



# Thundering Waters Secondary Plan

Public Information Meeting #3 July 11, 2016



### Thundering Waters Secondary Plan Welcome & Study Purpose





### Purpose of the meeting is to:

- Outline the details of the Secondary Plan study including:
  - technical reports
  - draft Secondary Plan
- Obtain public input and feedback
- Provide information on municipal servicing and transportation alternatives with due consideration of the natural, social and economic environments in accordance with the Class Environmental Assessment procedures

## Thundering Waters Secondary Plan Secondary Plan Principles





- Create a Healthy, Complete Community
- Create a Sustainable, Resilient, Green Community
- Create a Dynamic Residential Community
- Develop a Linked Open Space System and Natural Heritage System
- Create Employment Opportunities and support a Vibrant Local Economy



### Thundering Waters Secondary Plan

### **Draft Land Use Schedule**











### **Residential Policies**

### Low Density

- Ground oriented units including single detached, semidetached, duplex and triplex dwellings
- Density range of 8 to 30 units per net hectare
- Height of 2 storeys

### Medium Density

- Includes on-street and block townhouses, stacked townhouses, low rise apartment buildings, retirement homes
- Density range of 20 to 75 units per net hectare
- Heights generally not exceed 4 storeys

### High Density

- Apartments, retirement homes and may permit housing forms from medium density a part of an overall site development
- Heights generally not exceed 8 storeys







#### Institutional

- Permits public schools, private schools, places of worship, community centres and nursing homes
- A public elementary school site shall have an area of approximately 2 hectares (5 ac) and be located with adequate frontage on at least one collector road.
- A public school site should be integrated with the open space system.







#### **Mixed Use Area**

- Create a dynamic community core that serves the community's needs and acts as a tourist draw by providing a diverse range of uses in an attractive pedestrian oriented setting
- Buildings may be developed as mixed use or standalone commercial or residential uses.
- Area designed to include public squares linked by walkways
- Minimum building height of 2 storeys (although 2 functional floors may not be required) and maximum height of 12 storeys
- Retail, office, theatre, arts, entertainment, restaurant, hotel, tourist, time share, medical, health and wellness, recreational, cultural and personal service commercial uses
- Maximum amount of retail floor space envisaged is 40,000 sq metres (430,000 sq ft)



### Thundering Waters Secondary Plan Mixed Use Area - Town Centre











#### Office Business Park

- Uses include:
  - corporate and business offices;
  - government services, research and, training facilities;
  - medical, health and wellness research and development facilities and clinics;
  - opportunities for live/work buildings, subject to policies in the Official Plan;
  - laboratories, research and development facilities, communications/ telecommunications facilities, deemed not to be obnoxious;
  - Supportive commercial services such as banks, restaurants, convenience retail outlets, health and fitness facilities, hotels, conference centres, banquet facilities and private clubs which are intended to service the employment uses;





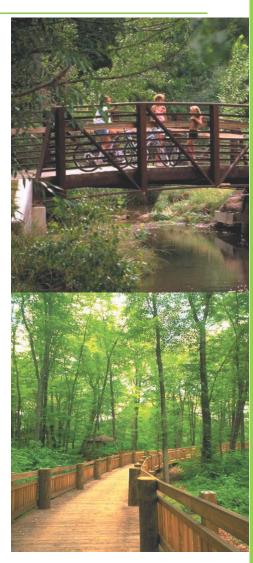


#### **Environmental Protection Area**

- Environmental Protection Area applies to Provincially Significant Wetlands, Provincially Significant Life ANSIs, significant habitat of threatened and endangered species, floodways and erosion hazards and environmentally sensitive areas.
- EPA policies in the Official Plan will apply

#### **Environmental Buffers**

environmental Buffers contain naturally vegetated areas maintained around Provincially Significant Wetlands. A 30 m Environmental Buffer adjacent to Residential and Institutional designations and a 15 m Environmental Buffer adjacent to the Office Business Park designation is proposed. The naturally vegetated area adjacent to the Office Business Park designation may include lands that are privately owned but subject to restrictions within the zoning by-law and/or development agreements which enhance the function of the Environmental Buffer area. The precise extent of the Environmental Buffer shall be determined through an approved EIS and may be reduced or expanded.







