenures and affordability levels. In addition, 40% for all residential development occurring annually should be within the Built up Area.

The current targets in the City’s Official Plan may be out of date and will need to be updated to align with the Niagara Official Plan. The City will need to complete an Official Plan conformity exercise which will update the Official Plan to include the new targets for Designated Greenfield Areas and the Built-up Area. The Secondary Plan will use the Region’s newly approved numbers for planning purposes. Over the long-term, the Region anticipates that the City of Niagara Falls will accommodate 20% of the Region’s overall population growth and 21% of the Region’s overall employment growth. The Grassy Brook Secondary Plan will introduce a framework that demonstrates the various growth targets as mandated by the Region in the Niagara Official Plan, including the Greenfield Area target (50 people and jobs per hectare), Built-up Area Target (50%), Employment Area Target (20 jobs per hectare) can be achieved to accommodate 20% of the Region’s overall population growth and 21% of the Region’s overall employment growth.

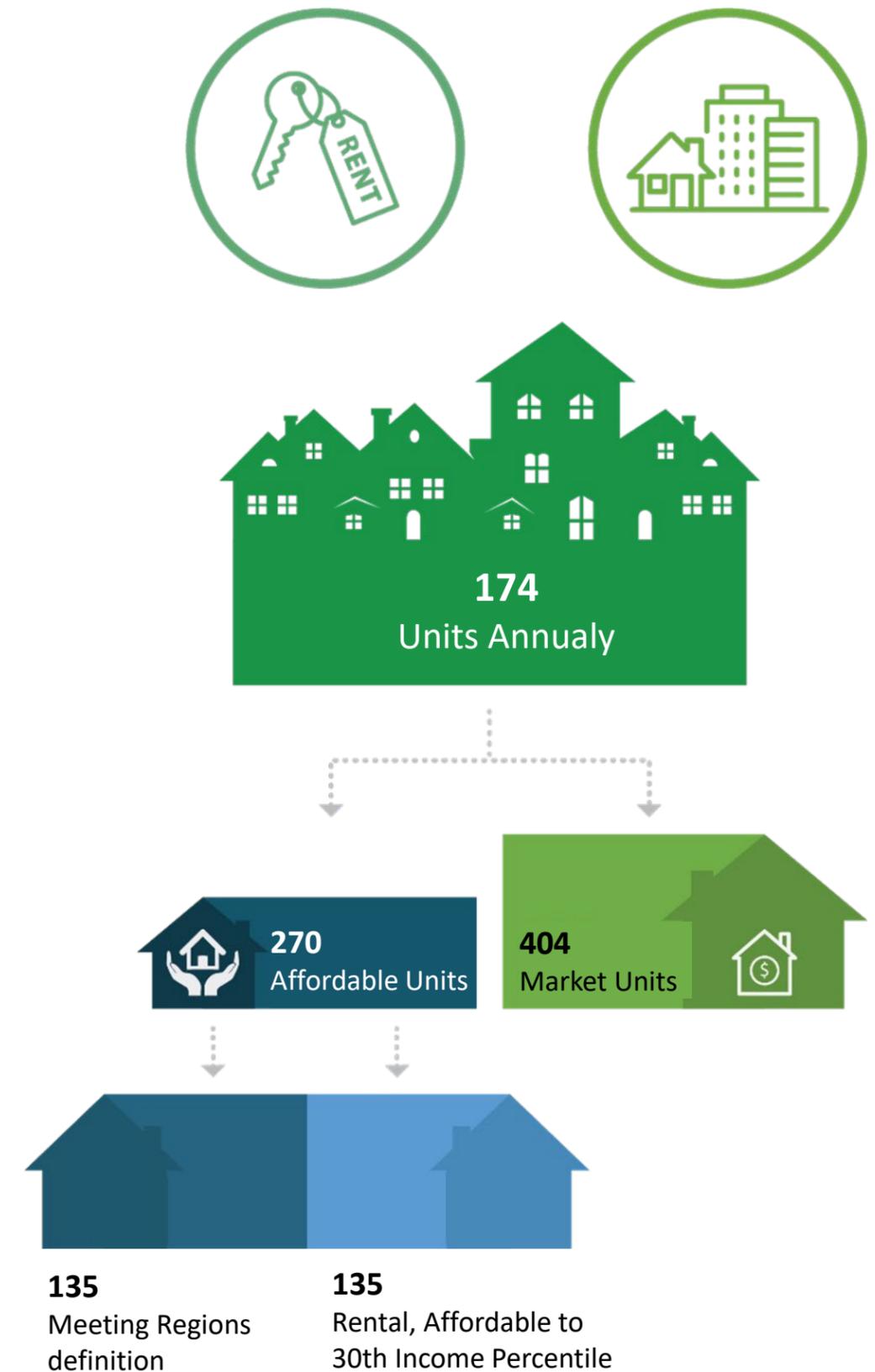
The City retained Dillon, in collaboration with Tim Welch Consulting (TWC), in late 2020 to conduct a Housing Directions Study that included technical background research and the development of a Housing Strategy to help guide the City in meeting the various housing needs of current and future residents of Niagara Falls. The study assessed the City’s socioeconomic and demographic composition and reviewed the City’s residential land supply in terms of its ability to meet growth allocations based on the 2051 planning horizon, as well as the suitability of the housing mix distribution in providing housing types that could meet the financial needs of current and future residents. Based on the technical work completed and documented in the Housing Needs and Supply Report, a Housing Strategy was prepared, which included a vision and goals for housing in the City; annual targets for affordable units, theme areas to support a healthy housing continuum throughout the City and (21) actions to address housing gaps. At the Council meeting of March 22, 2022, Council endorsed the Housing Strategy.

The housing target recommended in the strategy was implemented through the approval of OPA 149, which is now in force. This target is for 40% of all new units annually to be affordable (roughly 270 units), either meeting the Region’s definition of “affordable” or being rental units that are affordable to rental households in the 30th income percentile or lower.

Themes from the Strategy that should be considered as part of the Grassy Brook Secondary Plan are:

- Promote a greater diversity of housing types to ensure there is a diversity of housing options available to meet the needs of the City’s diverse residents; and,
- Ensure a healthy supply of rental units to provide a range and mix of rental options for Niagara Falls residents now and into the future.

These can be achieved by providing opportunities for higher density types of housing, and alternate forms of housing, where it is determined residential uses are appropriate as part of the land use concept development phase.





The City of Niagara Falls retained Watson & Associates Economists Ltd, in partnership with Dillon and MDB Insight Inc. in the winter of 2020 to conduct an Employment Lands Strategy. The strategy provides a long-term vision and planning policy framework for the City to enhance the competitive position for industrial and office employment. The Strategy assessed the City’s long-term employment land needs to the 2051 planning horizon, considered the adequacy and marketability of the City’s ‘shovel-ready’ employment lands in the near-term, and provided a number of policy recommendations for implementation to achieve consistency, conformity and alignment with upper-tier and provincial planning policy. A number of target sectors, strengths, weaknesses, opportunities and constraints were identified in the Strategy. The outcomes of the Strategy also indicated that the City is expected to experience an employment area land shortfall before 2051, requiring a new employment area to be identified. The Strategy recommended that the Grassy Brook Area be designated as the new employment area, for a number of factors, including:

- Minimizing land use conflicts and compatibility concerns with the confirmed and approved location of the new South Niagara Falls Wastewater Treatment Plant (WWTP);
- Minimizing land use conflicts with surrounding employment areas;
- Proximity to surrounding employment areas (Montrose Road Industrial Area, Stanley Avenue Business Park); and,
- Direct access and exposure to the Queen Elizabeth Way (QEW).

The following vision is included in the Employment Lands Strategy to guide future planning and development of employment areas:

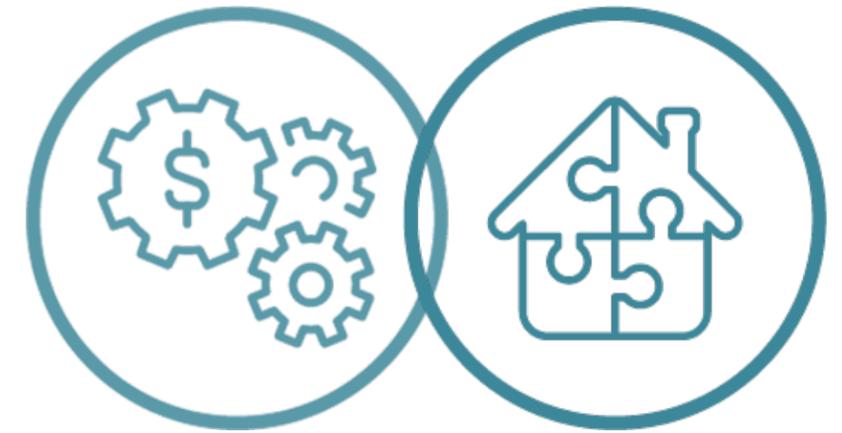
“Employment Lands within the City of Niagara Falls will provide the City with a diverse collection of parcels; opportunities for greenfield development and intensification of existing sites; and, allow the City to competitively respond to market demands and meet the City’s employment needs to 2051.”

The Grassy Brook Secondary Plan will need to consider how to implement this vision within the designated employment area through appropriate policies and mapping.

3. Existing Conditions

As identified in **Table 1** of this Report, the City of Niagara Falls is forecast to grow to a total population of 141,650 and 58,100 jobs over the period to 2051, which is approximately 20% of the total regional base. For employment in particular, this translates into growth of approximately 19,500 jobs over the period to 2051. As explained in more detail in the Watson Employment Land strategy (Watson Strategy) the key local drivers and disruptors of future job growth include:

- **Outward Growth Pressure from the GGH.** Niagara Falls is located within the Greater Golden Horseshoe (GGH) which is forecasted to grow with roughly 5.3 million people and 2.4 million jobs over the next 30 years. This growth, in turn, will drive strong demand for all types of employment and building space including industrial, commercial retail and (in some cases) major office use.
- **Geographic Location.** Within the GGH, Niagara Falls is strategically located close to the Greater Toronto and Hamilton Area (GTHA) as well as the Queen Elizabeth Way (QEW) which serves as a major trade corridor to the United States (US) and other major urban growth centres in southern Ontario. This road transportation access, along with pending GO Transit access positions the City very well to attract new business investment.
- **Regional Economic Opportunities.** Within the region itself, new housing and associated population growth will generate demand for local industries, including the highly desirable “knowledge-based” and “Creative Class “ sectors that are expected to lead the way in economic development.
- **The Innovation Landscape.** Supporting demand in these key sectors are several ‘enabling assets’ within the Regional innovation ecosystem, including business incubators, business accelerators and other innovation support services to drive long-term economic growth;
- **Tourism,** which remains a significant part of the Regional and local economy, and will continue to drive demand for housing and, in turn, a range of direct and indirect employment uses such as ancillary retail across the City’s Employment Area, for example as observed in the QEW/Highway 420 area.
- **Technology and Digital Disruption.** While specific outcomes may be difficult to predict, what is clear is that the economic path forward likely does not involve recapturing low-skill or routing employment but rather growth in more sophisticated and high-value activities across all occupations and sectors; and
- Finally, **Quality of life.** In addition to the above advantages, the City also enjoys a high quality of life which will continue to drive net migration across a broad range of demographic groups and further supporting demand for land and building space to accommodate future job growth.



Taken together, these local drivers combined with broader Macro economic trends bode very well for growth across all sectors of the City's economic base including Employment Lands. The COVID 19 Pandemic, in particular, has accelerated not only demand for housing (notwithstanding the more recent market shift), but also many of the factors driving demand for industrial-type activities. The strongest demand continues to be relatively low-density warehousing and distribution uses to accommodate ever-growing levels of e-commerce sales and other on-line retail platforms. As noted in the Watson strategy, despite the challenges presented by COVID, and more recently with the current economic situation, the outlook for the GGH remains positive and the Region and City, which continue to be attractive to international investment and newcomers alike.

Employment Lands (lands accommodating a wide range of industrial-type use) will play a key role in accommodating this growth. Employment Lands are extremely important to the local economic development potential of the City and Region, including many of the City's largest private sector employers. The type of development accommodated on Employment Lands also tends to have higher economic "multipliers", thereby supporting "spin-off" employment elsewhere in the City and Regional economy. Employment Land Employment is forecast to grow to approximately **3,500 jobs or roughly 20% of the total employment growth** to 2051. Providing an appropriate and suitable supply of lands to accommodate this growth will be critical to achieving the City's economic objectives to the plan horizon.

What does this mean for Grassy Brook?

As explained in the Watson Strategy, there is a total of approximately 78 ha (193 acres) of vacant employment land available to accommodate future demand. An assessment of potential Employment Land conversion sites was also undertaken to identify sites that may no longer be competitive for new business investment and should be considered for non-employment uses. The conversion analysis was undertaken in consultation with City staff and in accordance with the policy directions set out in the Growth Plan for the Greater Golden Horseshoe (2019, as amended), the Provincial Policy Statement (PPS) and site-specific evaluation criteria as explained in the strategy. Arising out of this analysis is a limited number of sites recommended for conversion, which reduces the available vacant land supply to approximately 60 ha (150 acres).

Ultimately, the study findings indicate that the current vacant supply of 60 ha is not sufficient to accommodate forecast demand, and there is a need to provide additional lands to the 2051 horizon. An analysis of Employment Land location options was also undertaken, which ultimately recommended the Crawford Farm and surrounding area (Site 1) as the preferred site for a new business park (the Grassy Brook Area). According to the Watson strategy, this is the only site which meets all the primary principles of being within the urban boundary, having a sufficient land area to accommodate forecast employment demand and minimal land use compatibility concerns are associated with developing this site as an employment area. In particular, as employment uses the site would capture the future location of the proposed wastewater treatment facility thereby preventing sensitive land uses such as residential from causing a potential land use conflict.

Figure 5: Existing Land Uses

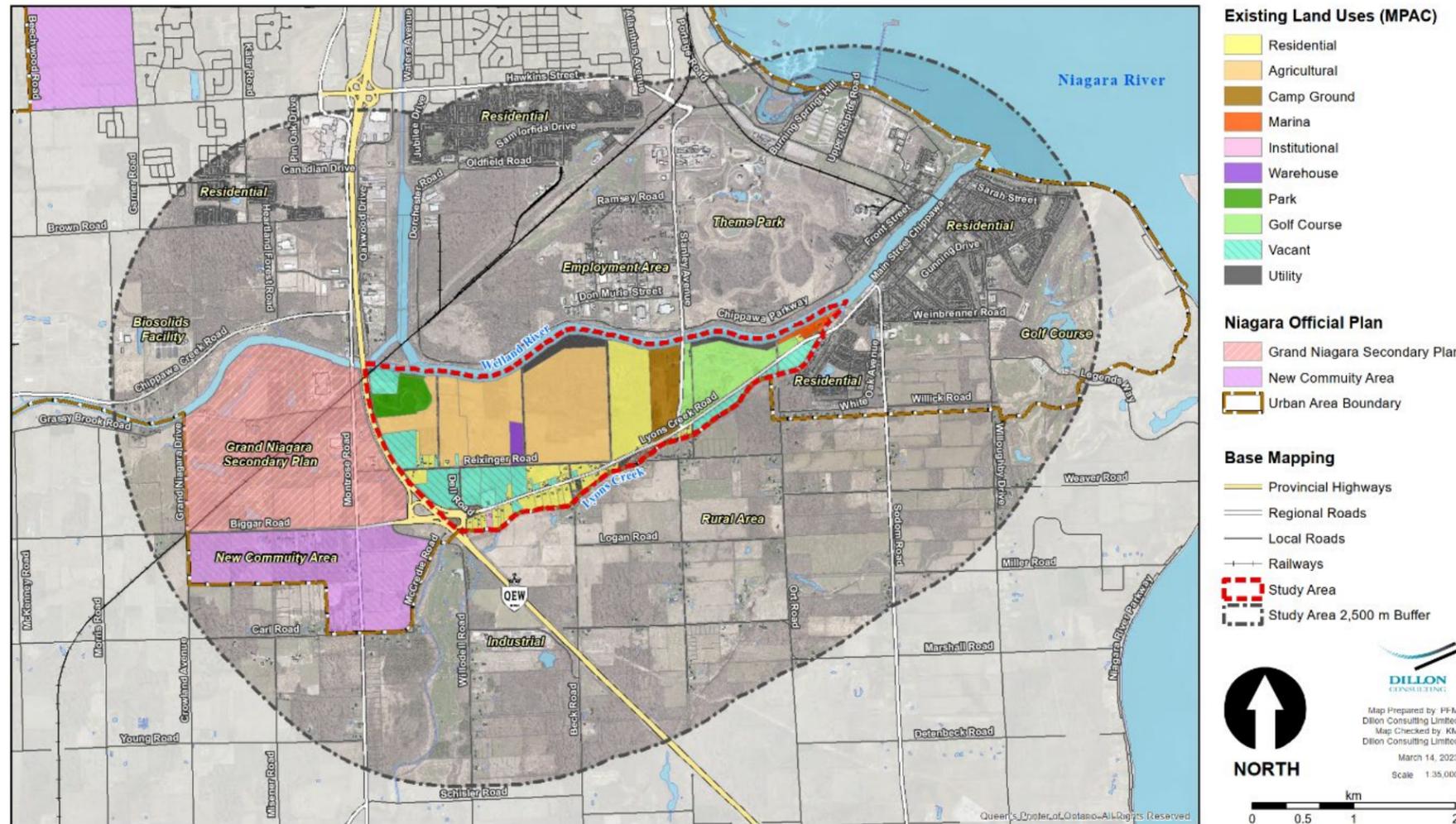


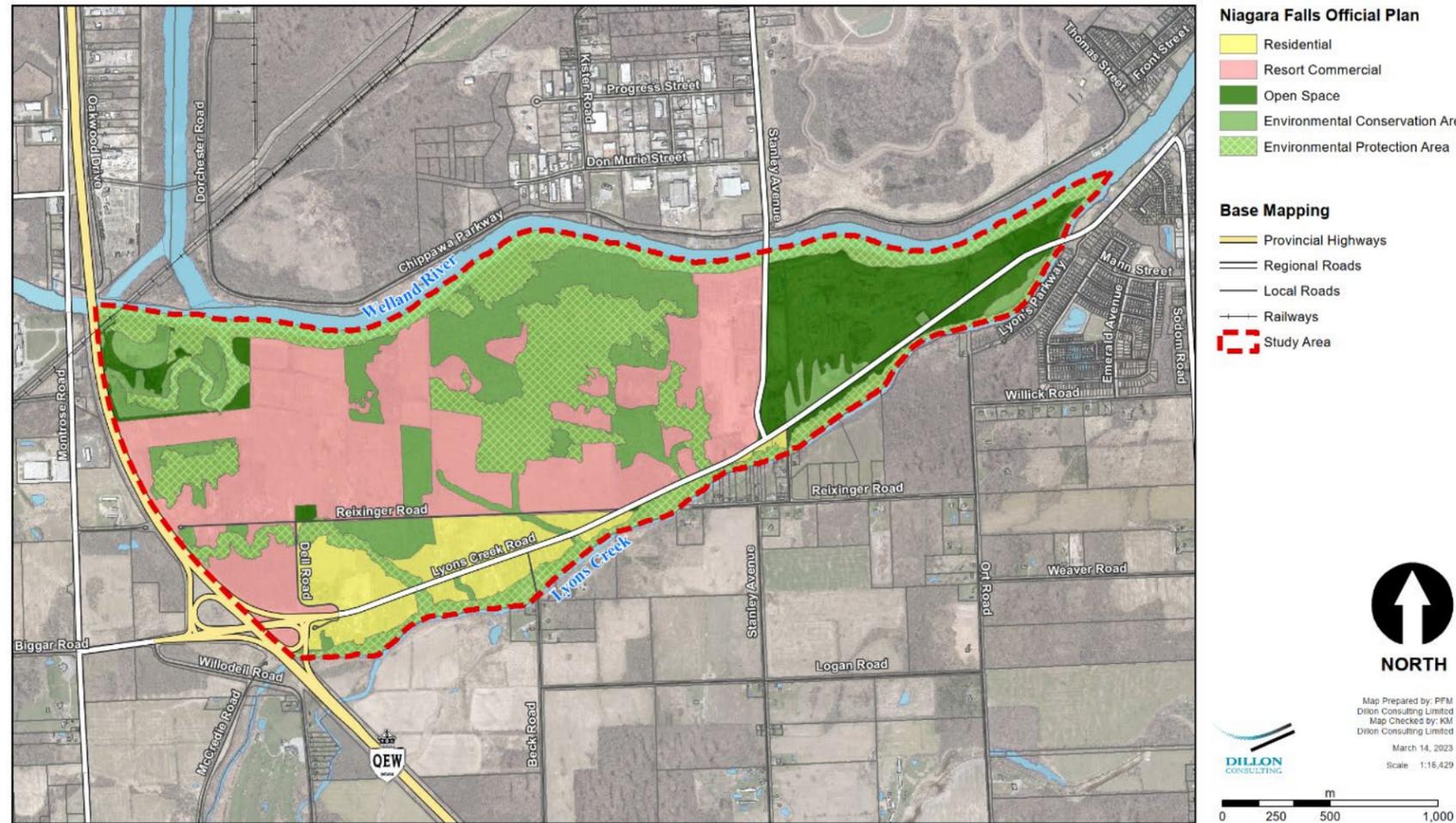
Figure 5 identifies current uses in Grassy Brook, which include:

- The Niagara Boating club, accessed via Lyons Creek Road and located at the terminus of the Welland River and Lyons Creek;
- Church at the Falls, located on the east side of Stanley Avenue;
- Dell Cemetery, located on the north side of Rexinger Road;
- Baden-Powell (Grassy Brook Park), located in the far northwest corner of the Study Area, proximate to the Welland River;
- A farming facility adjacent to Stanley Avenue;
- Oak Lands Golf Course, located on the east side of Stanley Avenue;
- King Waldorf Campground, located on the west side of Stanley Avenue;
- Agricultural operations along the north side of Rexinger Road
- Various low-density residential uses generally concentrated on the south side of Rexinger Road and scattered throughout the area; and,
- Industrial uses along the north side of Rexinger Road, including a concrete company, proline repair centre and warehouses (which may or may not be operational).

