

**WATER/WASTEWATER MASTER PLANS
CLASS ENVIRONMENTAL ASSESSMENT**

**PUBLIC INFORMATION
LIVE BROADCAST**

May 25, 2020

PROJECT CONTACTS:

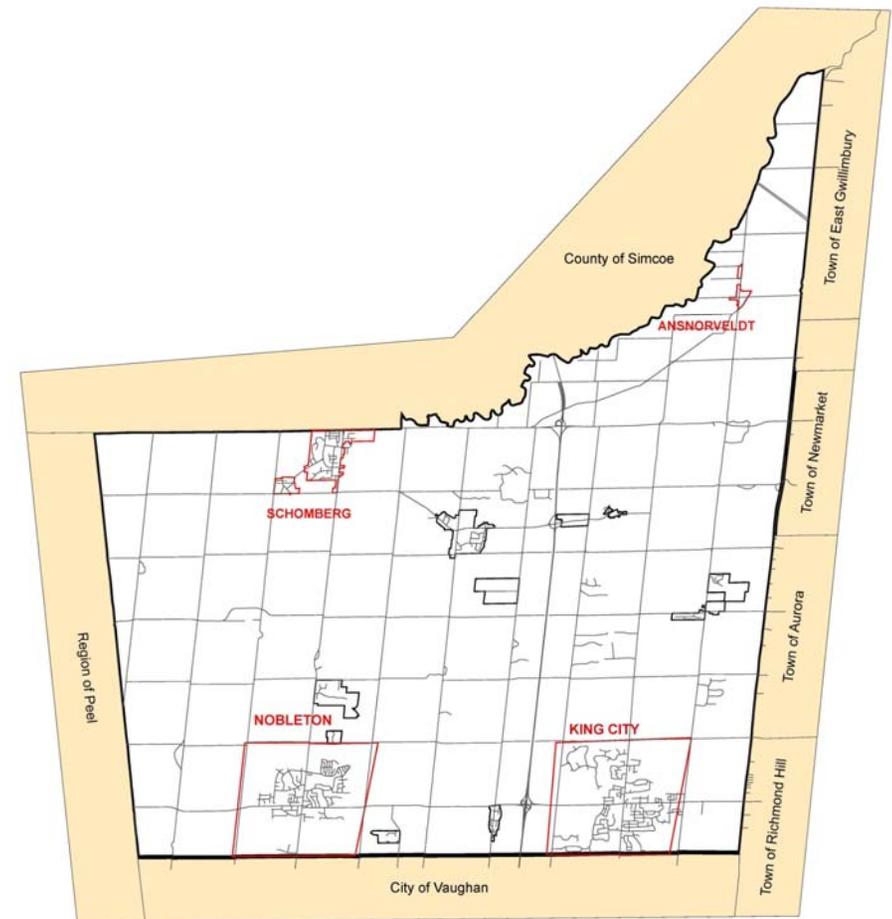
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Due to Provincial Restrictions on Social Gatherings in the wake of the COVID-19 Pandemic, this Information Session is being broadcast live.

The communities of **King City**, **Nobleton** and **Schomberg** are serviced via municipal water, wastewater and storm sewer networks, and are currently experiencing growth. The community of **Ansnorveldt** has a municipal water distribution system.

A review and analysis of the existing services in King City, Nobleton, Schomberg and Ansnorveldt will allow the Township to coordinate municipal infrastructure planning with its Official Plan update, to ensure that the policies developed in each are compatible with one another and that the services are available in time to service the projected growth.



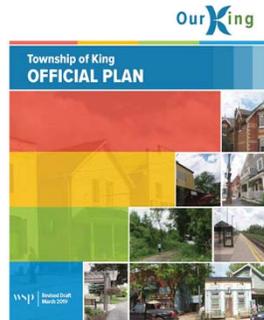
| Milestone | Date |
|--|--------------------|
| Project Initiation | January 8, 2014 |
| Notice of Commencement | March 6, 2014 |
| Develop Problem Statement | April 2014 |
| Phase 1 Public Consultation | May 13, 2014 |
| Develop and Review Alternative Solutions | June 2014-May 2015 |
| Phase 2 PCC (Schomberg) | July 15, 2015 |
| Phase 2 PCC (King City) | July 16, 2015 |
| Phase 2 PCC (Nobleton) | July 21, 2015 |

| Milestone | Date |
|---|-------------------|
| Update King City Density Projections | Late-2015 |
| Consultation with TRCA | August 2016 |
| Presentation to Council | November 1, 2016 |
| Updated Analysis to Reflect the New Official Plan | March-August 2017 |
| Planning Updates and Re-Finalize Project File | 2018 |
| Public Update (Live Webcast) | May 25, 2020 |
| Finalize Master Plan | Mid-2020 |

Problem Statement / Study Background

Like all municipalities in the Greater Golden Horseshoe, the Township of King has to accommodate growth in order to help the Province achieve the growth objectives identified in the *Places to Grow* initiative.

King Township has initiated Master Plan studies that will support the Township's Official Plan and the individual Community Plans, while ensuring that the level of service for the existing serviced areas is maintained. The studies will consider all lands currently designated for development, plus an allowance to accommodate intensification within the existing development limits as established by York Region and the provincial Growth Plan (Places to Grow).



King Township Official Plan

King has completed their Official Plan:

The new Parent Official Plan will help develop a vision for how King is going to evolve and grow over the long-term, and how to achieve it.

Objective is for conformity with the Greenbelt Plan, the Growth Plan for the Greater Golden Horseshoe, the Lake Simcoe Protection Plan, and Source Protection Plans.

This is the basis for this Water/Wastewater Master Plan



Transportation Master Plan

The Township of King has also completed a Transportation Master Plan (TMP) Study. The TMP Study will guide the development of the Township's long-term transportation vision for the next twenty years.

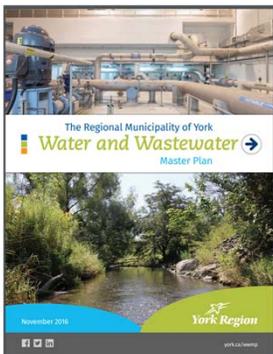
This Study reflects the Township's desire to develop a sustainable transportation system with a strong focus on efficient use of existing infrastructure, transit, active transportation and Transportation Demand

York Region 2016 Water and Wastewater Master Plan

The Region has updated their Water and Wastewater Master Plan, which was previously updated in 2009. As York Region supplies King Township with treated drinking water, and also receives King Township's Wastewater and conveys it to the Region's Water Resource Recovery Facilities, it is important that the Township and the Region share a common understanding of how water demands, and wastewater flows will change over time, ensuring that both systems are capable of supporting the projected growth throughout the serviced areas of the Township.

The following projects within King Township are identified in the Region's Master Plan:

- **W28 - Nobleton Water Supply Expansion:** Increase supply capacity to support proposed Nobleton community expansion through addition of new wells and/or revision of existing Permit to Take Water limit.
- **WW21- Nobleton Water Resource Recovery Facility Expansion:** Increase capacity of Nobleton Water Resource Recovery Facility from 2.9 MLD to 4.2 MLD, including the adding a third treatment train, upgrades to the filtration system and modification to existing headworks and pump station. The expansion is required to accommodate growth in Nobleton.



| Criterion | Value | Note |
|--|--|-----------------------------------|
| Residential Average Day Demand | 370 Lpcd | - |
| Maximum Day Factor | King City: 2.00 Nobleton: 2.00 Schomberg: 2.00 | From Township's Design Standards |
| Peak Hour Factor | King City: 2.75 Nobleton: 2.75 Schomberg: 2.75 | From Township's Design Standards |
| Commercial / Industrial / Institutional | 86 persons/ha | Equivalent residential population |
| Fire Flows | Per Fire Underwriters Survey | - |
| System Pressures – Peak Hour | 275 to 700 kPa | 40 to 100 psi |
| System Pressures – Maximum Day plus Fire | 140 to 700 kPa | 20 to 100 psi |

| Category | Structure Characteristics | Calculated Fire Flow | Example |
|-------------------------|--|----------------------|---|
| Residential | 260 m ² (2,800 ft ²) 'Ordinary' Construction Limited Combustible Content Not Sprinklered | 63 L/s (3,780 L/min) |  |
| Main Street Commercial | 300 m ² /storey (3,200 ft ²) Two Storeys (apartment above) 'Ordinary' construction Combustible Content NFPA 13 Sprinkler System | 103 L/s |  |
| Major Retail/Industrial | 5,000 m ² (55,000 ft ²) 'Non-Combustible' Construction Combustible Content NFPA 13 Sprinkler System | 187 L/s |  |

| Criterion | Value | Note |
|------------------------------|-------------------------------------|-----------------------------------|
| Residential Average Day Flow | 370 Lpcd | |
| Infiltration Allowance | 0.21 L/s/ha | Applies to Residential Lands only |
| Commercial Flows | 65 m ³ /gross lot ha/day | Includes infiltration and peaking |
| Industrial Flows (Light) | 35 m ³ /gross lot ha/day | Peak per MOE Design Guidelines |
| Industrial Flows (Heavy) | 55 m ³ /gross lot ha/day | Peak per MOE Design Guidelines |
| Institutional Flows | 65 m ³ /gross lot ha/day | Includes infiltration and peaking |

