# Water and Sewer Master Servicing Plan

## March 11, 2019

City of Saskatoon
A 21st Century City

# Overview

- The need for a new plan
- Future growth projections and assumptions
- Current water & sewer systems
- Water & sewer replacement values
- Overview of system plans within city limits
- Opportunities & constraints
- Questions

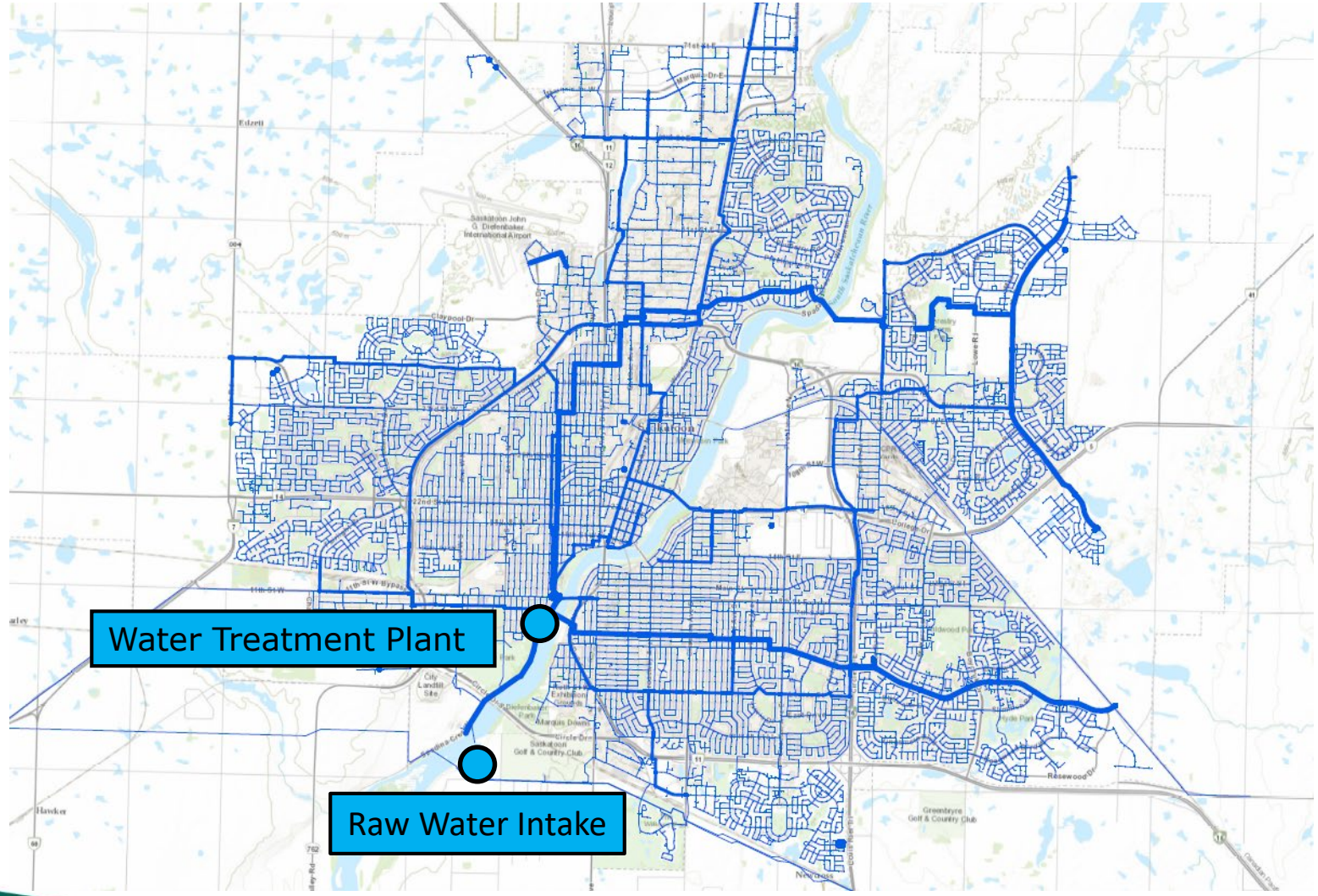
# The Need For a New Plan

- 1988 Future Growth Study – Water and Sewer Services
- New tools: AutoCAD, Civil3D, ArcMap, LiDAR topographical data, system modeling packages