Existing trail connections are present near the North West portion of the study area providing recreational opportunities for residents and visitors.

As noted previously, it is expected that a number of these existing uses will cease to exist and change over time to allow for new, coordinated development to occur. It is expected that existing agricultural operations and other existing uses on the north side of Rexinger Road will redevelop to include the new wastewater treatment plant and provide prestige industrial uses, while residential and commercial uses may develop on the south side of Rexinger Road, depending on outcomes of the compatibility study; Stanley Avenue may provide opportunities for locally serving commercial uses to support future residents who will one day live where the Oak Lands Golf Course currently exists. Existing uses, such as the boating club will remain, to continue to provide access to the surrounding water network. Neighborhood nodes, gateways, parks and trails may also be identified to address the needs of current and future residents and employees.

Figure 6: Existing Official Plan Designations

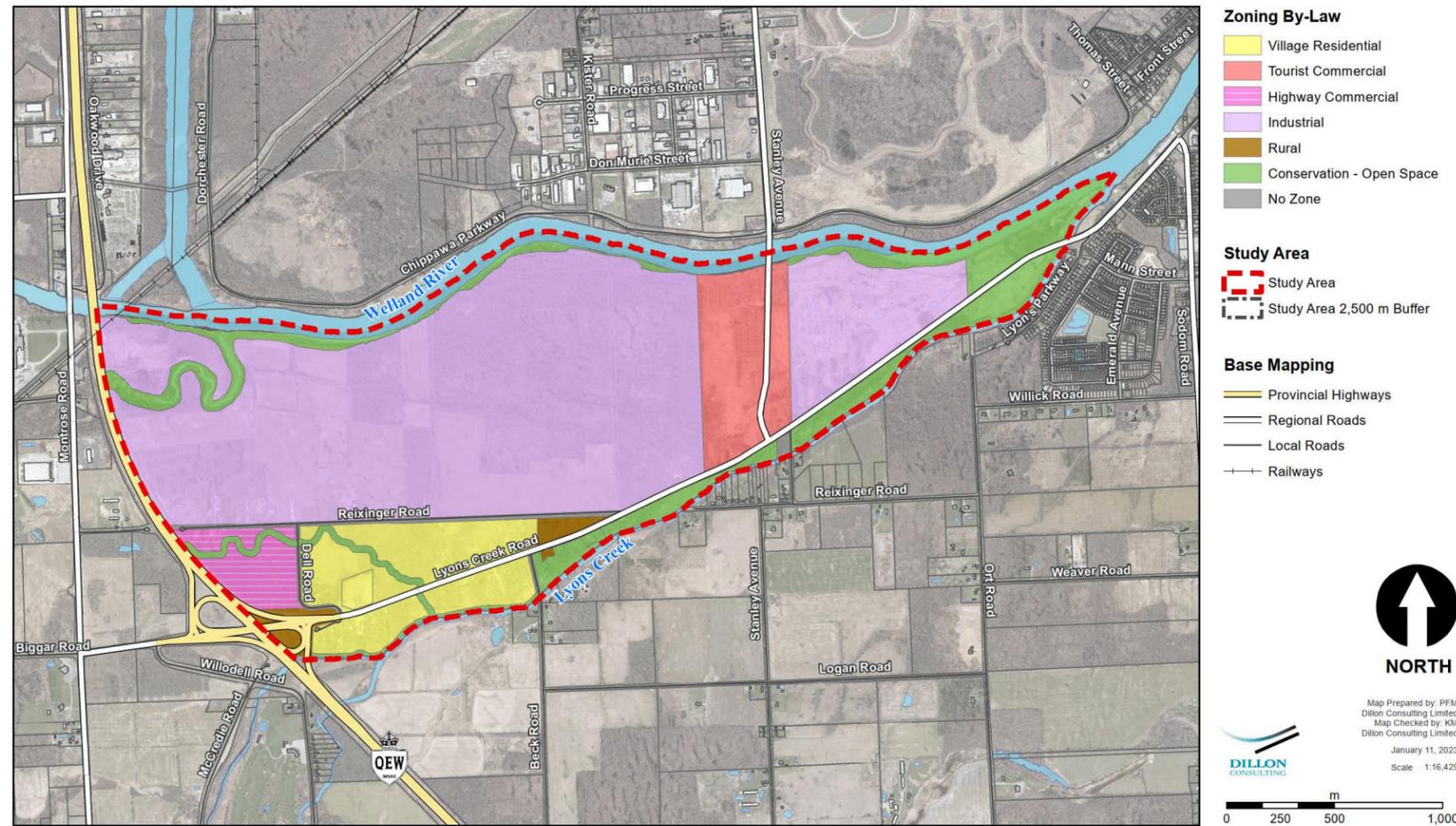


The Secondary Plan Process represents an opportunity to determine the most appropriate land uses for this area based on technical analysis, land use planning principles and public input. The Secondary Plan must ensure the appropriate Employment Area delineations and designations are included; and, will also need to incorporate an associated policy framework that implements other applicable targets and policies of the Regional Official Plan for the local context. It will also need to delineate environmental areas in accordance with the outcomes of the Subwatershed Study, determine where residential and commercial uses can be permitted and identify open space areas and active transportation connections.

Schedule A of the Official Plan identifies the various land use designations that apply throughout the City. The Official Plan describes the planned function, permitted uses and land use policies that apply to each designation. These are intended to ensure that the City develops as a complete community that provides designated land able to meet the residential, commercial, employment, open space, institutional, and other needs of current and future residents. In accordance with the current Official Plan and Schedule A, there are a number of land use designations that apply within the Study Area, including Residential, Resort Commercial, Open Space, Environmental Conservation Area and Environmental Protection Area (**Figure 6**).

Since the time the current Official Plan came into effect, as noted previously, a number of changes have occurred at the Provincial and Regional levels that will require reconsideration of the land use designations within the Grassy Brook Secondary Plan. Some are for the purposes of conformity, while others will support the integration of the Grassy Brook Area with surrounding areas, including the Grand Niagara Secondary Plan Area, the Montrose Road Industrial Area and the Stanley Avenue Business Park; and, the development of Grassy Brook as a complete community. Ultimately, the land use planning framework that applies to Grassy Brook today will change.

Figure 7: Existing Zoning



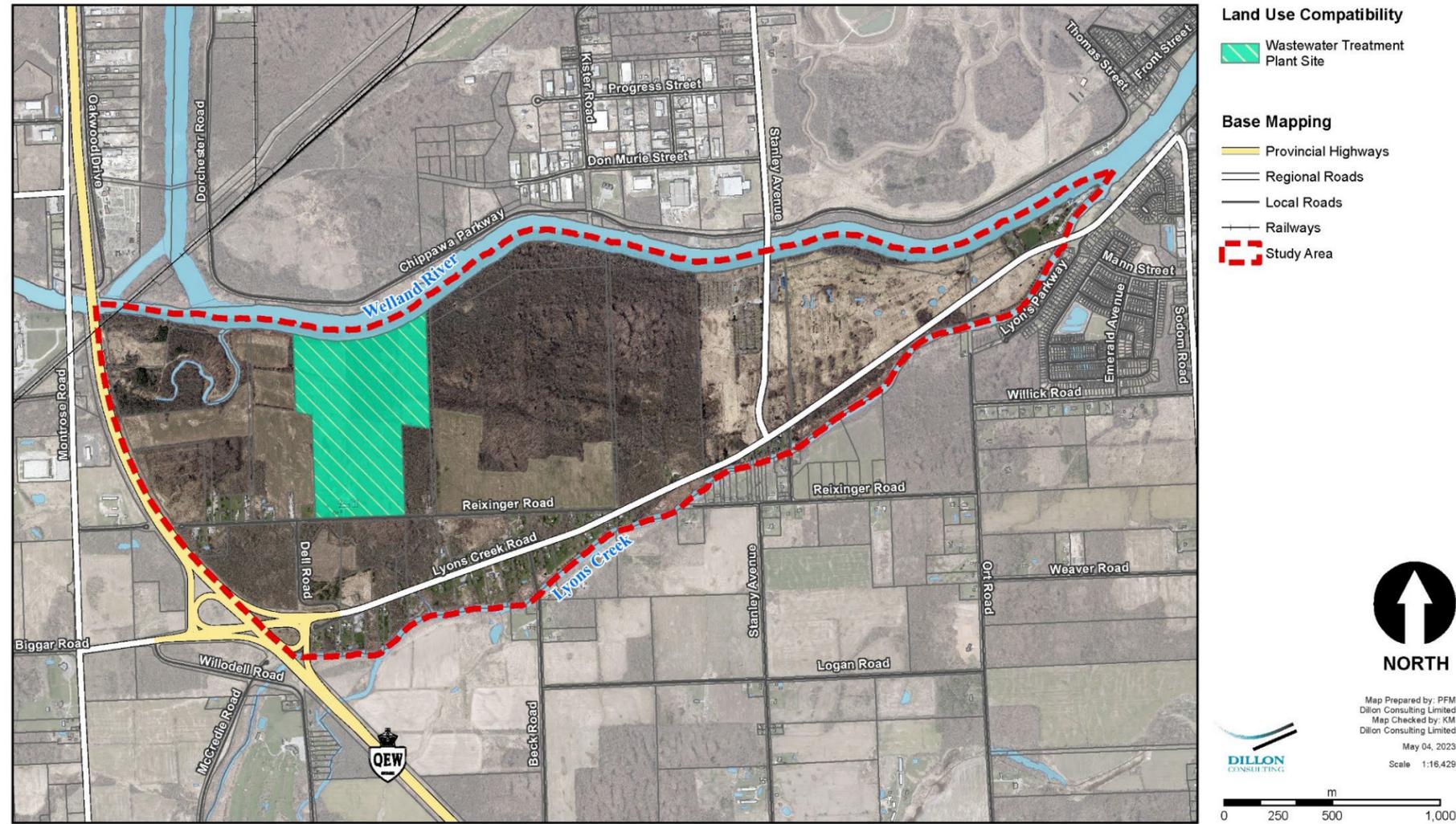
The City of Niagara Falls has four Zoning By-laws that apply to various areas of the City. Chippawa and the lands north of the Welland River are regulated by Zoning By-law Number 79-200. The portion of the City previously part of Willoughby Township is regulated by Zoning By-law Number 395 (1966). The former area of Crowland Township is regulated by Zoning By-law Number 1538 (1958) and the Humberstone area is regulated by Zoning By-law Number 70-69. The Secondary Plan Area is within the limits of the Zoning By-law Number 395 (Township of Willoughby). The outcomes of the Secondary Plan process will apply new land use designations in the Grassy Brook Area, which will be implemented through an Official Plan Amendment. New corresponding zoning regulations will be implemented through a future Zoning By-law Amendment process following the approval of the Grassy Brook Secondary Plan.

The following zones apply throughout the Study Area (Figure 7):

- Industrial, on the north side of Rexinger Road bound by the Welland River and Lyons Creek between the Queen Elizabeth Way and Stanley Avenue, excluding the property located at Lyons Creek and Stanley Avenue (currently King Waldorf Campground). Current zoning permits establishments related to manufacturing, converting, or assembling products, commercial buildings and facilities supporting industrial land uses, including offices necessary to service manufacturing and industrial areas;
- Highway Commercial, on the south side of Rexinger Road bound by the Queen Elizabeth Way and Dell Road. Current zoning permits sports arenas, auto service centers and sales, places of worship, offices, various commercial uses, tourist establishments, and restaurants;
- Village Residential, on the south side of Rexinger Road and east of Dell Road. Current zoning permits single detached dwellings, schools, educational and medical institutions, libraries, and recreational and open spaces for community activities;
- Tourist Commercial along both the east and west sides of Stanley Avenue. Current zoning permits various commercial uses including banks, galleries, various shops and stores, places of entertainment and other recreational uses;
- Industrial on the east side of Stanley Avenue, where the Oak Lands Golf Course presently exists; and,
- Conservation- Open Space at the terminus of Lyons Creek and the Welland River.

In addition to these predominant zones, there are small pockets of land that carry a rural zone. Permitted uses within this classification include agricultural uses and establishments.

Figure 8: Land Use Compatibility and Wastewater Treatment Facility



In Phase 2 of the project, a land use compatibility assessment will be completed. This will require confirmation by the Region of the precise building footprint for the WWTP.

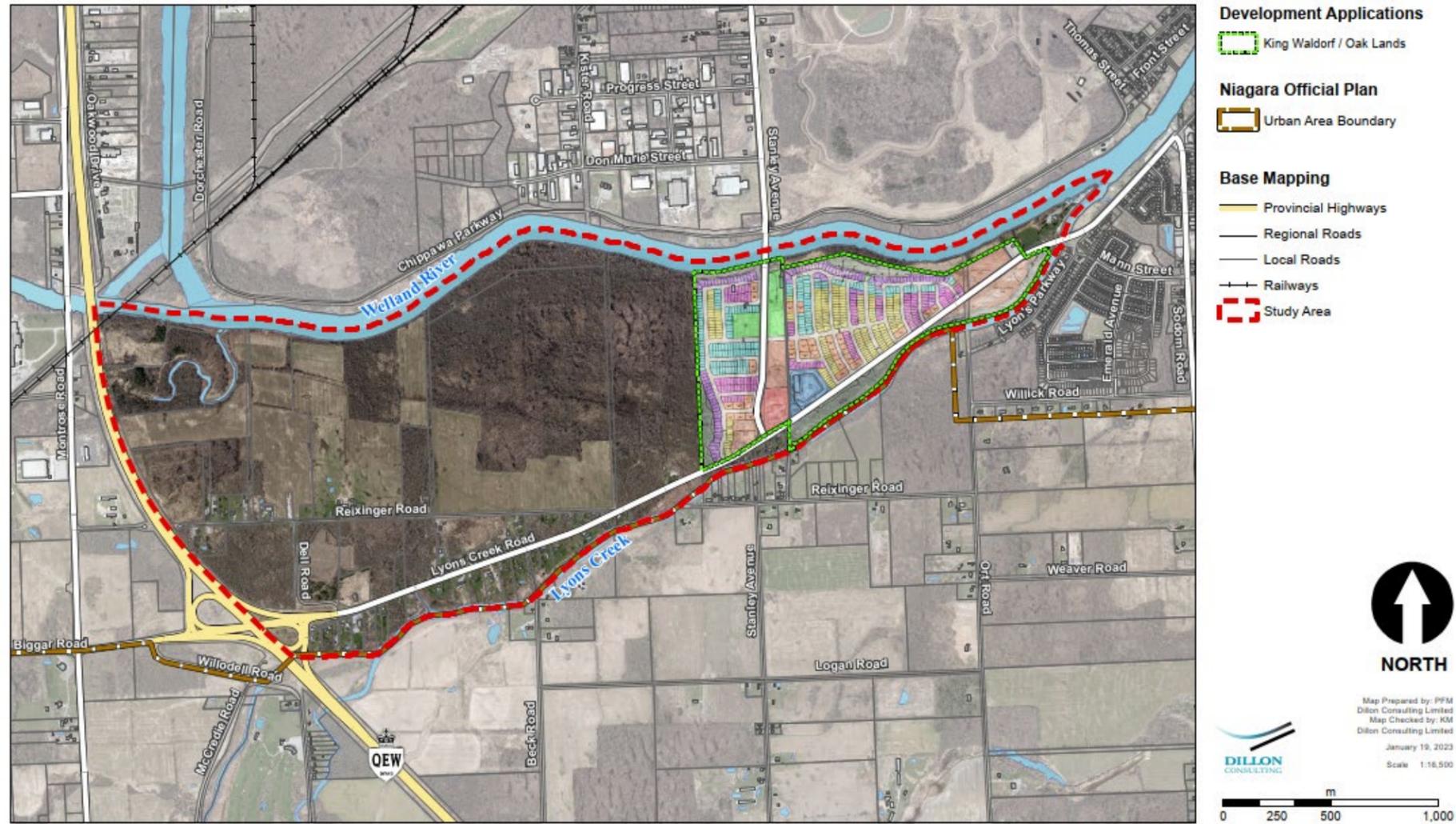
This assessment will be informed by the overarching acts, policies, regulations, and guidelines which relate to land use compatibility for noise, vibration, odour, dust, and general air quality contaminants.

The outcomes of the assessment will allow the project team to determine appropriate locations for non-employment land use designations within the Secondary Plan area to protect the long-term viability of the WWTP and mitigate impacts on sensitive land uses. It will also inform the development of a policy framework in the Secondary Plan for the completion of detailed Land Use Compatibility Assessments that will need to be completed by development proponents and submitted required to be submitted as part of a development proposal.

In order to accommodate the forecast growth across the Region, a number of upgrades to regional infrastructure were identified through the Region’s comprehensive growth management work, specifically the Master Servicing Plan. This work identified that a new Wastewater Treatment Plant (WWTP) would need to be constructed to service the anticipated growth in the South Niagara Falls and the surrounding wastewater systems in Thorold and Welland. A Class Environmental Assessment (Class EA) process was initiated by the Region to determine the preferred location for the new WWTP in 2019. The Class EA was completed in 2022, with the confirmed location being in the Grassy Brook Area (**Figure 8**).