TECHNICAL MERIT

- **Functionality** – Ability to meet demands and integrate with existing infrastructure
- **Constructability** – Ease of construction, length of routes, construction methods and crossings

NATURAL

- **Impact on Natural Environment**
 - Need for Greenbelt/ORM crossings or on-Greenbelt/on-ORM construction
 - Impact on terrestrial and aquatic environments

SOCIO-ECONOMIC

- **Cultural Environmental Impact** – Cultural heritage impact & disruption to surrounding area
- **Transportation Impact** – Impact on traffic patterns, road closures/detours, public transit disruption
- **Residential and Business Impact**
 - Proximity of work to residences, businesses & institutions, public safety and perception
 - Odour & air quality

FINANCIAL

- 25-Year Capital Cost

Alternative 1 - Do Nothing

- Proceed with Community Plan projections, without any material changes to the Township's existing water distribution and wastewater collection infrastructure.

Alternative 2 – Limit Community Growth

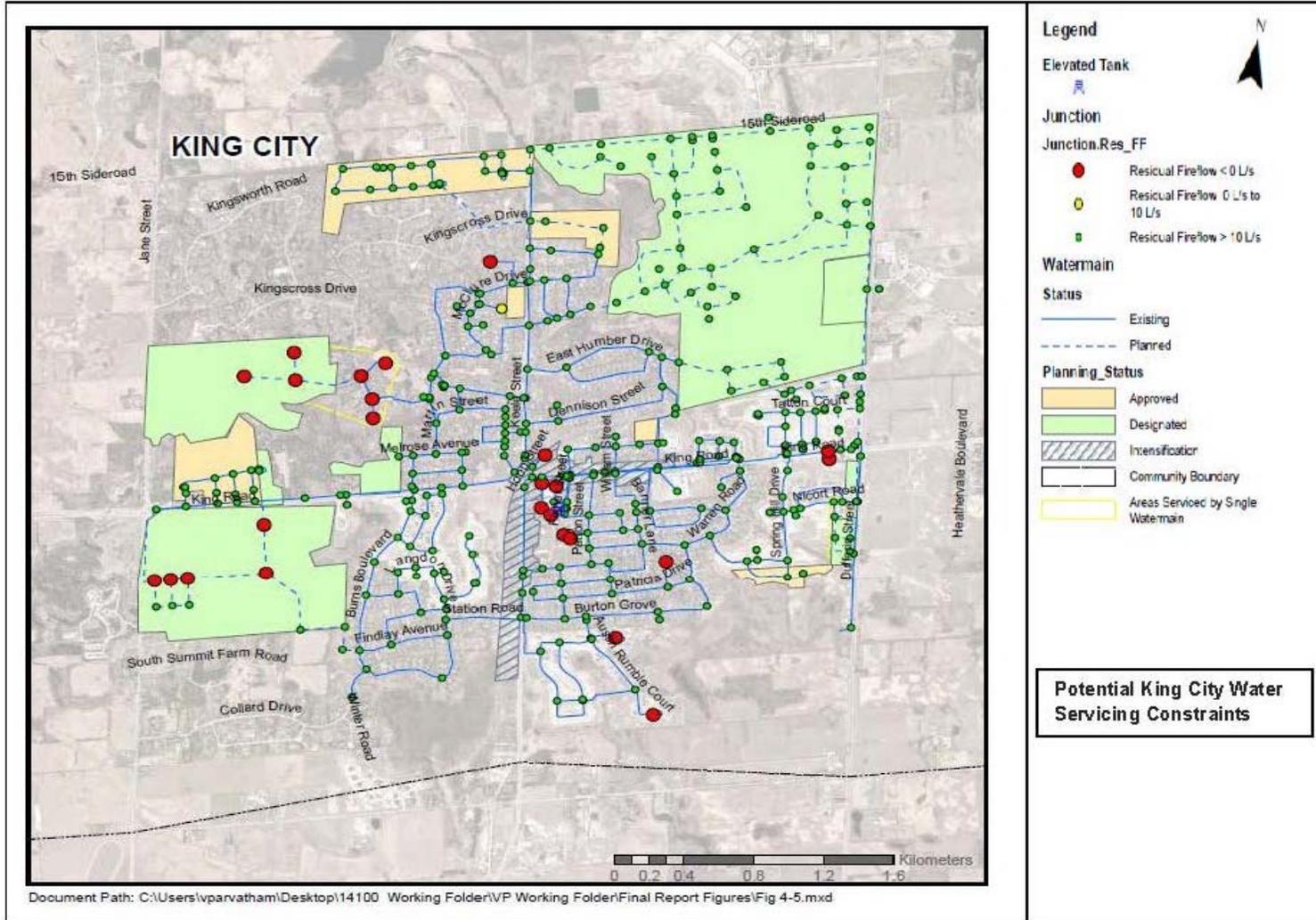
- Limit growth within each of the individual communities to that which can be supported by the existing water and wastewater infrastructure.

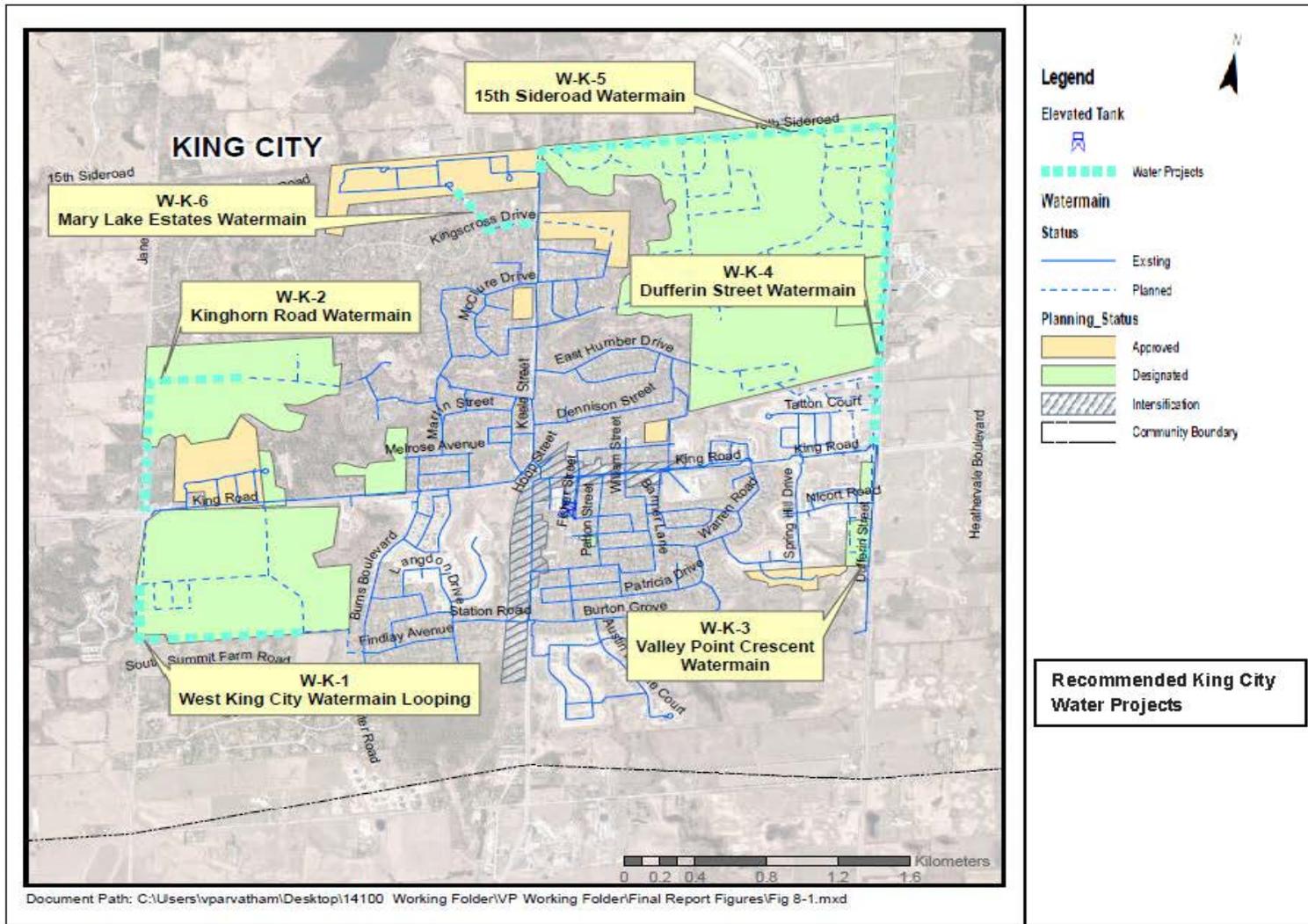
Alternative 3 – Water Conservation (Water & Wastewater) and I/I Reduction (Wastewater)