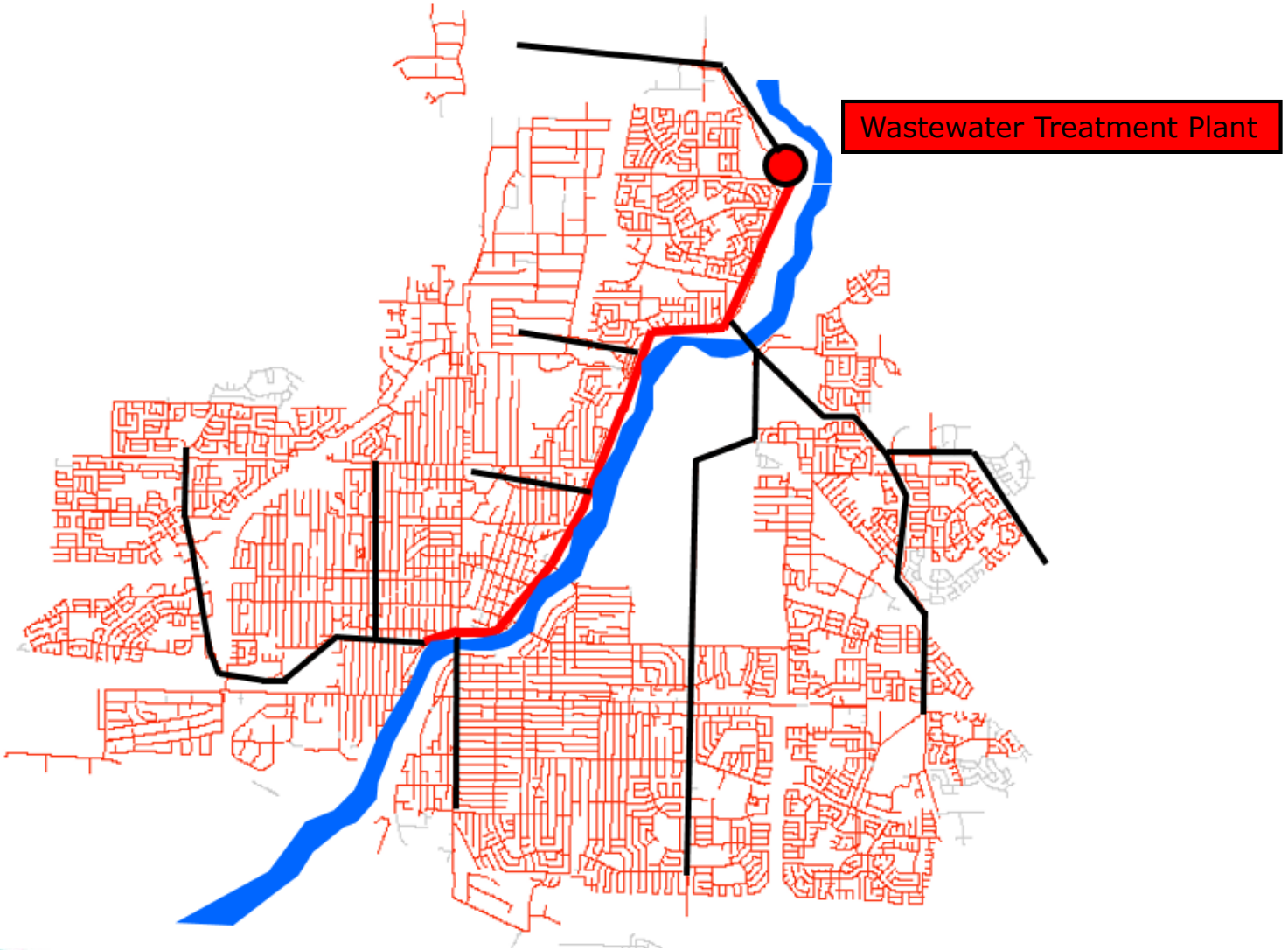
# Future Growth Projections and Assumptions