#### **Stormwater Management**

- Storm water management facilities will be constructed as naturalized features, utilizing native plant species and grading techniques to create a natural area.
- Low Impact Development storm water management best management practices, will be encouraged where appropriate, which mimics the natural hydrology of the area and protects water quality.
- The Con Rail drain is part of the storm water management system and will receive treated drainage from the Secondary Plan area as well as drainage from outside of the area. It may be enhanced with improved bed and slope treatments and added vegetation to aesthetically improve its appearance subject to approvals from the appropriate authorities.

#### **Servicing**

- Sanitary and water services will be constructed in accordance with the recommendations of Functional Servicing Report.
- A pumping station required to service the Secondary Plan Area will be provided in accordance with the recommendations of Functional Servicing Report.





### **Transportation**

- Dorchester Road and Chippawa Parkway are currently designated as arterial roads within the Secondary Plan Area.
- It is proposed to change Chippawa Parkway to a scenic parkway in order to enhance views to the river.
- Bicycle lanes should be provided on all collector roads.
- Reverse lot frontage should be avoided where possible.
- Location and timing of bridge to be addressed.

### **Implementation**

 An air quality, noise and vibration study is required for any development for a sensitive land use that is located near a major facility such as a transportation corridor, industrial use, sewage or water treatment facility, or pumping station.





### Thundering Waters Transportation Master Plan (TWTMP)

- The TWTMP forms the basis of the transportation infrastructure and policy requirements servicing the new growth envisioned in the Secondary Plan.
- Preparation of the TWTMP has followed the Master Planning provisions outlined in the Municipal Class Environmental Assessment (EA). The work undertaken for the Plan satisfies the first two phases of the Municipal Class EA planning and design process, an approved process under the *Environmental Assessment Act*. Remaining phases of the Municipal Class EA for collector and arterial roads classified as Schedule C projects will be undertaken after the Secondary Plan has been approved.
- Once complete, the TWTMP will be filed and made available for review by the public and/or any agency that expresses interest in the Study. Requests to the Minister of the Environment and Climate Change for a Part II Order (to require an Individual EA) are possible only for specific projects identified in the TWTMP, not the plan itself.

#### **Municipal Class EA Process** Phase 1 Identify and Describe the Problem(s) Problem(s) Phase 2 **Alternative Solutions** Identify reasonable alternative solutions to the problem Evaluate alternative solutions taking into consideration existing environmental and technical factors Identify a Preliminary Preferred Solution to the problems(s) Preliminary Preferred Solution Phase 3 Alternative Design Concepts for the **Preliminary Preferred Solutions** Preliminary Preferred Design Phase 4 Prepare Environmental Study Report Preferred Design Phase 5 Implementation





#### **Problem Identification**

Development of the Thundering Waters Secondary Plan lands will require a robust, multimodal transportation system to serve proposed development and provide efficient access and mobility for residents, visitors and workers. Current challenges to implementing this system include:

- The lands are not well served from a transportation perspective
- Water courses complicate connections to the broader network, in particular the QEW
- The existing network has constraints that impact its ability to serve proposed development
- Non-auto modes of transportation not as common in Niagara Falls

#### **Problem Statement**

"The Thundering Waters Secondary Plan area does not currently have a comprehensive, multi-modal transportation system capable of accommodating anticipated future travel needs generated by the planned new community in an efficient, effective and sustainable manner."





#### **Identification and Assessment of Alternative Solutions**

Three alternative transportation strategies were identified to address the problem statement:

- Auto-Oriented Focus on serving future needs primarily with road expansion. Little
  emphasis on transit or active transportation modes.
- Transit-Oriented Emphasis given to accommodating a substantial share of future travel demand by public transit services. Less focus on road improvements and active transportation modes.
- Balanced Emphasis on providing a reasonable range of travel modes to offer users choices, with supporting policy to encourage reduced auto usage.