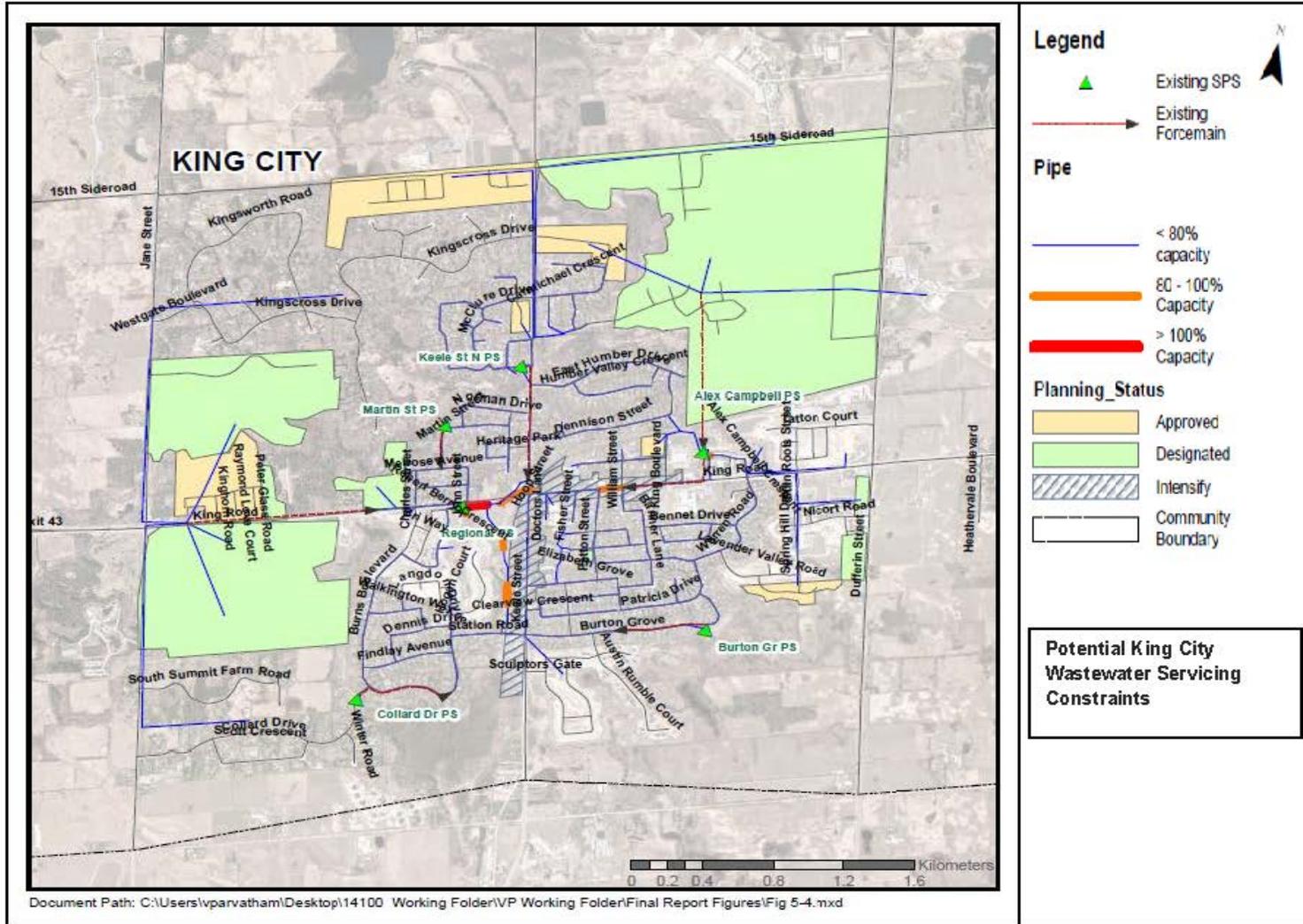
- Provide for mandated growth solely by reducing water consumption and wastewater generation Township-wide..

Alternative 4 – Expand & Enhance Existing Water and Wastewater Infrastructure

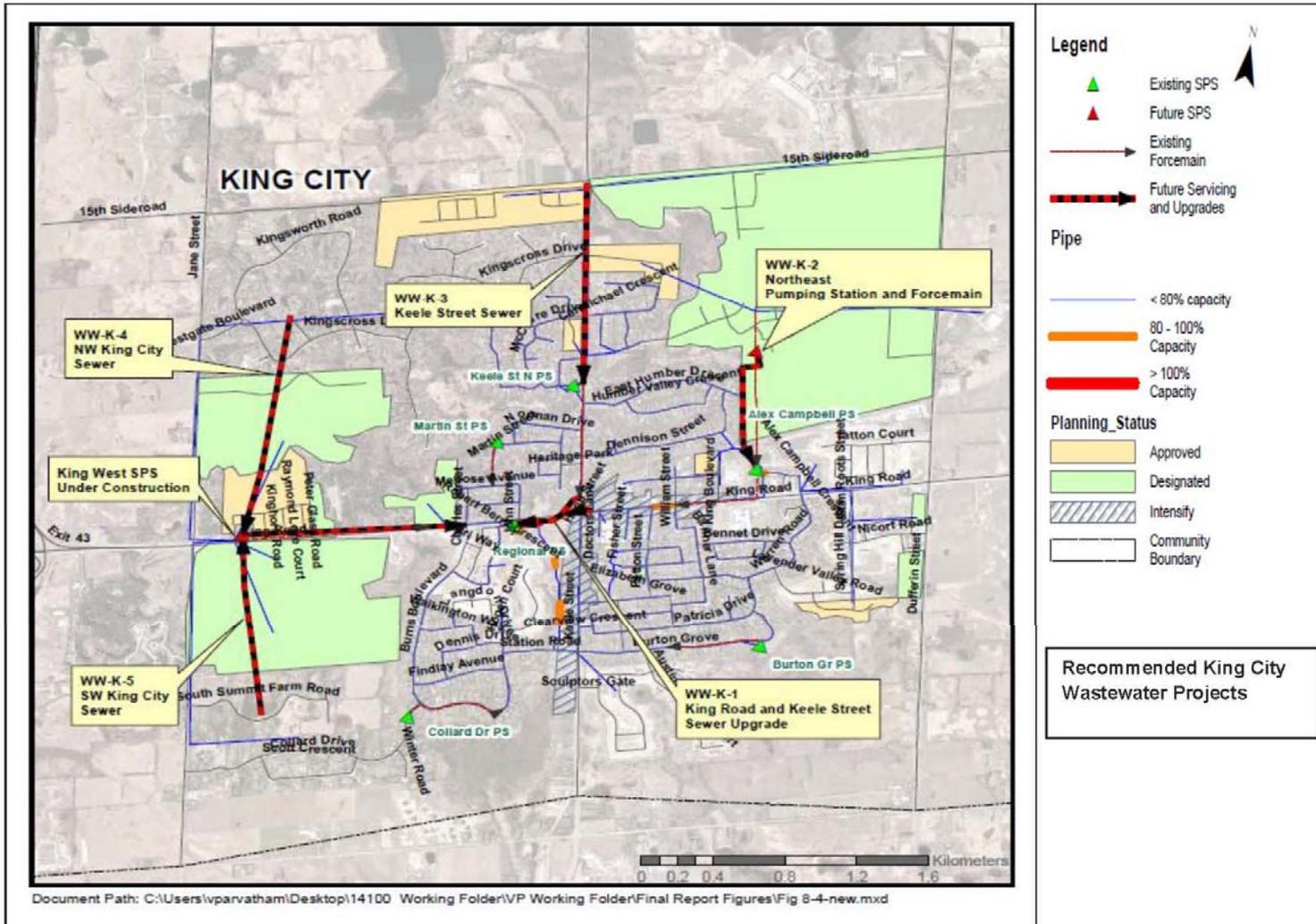
- Provide for mandated growth through a combination of enhancements of the existing system or extension of the existing system into new growth areas.