- System Models: WaterCAD; InfoSWMM; XPSWMM
- Water consumption = 290 liters/capita/day
- Population growth rate = 2.4%
- Greenfield density = 50 p/ha
- Strategic growth areas (e.g. U of S endowment lands)

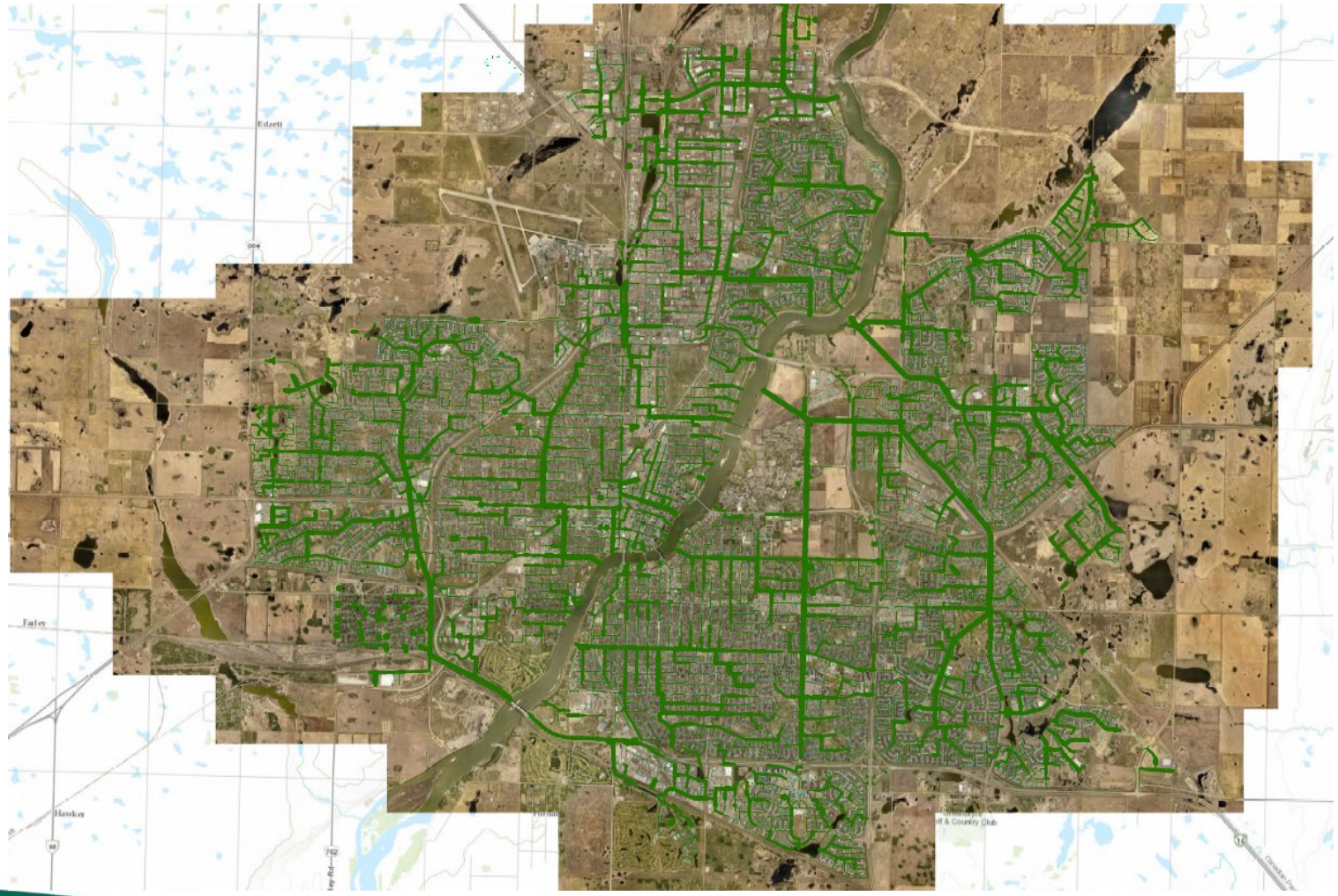
# Water Distribution System



# Sanitary Sewer Collection System



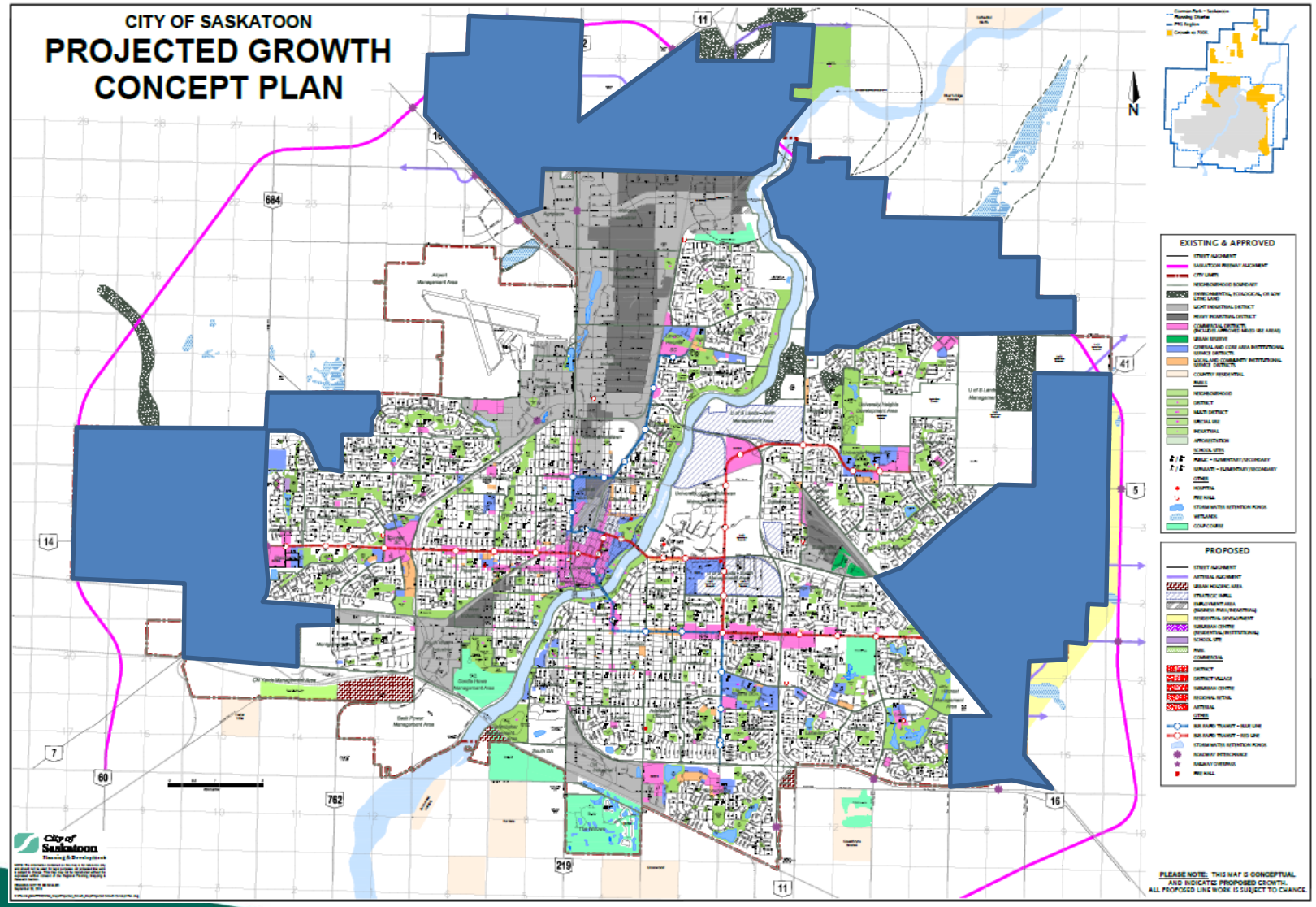
# Storm Sewer Collection System



# Water & Sewer Replacement Values

| System | Replacement Value |
|---|---|
| Water Distribution | $2.9 billion |
| Sanitary Sewer Collection | $3.5 billion |
| Storm Sewer Collection | $2.6 billion |
| **Total** | **$9 billion** |