The **Balanced Transportation Strategy** is the preliminary preferred solution as it:

- Achieves higher levels of mobility and access for all users, supports the use of non-auto modes and results in more moderate infrastructure requirements
- Results in less natural environmental impact given its lower reliance on automobiles for travel, and has potential to reduce the carbon footprint
- Emphasizes non-auto modes of travel, particularly walking and cycling, supports the development of a vibrant and sustainable Town Centre, provides for the highest level of connectivity and encourages a healthy lifestyle
- Strikes a balance between capital costs and long-term operating and maintenance costs





#### **Conceptual Road Network**

#### Legend:

Future Transit Stop/Train Station

P Parking Structure

S Potential Elementary School

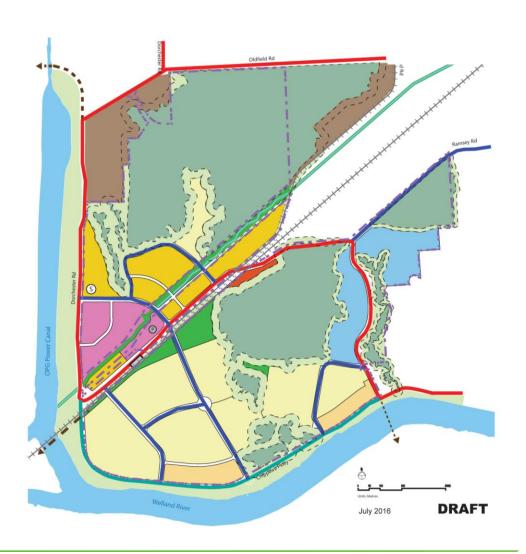
Arterial Road

Collector Road

Scenic Parkway

Potential Bridge Crossing (Location To Be Determined By Further Study)

HHHH Existing Railway Line







#### **Required Off-Site Road Improvements:**

Improvements identified in the McLeod and Montrose EA:

- Widening of McLeod between Montrose and Oakwood to 6 lanes plus dual westbound left turn lanes at Oakwood
- Intersection improvements at McLeod/Marineland and:
  - Sharon/Jubilee, Drummond and Alex to provide eastbound + westbound left turn lanes
  - Dorchester to provide dual eastbound left turn lanes
  - Portage to provide eastbound left turn lane

Improvements identified in the Niagara Falls Sustainable Transportation Master Plan:

- Jog elimination at Stanley and Marineland intersection
- New OPG Canal (or Welland Canal) crossing monitor for need over time, as intersections of McLeod with Oakwood, Dorchester and Drummond reach capacity

Additional improvements identified through study:

- Intersections improvements at Stanley and Chippawa
- Additional northbound left turn lanes at McLeod intersections with Dorchester and Drummond
- Traffic signals at intersections and interchange ramps on Lyons Creek





#### **Conceptual Transit Plan**

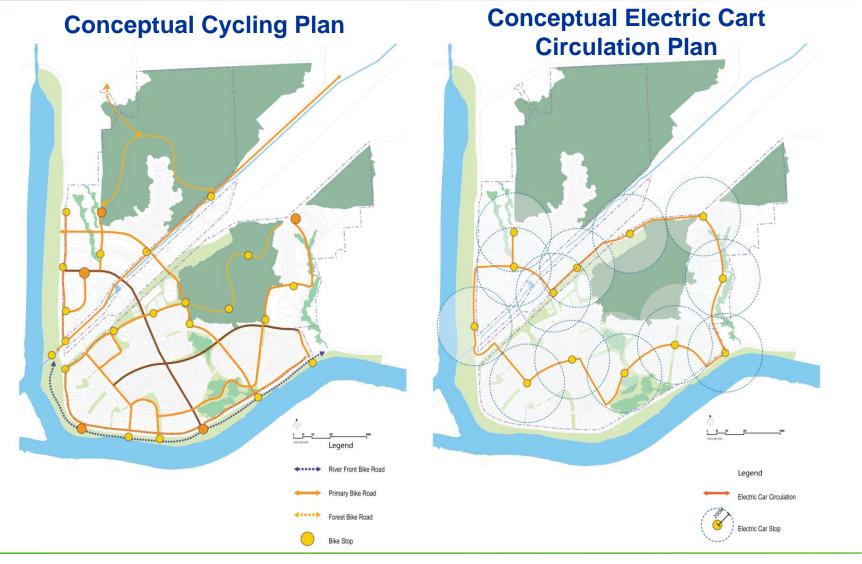


#### **Conceptual Pedestrian Plan**









# Thundering Waters Secondary Plan Water & Wastewater Servicing





#### **Objective:**

 To provide water distribution and wastewater collection systems

#### Criteria:

- Water distribution & wastewater collection systems to be designed in accordance with City, Region & MOECC standards
- No impact on water pressure and fire protection capabilities of existing municipal water distribution system
- No overloading of the downstream wastewater collection system

