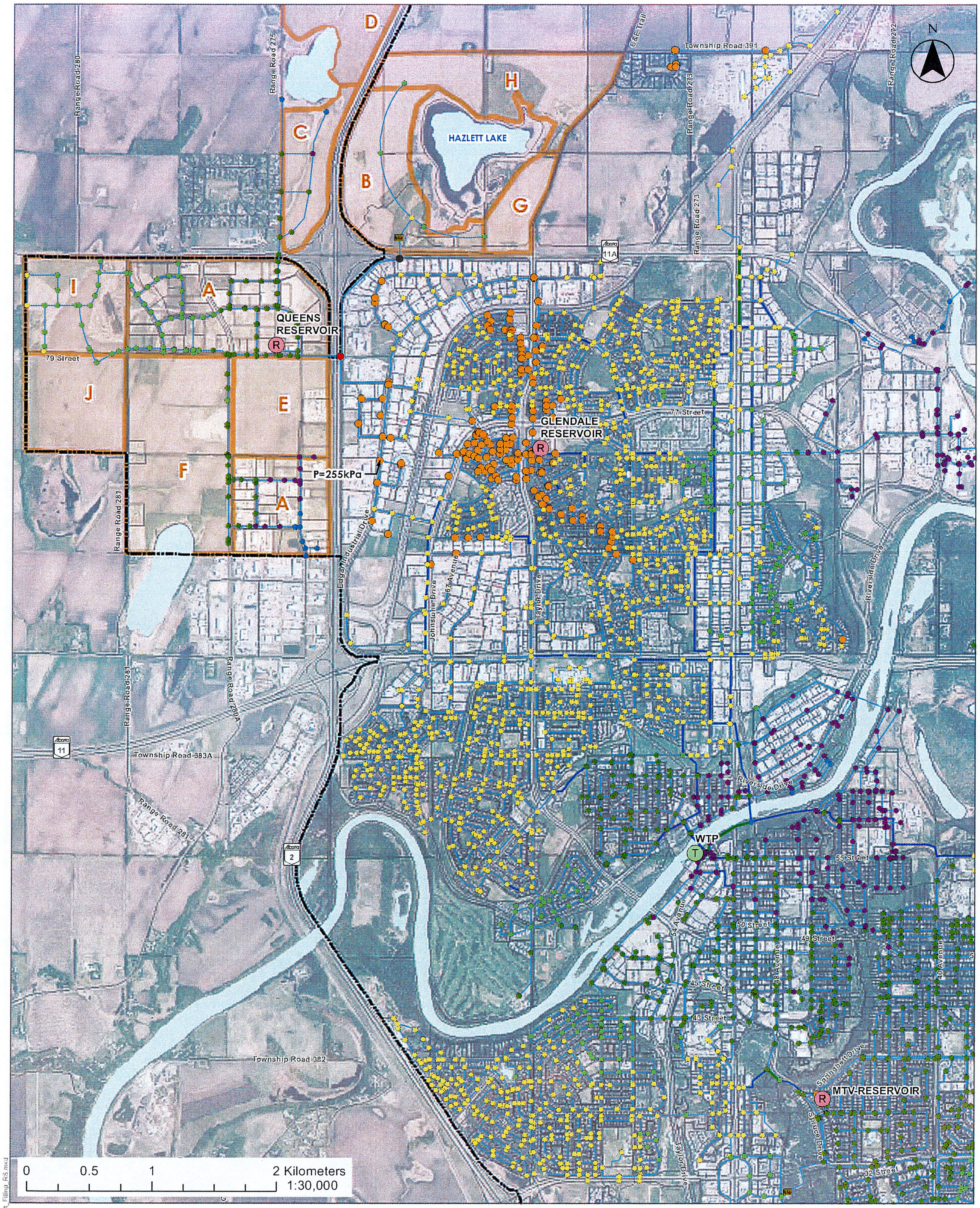

Facilities

- Booster Station
- Reservoir
- Water Treatment Plant
- Pressure Reducing Valve
- Red Deer City Limits
- Growth Analysis Boundaries

Pressure

- <250 kPa (36.3 psi)
- 250 - 300 kPa (36.3 - 43.5 psi)
- 300 - 400 kPa (43.6 - 58.0 psi)
- 400 - 500 kPa (58.0 - 72.5 psi)
- 500 - 600 kPa (72.5 - 87.0 psi)
- 600 - 650 kPa (87.0 - 94.0 psi)
- 650 - 700 kPa (94.0 - 101.5 psi)
- 700 - 750 kPa (101.5 - 105.8 psi)
- >750 kpa (105.8 psi)

Velocity

- >1.5 m/s
- 1.25 - 1.5 m/s
- 1.0 - 1.25 m/s
- 0.5 - 1.0 m/s
- 0.0 - 0.5 m/s

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Date: 6/22/2023

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Figure 6.44: Scenario 5
Pressures and Pipe Velocities in the Night Filling - Relaxed Standard