# Growth Plan to Half a Million



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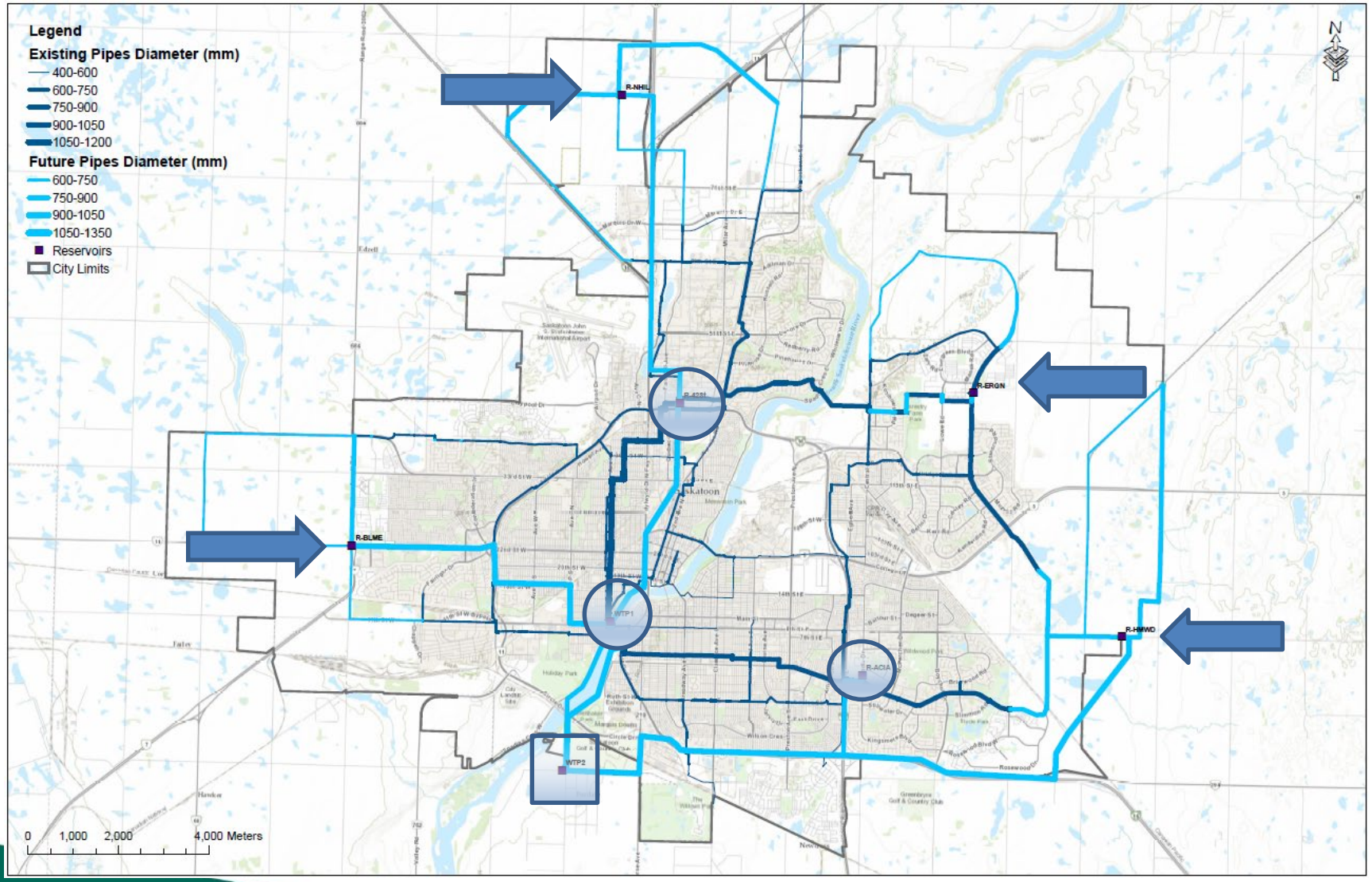


