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Otonabee River

Trent University's key defining and structural characteristic is its location along the banks of the Otonabee River. Odoonabii-ziibi, the original name of the Otonabee River, is an Anishinaabemowin description that refers to *'the river that beats like a heart'*. It is a name that embodies the life that water brings to all of Creation. The river is all but one part of a complex system of wetlands and watercourses. This hydrologic system at large bears considerable natural and cultural significance to the Campus. Trent recognizes the importance of a healthy hydrologic system as integral to ensuring a robust and resilient natural system for the Symons Campus and the landscape beyond.

The hydrologic system comprises the features and functions that support surface water and groundwater. Simplified, this includes permeable lands and features that permit or provide important focal areas for infiltration to support groundwater, features and areas that receive and are supported by groundwater (e.g., some wetlands and watercourses), and the presence and movement of surface water (e.g., overland, via headwater drainage features, watercourses). Interactions with land cover affect the hydrologic system in terms of water quantity and quality.

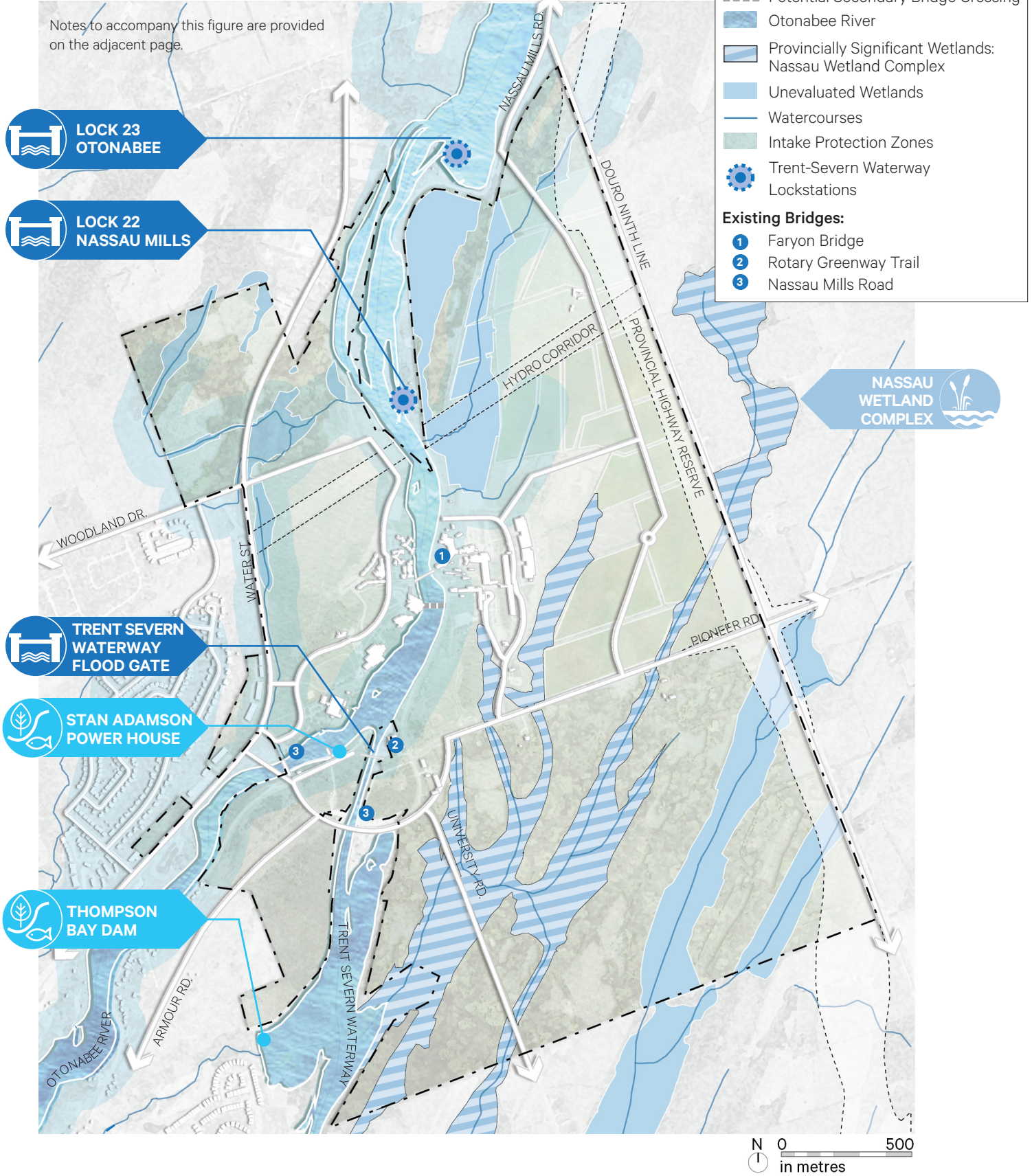
Examples of interactions include slowing water flows, allowing for infiltration (water quantity), removal of sediments and other debris in riparian areas, or changes in water temperature (water quality). In turn, the quality and quantity of water affects the biotic environment by influencing vegetation communities (e.g., soil moisture needs of plants, plant stress), and wildlife habitat both directly and indirectly. Examples of direct effects on wildlife habitat include a loss or change in the duration of open water conditions or changing soil moisture conditions leading to plant stress. Indirect effects may include limitations to wildlife food sources as a result of drought, or degraded water quality reducing success rates for egg development (e.g., salamanders).