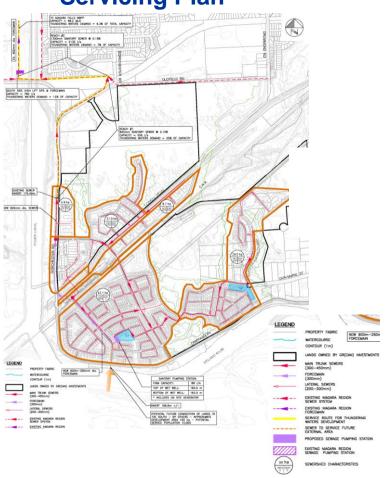


### Thundering Waters Secondary Plan Wastewater and Water

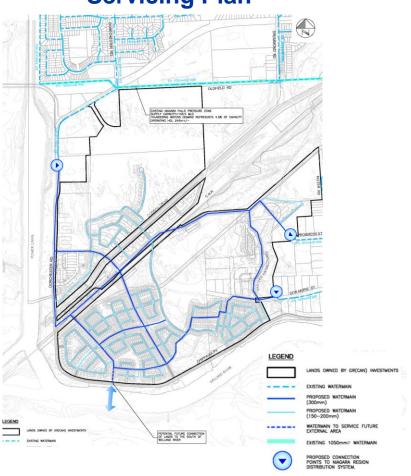




Conceptual Sanitary Servicing Plan



### Conceptual Water Servicing Plan



# Thundering Waters Secondary Plan Water & Wastewater Servicing





#### **Recommendation:**

#### Water Distribution

- 300 mm PVC connection through development
- 150 mm to 200 mm PVC internal servicing
- Minimize dead ends
- Potential need for Pressure Reducing Valves

#### **Wastewater Collection**

- New pumping station will convey wastewater to South Side high lift Sewage Pumping Station
- Demand on South Side HLS 93 l/s (out of 760 l/s)
- Demand in Dorchester Rd Sewer 25%
- Oldfield Rd Sewer 7.5%
- Demand on Treatment Plant 4.3 l/s (out of 68.2 MLD)



### Thundering Waters Secondary Plan Stormwater





#### **Objective:**

- To manage the impacts on stormwater resulting from urban land use in accordance with Municipal, Provincial and Federal requirements
- To protect and enhance where possible natural systems

#### **Criteria:**

- Provide 'Normal' (Level 2) Water Quality Treatment
- No Quantity Control for Flood and Erosion
- 5 year Minor System; 100 year Major System