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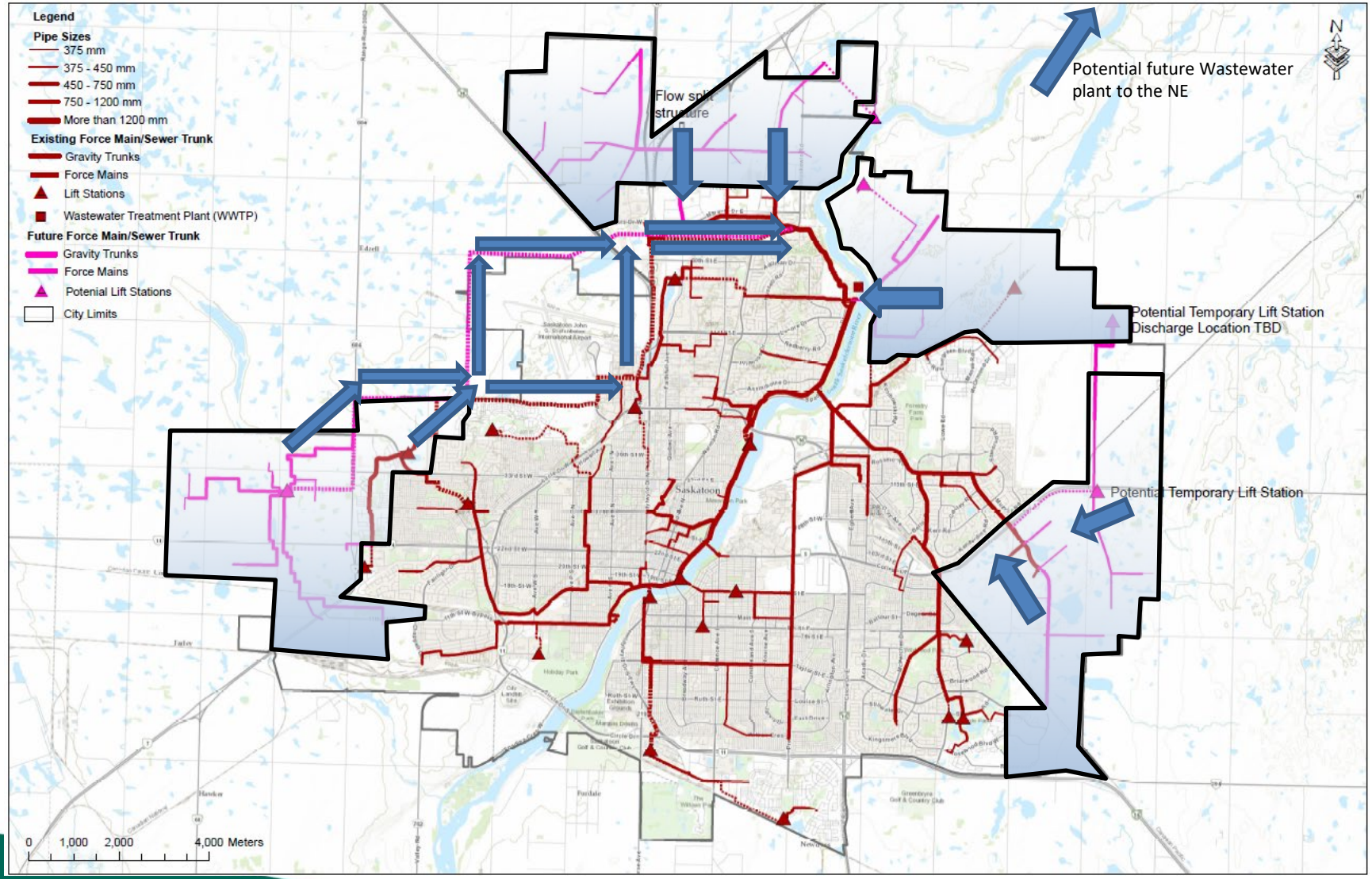