The WWTP is considered a major facility under provincial definitions. Such facilities are required to be planned to avoid or minimize and mitigate potential adverse effects from odour, noise and other contaminants, minimize risk to public health and safety, and to ensure the long-term operational and economic viability of major facilities.

Figure 9: Active Development Applications



There is an active development application submitted by a private landowner for lands located within the Secondary Plan area (**Figure 9**). The development application consists of an Official Plan Amendment (OPA), which proposes to re-designate the lands; and, a Zoning By-law Amendment (ZBA) to re-zone the lands to permit urban residential and commercial uses. These amendments would facilitate a mixed-use development consisting of 1,344 residential units, a commercial block, and blocks for parkland and trails, environmental protection and stormwater management. The City and the applicant held open house meetings to obtain public input on the applications as part of the Planning Act process for the development application. The Secondary Plan process will not provide specific recommendations to Council regarding approvals on active development applications.

The Secondary Plan will establish the framework under which planning staff can assess future development applications in the area to ensure that development proposals are in alignment with the long-term vision for Grassy Brook.

Understanding developer interests and long-term development aspirations of landowners is important. The work plan for the Secondary Plan project includes opportunities for targeted interviews with landowners that will be used as one piece of input into the development of land use options in Phase 2 of the project.

The Secondary Plan process allows an opportunity to consider how best to balance private landowner interests and development intents with other elements including:

- The established vision, goals and objectives for the Secondary Plan;
- The technical findings and recommendations of the subwatershed study and archeological study; and,
- Planning principles, policies, and regulations that cannot change and must be taken as givens (for example, environmental mapping, regionally designated employment areas, and land use compatibility).

There is a small trail network within the Baden-Powell Park / Welland River East Wetland Complex, in the northwest corner of the study area. The study area also has two standalone trails: one trail extends south from Chippawa Parkway (immediately north of study area) and along Stanley Avenue, which stops roughly halfway between Chippawa Parkway and Lyons Creek Road. The other trail extends southwest along Lyons Creek Road, which stops roughly halfway between the intersections of (1) Lyons Creek Road and the study area boundary and (2) Lyons Creek Road and Stanley Avenue.

At present, the trail network is not extensive, and it is disconnected (i.e., broken/discontinuous). To allow pedestrians to permeate the study area without having to rely on sidewalks along public roads, the Secondary Plan should consider incorporating a trail network that provides connecting trails that would link to the existing trails in the surrounding area (**Figure 10**).

There is an opportunity to establish a more extensive, accessible active transportation (AT) network to connect the study area's existing trails, and this network could include multi-use trails along Lyons Creek and Welland River. Pedestrian connections/pathways could be appropriately located and adequately dispersed to connect land uses to the potential future AT network. Further, as new roadways are developed to facilitate vehicular movement in the area, sidewalks (on both sides of the road, where appropriate) could be implemented to connect to the wider AT network.

With respect to vehicular mobility and connectivity, there is a north-south connection across Welland River (Stanley Avenue), as well as an east-west connection (Lyons Creek Road). Queen Elizabeth Way (QEW) also runs along the western edge of the study area.

Given the extent of the Provincially Significant Wetlands (PSWs) in the study area, there are minimal opportunities to create more east-west vehicular connections. The completion of the Subwatershed Study will provide the project team with additional details as to how to best foster connectivity. With road allowances already in place, there is an opportunity to establish more north-south vehicular connections to surrounding neighbourhoods outside of the study area. The proximity of the study area to the QEW also offers an opportunity for its new roadways to facilitate the movement of goods and services to surrounding neighbourhoods and the Region as a whole to support employment opportunities and economic development. These new roadways could be designed using a Complete Streets approach, where multimodal travel would be encouraged, and where placemaking may be fostered to support pedestrian activity in the public realm.

**Figure 10:
Mobility and
Connectivity**

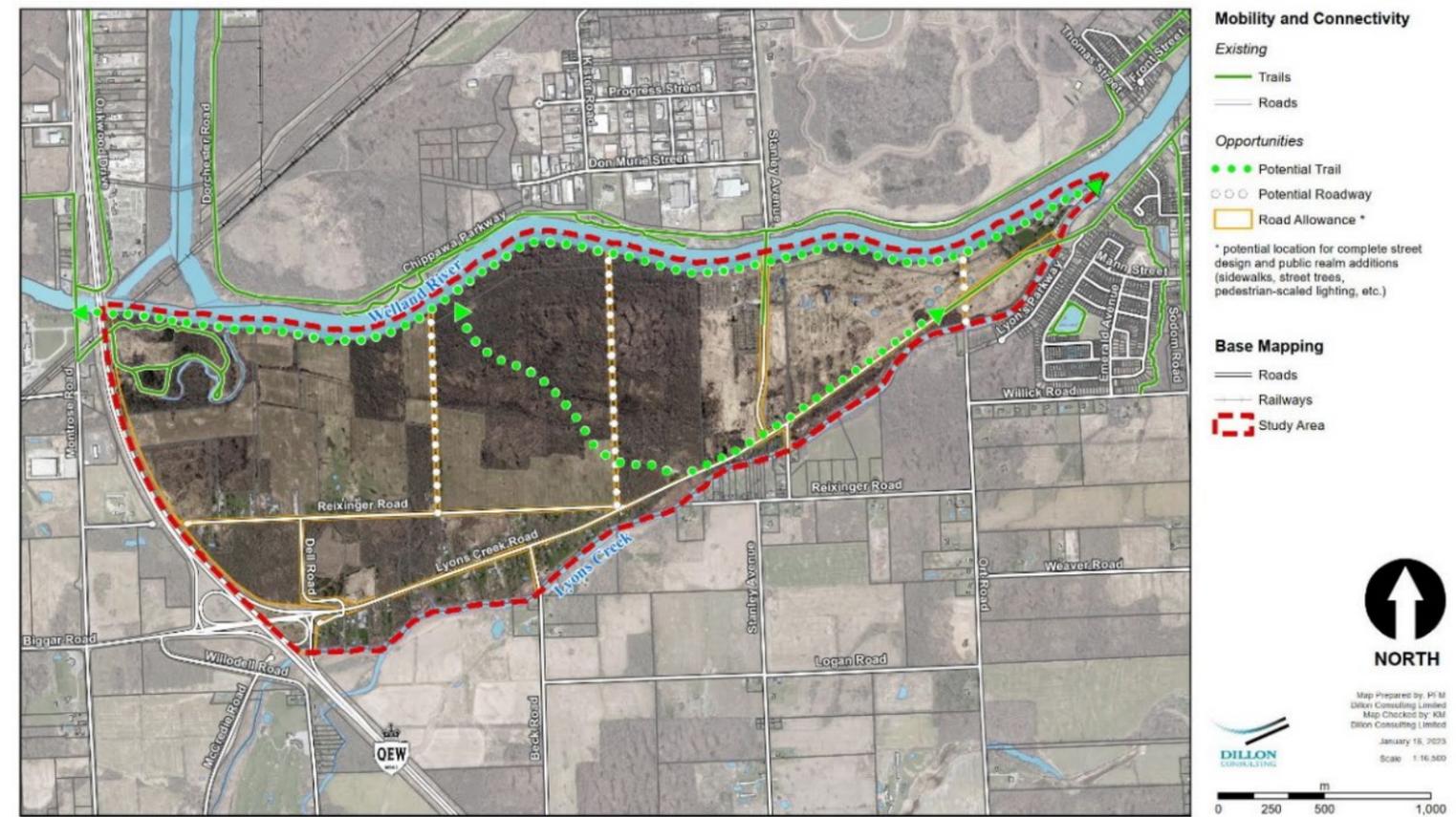
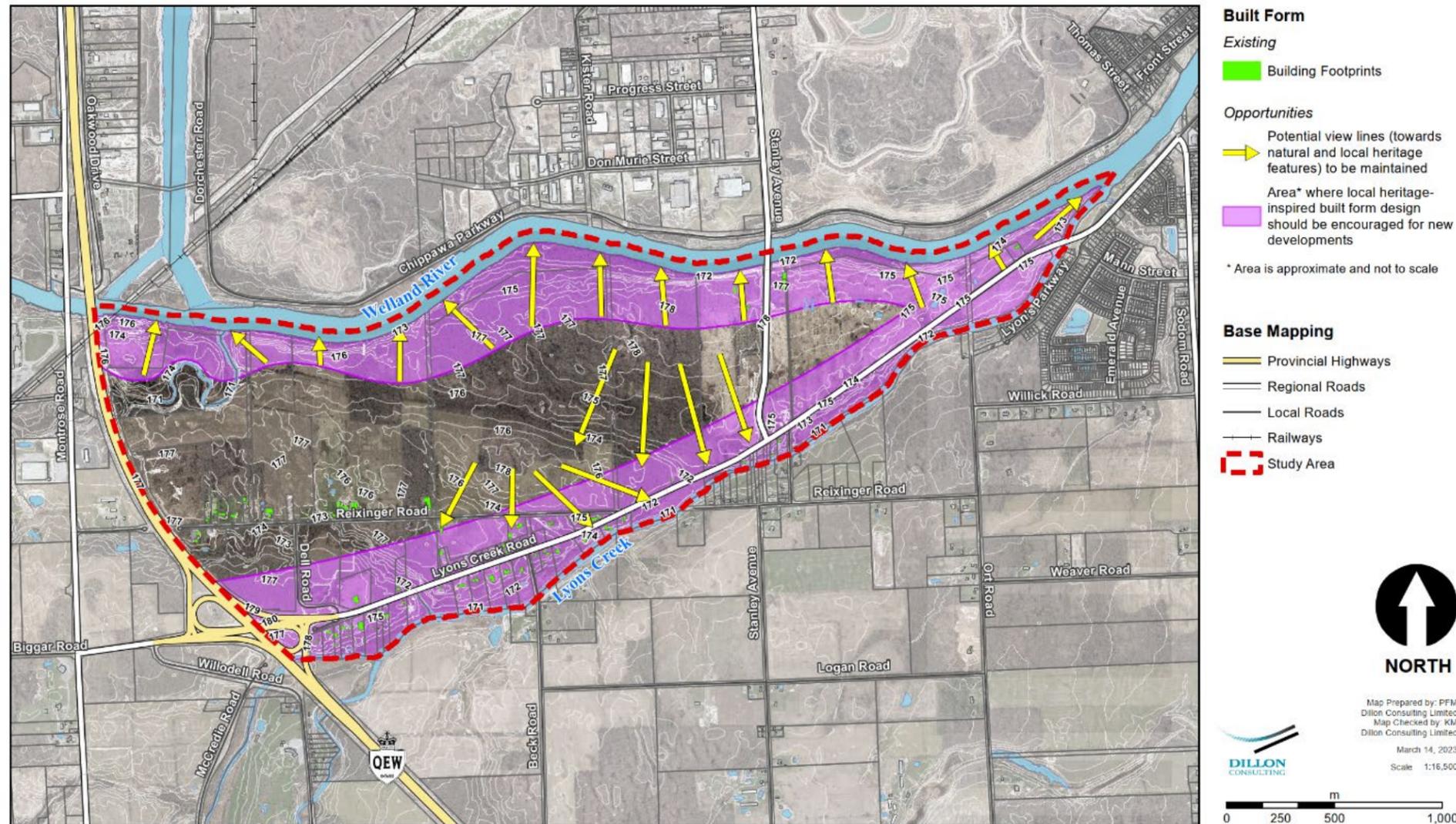


Figure 11: Built Form



Within the context of Grassy Brook, urban design policies and guidelines could encourage or require developers of lands along Welland River and Lyons Creek to establish a direct relationship between their proposed developments and the river (Figure 11). There is an opportunity for urban design policies and guidelines that encourage the built form elements (orientation, scale, massing, etc.) of urban design to respond to all natural / geographic features within the study area. For example: rear or front façades should face the watercourse and use materials that do not compromise views from the interior of the building; and buildings should be oriented to align with the natural topography of the land, where feasible, while helping to maintain sightlines to the watercourse from the public realm.

With respect to built form, buildings are unevenly dispersed in different locations within the study area. There are buildings along the north side of Reixinger Road, and low density residential buildings are concentrated along Lyons Creek Road. There are some buildings (including a place of worship) on Stanley Avenue near Welland River, and there is a concentration of buildings associated with the Niagara Boating Club in the northeast corner of the study area. It is expected that these uses will change over time, and that new development will occur in accordance with the vision, goals, and policies of the future Grassy Brook Secondary Plan.

At present, the urban design policies in the City’s Official Plan do not promote designing built form to respond to the local heritage context. There is, therefore, an opportunity to refine these policies at the Secondary Plan level to introduce context-sensitive urban design policies and guidelines for Grassy Brook that will encourage developers to speak to local heritage and history through built form and site design (the City may also want to consider incorporating this on a City-wide basis, as part of the development of a New Official Plan in the future).

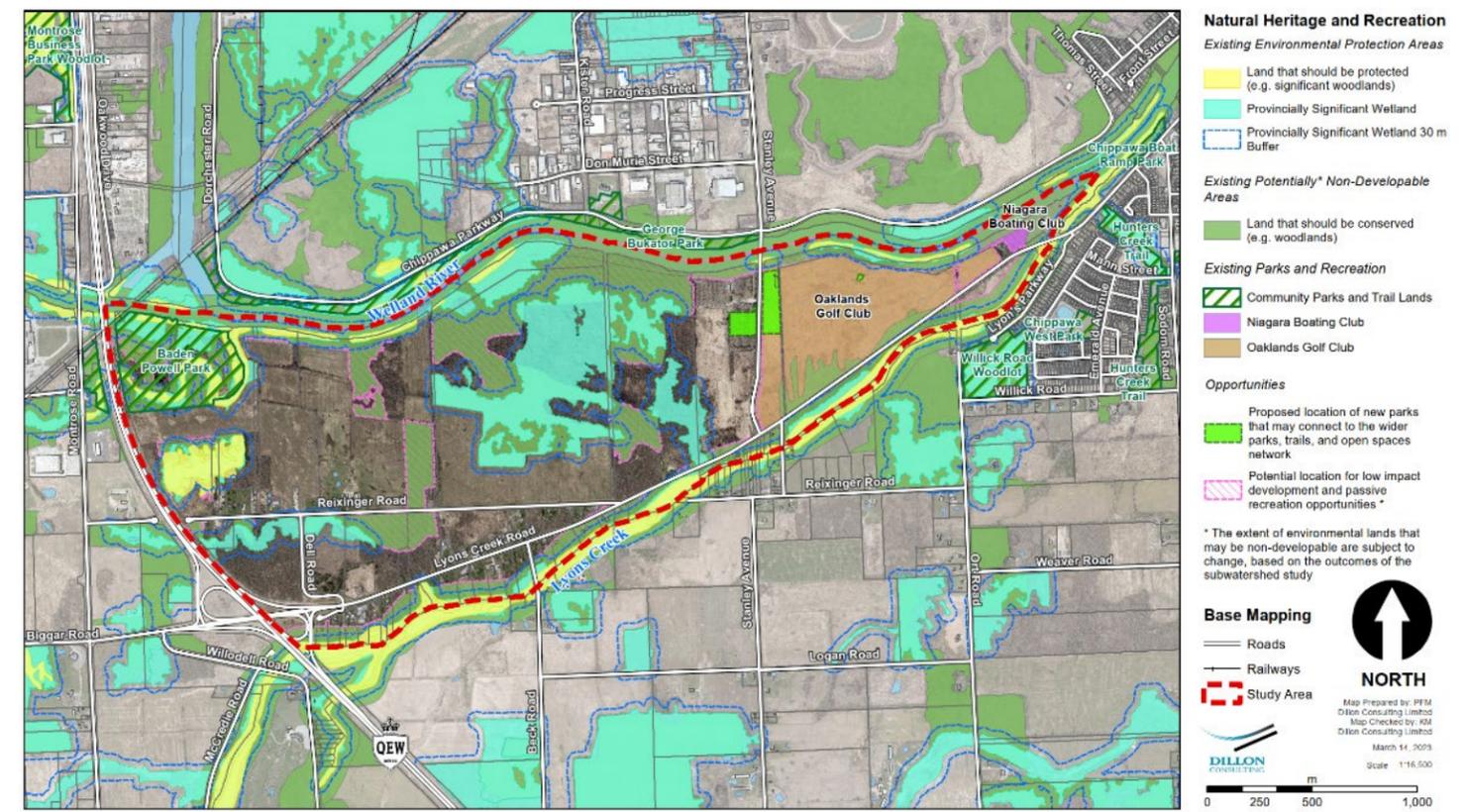
With respect to environmental lands¹, the study area has no Areas of Natural and Scientific Interest (ANSI), but 230.6 ha (46.6%) of the 494.4-ha study area consists of lands that should be conserved or protected, including Significant Woodlands, Provincially Significant Wetlands, and various other environmental features that are to be identified through the environmental studies of the GBSP. These environmental lands are scattered throughout, however the Lyons Creek Wetland Complex, in combination with existing environmental conservation and protection areas, respectively, occupies a large portion of the centre of the study area. Environmental conservation areas, while scattered throughout the study area, occupy the entire coastlines of both the Welland River and Lyons Creek (**Figure 12**).

With respect to parks and recreation, the Oaklands Golf Club occupies the eastern third of the study area, and the Niagara Boating Club is at its northeast tip. There is also one major park (Baden-Powell Park) within the Welland River East Wetland Complex at the northwest corner of the study area, which has an existing trail network within it.

As development or site alteration is not permitted as of right in Provincially Significant Wetlands or other existing environmental protection areas, setback requirements would be impacted for new developments that would abut these environmental lands. The City does permit small scale, passive recreational uses and accessory uses (e.g., trails, boardwalks, footbridges, fences, docks, picnic facilities) on these lands, so long as they do not interfere with the natural heritage features or their functions. There is, therefore, an opportunity to establish low-impact, passive recreational uses on environmental lands within the study area, which could be equipped with pedestrian amenities to support them (i.e., pedestrian-scaled lighting, benches, waste receptacles).