Notes to accompany Figure 7:

1. An Environmental Impact Study and site-specific study are required for future development to determine: natural heritage feature limits, the significance and/or sensitivity of natural heritage features, setbacks and buffers from natural heritage features, and locations of roads and/or pedestrian crossings.
2. New roads and circulation routes are conceptual and require further detailed study. Future design related to public streets and infrastructure will be subject to approval by the City, and Site Plan Approval will be required for future private infrastructure, as applicable.
3. The Potential Secondary Bridge Crossing is conceptual and requires further detailed study and coordination with all relevant parties.

Figure 7: The Otonabee River and Hydrologic System

Notes to accompany this figure are provided on the adjacent page.



GOALS FOR THE HYDROLOGIC SYSTEM



LEARNING AND DISCOVERY

- Promote land-based learning opportunities to strengthen expertise in the water technology and testing sector, and promote research and innovation, research, and innovation.
- Promote the significance of water to Anishinaabe and Indigenous peoples, and the heritage of the University in its location along the banks of the Otonabee River, on the treaty and traditional territory of the Michi Saagiig Anishinaabeg. This involves integrating Indigenous placemaking elements, names, and heritage.



ENVIRONMENTAL RESILIENCE AND INTEGRITY

- Maintain and where possible enhance the integrity of the Otonabee River and associated waterbodies and watercourses to preserve and enhance the natural hydrological functions, water quality, and aquatic and terrestrial habitats.
- Support a resilient system that addresses water quality and quantity management in the hydrologic system from infiltration to support groundwater, avoid exacerbation of flood peaks, and protect wetlands and riparian areas for water quality.
- Monitor key components of the hydrologic system.
- Foster opportunities to enhance a healthy and functioning hydrologic system, through restoration and naturalization to integrate ecological services and functions, tied both to enhancing biodiversity and existing function, but also to building in future resilience to climate change.



ECONOMIC RESILIENCE, LEADERSHIP, AND INNOVATION

- Showcase the significance and distinguishing location of the University along the banks of the Otonabee River for those travelling along it.
- Seek University partnerships to advance leading research related to water consumption and quality (e.g., Trent's Water Quality Centre), and provide employment opportunities to students and graduates of the University.
- Explore new eco-tourism opportunities, promote the range of water-based activities, and invite travellers along the Trent Severn Waterway and the larger American Great Loop to visit the University campus.



SOCIAL RESILIENCE, COMMUNITY, AND INCLUSIVITY

- Promote safe links to the riverside and new social spaces in order to secure valuable connections and views to the waters. These spaces can provide tiered steps to the river for passive recreation, and spontaneous outdoor learning.
- Explore opportunities to coordinate with the City of Peterborough on the conversion of the existing Nassau Mills Road as a multi-use trail connection that improves visual and physical access to the shoreline of the Otonabee River and Trent Severn Waterway.
- Maintain opportunities to take part in recreational activities on the river, including swimming, rowing, and riverside walking and observation.