



City of Edmonton Leduc Annexation

Infrastructure Serviceability

Tonderai Chakanyuka, MBA, P.Eng., PMP, C.Eng, Manager, Central Region

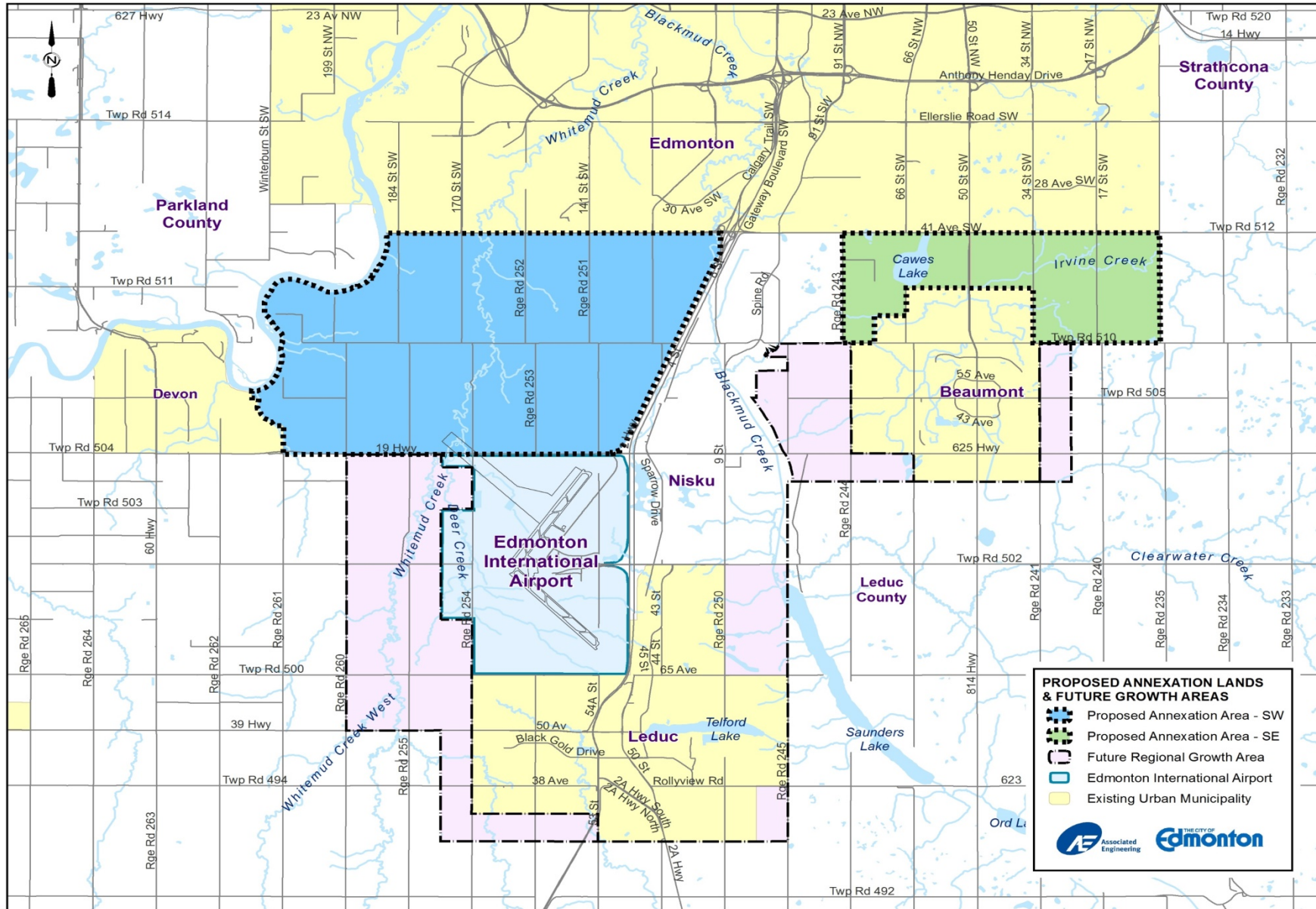
June, 2018

Outline

1. Background
2. Wastewater
3. Water
4. Stormwater
5. Transportation
6. Conclusions and Recommendations



Background: Study Area



Methodology

- Design flows were calculated for the proposed annexation lands and surrounding future growth areas.
- Review of capacity in the existing infrastructure located in close proximity to the study area.
- Assessment of available capacity in the infrastructure downstream of the study area was undertaken.
- Developed high level servicing concepts for the annexation lands and the future growth areas.