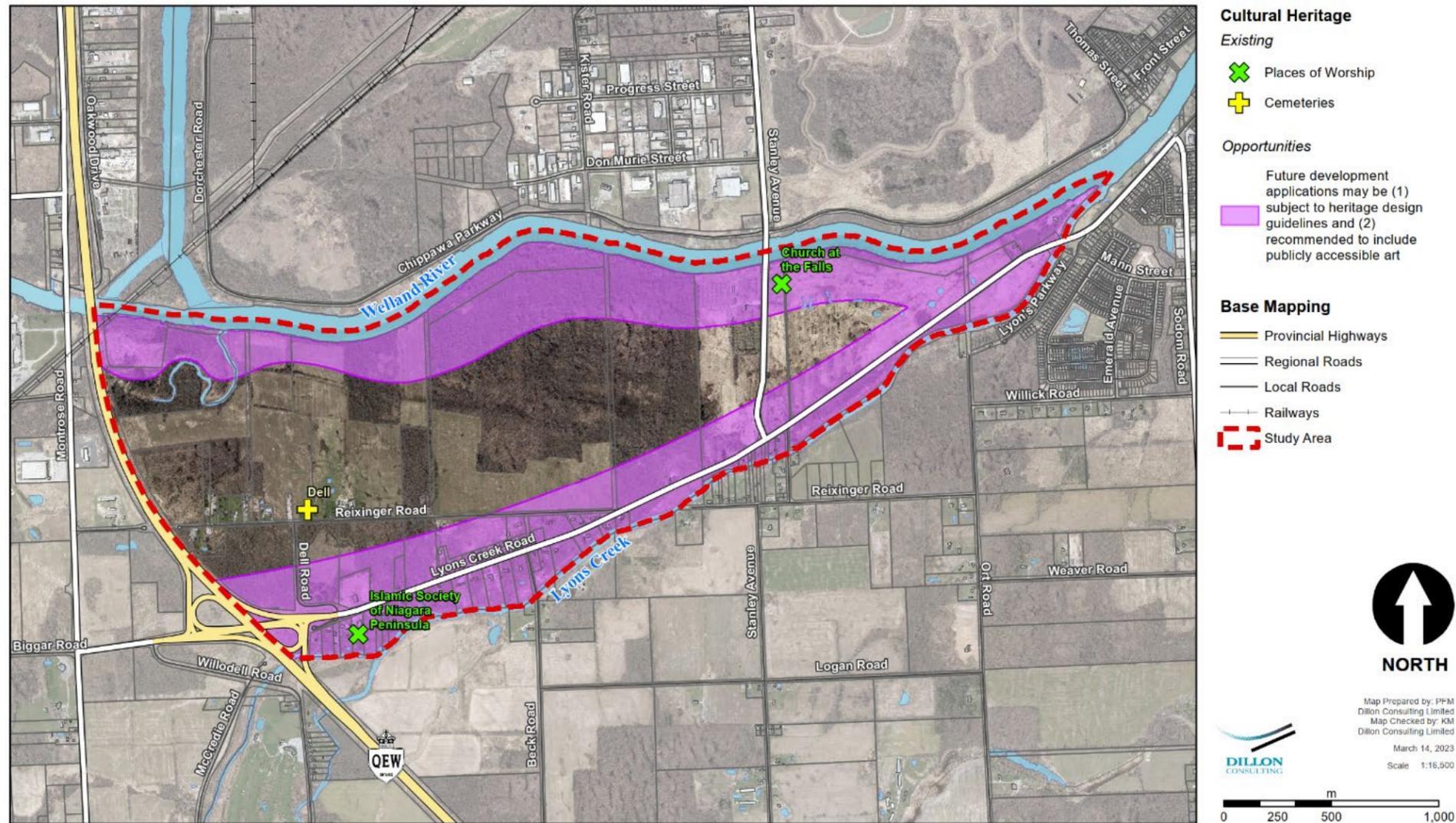
With respect to active recreational opportunities, a development application is in progress for land immediately west of Stanley Avenue and Oaklands Golf Club, and two parks are included in the concept plan for the proposed development. As the development is anticipated to support single- and multi-unit residential uses, urban design guidelines could be drafted to ensure that future residents and visitors to this area feel comfortable and safe in using its publicly accessible parks and open spaces. For example, design guidelines could: (1) encourage a transition in built form (e.g., though setbacks and step-backs), to help mitigate shadowing on open spaces; (2) promote the inclusion of trails and pathways that would connect to the wider AT network; and (3) encourage the natural / passive surveillance of parks, open spaces, and trails, through built form design (e.g., designing windows, porches, decks, balconies, etc. to allow residents to have “eyes on the park”).

Figure 12:
Heritage,
Parks, Open
Space, and
Recreation



1. It is important to note that the total area and distribution of environmental lands are preliminary and based on existing mapping; these lands are subject to change, as a result of this project’s Subwatershed Study.

Figure 13: Cultural Heritage

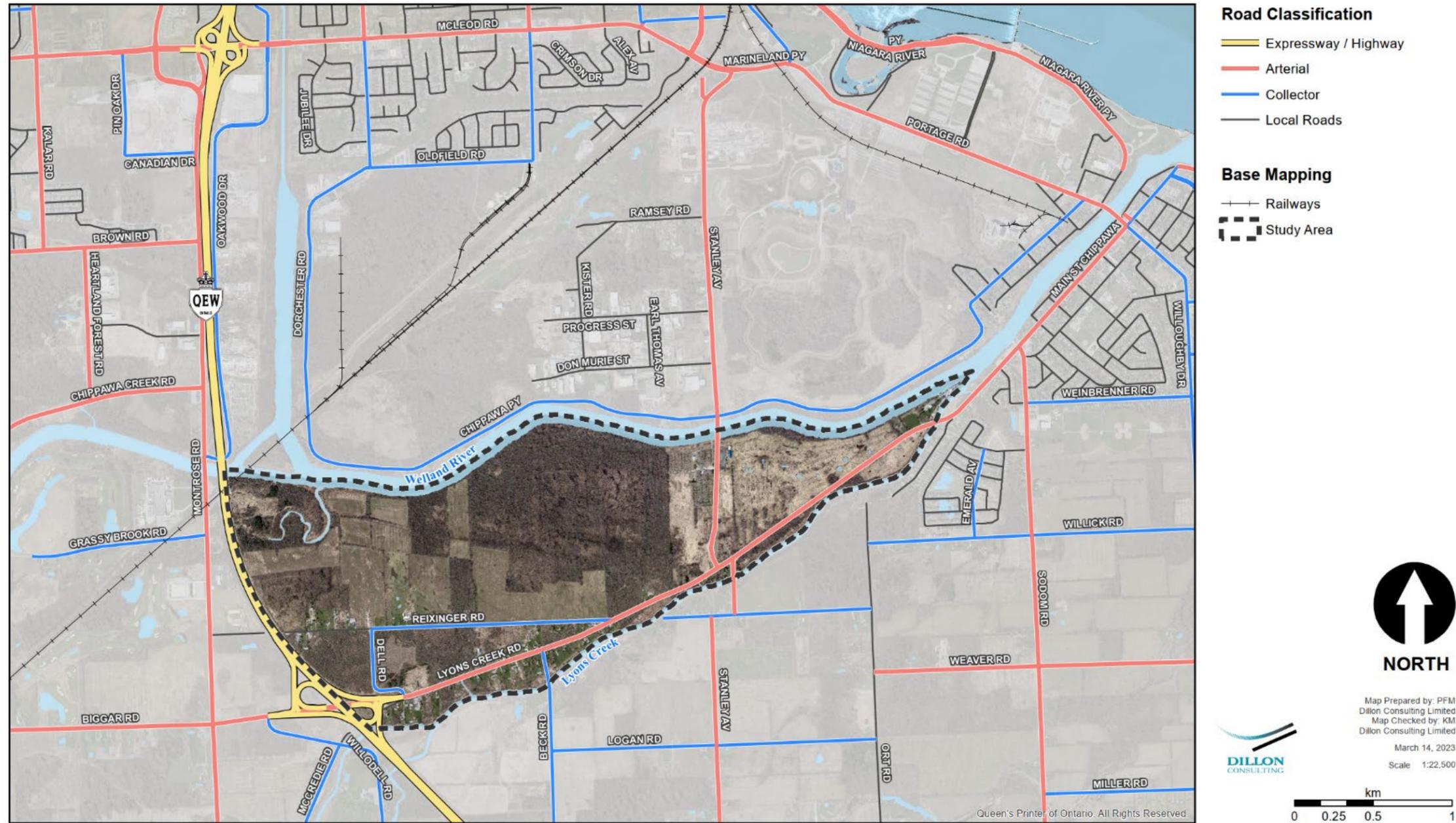


There is an opportunity to prepare heritage design guidelines that would help developers, particularly those who may develop properties along Welland River or Lyons Creek, to design built form in a way that adequately responds to the local history of the area. Further, while archaeological studies may already be listed as a required study for a site plan application, there is an opportunity to incorporate the findings of these studies into a set of heritage design guidelines that would be applicable to those who wish to develop properties along these watercourses; an archaeological study may uncover historical remnants of Indigenous communities who had originally lived off of this land, and these remnants or artifacts may be helpful in informing area-specific heritage design guidelines.

With respect to cultural heritage, there are no tourism districts within the study area boundary, and properties that are listed or designated under the Ontario Heritage Act will be confirmed through the Cultural Heritage Assessment Report. The area does, however, have two watercourses (Welland River; Lyons Creek) that are physical features of the local indigenous heritage context (**Figure 13**).

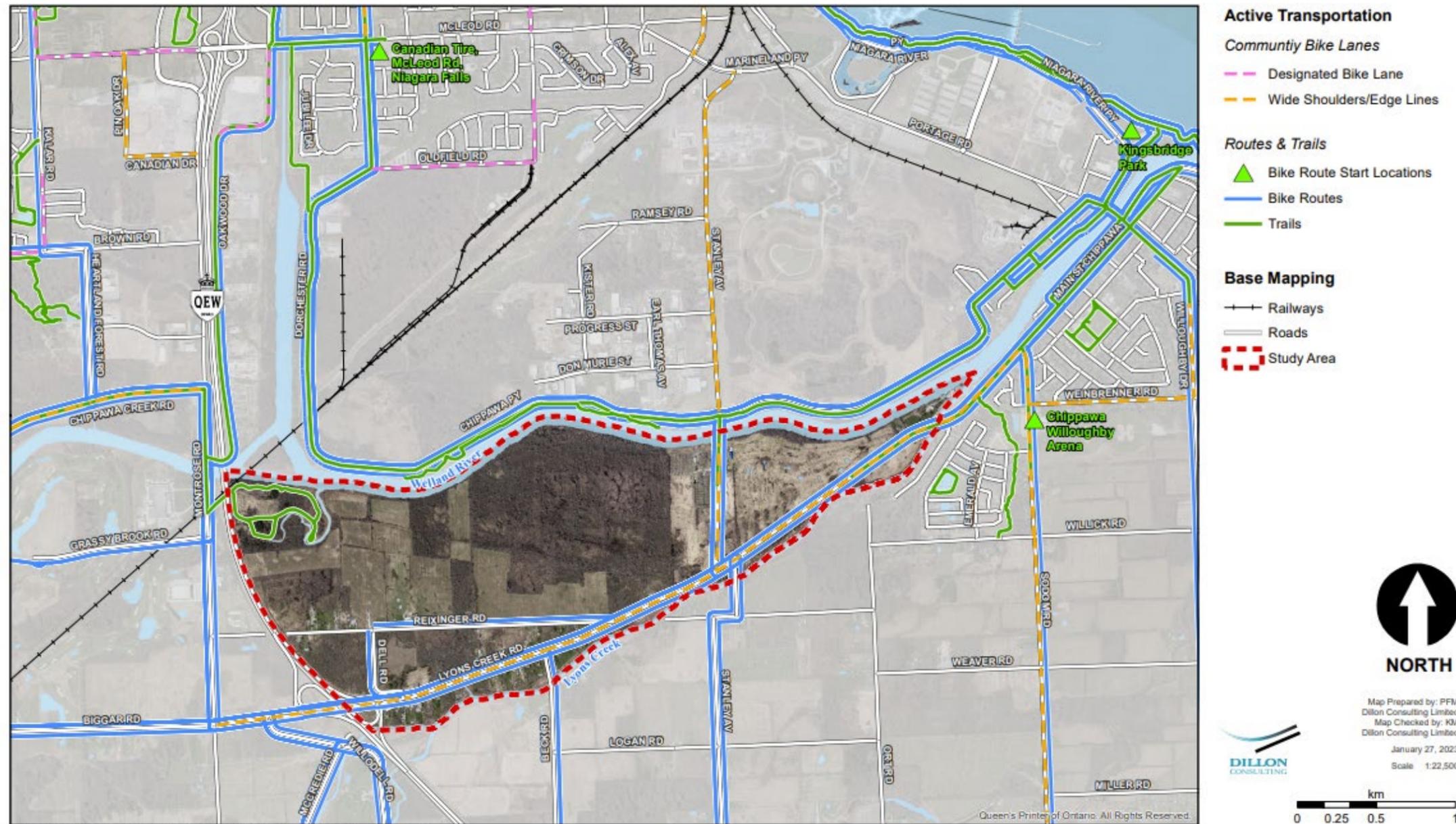
A municipal program may also be created to encourage joint partnerships with the private sector in displaying public art that responds to the local heritage history. Such public art could be installed on specific properties along the Welland River, in key locations that may be within view of future trails, pathways, or accessible open spaces along a watercourse.

Figure 14: Existing Roadway Classification



With respect to existing road network and roadway classifications within the Grassy Brook Area, there are only a few existing roadways. There are two Regional arterial roads, Lyons Creek Road / Regional Road 47 which runs east/west and connects the study area to the QEW and Stanley Avenue / Regional Road 102 which runs north/south and connects the study area to the Niagara Falls. The Grassy Brook Area also contains two collector roads (Reixinger Road and Dell Road) which provide connections to the arterial road network for the handful of existing businesses and residents (Figure 14).

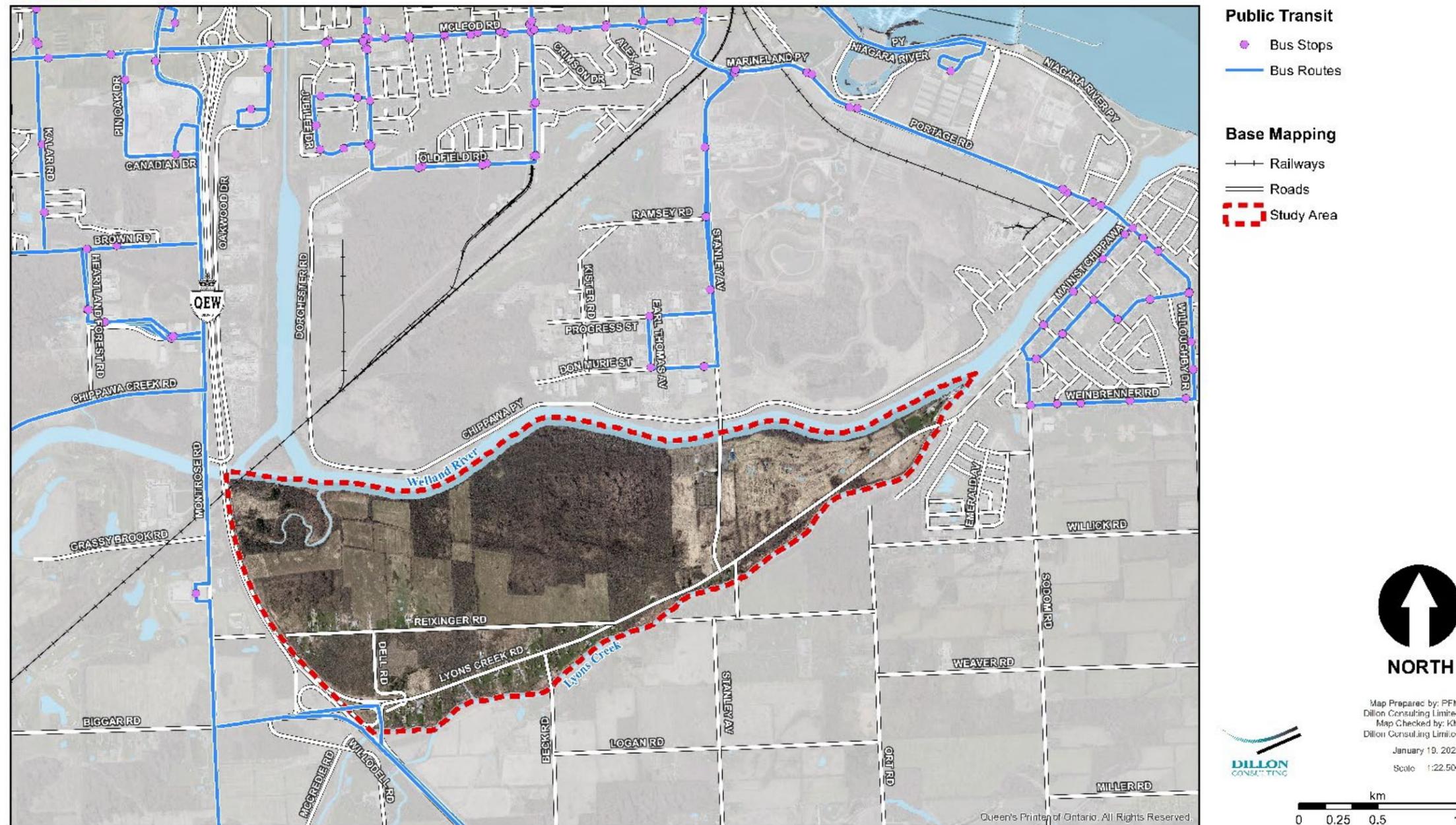
Figure 15: Active Transportation



While the Grassy Brook Area is currently far from suburban Niagara Falls, which will result in longer trip distances in the shorter-term, the future growth will allow for the expansion of the existing active transportation network. Planning processes should consider policy tools to encourage the development of All Ages and Abilities (AAA) facilities and introduce active transportation connections to existing trails in Baden-Powell (Grassy Brook) Park and along the Welland River (George Bukator Park)

With respect to existing active transportation network within the Grassy Brook Area, there are only a few existing active transportation facilities (**Figure 15**). There is a recreation trail within Baden-Powell (Grassy Brook) Park and both regional arterial roads, (Lyons Creek Road / Regional Road 47 and Stanley Avenue / Regional Road 102) have paved shoulders.

Figure 16: Existing Transit



With respect to existing transit network within the Grassy Brook Area, there is no existing transit service (**Figure 16**). However, there is local and regional transit service within close proximity of Grassy Brook that is servicing Chippawa and the industrial commercial area off Stanley Avenue just north of the Welland River.

While the Grassy Brook Area is currently far from suburban Niagara Falls, which will result in longer trip distances in the shorter-term, the future growth will allow for the expansion of the existing local and Regional transit networks over time. Improvements to Montrose Road and Lyon's Creek/QEW interchange are expected to be constructed in 2023 and 2024.

Niagara Falls Transportation Master Plan

A Transportation Master Plan is a comprehensive strategic planning document that defines policies, programs and infrastructure improvements required to address transportation and growth needs from today through to 2051.

The Transportation Master Plan provides a strategic vision for transportation in Niagara and ensures that future transportation needs are addressed through:

- Pedestrian and cycling facilities;
- Demand-responsive and conventional transit; and
- Integrated network of roads and highways for the movement of people and goods.