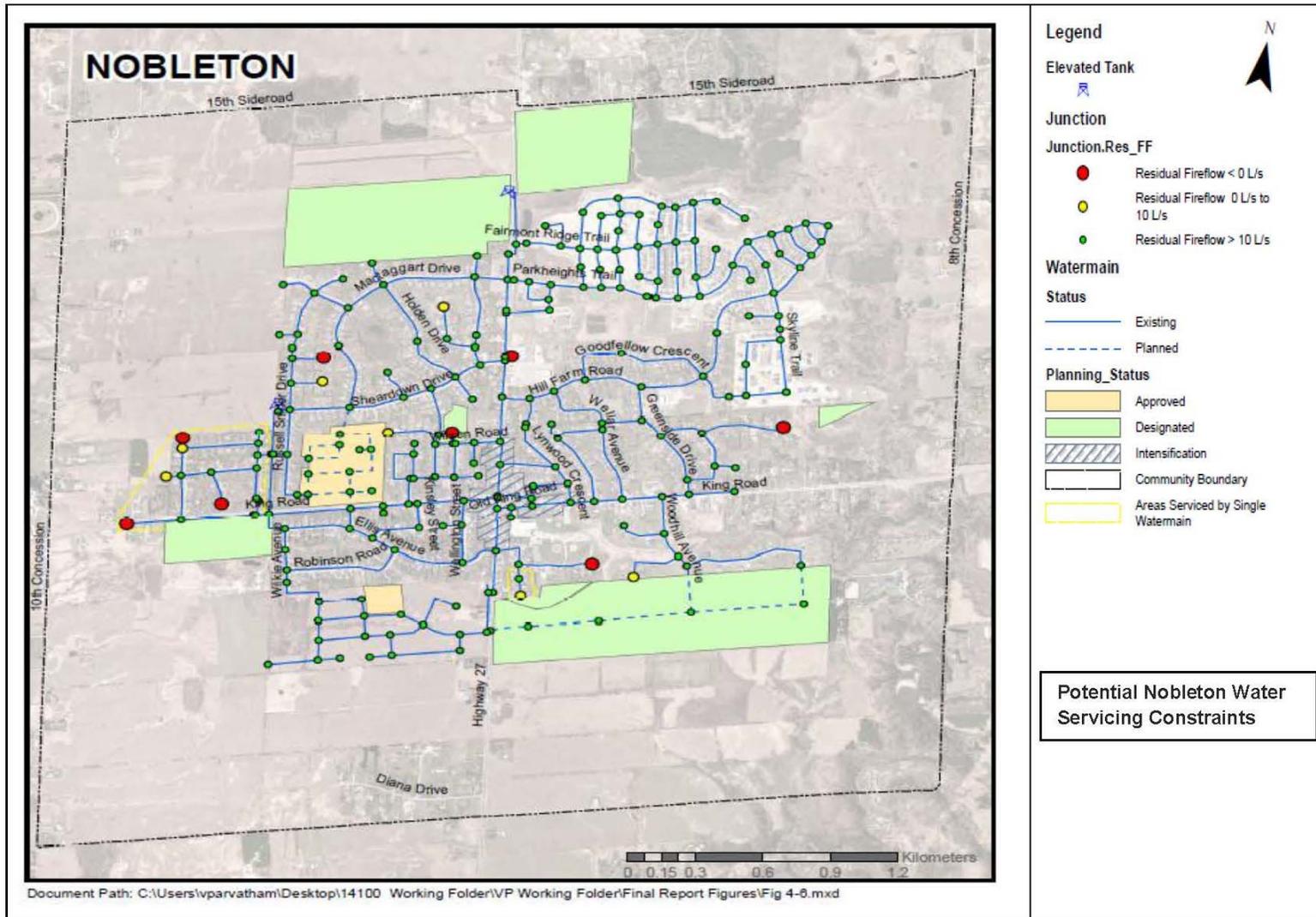


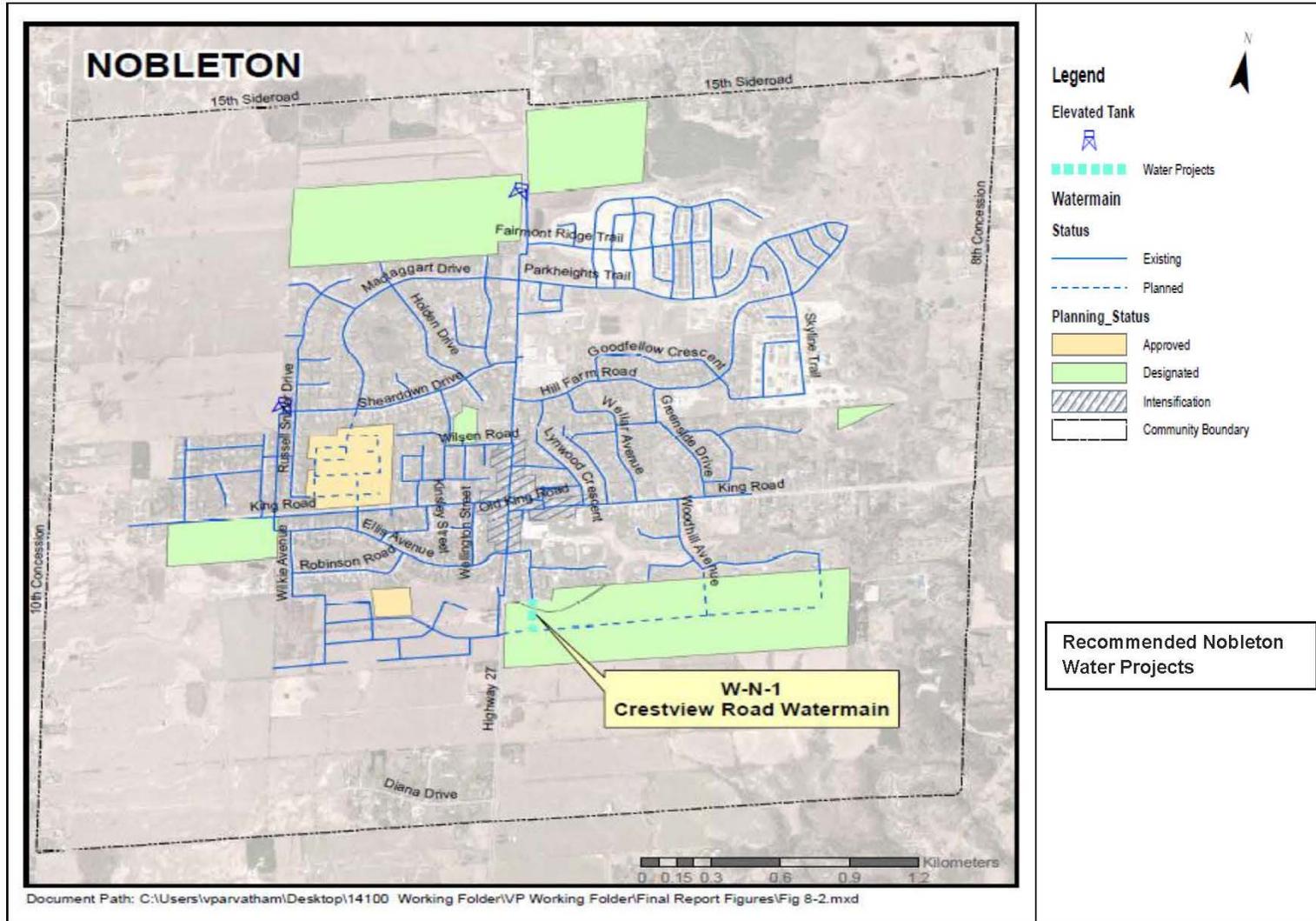


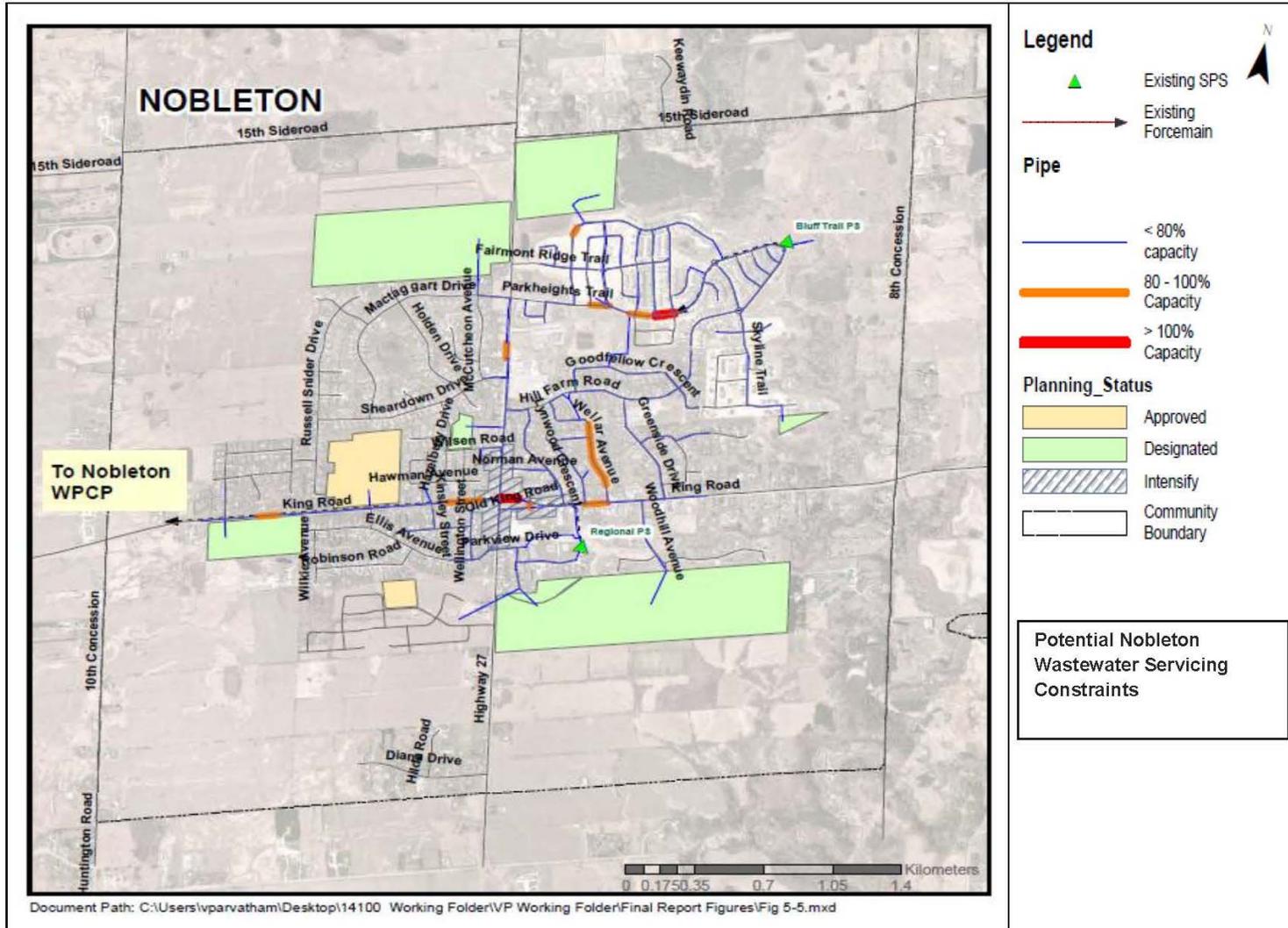