Infrastructure Costs – Annexation Lands

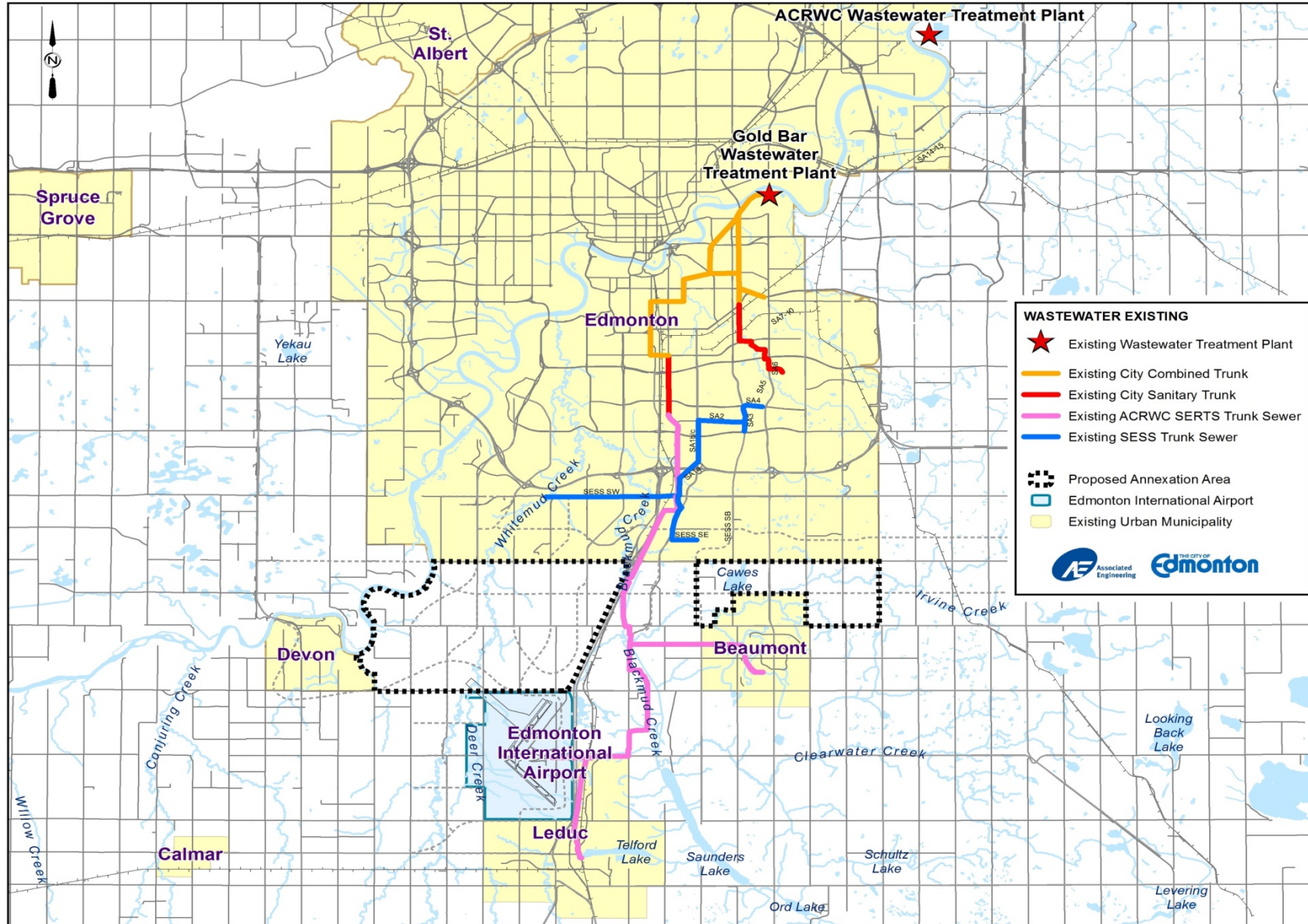
Cost estimates displayed in Millions of dollars (\$) - 2018