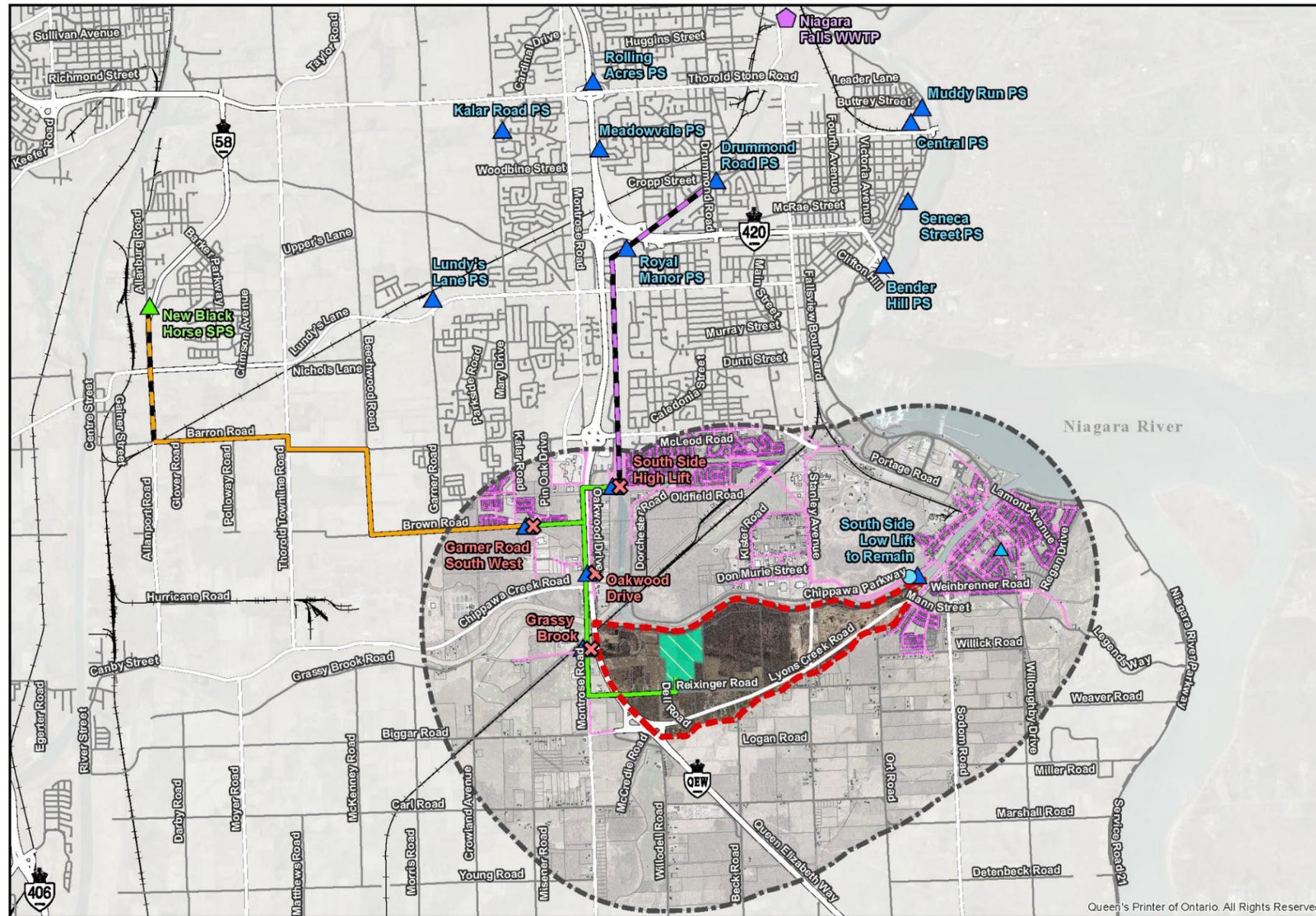
The Transportation Master Plan highlights key recommendations and supporting actions to meet the long-term transportation vision.

As part of the forthcoming Niagara Falls Transportation Master Plan (TMP) the Regional travel demand model will be updated. The Grassy Brook Secondary Plan will inform / be used as an input into the City's TMP. The TMP has a firm completion deadline of October 2023, as the recommended infrastructure plan is required for the City's Development Charges (DC) Review.

Dillon will provide Secondary Plan Area land use and network alternatives for the Region to use in the model. The Region will then provide model assignment metrics as required for the Grassy Brook Secondary Plan study. It is currently anticipated that the model tasks for the TMP Update would take place in late spring-early summer 2023.



Figure 17: Sanitary Servicing



Sanitary Servicing

Existing

- Wastewater Treatment Plant
- Regional Pumping Stations
- Municipal Pumping Stations
- South Side Low Lift to Remain
- Forcemain
- Sanitary Mains
- Sanitary Lateral

Validated Phase 2 Class EA Solution

- Opportunity to Decommission SPS
- New Black Horse SPS
- Montrose Trunk Sewer-Preferred Alignment
- Preferred Thorold Forcemain
- Preferred Thorold Gravity Sewer
- Wastewater Treatment Plant Site

Base Mapping

- Provincial Highways
- Regional Roads
- Local Roads
- Railways
- Study Area
- Study Area 2,500



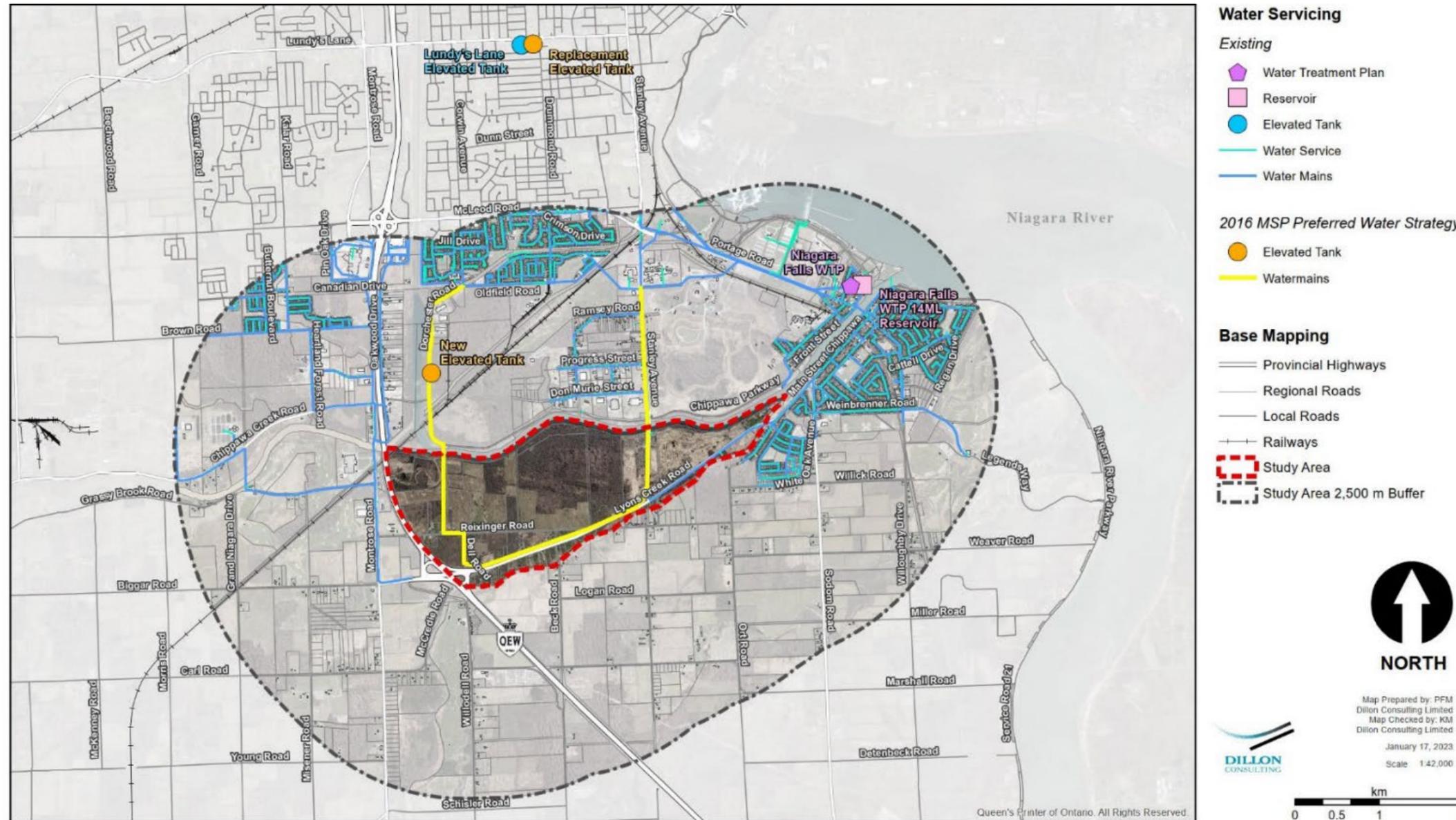
Map Prepared by: PFM
 Dillon Consulting Limited
 Map Checked by: KM
 Dillon Consulting Limited
 May 04, 2023
 Scale 1:57,000

Existing Wastewater System (Figure 17)

There is currently no wastewater servicing in the Study Area. Sanitary infrastructure is available adjacent to the study area as shown on the Existing Infrastructure Map. Flows from the adjacent gravity sewers are conveyed to pumping stations and ultimately to the existing Niagara Falls WWTP, through a pressurized system along Montrose Road and Stanley Avenue.

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Figure 18: Water Servicing

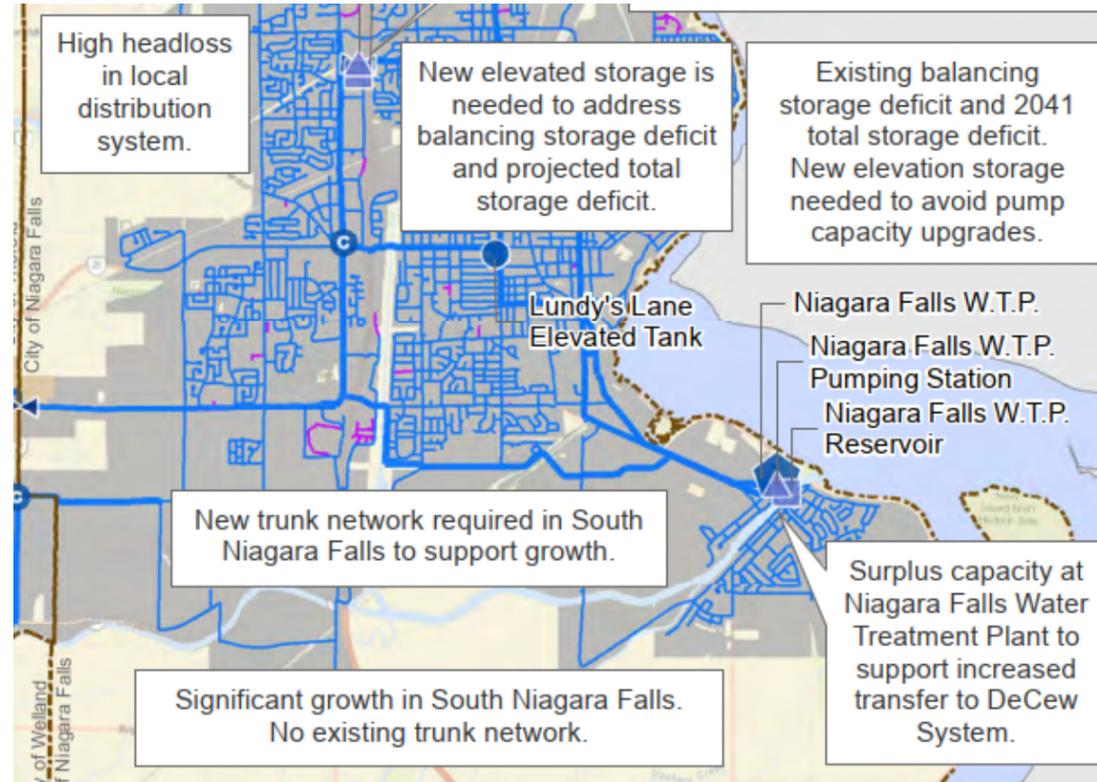


Existing Water System (Figure 18)

The Study Area has partial water servicing. A 300mm PVC watermain installed between 2009 and 2010 supplies Stanley Ave (from Lyon's Creek Rd. to Chippawa Parkway) and Lyons Creek Rd. (East of Stanley Avenue). Adjacent water infrastructure on Montrose Road is shown in the Existing Infrastructure Map.

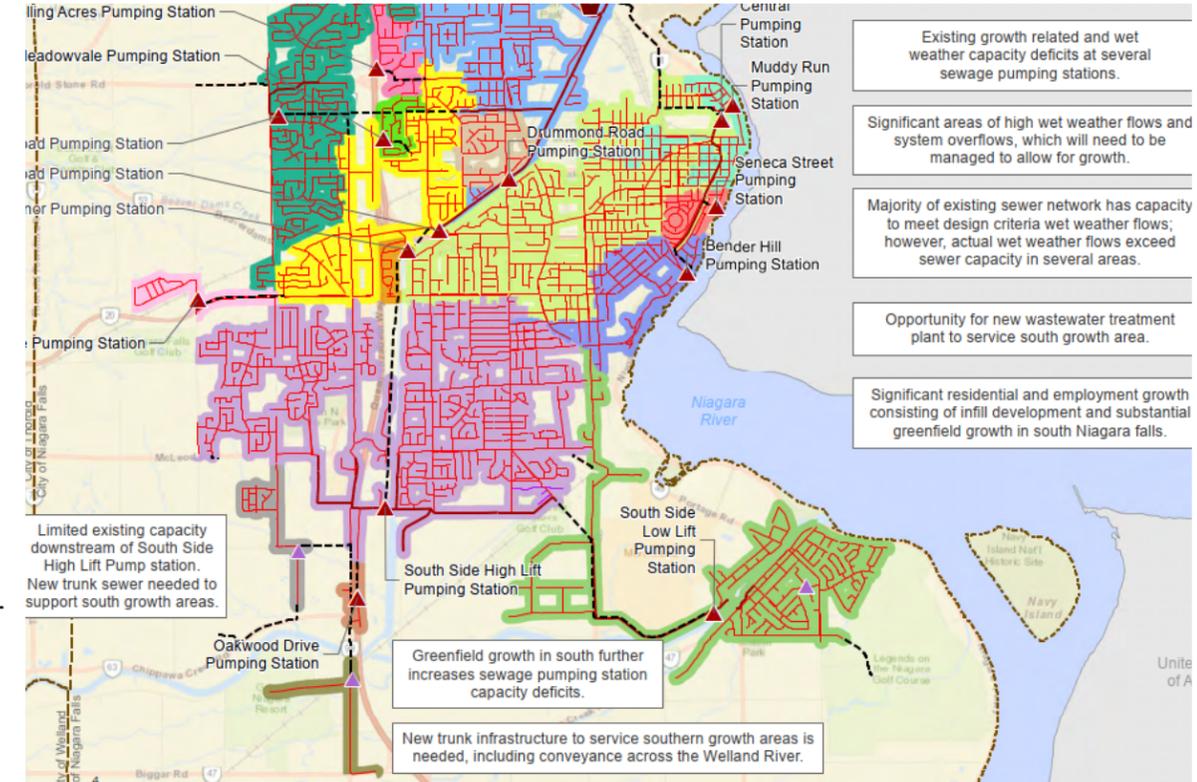
The City recently completed a new watermain from Stanley Ave to the new South Niagara Hospital as a required second feed. Although not shown on this map, it is understood that the City recently completed a new watermain from Stanley to the new South Niagara Hospital as a required second feed. The consultant team will ensure this information is incorporated into future phases of this study, including the Phasing Strategy, as appropriate.

**Figure 19:
Niagara Falls Water Systems**



2016 Water and Wastewater Master Servicing Plan Final Report, V3 – Figure 3.C.13 (May 2017)

**Figure 20:
Niagara Falls Water Systems**



2016 Water and Wastewater Master Servicing Plan Final Report, V4 – Figure 4.F.6 (June 2017)

2016 Master Servicing Plan (MSP)

In 2016, a MSP exercise was undertaken to look at servicing planned growth to 2041 planning horizon. This study identified important deficiencies and improvement opportunities upgrades that will directly impact the Grassy Brook Secondary Plan (GBSP) area. Key deficiencies are:

- Niagara Falls WWTP does not have capacity to meet growth demands and the increased wet weather flows
- Niagara Falls WTP has rated capacity to accommodate flows beyond the projected 2041 demand. However, the existing storage capacity is inferior to projected 2041 demand.

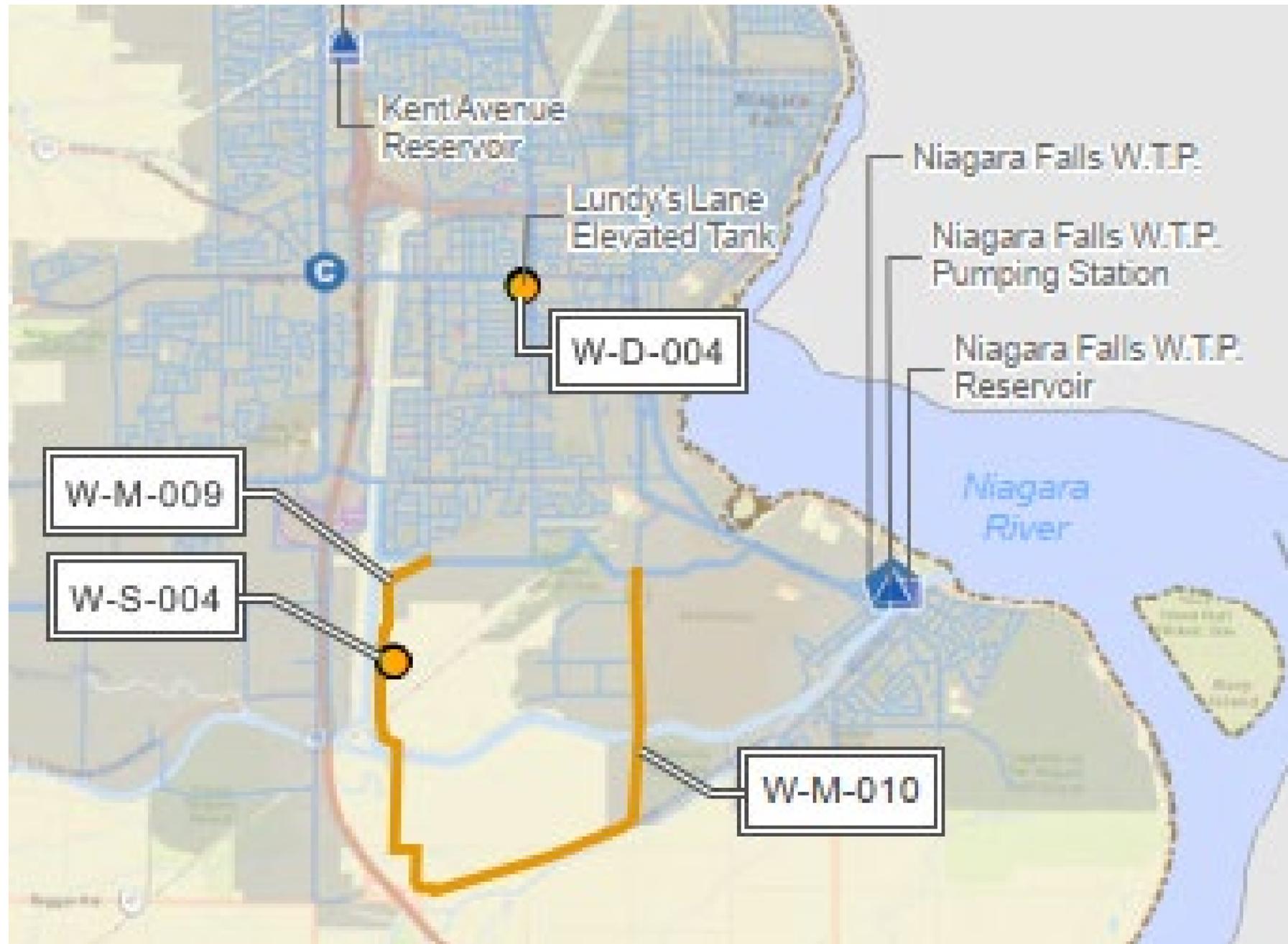
The MSP improvement recommendations resulted in recommendations for infrastructure upgrades (detailed in the next slides), which should address these and other infrastructure deficiencies in the GBSP area.

2021 Water and Wastewater Master Servicing Plan Update (MSPU)

The Region is currently working to update the 2016 MSP to identify and evaluate servicing options to support growth beyond the initial horizon, up to 2051. The update should assess the Niagara Falls Water Treatment Plant’s capacity for growth beyond 2041, and tailor our understanding of the system’s needs for the GBSP area. A 2021 Reserve Capacity Report was published in the MSPU’s webpage in April 2022, preliminary results continue to support the South Niagara Wastewater Study recommended upgrades.

The MSPU will host its second Public Information Centre (PIC) on January 18, 2023, completion is expected in Quarter 2 2023.