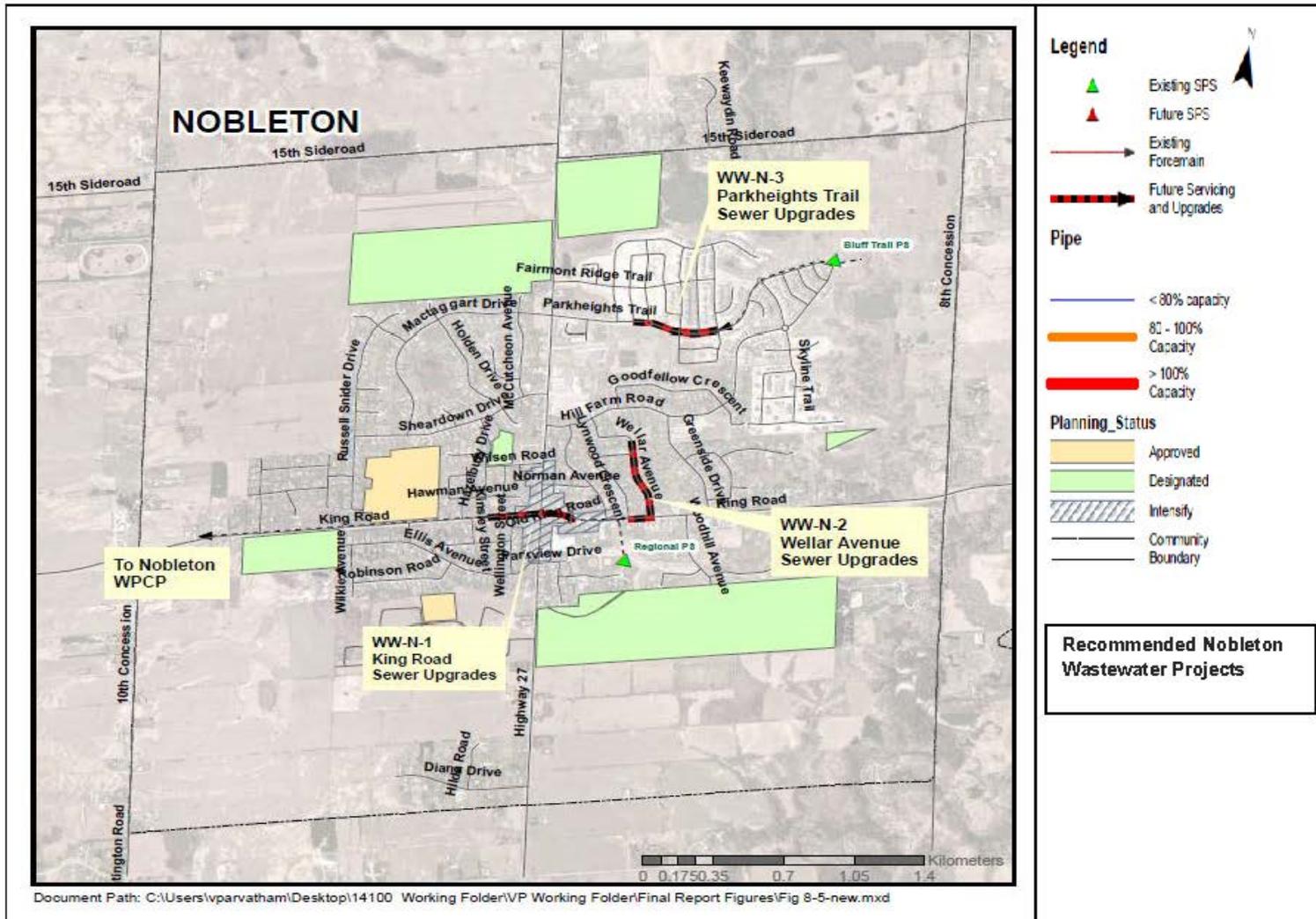
Recommended Wastewater Projects – King City

