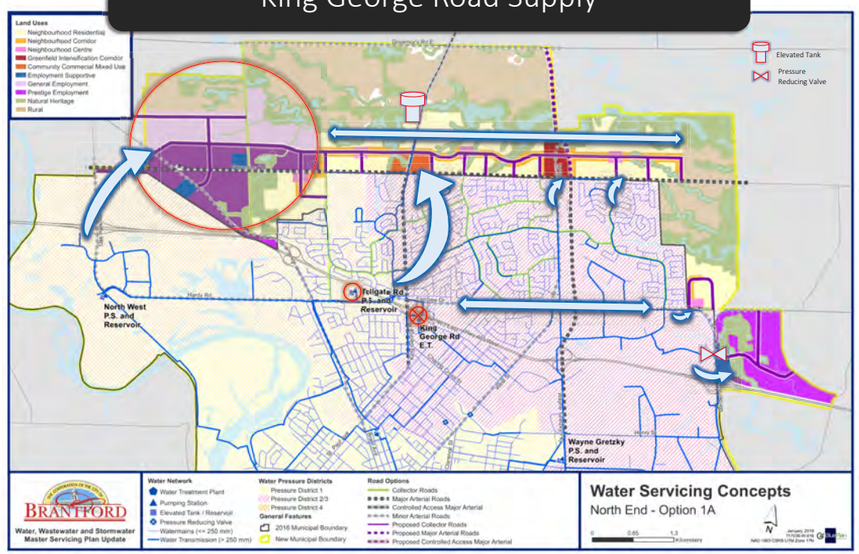
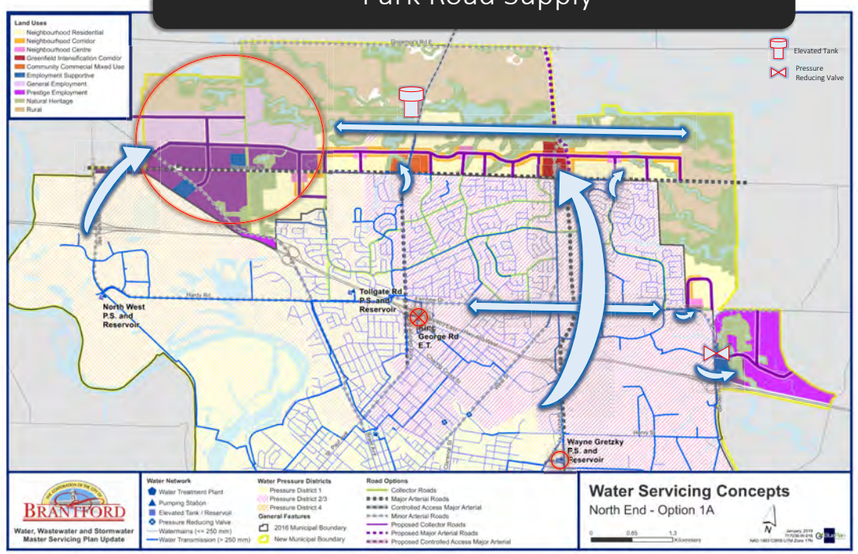
Water Servicing Concepts