Figure 21: 2016 MSP Preferred Water Strategy



2016 MSP Preferred Water Strategy

The recommended system upgrades in and around the Study Area, which will support development in Niagara Falls, are shown in the figure to the left and summarized below:

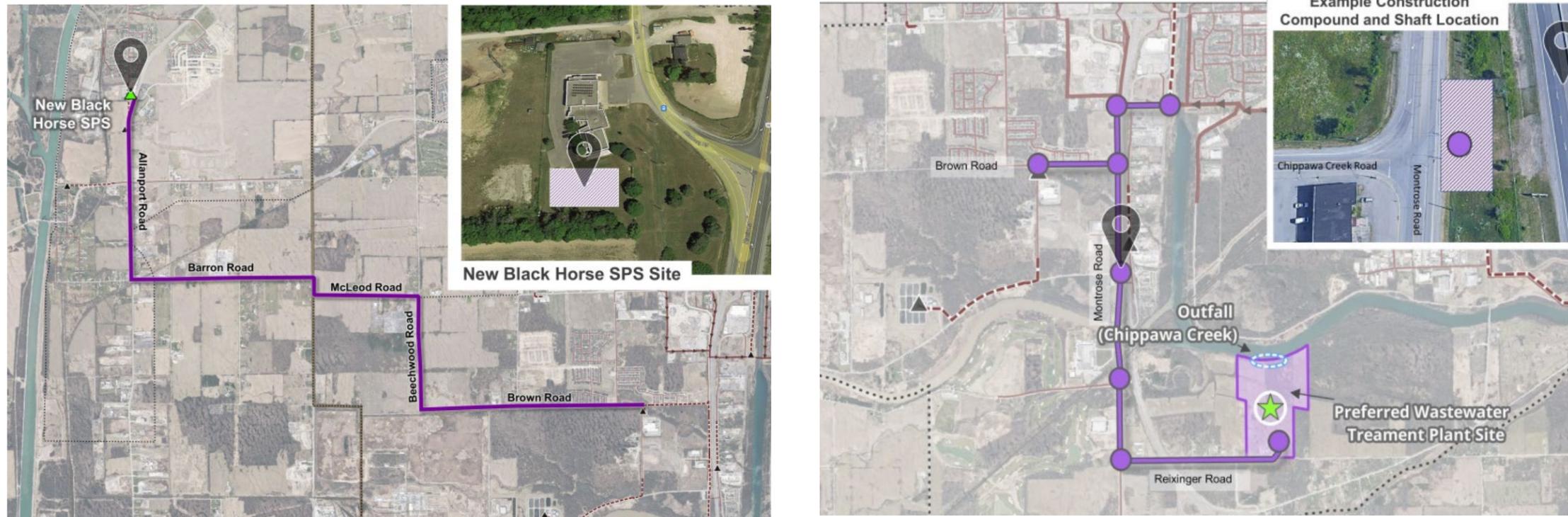
- Recommended new South Niagara Falls Elevated Tank (W-S-004)
- Recommended decommission of the Lundy's Lane Tank (W-D-004)
- Recommended new 400mm trunk main providing additional supply to new growth areas, including Grassy Brook (W-M-010).

Key Requirements

The following key requirements have been identified to support new growth:

- System repairs may be required to ensure adequate pressure
- Any new roads (from new developments) will require local services to be extended
- Minor connections for water services may be required to accommodate infilling and intensification

Figure 22: South Niagara Falls Wastewater Solutions "Validated Class EA Preferred Layouts"



South Niagara Falls Wastewater Solutions – Municipal Schedule 'C' Class Environmental Assessment, Public Information Centres (PIC) Number 4 (pages 27 and 32) Feb 9th to 23rd, 2022. South Niagara Falls Wastewater Solutions Story Map - Study Overview: Growth and Flow Projections. Available at: <https://storymaps.arcgis.com/stories/24e060ae06654906b83c76fb07803235>

South Niagara Falls Wastewater Solutions Class Environmental Assessment

The 2016 MSP recommended the construction of a new Wastewater Treatment Plant (WWTP) to accommodate the significant growth identified for South Niagara Falls and to provide the greatest flexibility and support for long-term servicing and benefit to the Niagara Falls and surrounding systems. The Environmental Assessment (EA) process to determine the location for the WWTP began in 2019. The EA was ultimately completed in 2022, with the location of the WWTP confirmed to be in the Grassy Brook Area. The New South Niagara Falls WWTP will have capacity to accommodate flows from projected growth up to 2041 and allow for future expansion to accommodate post 2041 growth. The new Montrose Road Deep Trunk Sewer will convey flows to the new WWTP by gravity. This will provide increased capacity for the pumping station in the south area. New trunk sewers and local collection systems will service these growth areas (e.g. Reixinger Road; Lyons Creek Road (from Dell Drive to Stanley Avenue); Stanley Avenue (from Lyon's Creek Road to Chippawa Parkway); Any new roads (from new developments). Minor connections for sanitary sewer services may be required to accommodate infilling and intensification.

Growth and Flow Projections

TODAY	2041
Total City of Niagara Falls	
130,837 People and Jobs	185,310 People and Jobs
New Wastewater Treatment Plant	
53,467 People and Jobs	85,292 People and Jobs
Approximate Average Daily Flow Projections	
11 MLD	21 MLD*



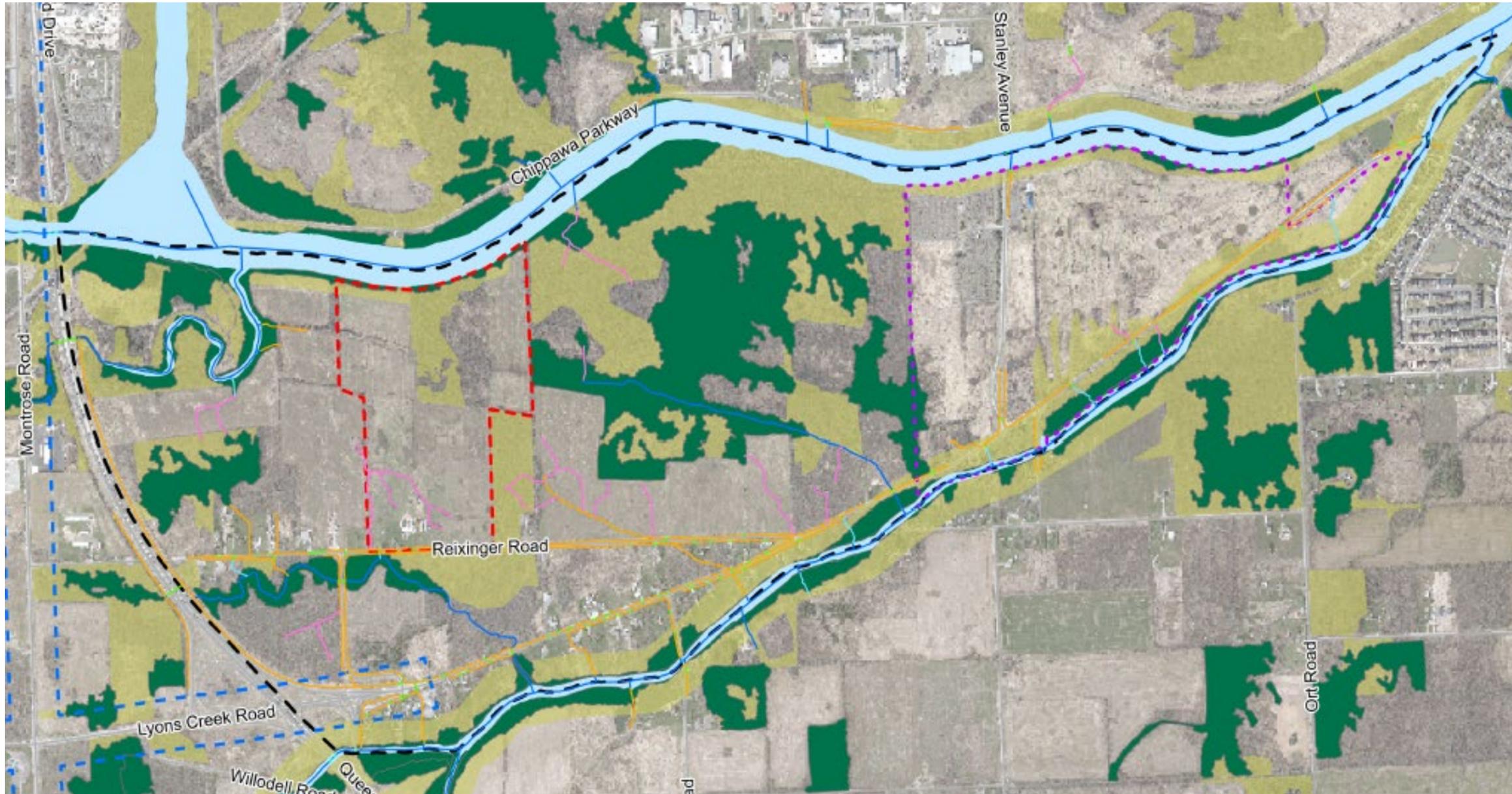
* Initial planned capacity will address growth needs beyond 20 years as well as firm capacity for all treatment processes.

** Wastewater Treatment Plant site planning will consider future expansion to 60 MLD for post 2041 growth.

In Ontario, Subwatershed Planning is directed by the Provincial Policy Statement, which emphasizes using the watershed as the ecologically meaningful scale for integrated and long-term planning. This Subwatershed Study will focus on environment features and processes including aquatic and terrestrial ecology, natural hazards, water quality and hydrologic processes. Components of the Subwatershed Study are identified on the figure below.



Figure 23: Natural Heritage



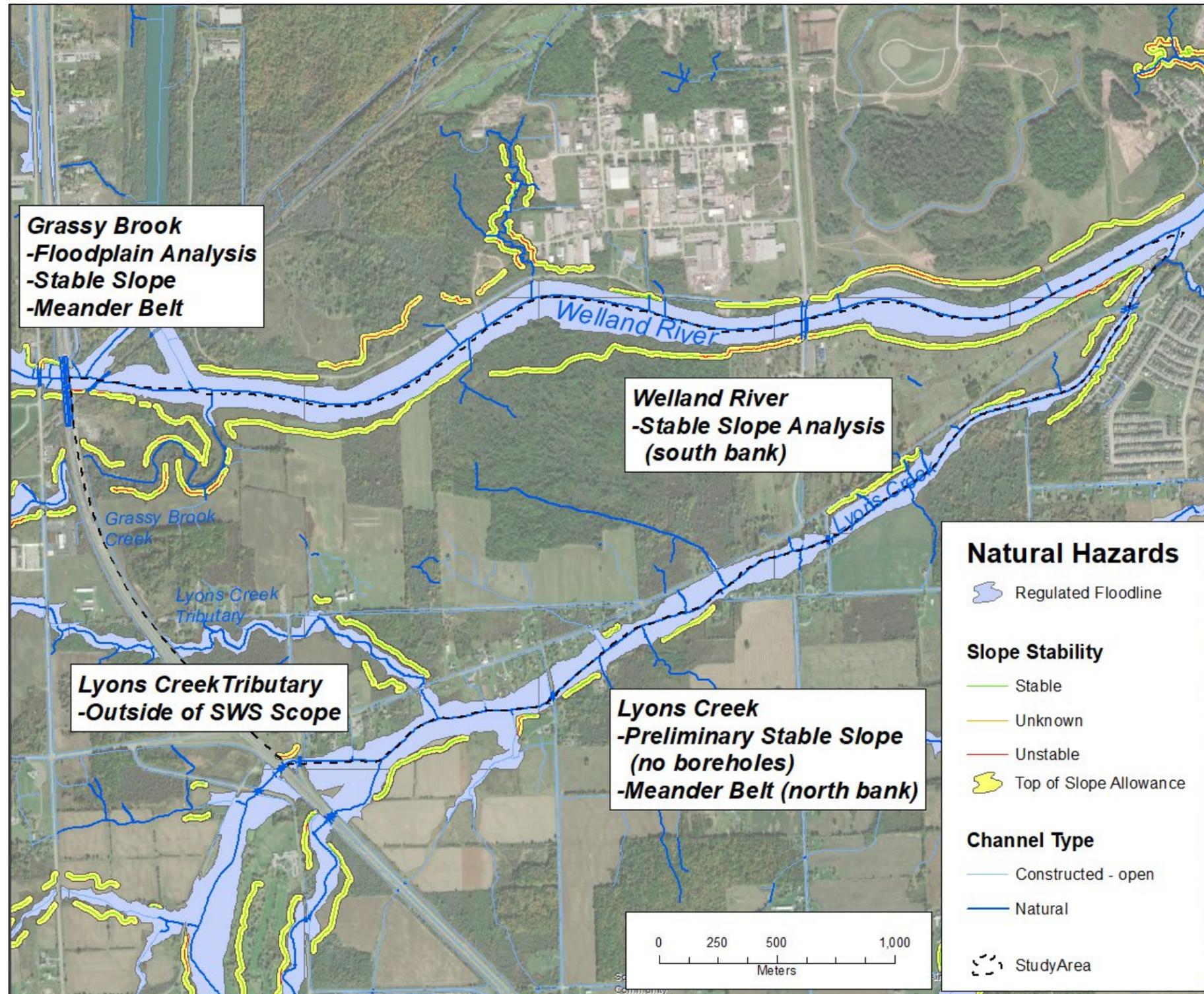
Natural Heritage System

From background sources, the study area contains a Provincially Significant Wetland, Species at Risk/significant species habitat, woodlands, watercourses/fish habitat. Field investigations will be conducted (spring-fall 2023) to confirm boundaries, investigate potential additions to the NHS as needed, and gather data to inform future land use planning and address high-level ecological impacts. Prior site-specific data (e.g., South Niagara Falls Wastewater Solutions study results) will be incorporated where available.

Previous Studies:

-  South Niagara Falls Wastewater Solutions Class EA (BluePlan Engineering, 2022)
-  Montrose Road and Lyons Creek/Biggar Road Municipal Class EA (Parsons, 2021)
-  Stanley Ave. Properties EIS (Colville Consulting, 2021)

Figure 24: Floodplain and Erosion Hazard Assessment



Regulated Floodline Assessment:

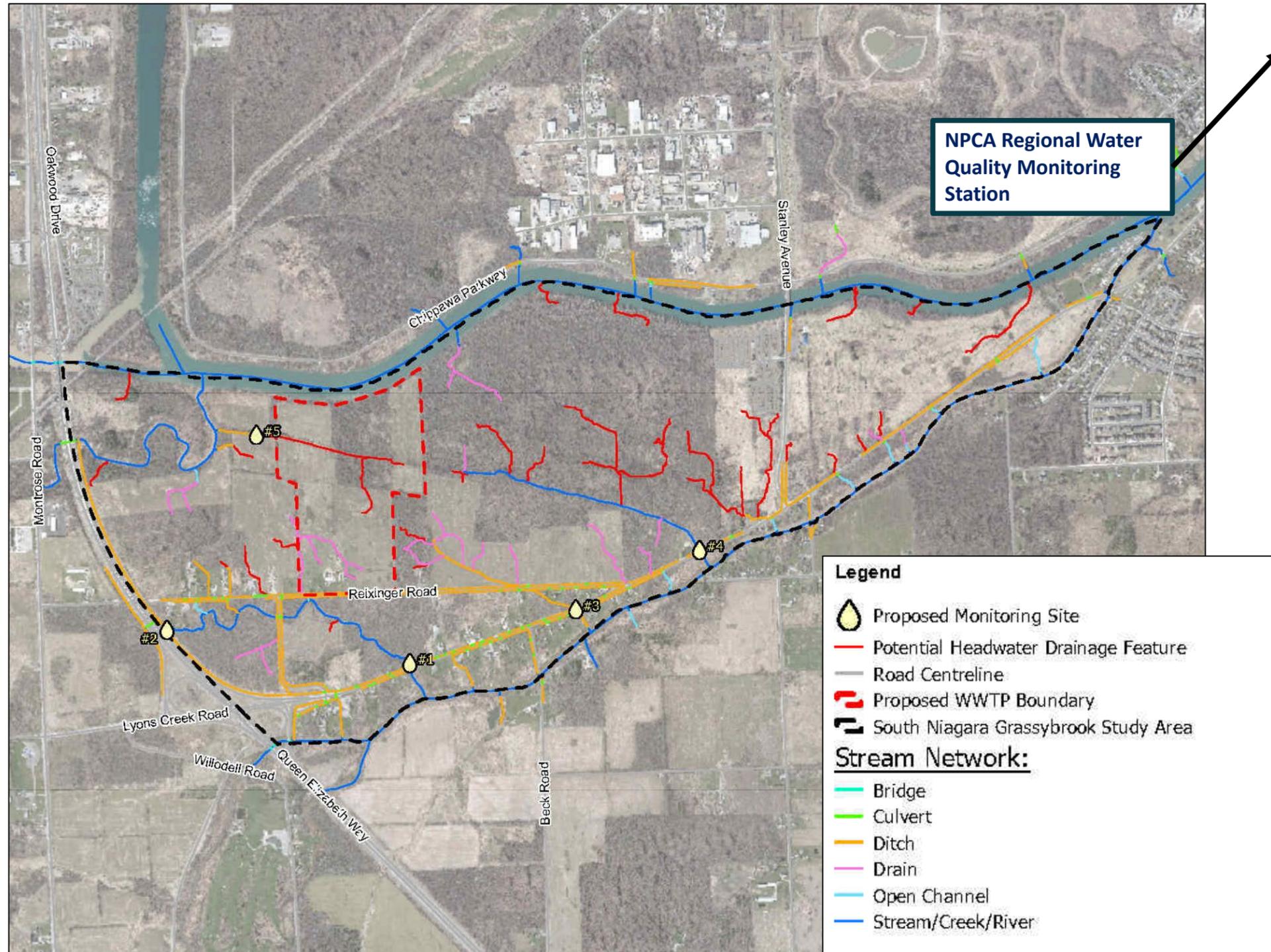
The assessment will involve the development of a single HEC-RAS model for the downstream section of Grassy Brook Creek (from upstream QEW to Welland River junction). The project team will be using Ontario LiDAR-Derived DTM (2021). The field survey exercise will include:

- QEW crossing structures (invert/obvert elevations, and dimensions).
- Bounding cross-sections at each crossing structure, two upstream and two downstream.
- Representative cross-sections to define low flow channel geometry/elevations at specific locations.

Erosion Hazards:

- A stable slope analysis of Grassy Brook Creek (QEW to Welland River) and Welland River (Boreholes) will be completed.
- The project team will conduct a Desktop Stable slope analysis of Lyons Creek and parts of Lyons Creek Tributary.
- Meander Belt is required to define developable limits of parts of Lyons creek and its tributary.
- Erosion offset may be required for channelized watercourses within the study area.
 - Fieldwork to commence in late May to June 2023.