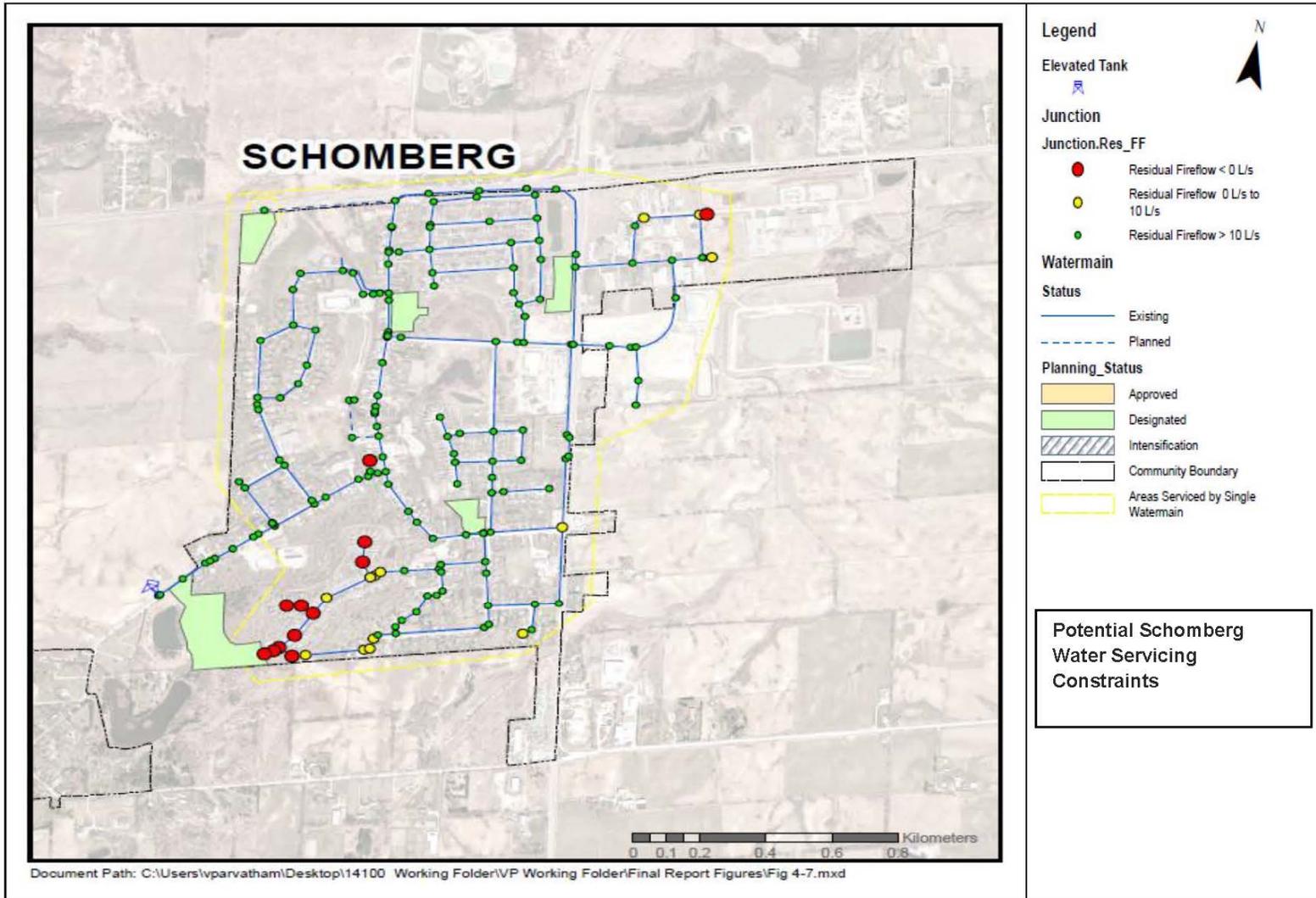


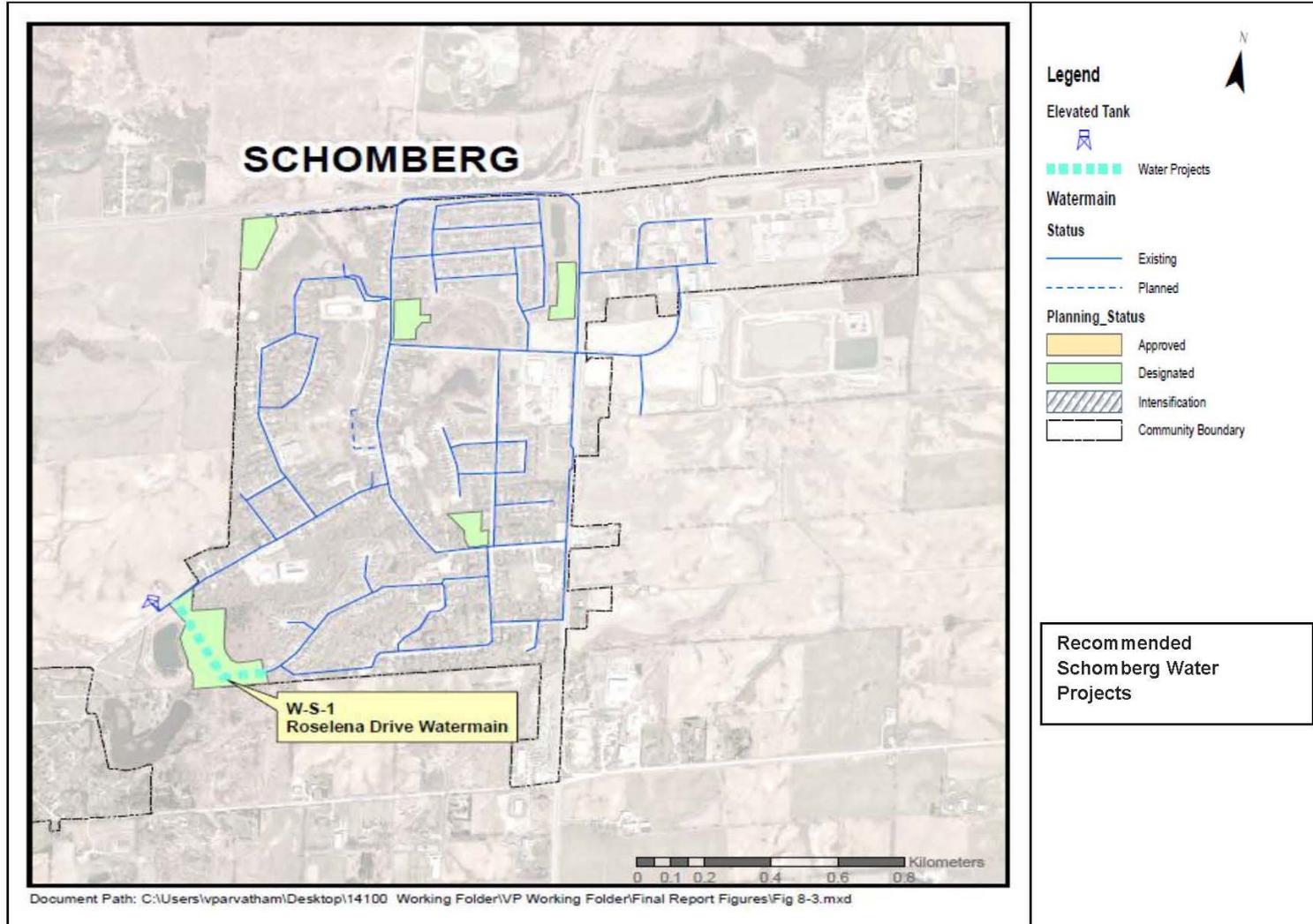


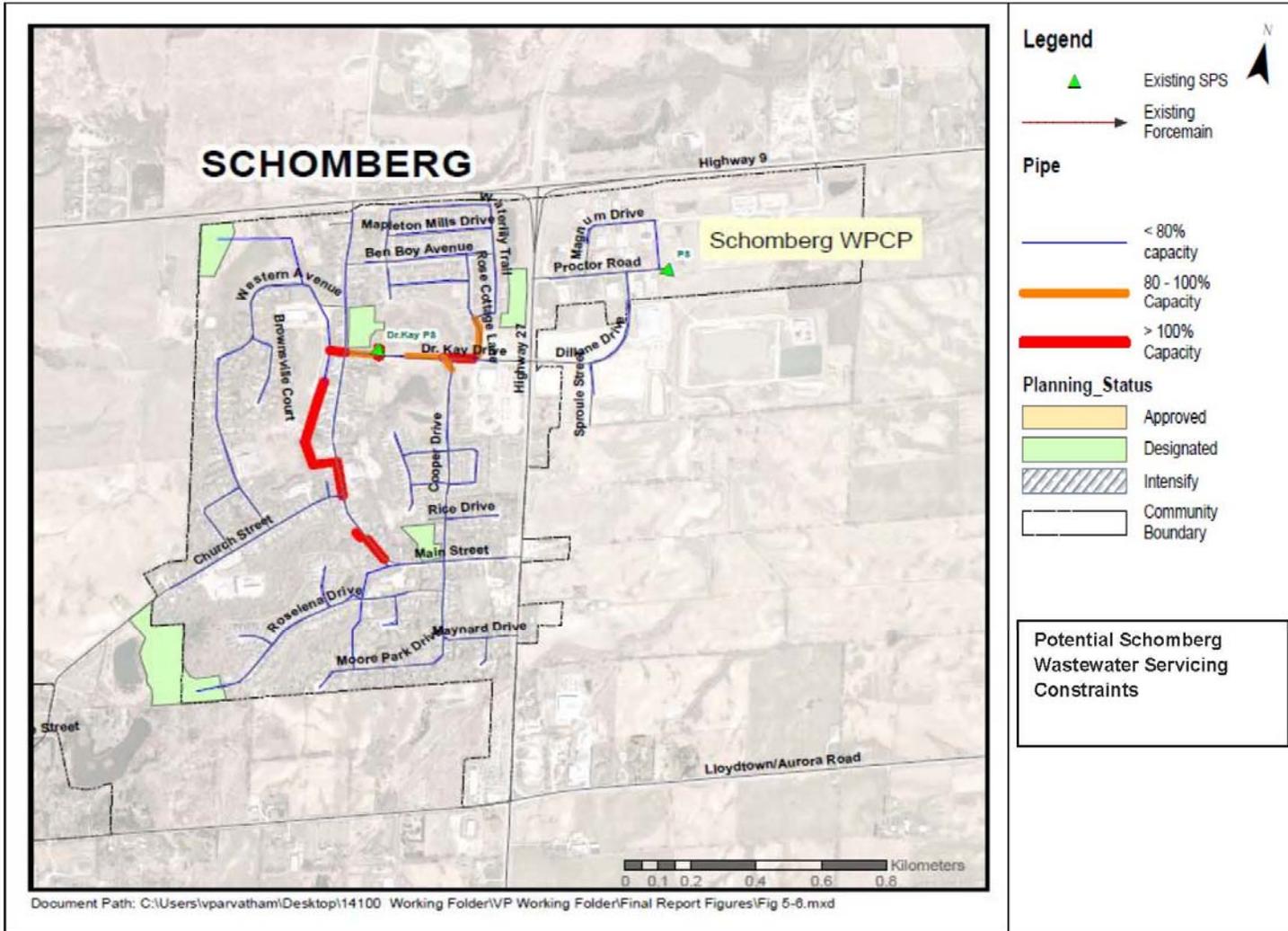


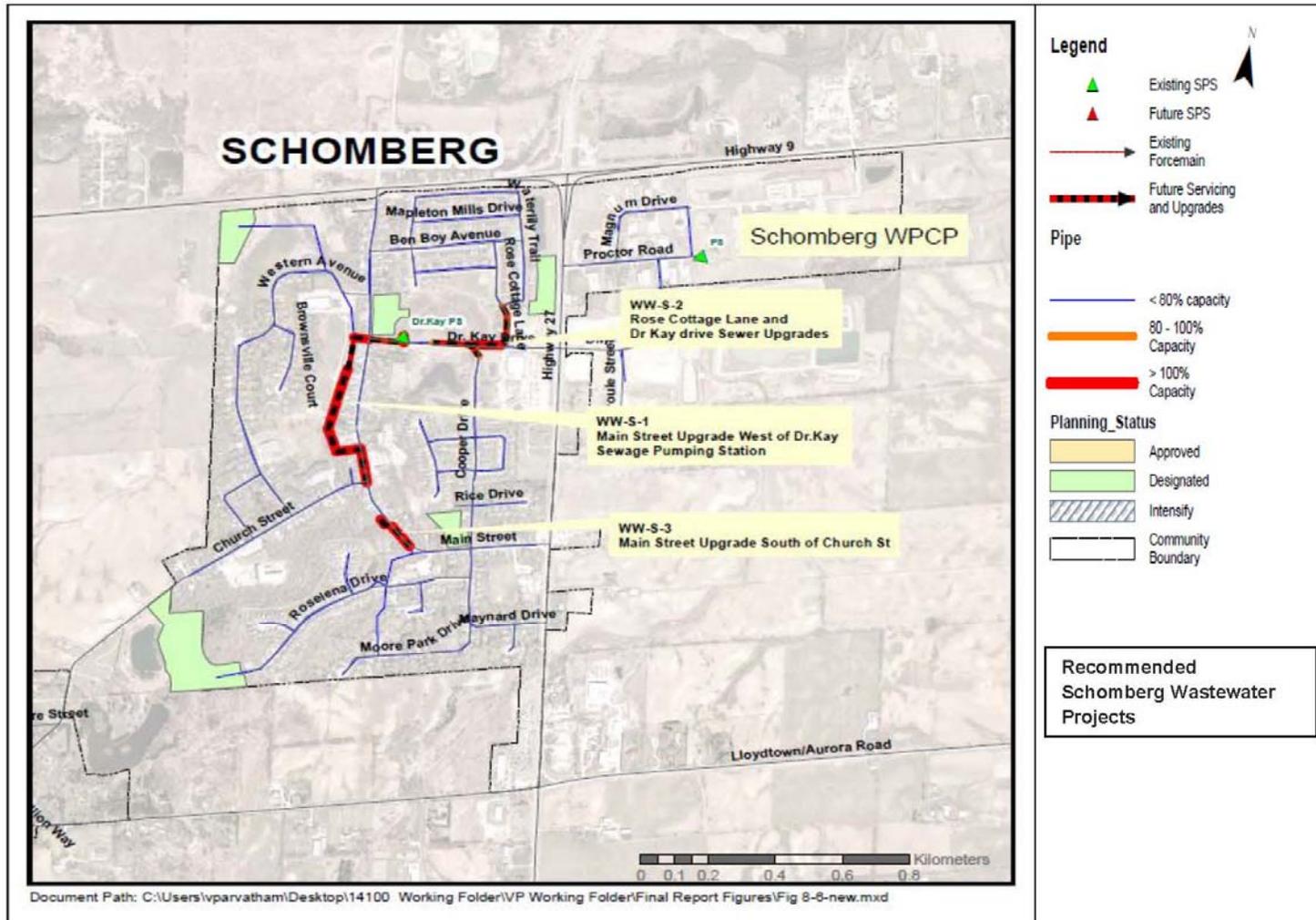


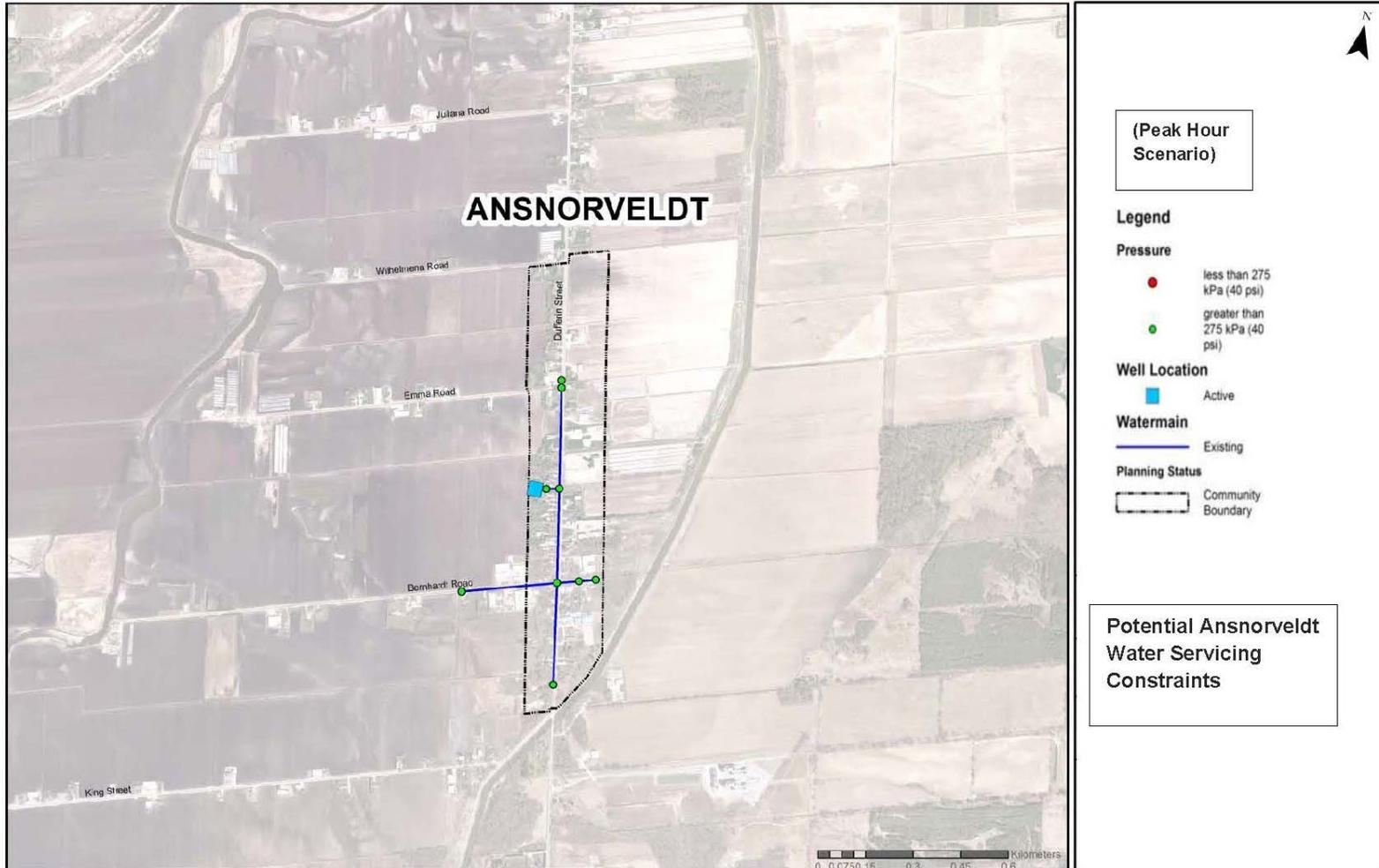












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| Project ID | Description | Trigger | Anticipated Class EA Schedule | Estimated Cost (2018 Dollars) |
|------------|---|--|-------------------------------|-------------------------------|
| W-K-1A | West King Watermain Looping (Jane Street Portion) | Providing sufficient fire flows at the minimum required pressure to support development of the employment lands. | A+ | \$583,000 |
| W-K-1B | West King Watermain Looping (Private lands portion) | Providing sufficient fire flows at the minimum required pressure to support development of the employment lands. | Exempt ⁽¹⁾ | \$689,000 |
| W-K-2 | Kinghorn Road Watermain (Jane Street Portion) | Dead end water networks within developments west of Manitou Dr. and northeast of Jane St. and King Rd. | A+ | \$424,000 |
| W-K-2 | Kinghorn Road Watermain (Private Lands Portion) | Dead end water networks within developments west of Manitou Dr. and northeast of Jane St. and King Rd. | Exempt ⁽¹⁾ | \$212,000 |
| W-K-3 | Valley Point Crescent Watermain | Dead end water network at Valley Point Cres. | Exempt ⁽¹⁾ | \$106,000 |
| W-K-4 | Dufferin Street Watermain | Servicing of future development in northeast King City and Country Day School | A+ | \$1,484,000 |
| W-K-5 | 15th Sideroad Watermain | Servicing of future development in northeast King City and Seneca College | A+ | \$1,696,000 |
| W-K-6 | Mary Lake Estates Watermain [Completed] | Security of supply to approved development. | Exempt ⁽¹⁾ | \$318,000 |
| W-N-1 | Crestview Road Watermain | Dead end water network at Crestview Rd. | Exempt ⁽¹⁾ | \$132,500 |
| W-S-1 | Roselena Drive Watermain | Low available fire flows along Roselena Dr. | Exempt ⁽¹⁾ | \$291,500 |