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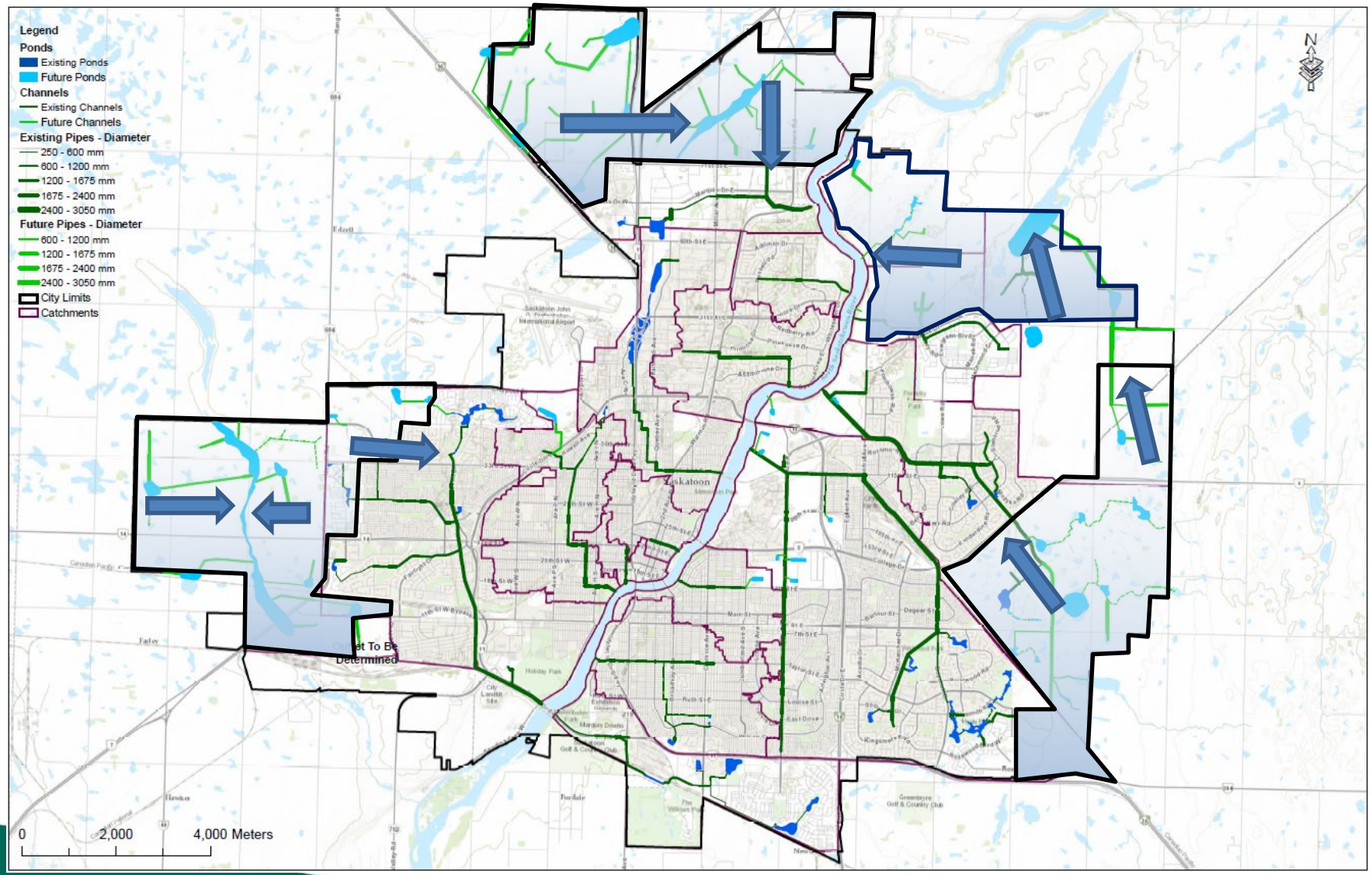
# Storm Sewer Collection System

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# Summary of Opportunities & Constraints

Opportunities:

- Maximize use of existing systems
- Set utility corridors for future servicing
- Utilize natural drainage systems (i.e. swales/wetlands)
- Forecast costs so we can prepare for growth
- Build on this work for future regional concept plans and servicing strategies

Constraints:

- Topography restricts gravity systems in some areas
- Complete new systems required beyond city limits

# Questions?