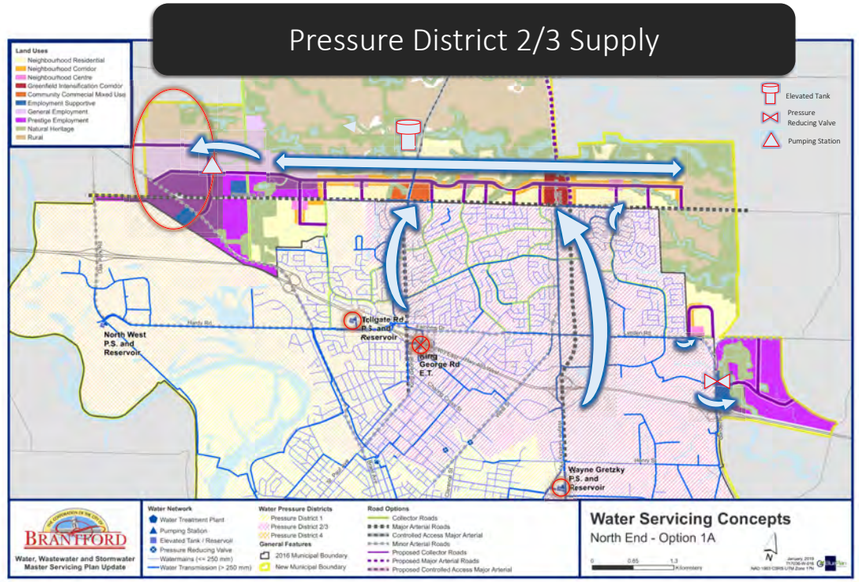
King George Road Supply



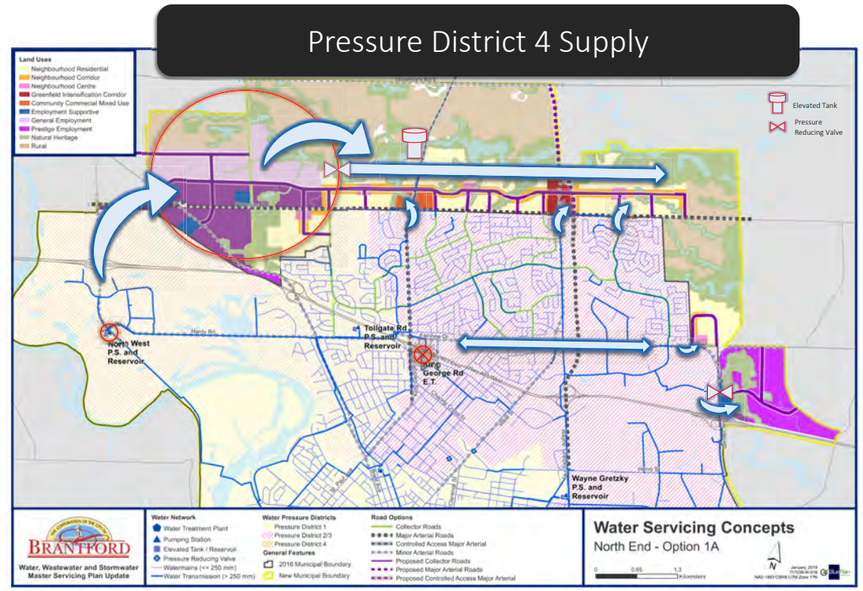
Park Road Supply



Pressure District 2/3 Supply



Pressure District 4 Supply

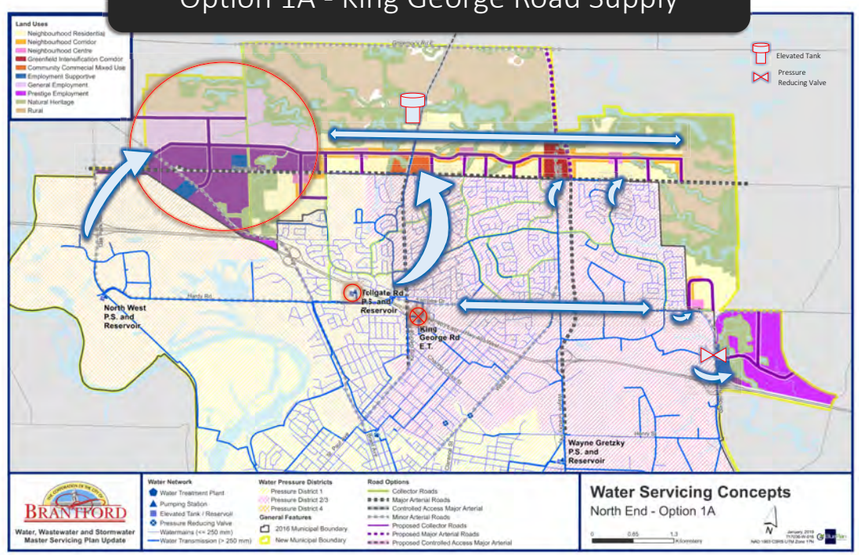


Water Servicing Concepts Evaluation

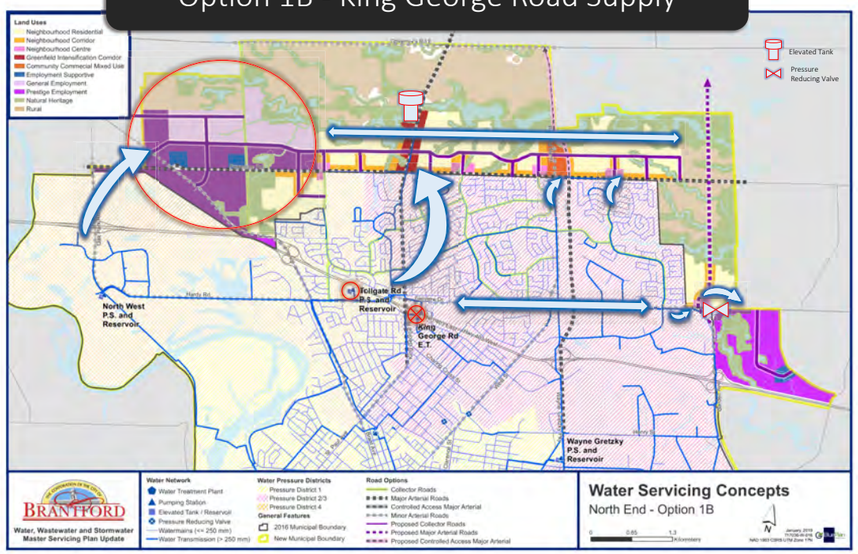
Water Servicing Concept	Advantages	Disadvantages	Cost Ranking
King George Road Supply • Strengthen supply from Tollgate Pumping Station & King George Rd trunk watermain • New pressure district in northwest employment lands • New elevated tank to support growth	• Shortest distance of upgraded watermain needed • Tollgate pumping station has sufficient capacity • Supports new elevated storage easily • Supports pressure district boundary optimization • Provides phasing flexibility	• Requires a major highway 403 crossing watermain	**$**
Park Road Supply • Strengthen supply from Wayne Gretzky Pumping Station & Park Rd trunk watermain • New pressure district in northwest employment lands • New elevated tank to support growth	• Wayne Gretzky pumping station has sufficient capacity • Significant intensification occurring on Wayne Gretzky corridor • Better supports expansion lands to the east • Upgrades align with wastewater phasing	• Requires a major highway 403 crossing watermain • Restrict pressure district boundary optimization • Additional east/west trunk watermain upgrades are needed	**$$**
King George and Park Road Supply • Strengthening supply from both King George Rd and Park Rd • New pumping station to supply northwest employment lands • New elevated tank to support growth	• No new major highway 403 crossing is required • Support growth along both King George and Wayne Gretzky intensification corridors • Increases overall system resiliency • Supports new elevated storage easily	• Difficulty phasing of employment lands • Longest distance of upgraded watermain needed • Requires an additional facility to be built • Restricts pressure district boundary optimization	**$$$**
Pressure District 4 Supply • Strengthening supply from Northwest pumping station & new pressure district 4 trunk watermains • New pressure reducing valve to supply pressure district 2/3 • New elevated tank to support growth	• Uses surplus capacity in Northwest pumping station • Minimize trunk watermain upgrades • Supports pressure district boundary optimization	• Requires multiple major highway 403 crossing watermain • Increased dependence on single pressure district 4 trunk watermain • Limits servicing phasing flexibility • May require storage and pumping station upgrades to Northwest	**$**