Figure 25: Drainage and Water Quality



Surface Drainage:

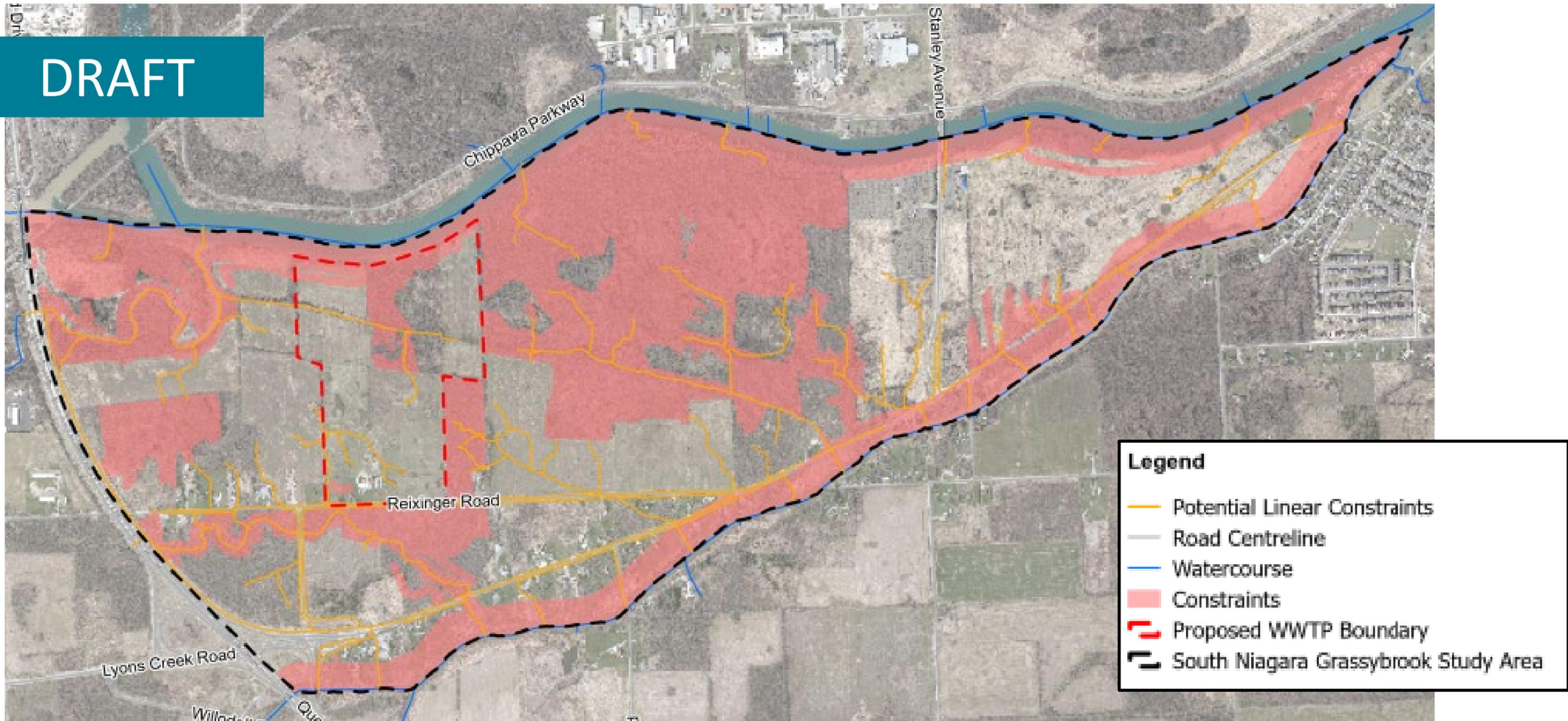
- Existing mapping of Watercourses for Stream Network provided by NPCA, including roadside ditches, drains and open channels.
- Headwater Drainage Features (HDFs) identified using ArchHydro.
 - To be verified in-situ, along with the Stream Network mapping following OSAP and TRCA/CVC protocol
 - Visit 1: Spring Freshet (March-April)
 - Visit 2: April – May
 - Visit 3: August – September

Stream Monitoring:

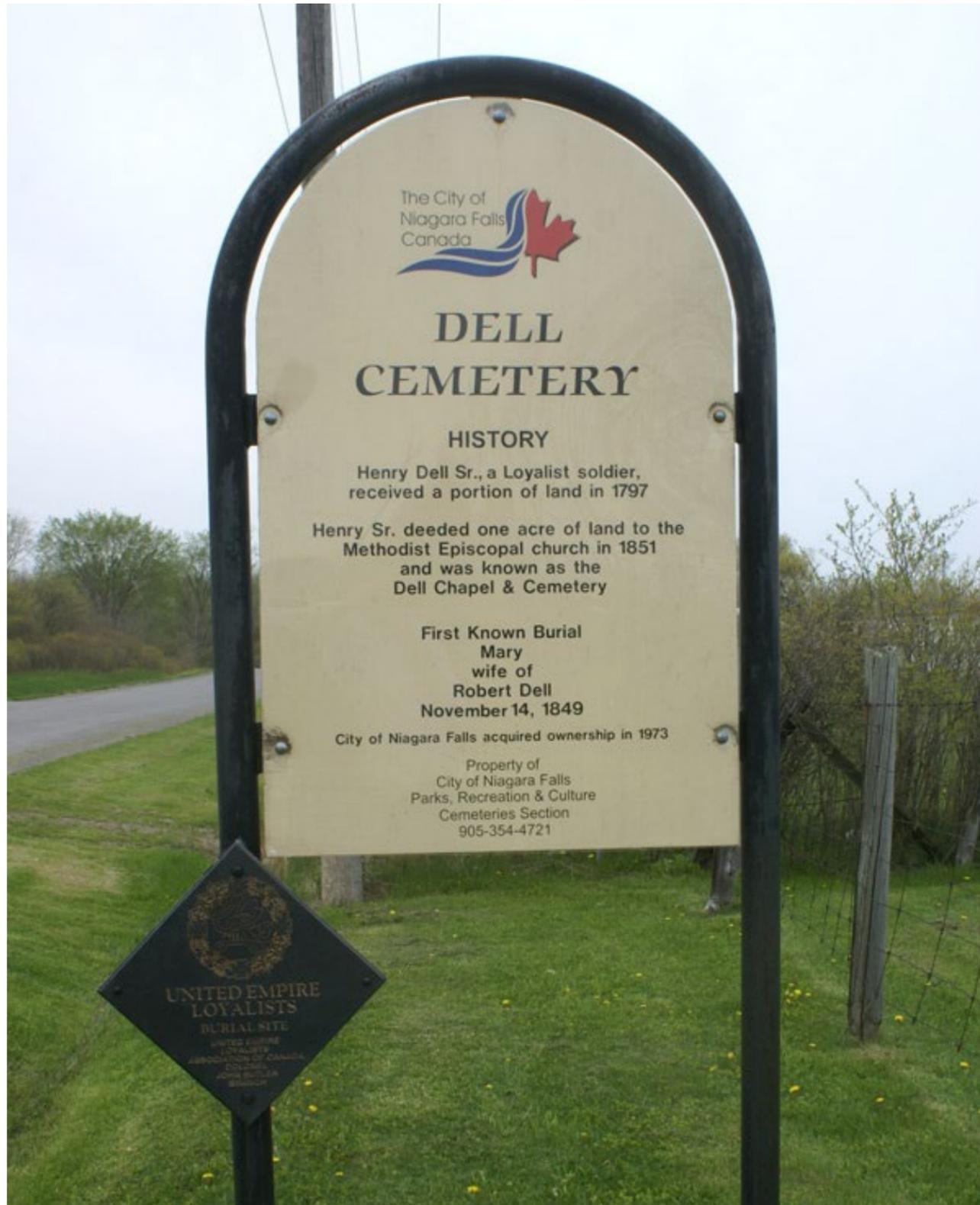
- Proposed monitoring sites shown to build on existing information including consistent parameters, includes:
 - 2 dry and 4 wet samples
 - Continuous water level and temperature
 - 5 discrete flow sample events
 - Benthic and fish communities

Note: NPCA monitoring stations within (2) and external (1) to study area may be integrated into stream monitoring program. These are not shown on this map.

Figure 26: Environment & Preliminary Constraints

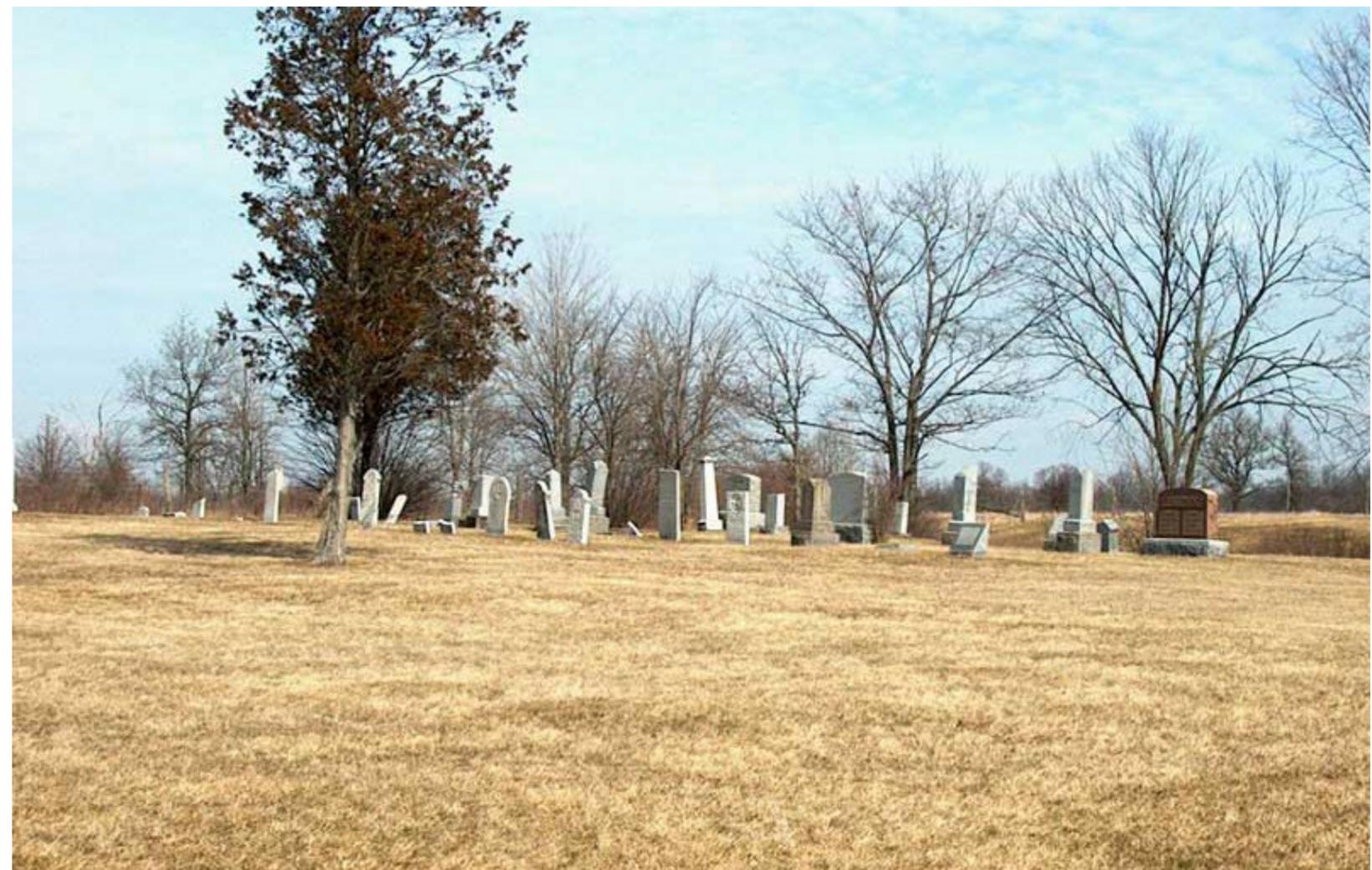


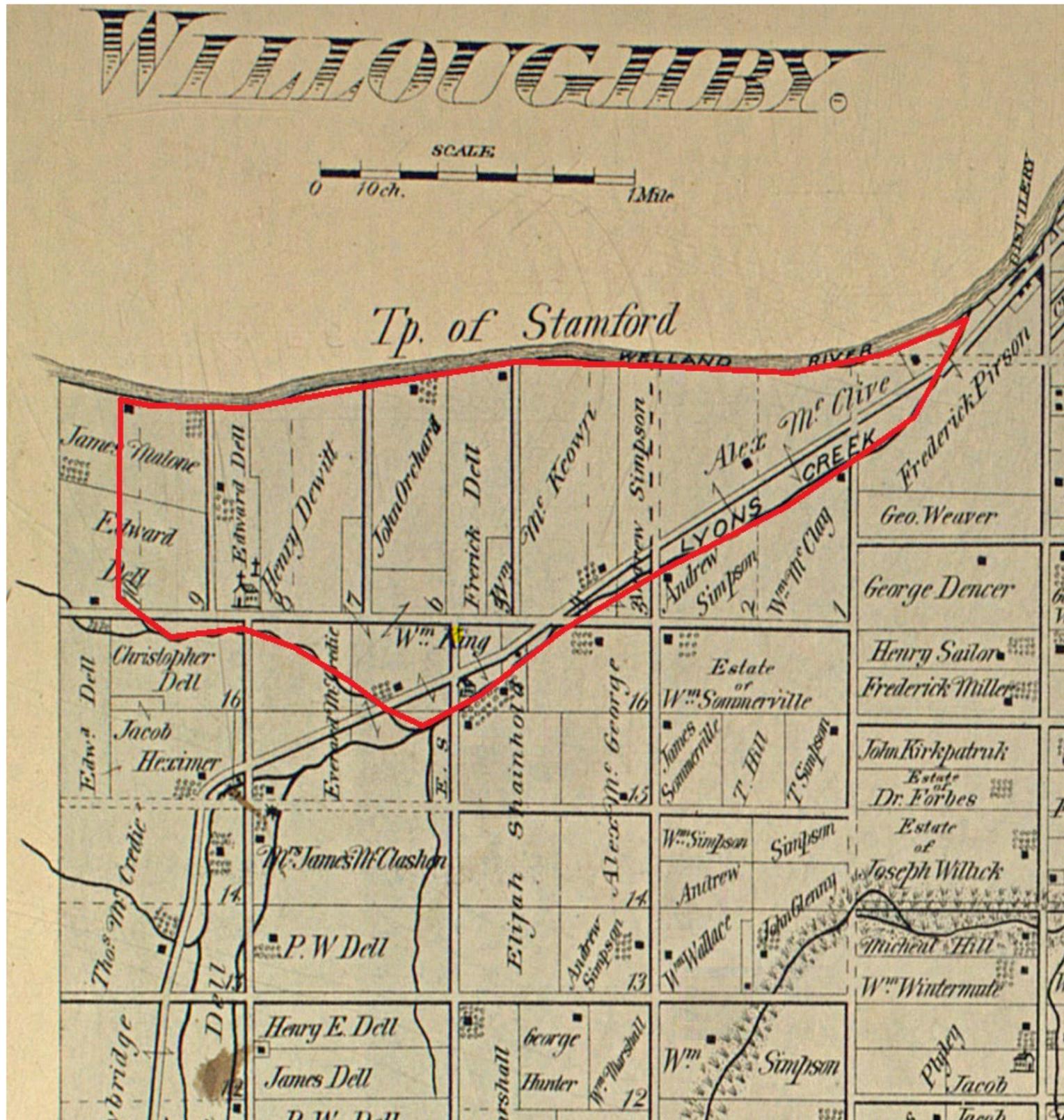
Note: Constraints include NHS features as identified in the Niagara Region Official Plan, MNRF Wetland Mapping and/or local studies (EAs and EIS) as well as Natural Hazards as identified in NPCA mapping. Constraints to be refined via Phase 1 Analysis.



A Cultural Heritage Assessment Report (CHAR) is being undertaken for the Grassy Brook Area. A CHAR outlines the existing identified cultural heritage resources including properties recognized under the Ontario Heritage Act and listed under other formal and informal recognition processes. A CHAR also involves an on-site survey to identify any potential cultural heritage resources within the study area.

The next steps in the study with respect to the CHAR include reaching out to the municipality, completing background research and undertaking a field survey.





A Stage 1 Archaeological Assessment is being undertaken as part of the Grassy Brook Secondary Plan. A Stage 1 Archaeological Assessment involves background research and on-site survey to identify any areas of archaeological potential.

Preliminary analysis of the subject lands indicates that the project area would have the potential for archaeological resources in its pristine state. Local indicators of archaeological potential include proximity to known archaeological sites, water sources, historic settlements and historic transportation routes.

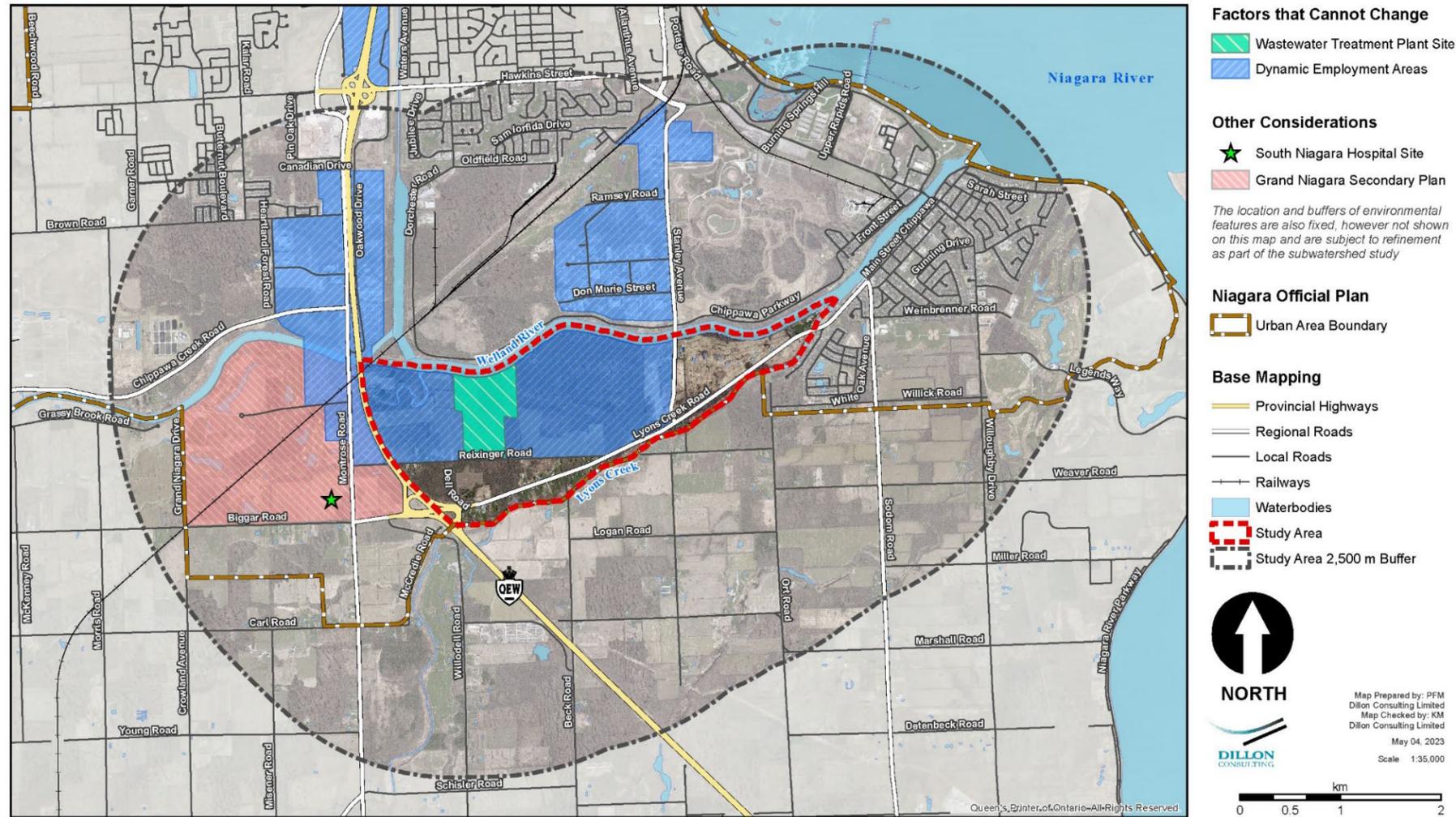
Specifically, the study area contains 10 registered archaeological sites and is within 1 kilometre (km) of a further 81 registered archaeological sites. The study area is directly adjacent to the Welland River and Lyon's Creek and is traversed by the Welland River East Wetland.