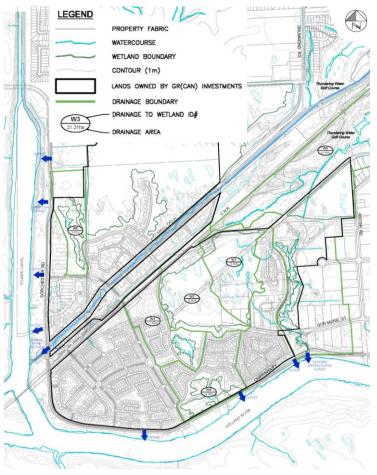
### Thundering Waters Secondary Plan

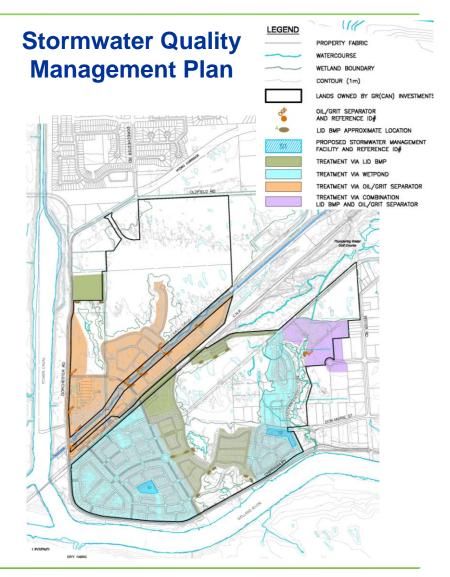






### **Drainage Areas to Wetlands Future Land Conditions**





### Thundering Waters Secondary Plan Stormwater





#### **Recommendation:**

- 2 End of Pipe Stormwater Wetponds
- 10 Oil and Grit Separators
- Low Impact Development Best Management Practices (Public / Private realm) to be determined at detailed design stage
- Cleanwater Pumping Station to Conrail Drain from Welland River to provide enhancements to Conrail Drain
- Local Realignments or Enclosures for East Tributary
- Supplemental Management requirements for protected wetlands to preserve quality and water balance (hydroperiod)



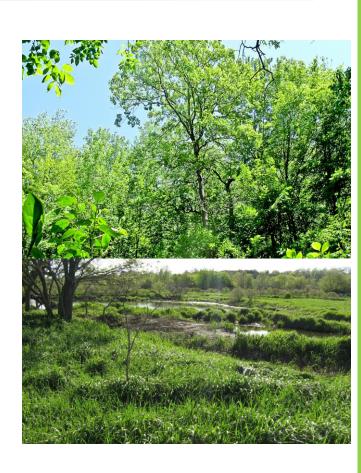
### Thundering Waters Secondary Plan Environmental Impact Study





### **Environmental Principles**

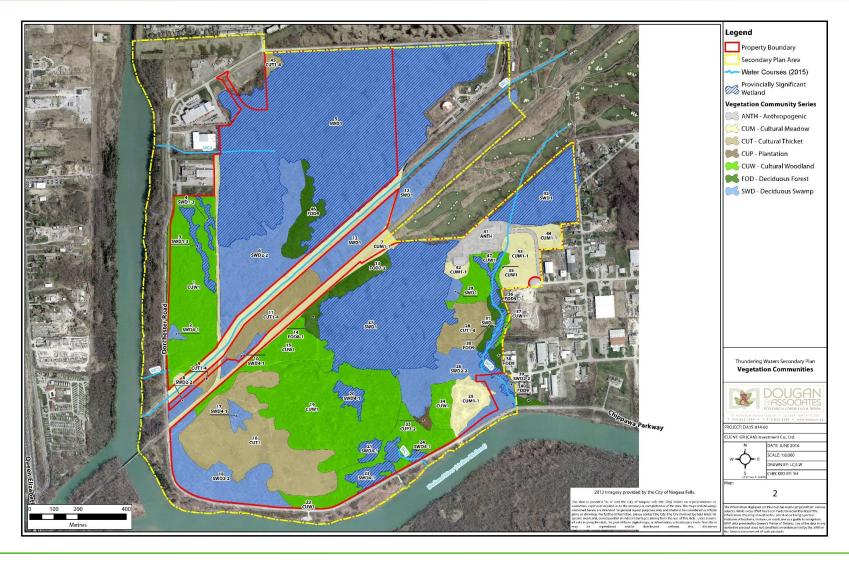
- Recommendations for protection
- Opportunities for enhancement and compensation
- Special consideration areas (e.g. rail corridor, Conrail Drain)
- Integration with built form
- Implementation/permitting considerations



# Thundering Waters Secondary Plan Environmental Impact Study Vegetation Communities







# Thundering Waters Secondary Plan Environmental Impact Study Recommendations





### 1. Elements that are protected within the Natural Heritage System (NHS)

- Provincially Significant Wetland\*
- Sensitive amphibian breeding habitat
- Woodland bird habitat\*
- Permanent watercourse
- Mature forest

- Bat roost habitat\*
- Mast tree habitat
- Habitat for provincially rare species\*
- Important habitat for Reptiles
- Deer habitat
- Rare vegetation communities\*