Land Use Options with Preferred Water Servicing Concepts

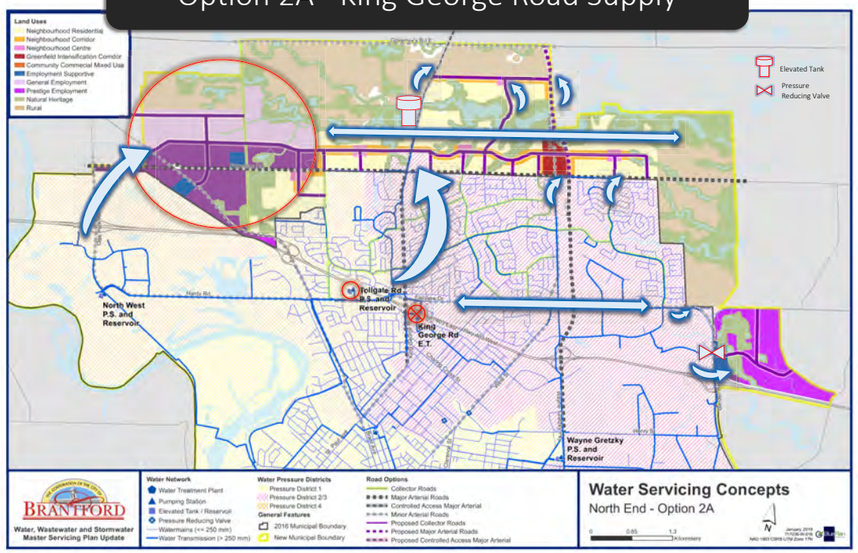
Option 1A - King George Road Supply



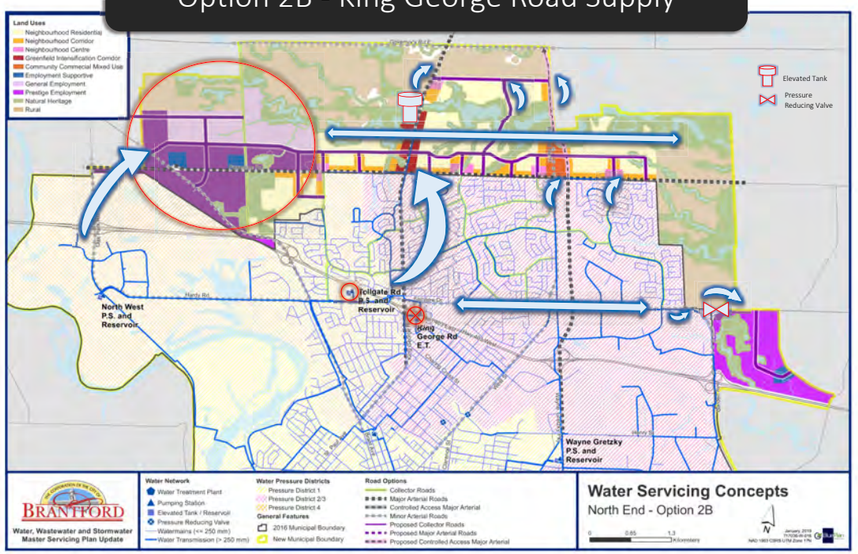
Option 1B - King George Road Supply