City of Red Deer Water Model Update
City of Red Deer

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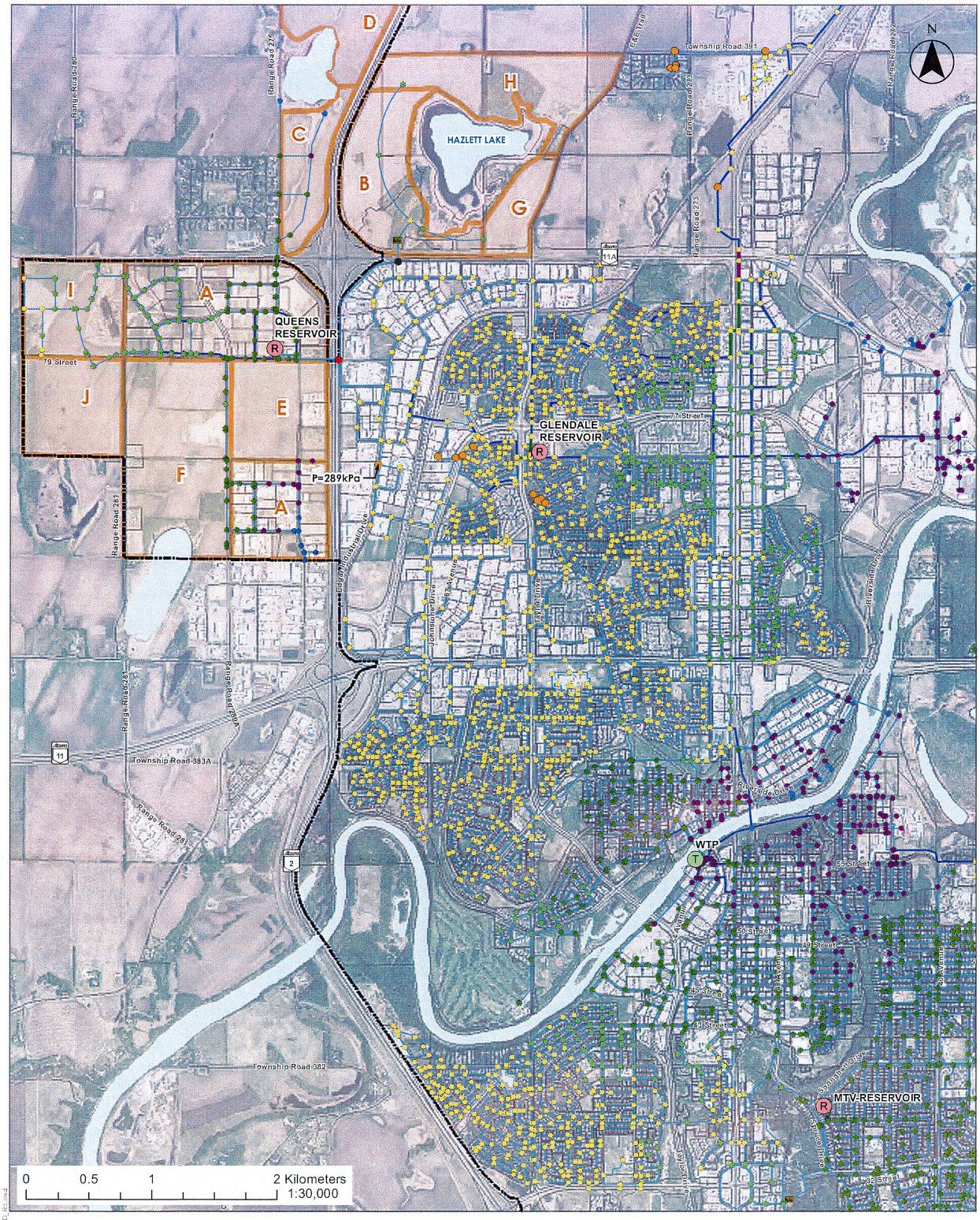

Facilities
- Booster Station
- Reservoir
- Water Treatment Plant
- Pressure Reducing Valve
- Red Deer City Limits
- Growth Analysis

Pressure
- <250 kPa (36.3 psi)
- 250 - 300 kPa (36.3 - 43.5 psi)
- 300 - 400 kPa (43.6 - 58.0 psi)
- 400 - 500 kPa (58.0 - 72.5 psi)
- 500 - 600 kPa (72.5 - 87.0 psi)
- 600 - 650 kPa (87.0 - 94.0 psi)
- 650 - 700 kPa (94.0 - 101.5 psi)
- 700 - 750 kPa (101.5 - 105.8 psi)
- >750 kpa (105.8 psi)

Velocity
- >1.5 m/s
- 1.25 - 1.5 m/s
- 1.0 - 1.25 m/s
- 0.5 - 1.0 m/s
- 0.0 - 0.5 m/s