Infrastructure Component	Southwest Annexation Area Costs	Southeast Annexation Area Costs	Total Cost
Wastewater	\$546	\$260	\$806
Water	\$100	\$18	\$118
Stormwater	\$0	\$12	\$12
Transportation (roads)	\$945	\$166	\$1111
Transit	\$1065	\$102	\$1167
Total	\$2656	\$558	\$3214

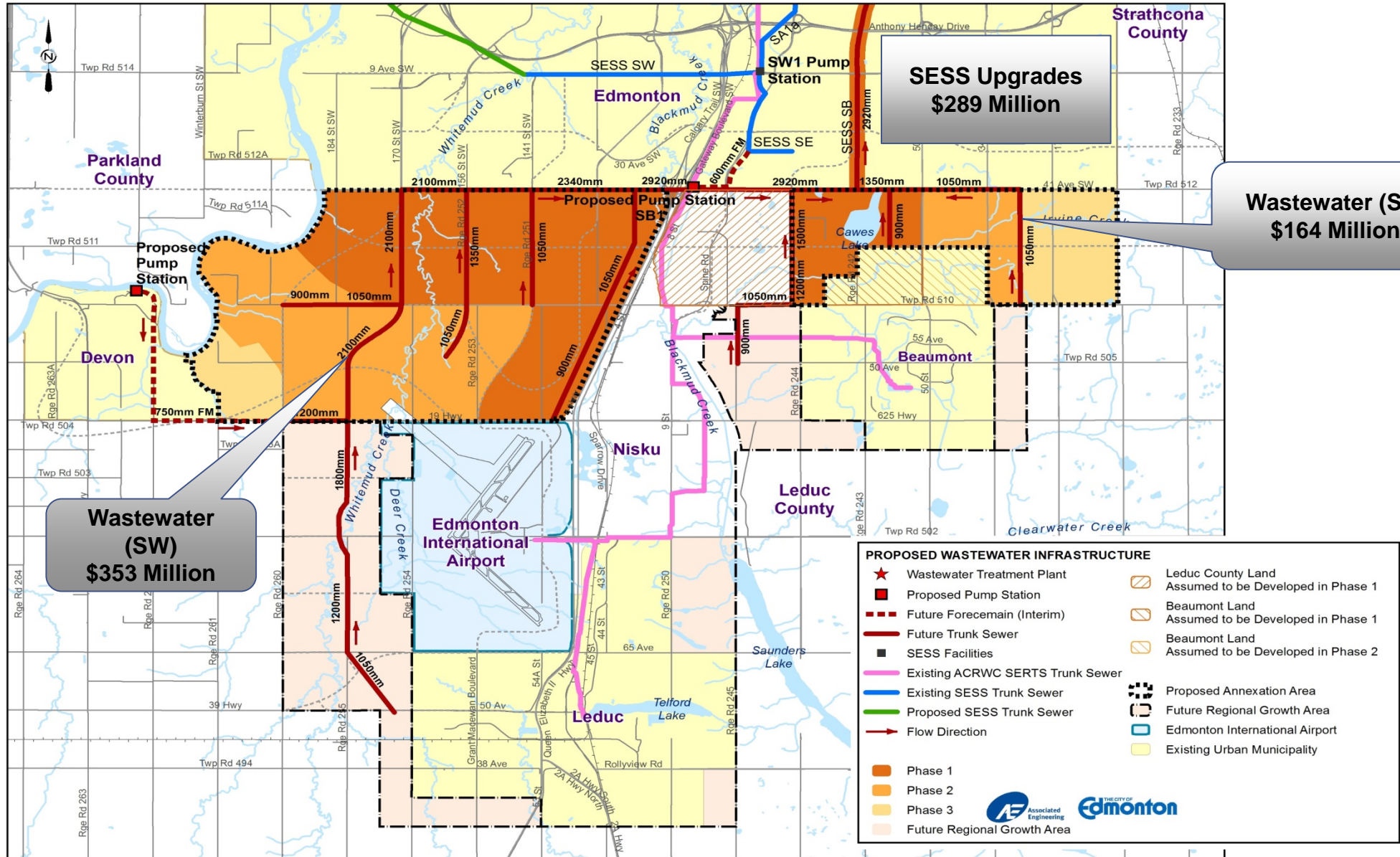
Ref: Table 7.1,
page 7-1



Existing Wastewater Network



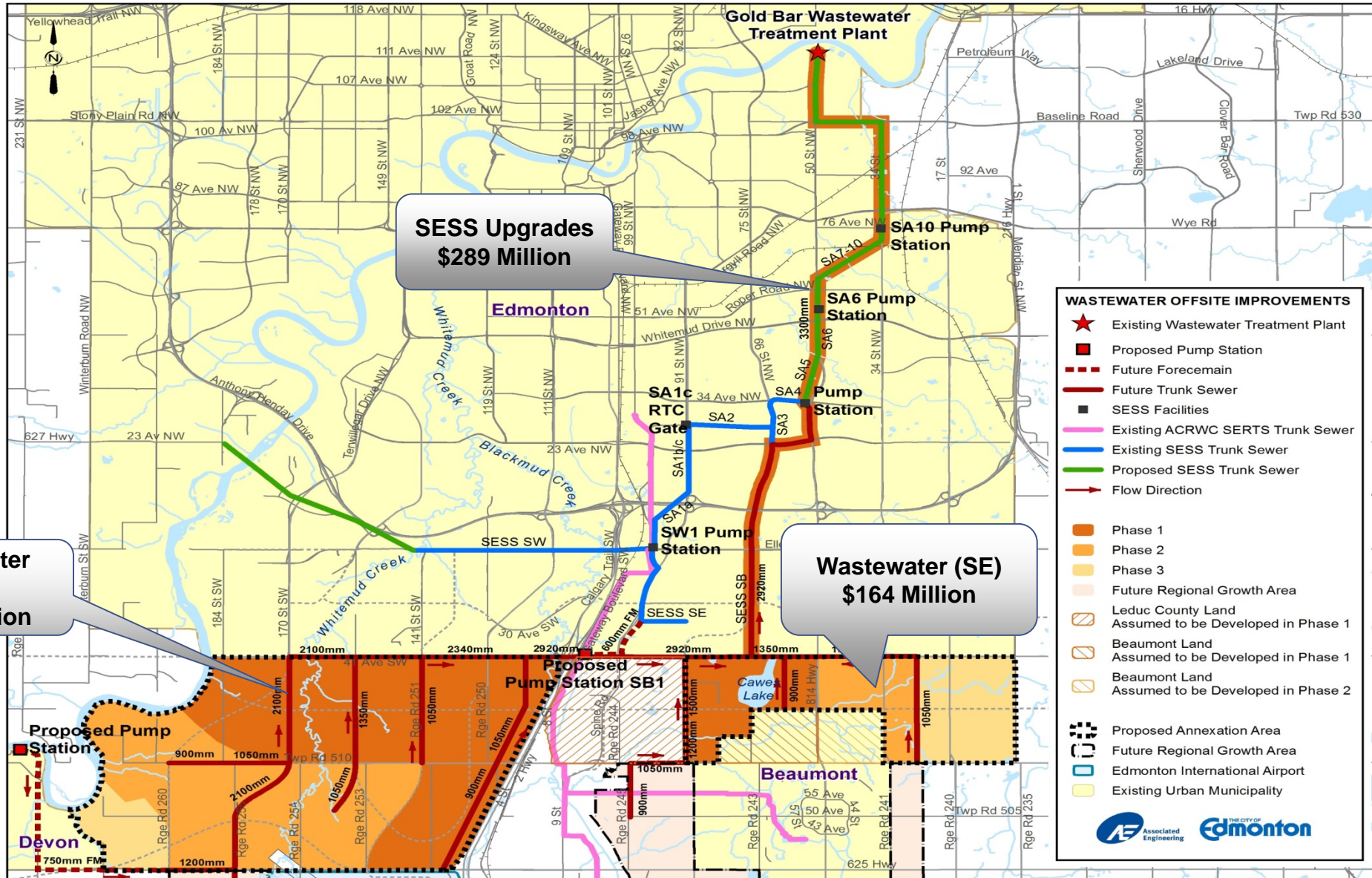
50 Year Conceptual Wastewater Servicing