Option 2A - King George Road Supply

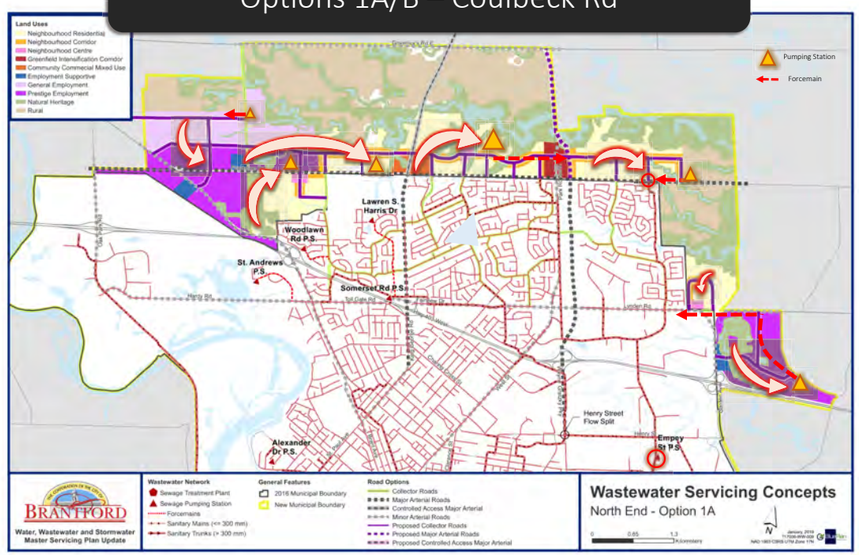


Option 2B - King George Road Supply

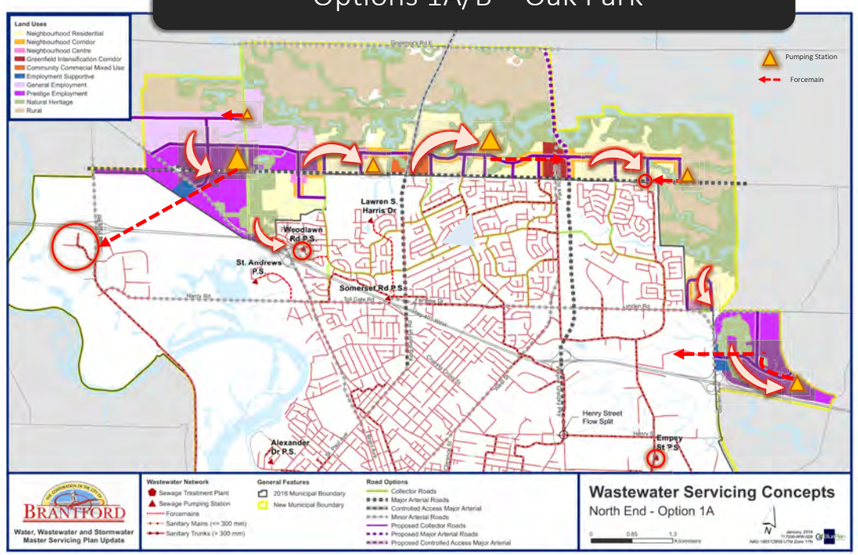


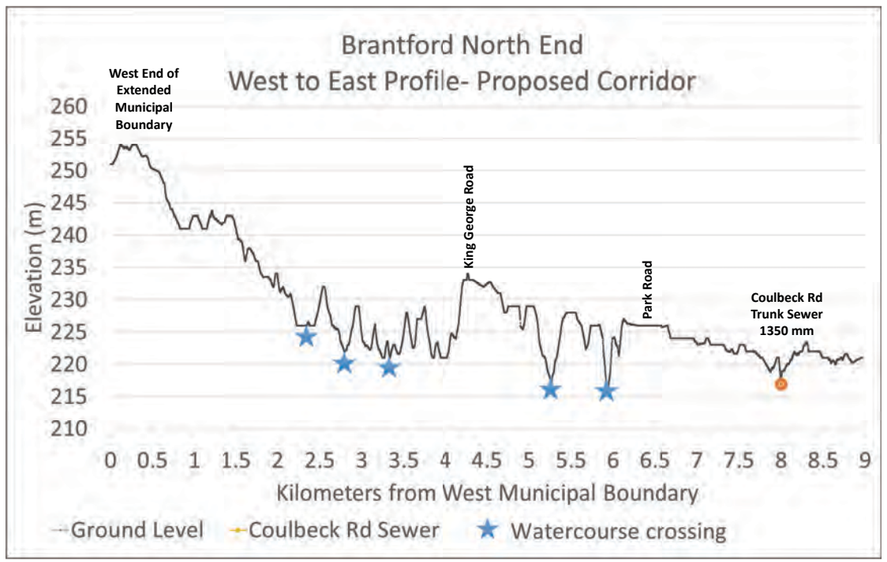
Wastewater Servicing Concepts – North Lands