Completed By: AL
Date: 6/16/2023

Project No.: 110170064

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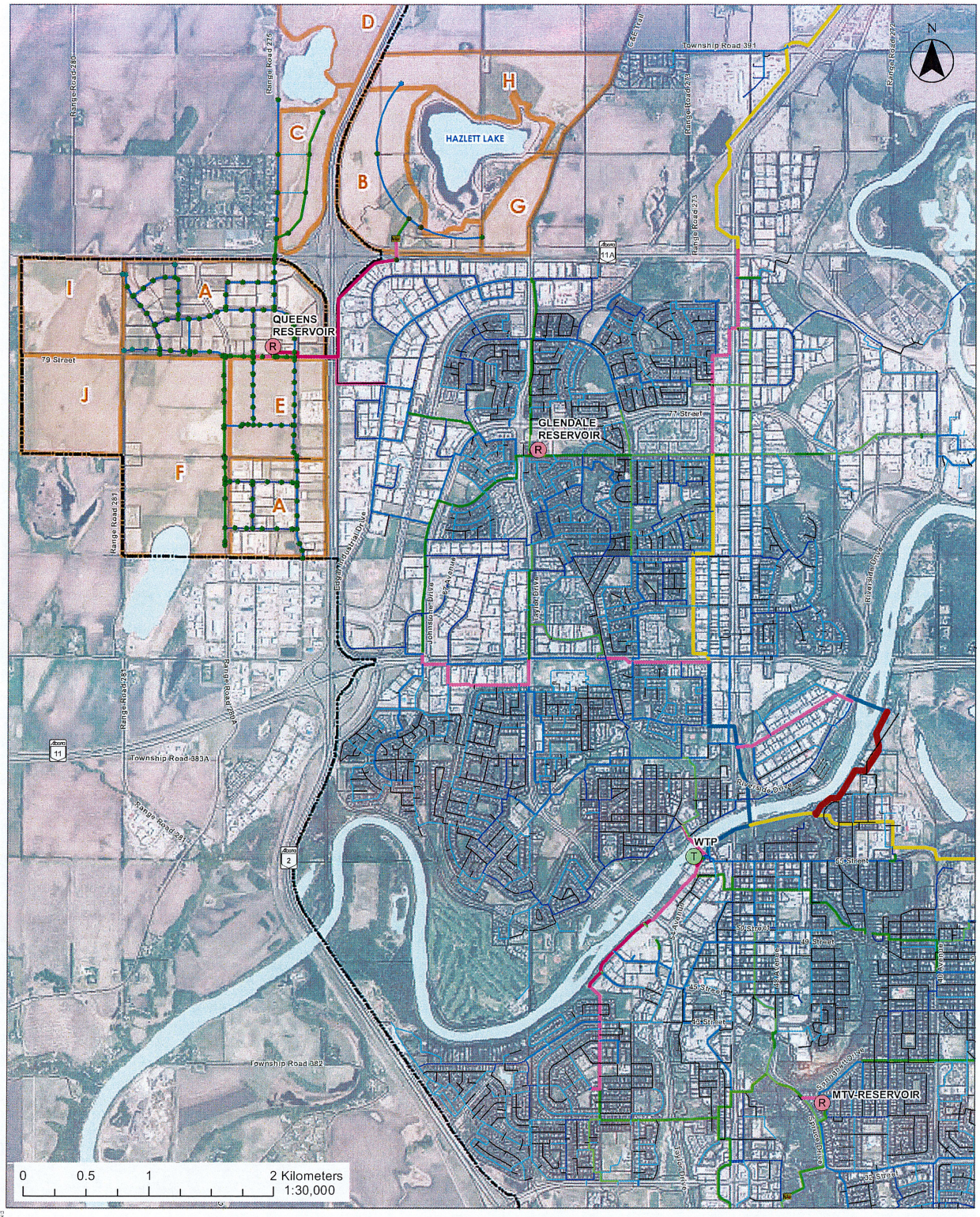
Figure 6.45: Scenario 5
Pressures and Pipe Velocities in the PHD - Relaxed Standard

City of Red Deer Water Model Update
City of Red Deer



Facilities

- Booster Station
- Reservoir
- Water Treatment Plant
- Pressure Reducing Valve
- Red Deer City Limits
- Growth Analysis Boundaries

Available Fire Flow

- <75 l/s
- 75 - 135 l/s
- 135 - 180 l/s
- 180 - 233 l/s
- 233 - 300 l/s
- 300 - 400 l/s
- >400 l/s

Pipe Network Diameter

- 50mm
- 100 mm
- 150 mm
- 200 mm
- 250 mm
- 300 mm
- 350 mm
- 400 mm
- 450 mm
- 500 mm
- 600 mm
- 750 mm
- 900 mm
- 1050 mm
- 1200 mm
- >1200 mm

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Project No.: 110170064

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Figure 6.46: Scenario 6
Available Fire Flows in MDD - Relaxed Standard

City of Red Deer Water Model Update
City of Red Deer