Ref: Page 3-12, 3-13, 3-14

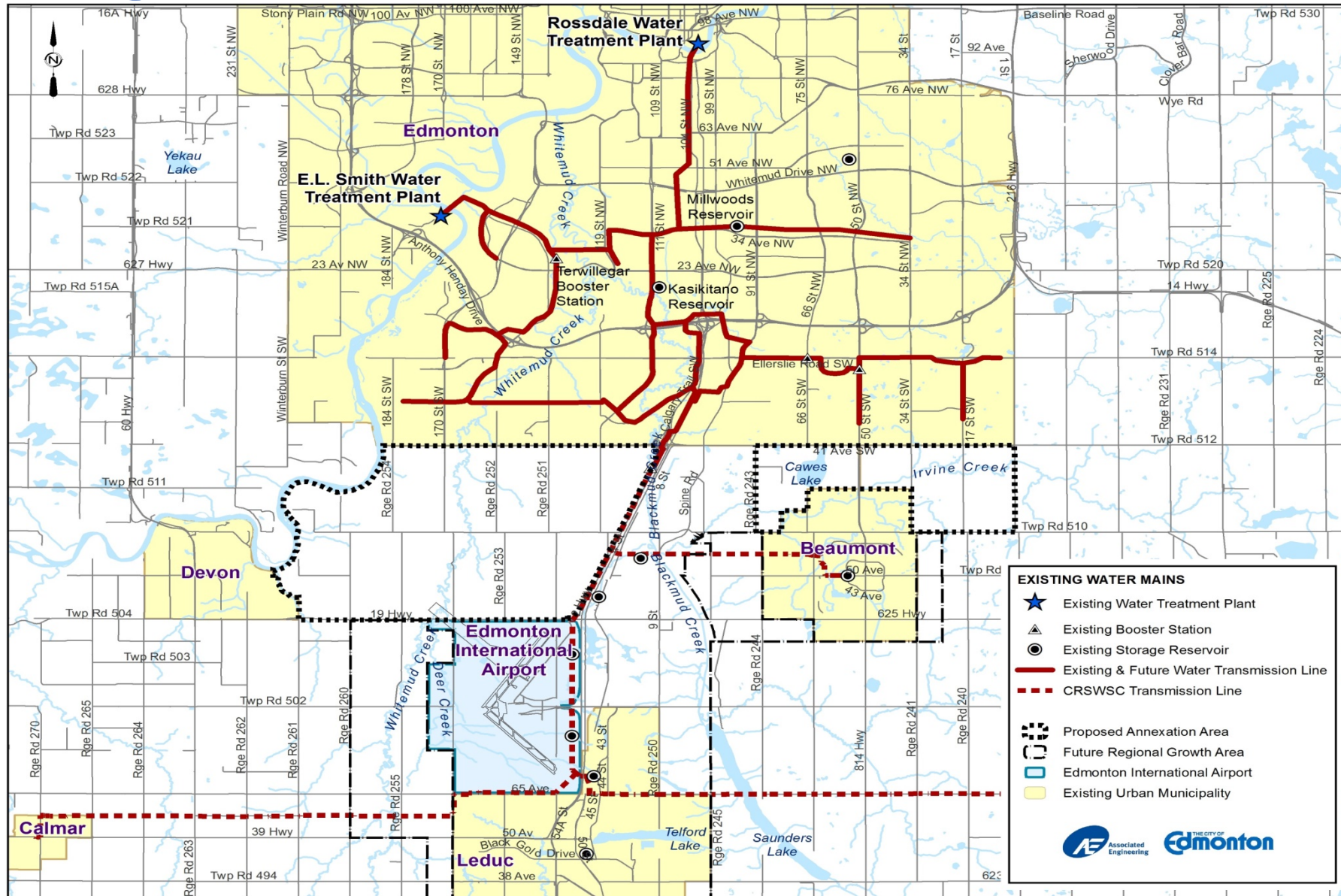


50 Year Conceptual Wastewater Servicing



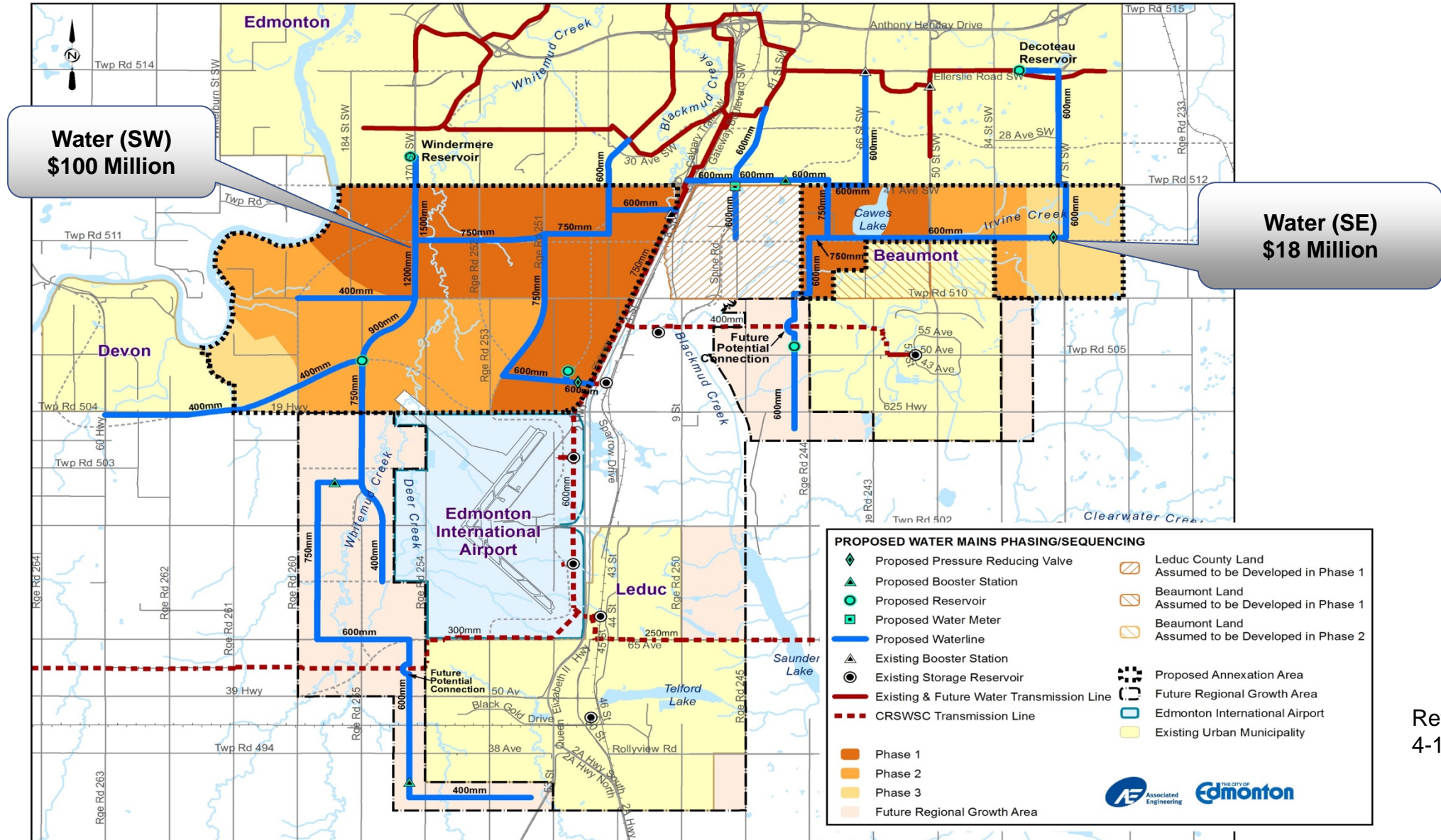
Ref: Page 3-12, 3-13, 3-14

Existing Water Network