Options 1A/B – Coulbeck Rd

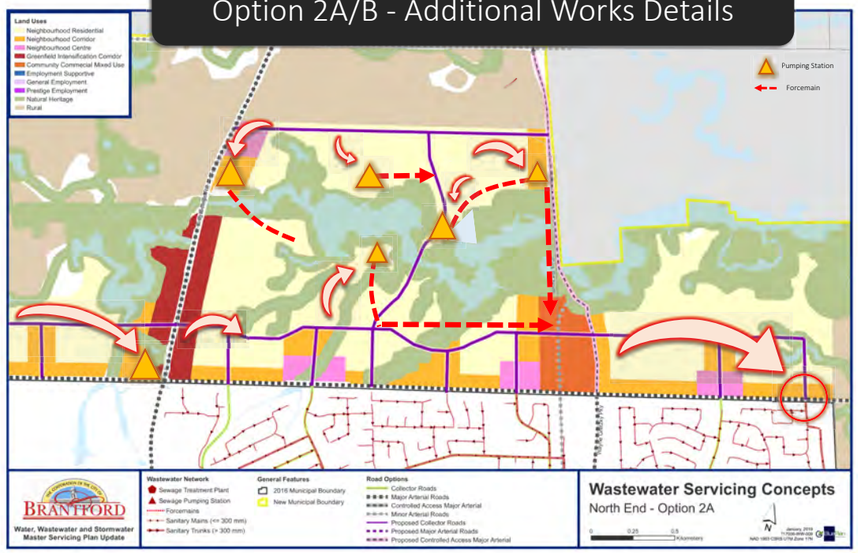


Options 1A/B – Oak Park

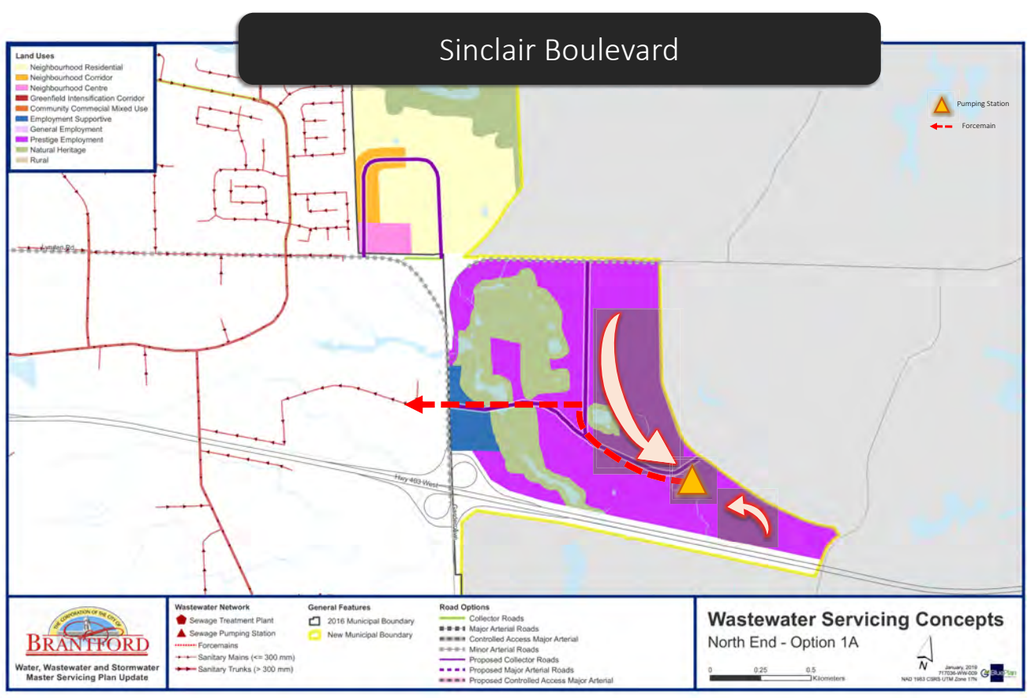


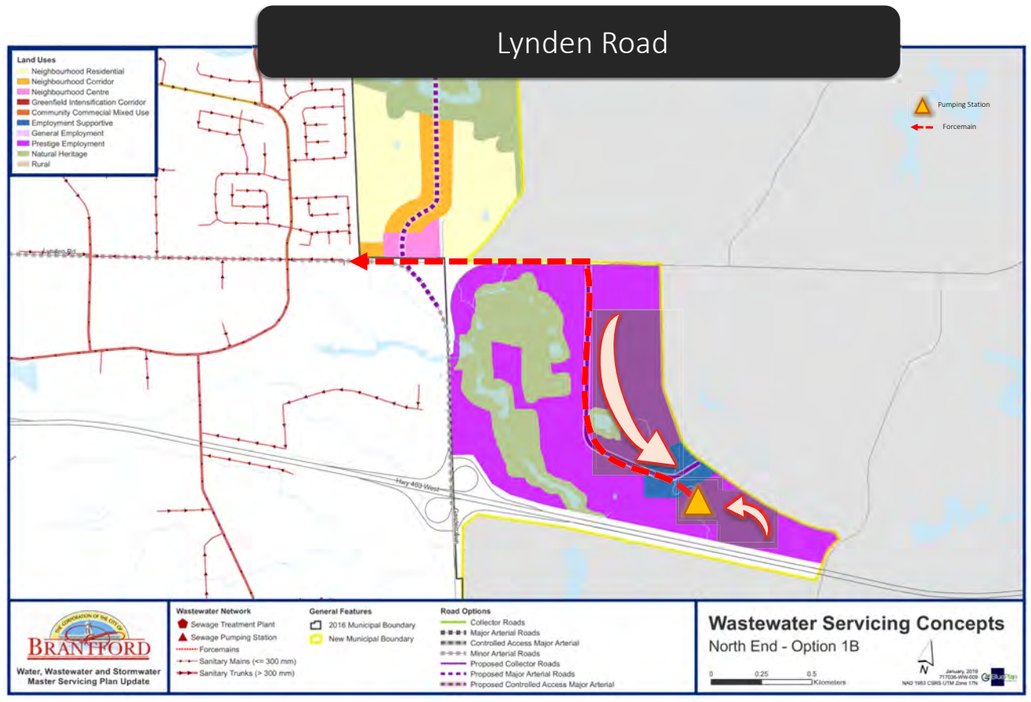


Option 2A/B - Additional Works Details



Wastewater Servicing Concepts – East Lands



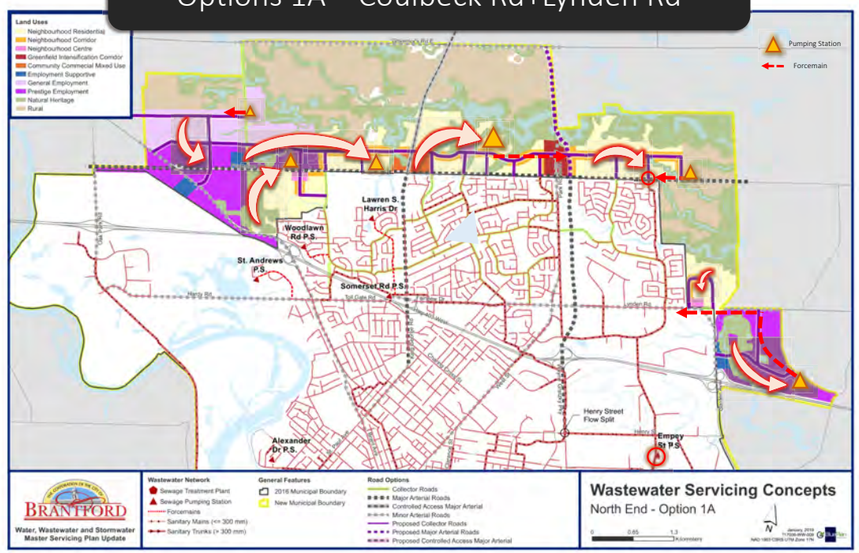


Wastewater Servicing Concepts Evaluation

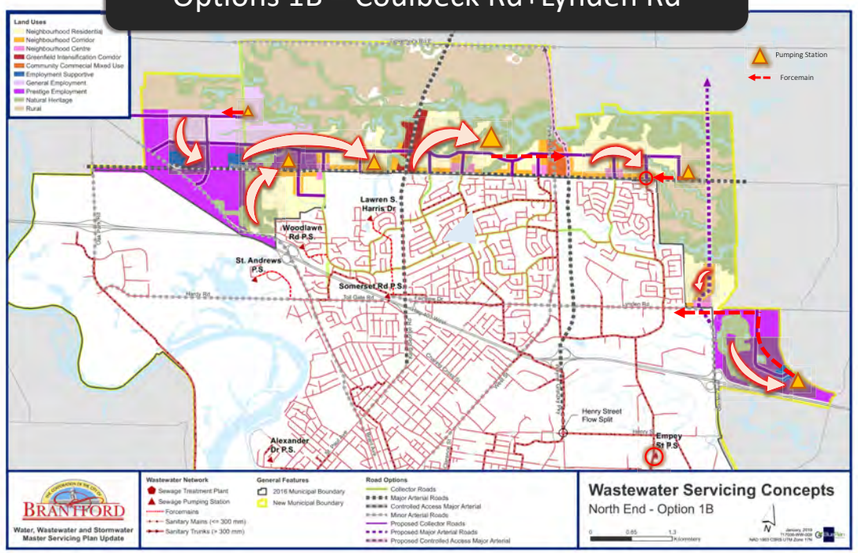
Wastewater Servicing Concept	Advantages	Disadvantages	Cost Ranking
Coulbeck Rd (North Lands) • All north expansion lands to trunk sewer on Coulbeck Rd • Additional pumping stations required to service Option 2 landuse	• Minimal downstream upgrades are required • Use topography to increase gravity fed area of northwest employment lands	• Requires deep trunk sewer • Requires pump stations to Coulbeck Rd • Tie in point relatively shallow	**$**
Oak Park (North Lands) • Northwest employment lands to tie into Oak Park trunk sewer • Remaining north lands to trunk sewer on Coulbeck Rd • Additional pumping stations required to service Option 2 landuse	• Reduces pump station capacities needed to convey flows to Coulbeck Rd • Minimal downstream upgrades required	• Requires highway 403 crossing • Works against topography of northwest employment lands • Requires deep trunk sewer • Does not fully eliminate need for pump stations to Coulbeck Rd	**$$**
Sinclair Boulevard (East Lands) • New pump station to support employment lands, with forcemain discharge to Sinclair Boulevard • Upgrade to Sinclair Boulevard sewer • Residential lands gravity connection to Lynden Road	• Reduced length of forcemain	• Longer length of sewer upgrades needed • Sewer upgrades along 2 corridors; Sinclair Boulevard and Lynden Road	**$$**
Lynden Road (East Lands) • New pump station to support employment lands, with forcemain discharge to Sinclair Boulevard • Residential lands gravity connection to Lynden Road • Upgrade to Lynden Road sewer	• Minimizes existing system upgrades • Streamline sewer upgrades for residential and employment lands to single corridor	• Longer forcemain is needed	**$**