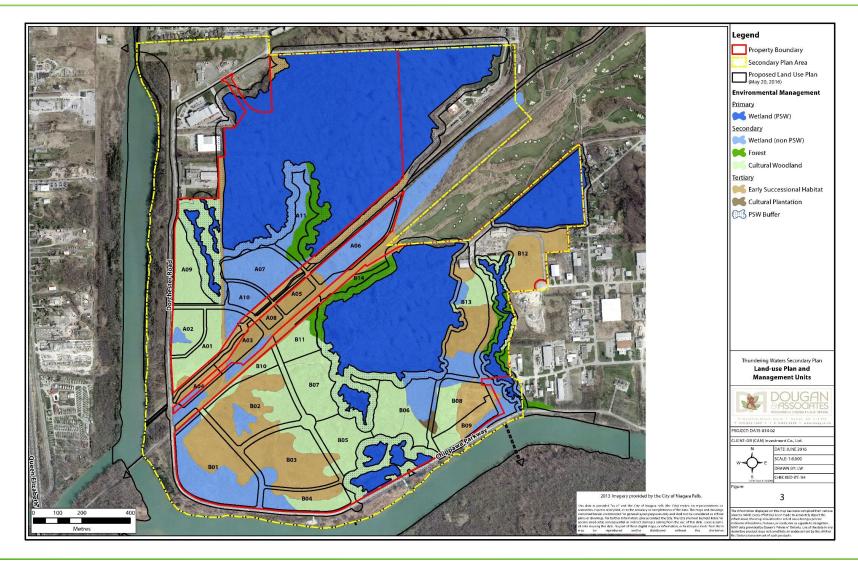
These elements will require further management recommendations during subdivision/site plan stage



# Thundering Waters Secondary Plan Environmental Impact Study Land Use Plan & Management Units







# Thundering Waters Secondary Plan Environmental Impact Study Next Steps





### **Next Steps**

- Acoustic monitoring of bat roost habitats to determine presence of SAR bats; if present, permitting and overall benefit plans will need to be addressed through the MNRF
- Non-PSW compensation/enhancement plans
- Amphibian breeding habitat compensation/enhancement plans
- Tree saving plans for areas of potential old-growth/mast tree habitat
- Provincially rare species and/or species of special concern (e.g. Schreber's Aster, Eastern Wood-Pewee, or Wood Thrush) compensation/enhancement plans
- Rare vegetation habitat compensation/enhancement plans
- Early succession breeding bird habitat compensation/enhancement plans
- Reptile hibernacula screening and salvaging/translocation plans

### Thundering Waters Secondary Plan Noise, Vibration and Air Quality





- Understand the relationship between industrial and sensitive (residential/ institutional) lands so that air quality, noise and vibration effects are minimized.
- More detailed assessment has been undertaken to address the influence of industrial land uses and the railway branch line on proposed sensitive land uses.
- Harmonize the development with existing land uses through the use of positive design features:
  - Collaboration with industry to optimize land use compatibility
  - Building design modifications to attenuate noise and vibration
  - Use of visual screens, barriers and vegetative buffers to mitigate residual noise and dust concerns
  - Inclusion of warning clauses in development contracts

### Thundering Waters Secondary Plan Noise, Vibration and Air Quality

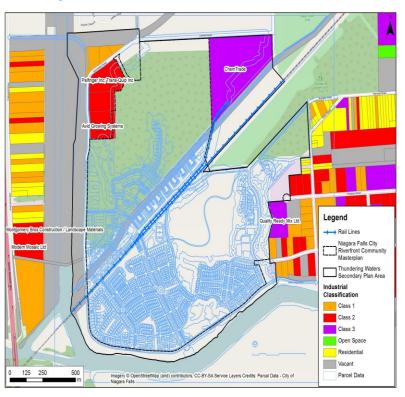




### Recommendations

- Facilities without need for Recommendations / Mitigation
  - Avid Growing Systems
  - Chemtrade
- Mitigation Measures Required:
  - Quality Ready-Mix
  - Rail Noise and Vibration
- Optional Recommendations / Mitigations Measures:
  - Quality Ready-Mix
  - Palfinger

Surrounding industrial lands categorized into Classes I, II, III



### Thundering Waters Secondary Plan Next Steps





- Finalize the technical studies
- Refine draft Secondary Plan policies and mapping
- Statutory Public Meeting on August 23





### Thundering Waters Secondary Plan





### Thank you for attending!

If you have any comments, please feel free to provide them to one of the staff or consultants who are here or fill out a comment sheet