1. This project is to be undertaken by Private Sector developers and considered exempt from the EA Act.

| Project ID | Description | Trigger | Anticipated Class EA Schedule | Estimated Cost (2018 Dollars) |
|------------|--|--|-------------------------------|-------------------------------|
| WW-K-1 | King Road and Keele Street Sewer Upgrade | Development of northeast King City, and lands along 15th Side Road (including Seneca College and Country Day School) | A+ | \$1,166,000 |
| WW-K-2 | Northeast Pumping Station and Forcemain | Development of northeast King City, (including Country Day School) | Exempt ⁽¹⁾ | \$5,300,000 |
| WW-K-3 | Keele Street Sewer [Completed] | New gravity sewers are required to service lands along 15th Side Road (including Seneca College) | A+ | \$1,484,000 |
| WW-K-4 | Northwest King City Sewer | Potential future servicing of the currently-developed lands in northwest King City | Deferred ⁽²⁾ | \$1,484,000 |
| WW-K-5 | Southwest King City Sewer | Potential future servicing of the currently-developed lands in southwest King City | Deferred ⁽²⁾ | \$1,590,000 |
| WW-N-1 | King Road and Hwy 27 Sewer Upgrade | Developments in West Nobleton (Growth Areas 2 and 9) | A+ | \$1,166,000 |
| WW-N-2 | Wellar Avenue Sewer Upgrade | Developments in East and North Nobleton (Growth Areas 4 and 10) | A+ | \$1,160,000 |
| WW-N-3 | Parkheights Trail Sewer Upgrade | Developments in East and North Nobleton (Growth Areas 4 and 10) | A+ | \$1,400,000 |
| WW-S-1 | Main Street Sewer Upgrade | Currently undersized, based on the Township's Design Criteria. | A+ | \$1,000,000 |
| WW-S-2 | Dr. Kay Drive Sewer Upgrade East of Dr. Kay Sewage Pumping Station | Currently undersized, based on the Township's Design Criteria. | A+ | \$1,150,000 |
| WW-S-3 | Main street Sewer Upgrade South of Church St. | Developments near Main St and Cooper Dr. (Growth Area 5) | A+ | \$1,150,000 |

1. This project is to be undertaken by Private Sector developers and considered exempt from the EA Act.