Land Use Options with Preferred Wastewater Servicing Concepts

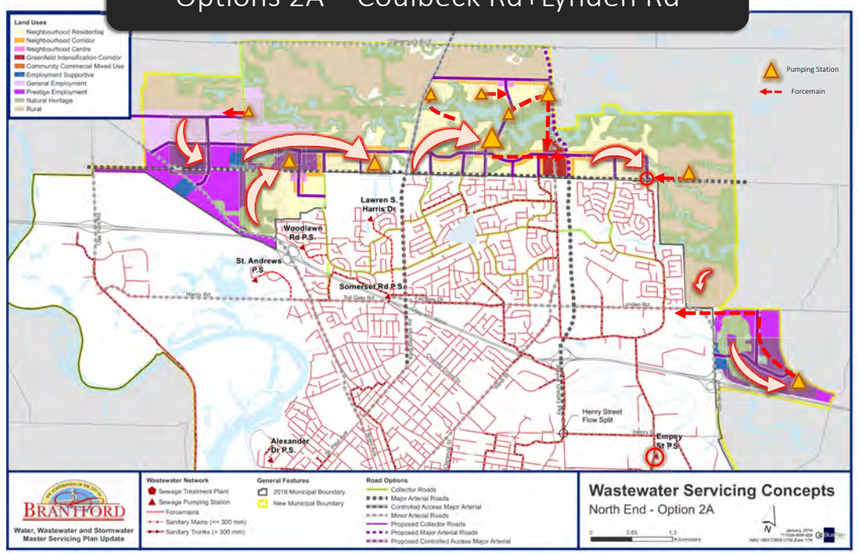
Options 1A – Coulbeck Rd+Lynden Rd



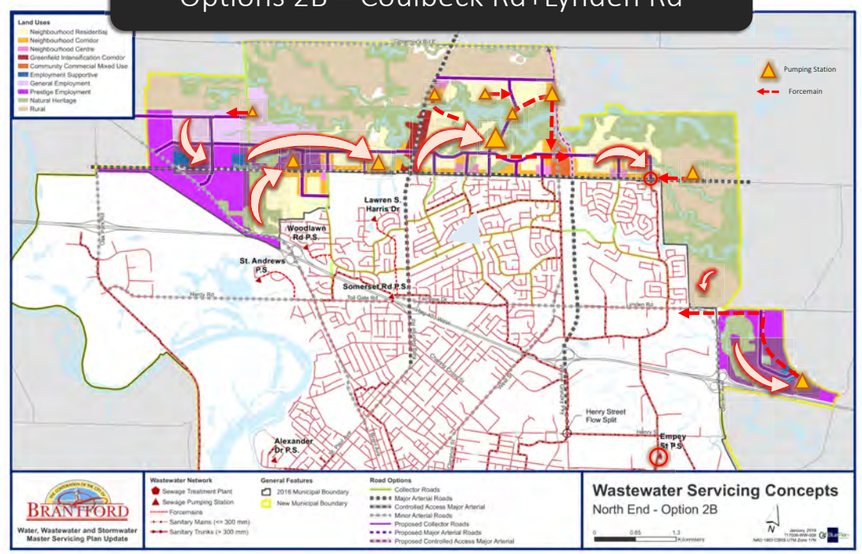
Options 1B – Coulbeck Rd+Lynden Rd



Options 2A – Coulbeck Rd+Lynden Rd

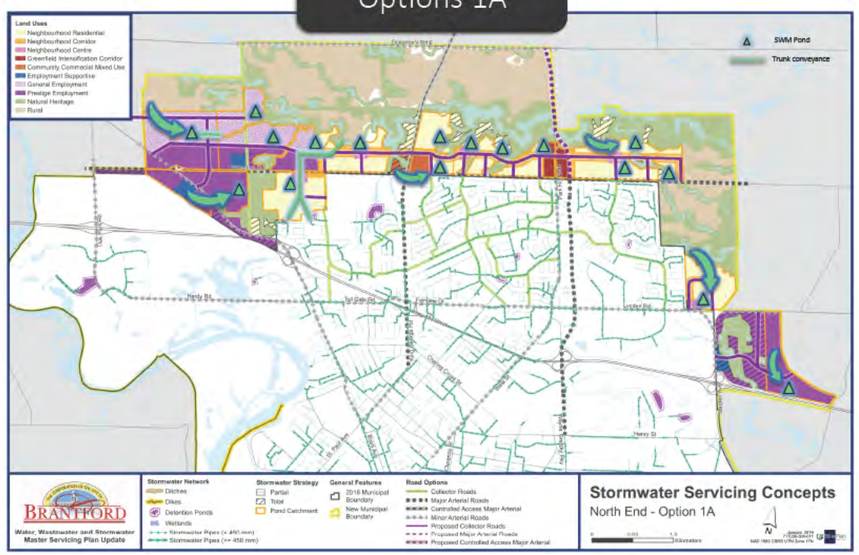


Options 2B – Coulbeck Rd+Lynden Rd



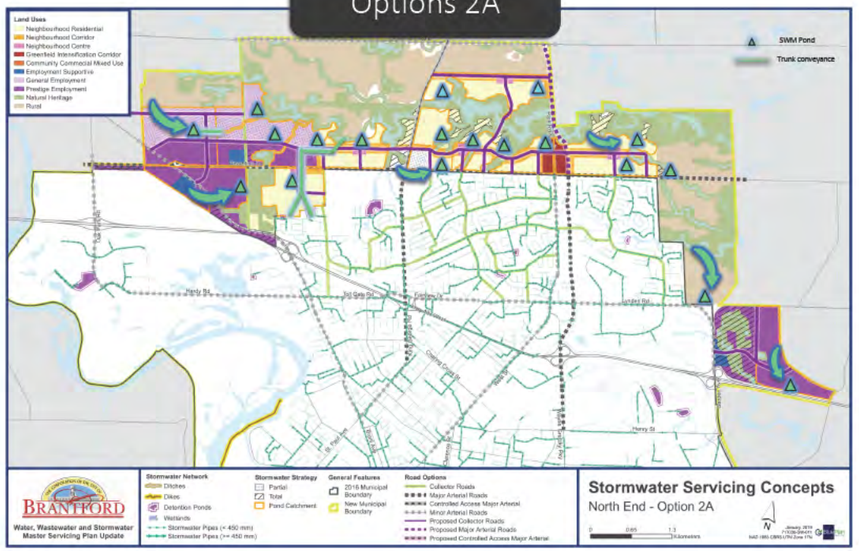
Land Use Options with Preferred Stormwater Servicing Concepts

Options 1A



Options 1B

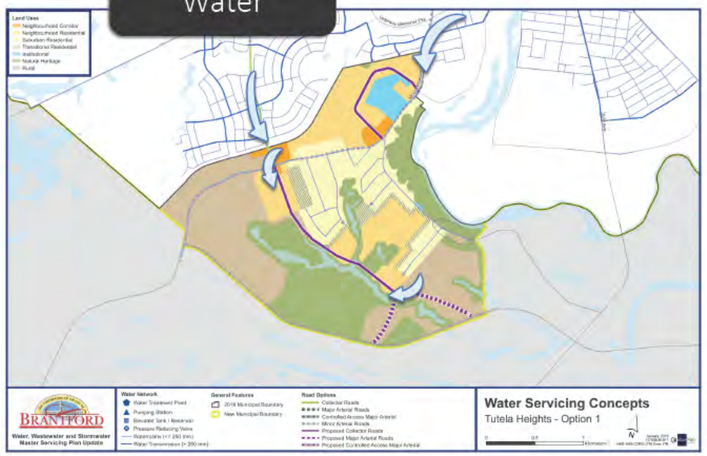
Options 2A



Options 2B

Tutela Heights – Water, Wastewater, and Stormwater Servicing

Water



Wastewater Option 1 – Connect at Mount Pleasant Rd

Wastewater Option 2 – Connect at Gilkison St

Stormwater