Historic mapping indicates that the study area is traversed by multiple historically surveyed roadways and encompasses multiple historic settlements.

Next steps include completing background research and undertaking a field survey. Due the constraints for appropriate conditions, the Stage 1 field survey will be undertaken in the Spring of 2023.

4. Opportunities and Constraints to Growth

Figure 27: Factors that cannot change and other considerations



Based on the factors that the project team know cannot change, and the existing surrounding conditions, the development of land uses concepts should factor in the following:

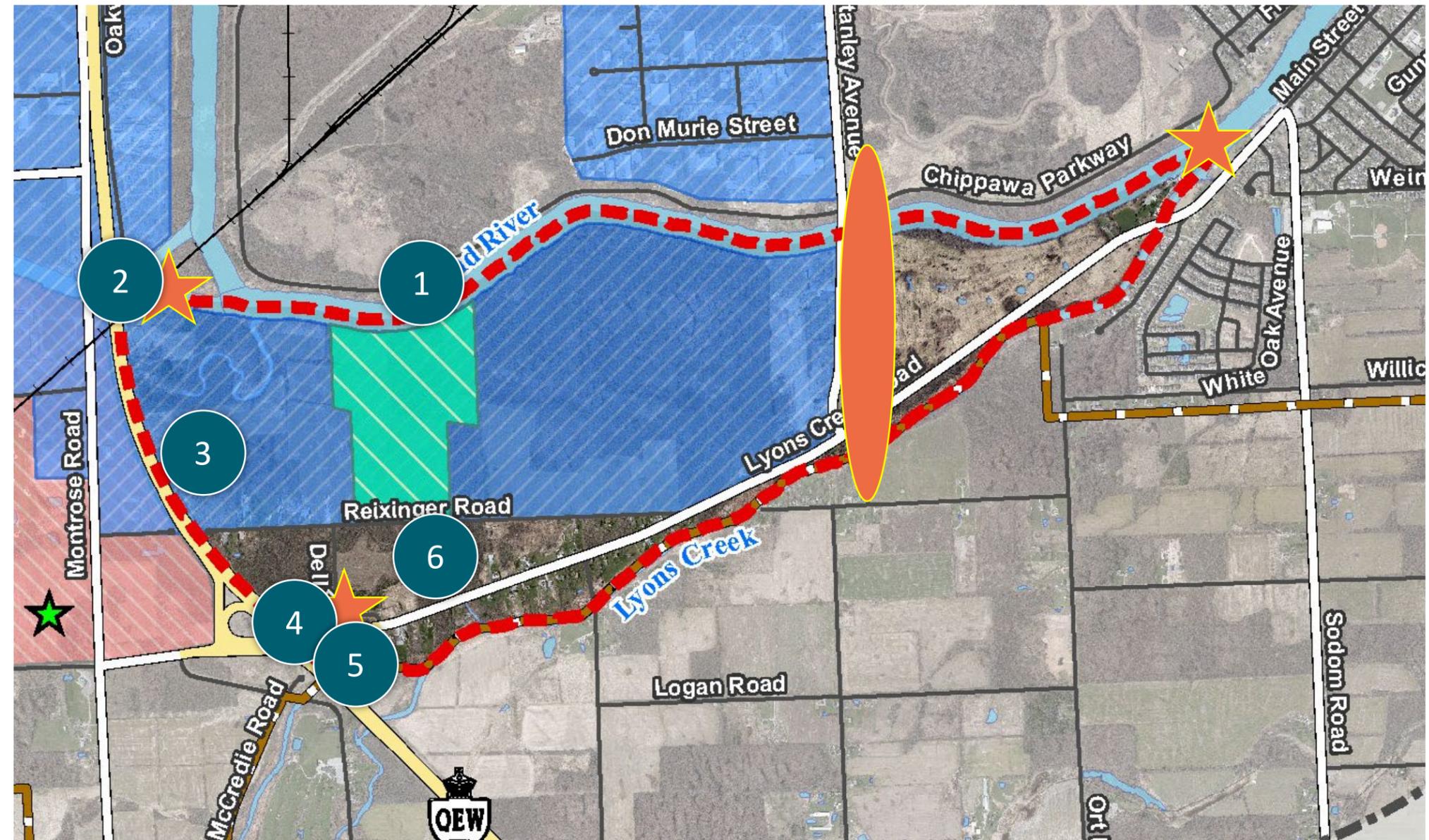
- Land use compatibility;
- Strengthening and developing connections, integrations and synergies with the Montrose Road Industrial Area, Dorchester Road Employment Area and Stanley Avenue Business Park;
- Developing connections, integrations and synergies with the Grand Niagara Secondary Plan Area and Future Regional Hospital.

Additional preliminary opportunities and constraints are identified on the graphics on the following pages.

Based on Provincial policies, legislation and guidelines; and, Regional policies, the following factors are considered as givens as part of the Secondary Planning process and are not subject to change:

- The delineated boundary of the Dynamic Employment Area as set out in the Provincially Approved new Region of Niagara Official Plan
- Employment density targets established by the Region for the Dynamic Employment Area
- Greenfield density targets within portions of the Secondary Plan area that are identified as Greenfield Areas in the local and Regional Official Plans
- Intensification targets within portions of the Secondary Plan area that are identified as Built Up Areas in the local and Regional Official Plans
- The location of the South Niagara Falls Wastewater Treatment Plants
- While not shown graphically on this map, the location and buffers from environmental features, once confirmed and delineated more precisely through the subwatershed study, are not subject to change

1. Area along river will be subject to heritage design guidelines and public art requirements
2. Opportunity to work with community and stakeholders to identify a recreational node and enhance existing spaces and linkages through urban design
3. Opportunity to create a policy framework to guide the design and development of the new employment area with visibility off of major motorways
4. Opportunity to introduce a gateway to the area from the highway
5. Opportunity to expand the existing local or regional transit service within close proximity
6. Direct access to the QEW and two arterial roads, enough space to introduce new collector road network



Factors that Cannot Change

- Wastewater Treatment Plant Site
- Dynamic Employment Areas

Other Considerations

- South Niagara Hospital Site
- Grand Niagara Secondary Plan

The location and buffers of environmental features are also fixed, however not shown on this map and are subject to refinement as part of the subwatershed study

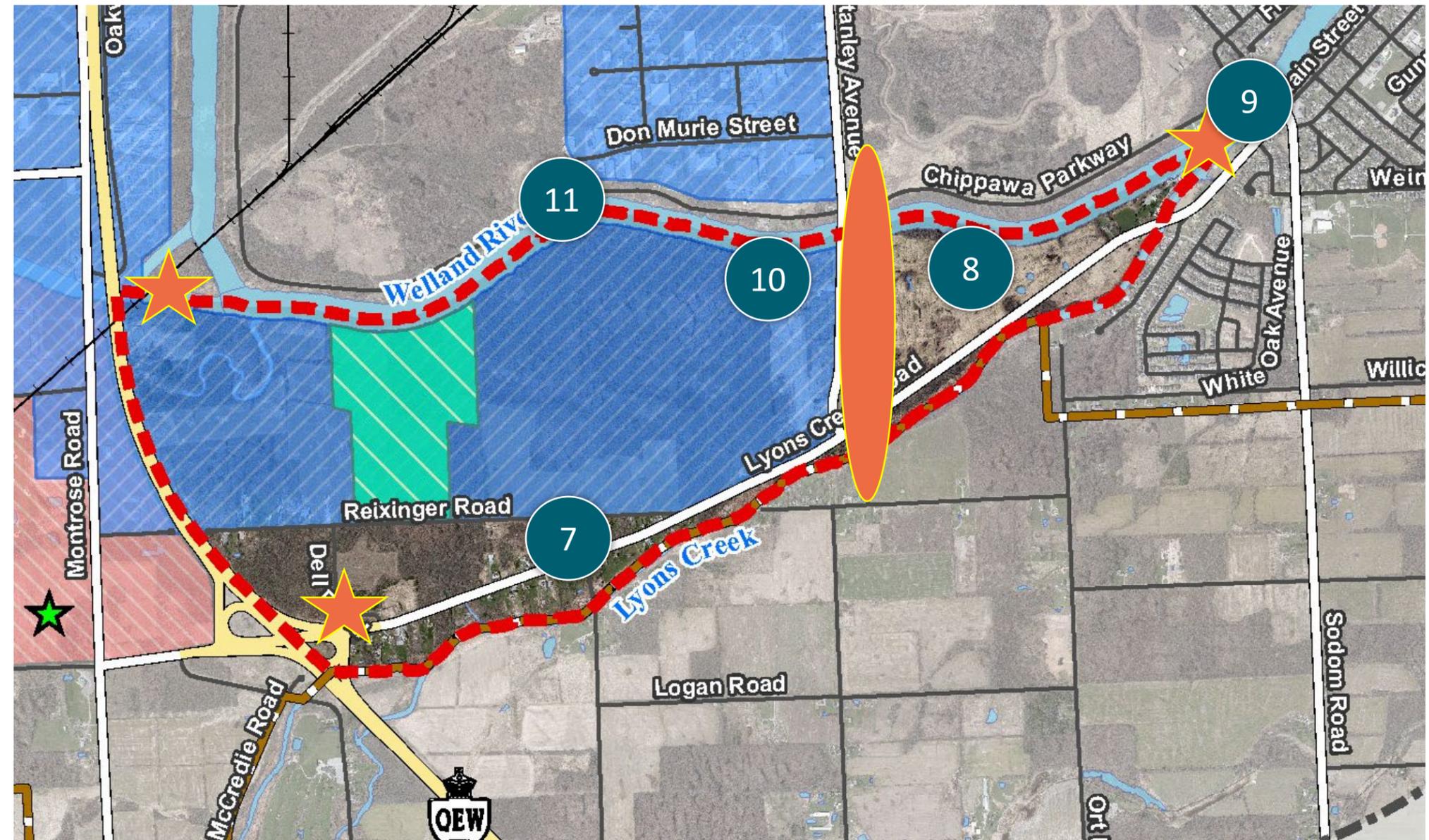
Niagara Official Plan

- Urban Area Boundary

Base Mapping

- Provincial Highways
- Regional Roads
- Local Roads
- Railways
- Waterbodies
- Study Area
- Study Area 2,500 m Buffer

7. Potential infill opportunities within existing village residential area
8. Opportunity to work with landowners and broader community to establish a framework for a residential and mixed use community that include a range and mix of housing types and tenures, local commercial uses, open spaces and trails to support complete communities and enhance connections to surrounding existing uses
9. Potential for the existing boating club to function as a gateway and recreational area
10. Opportunity to work with design team to create policies to protect sight lines
11. Opportunity to introduce a multi-use trail network along the Welland River and Lyons Creek shorelines



Factors that Cannot Change

- Wastewater Treatment Plant Site
- Dynamic Employment Areas

Other Considerations

- South Niagara Hospital Site
- Grand Niagara Secondary Plan

The location and buffers of environmental features are also fixed, however not shown on this map and are subject to refinement as part of the subwatershed study

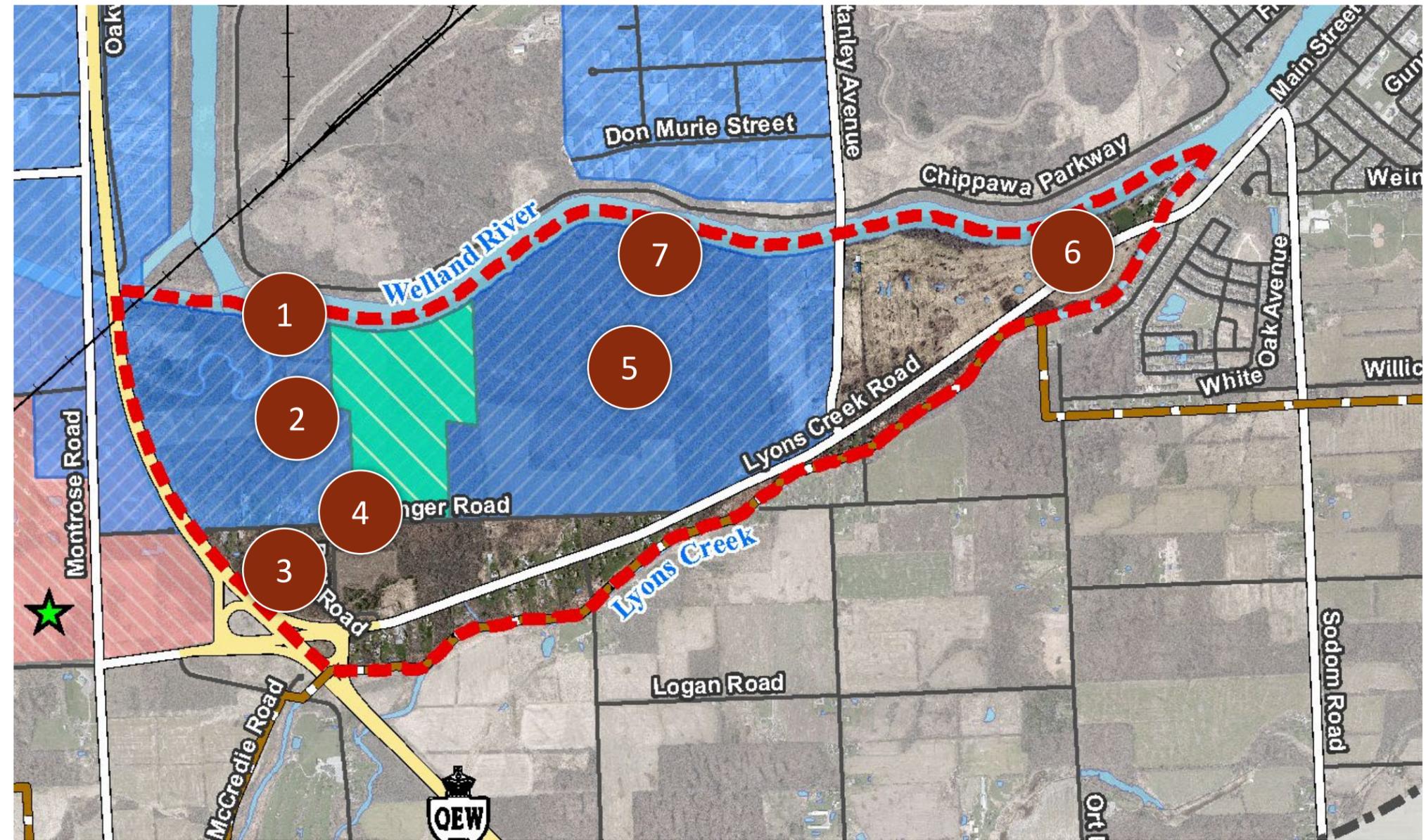
Niagara Official Plan

- Urban Area Boundary

Base Mapping

- Provincial Highways
- Regional Roads
- Local Roads
- Railways
- Waterbodies
- Study Area
- Study Area 2,500 m Buffer

1. Existing natural heritage area requires buffers for any new development and subject to environmental assessment
2. Outcomes of cultural heritage and archaeological studies will determine limit of developable area
3. Interchange ramps at QEW and Lyons Creek are unsignalized
4. Lands identified as an MTO Permit Area - additional consultation will be required for development
5. Developable area limits subject to outcomes of Subwatershed Study
6. No existing sanitary servicing, will need to identify servicing strategy to connect with adjacent lands
7. Limited control in timing/ desire of private landowners with existing established uses to redevelop in line with secondary plan designations/ policies



Factors that Cannot Change

- Wastewater Treatment Plant Site
- Dynamic Employment Areas

Other Considerations

- South Niagara Hospital Site
- Grand Niagara Secondary Plan

The location and buffers of environmental features are also fixed, however not shown on this map and are subject to refinement as part of the subwatershed study

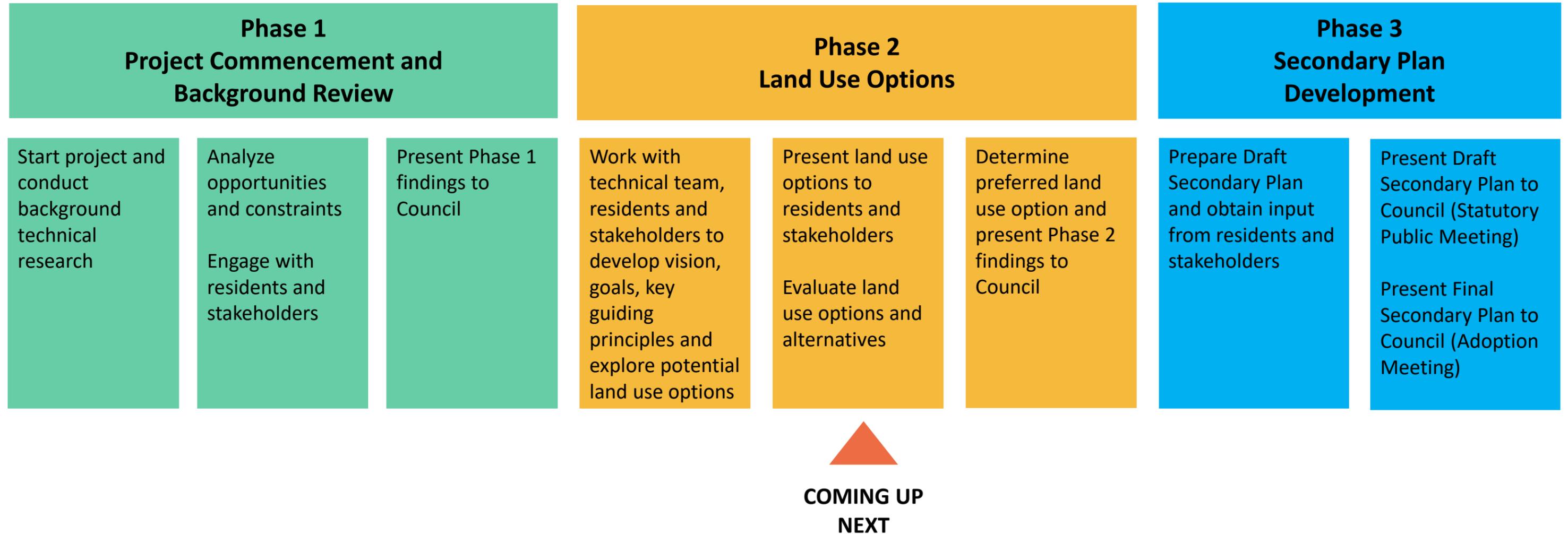
Niagara Official Plan

- Urban Area Boundary

Base Mapping

- Provincial Highways
- Regional Roads
- Local Roads
- Railways
- Waterbodies
- Study Area
- Study Area 2,500 m Buffer

5. Next Steps



Following publication and release of this document for public input, the project team will conduct further engagement with stakeholders and the public, and present the findings to council. Following Council’s endorsement of the Phase 1 findings, the project team will proceed into Phase 2 and complete the necessary technical work to develop preliminary land use options; and, work with the community to establish the vision, goals and guiding principles to inform the Secondary Plan framework. Once the team obtains feedback on the preliminary options, further analysis will be completed to determine the preferred option and recommendation report to be presented to Council for endorsement to close out Phase 2. Phase 3 will then begin with the preparation of a draft Secondary Plan and associated community consultation; and, will conclude with the presentation of the final Secondary Plan for Council’s approval.