2. As there is no current plan to service these already-developed lands, a separate Class EA should be undertaken if servicing is determined to be required.

This Master Plan establishes the ultimate servicing strategy for this existing neighbourhood, based on the existing development density. The design capacity of the Kingsview Sewage Pumping Station (which would receive flow from this neighbourhood) is not limiting the serviceability of these lands.

Master Plans Followed the Class Environmental Assessment Process

- Ensures that all reasonable Alternatives are considered
- Public and Stakeholder Consultation is Mandatory
- Decision includes reviewing impacts to various Elements of the 'Environment'

High-Level Outcomes

- Overall, King Township's Water and Wastewater systems are appropriately sized to accommodate the planned growth of the communities

Required Upgrades

- Some network upgrades are required, and these will be funded by development

- **This is a Plan** – It will guide Staff over time in terms of reviewing development applications with respect to serviceability of individual proposals. It also establishes where new infrastructure will service multiple landowners/developments
- **This is a “Living” Plan**, and it will be reviewed and updated over time as Planning projections evolve.
- The identified projects will be studied further to determine exactly **when they need to be implemented**, and whether there are opportunities to mitigate the need to proceed.

| Task | Timing (approx.) |
|---|------------------|
| Host On-Line Public Consultation (Webinar Format) | May 25, 2020 |
| Council Working Session (following this Webinar) | May 25, 2020 |
| Receive and Address Public/Stakeholder Comments | June 16, 2020 |
| Finalise the Master Servicing Plan | June 22, 2020 |
| Public Notice of Study Completion | July 9, 2020 |
| 30-Day Public Review of the Report | July-August 2020 |
| Implement the Recommendations (Township) | (Ongoing) |