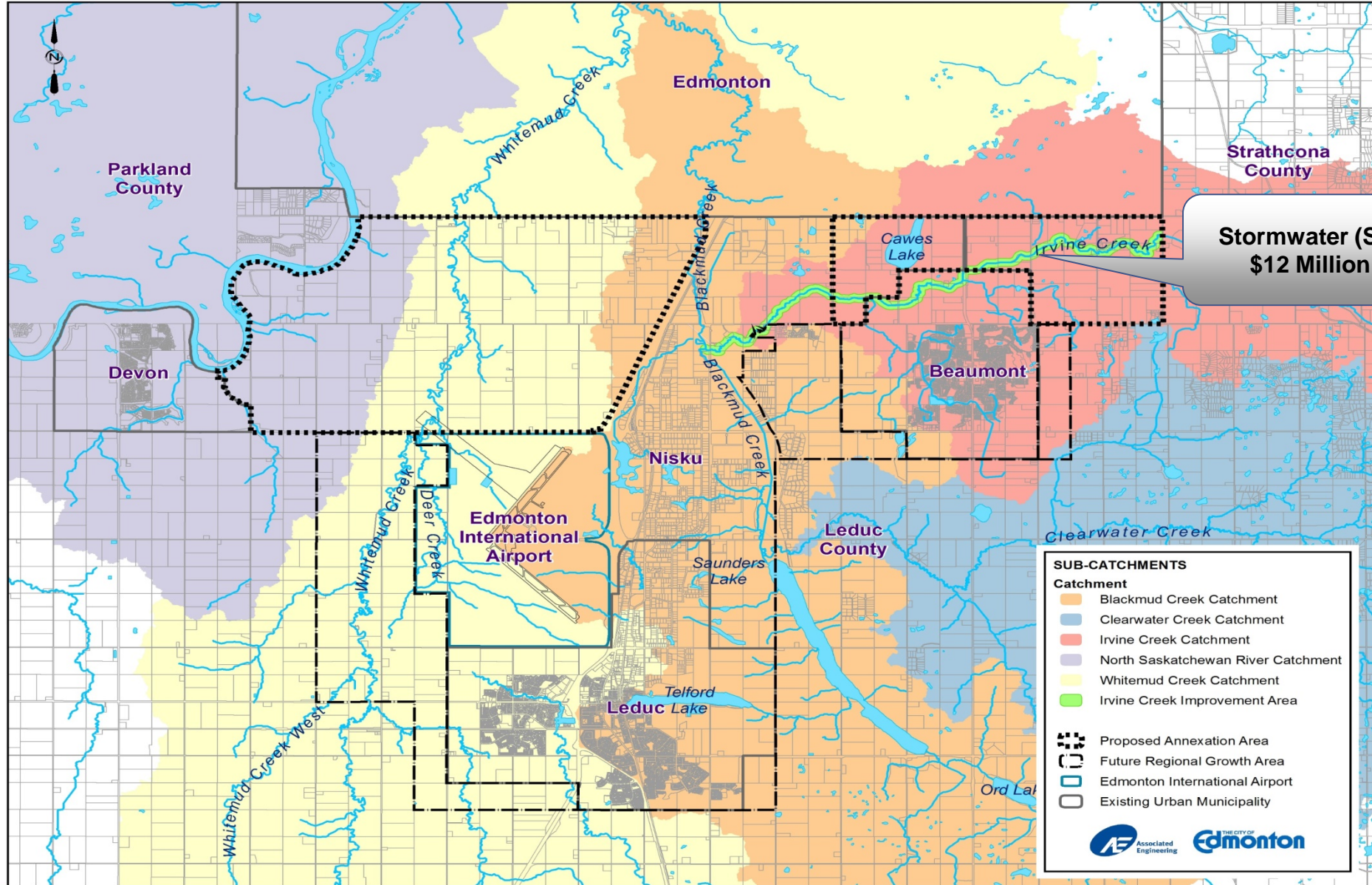
Ref: Page 4-3,
4-9

50 Year Conceptual Water Servicing



Ref: Page 4-8, 4-10, 4-11

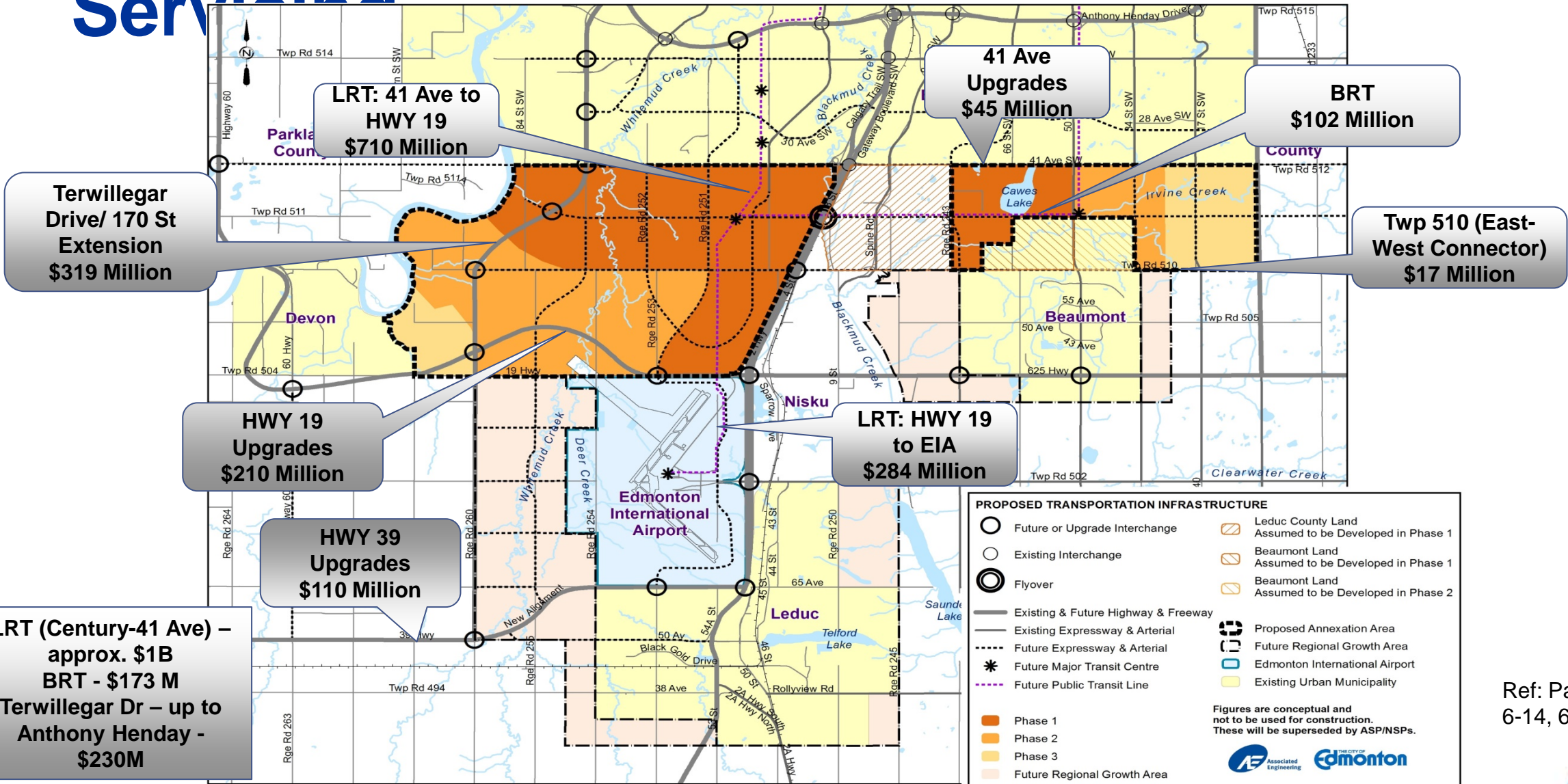
Stormwater Servicing



Ref: Page 5-1, 5-2, 5-5, 5-7, 5-8



50 Year Conceptual Transportation Services



Ref: Page 6-13, 6-14, 6-15, 6-17



Conclusions and Recommendations

- The City of Edmonton can efficiently service the proposed annexation areas
- Total cost of infrastructure is estimated to be \$3.214 Billion (annexation area)
 - Southwest Annexation Area: \$2.656 Billion
 - Southeast Annexation Area: \$558 Million
- Detailed infrastructure servicing studies are required prior to development



Questions?