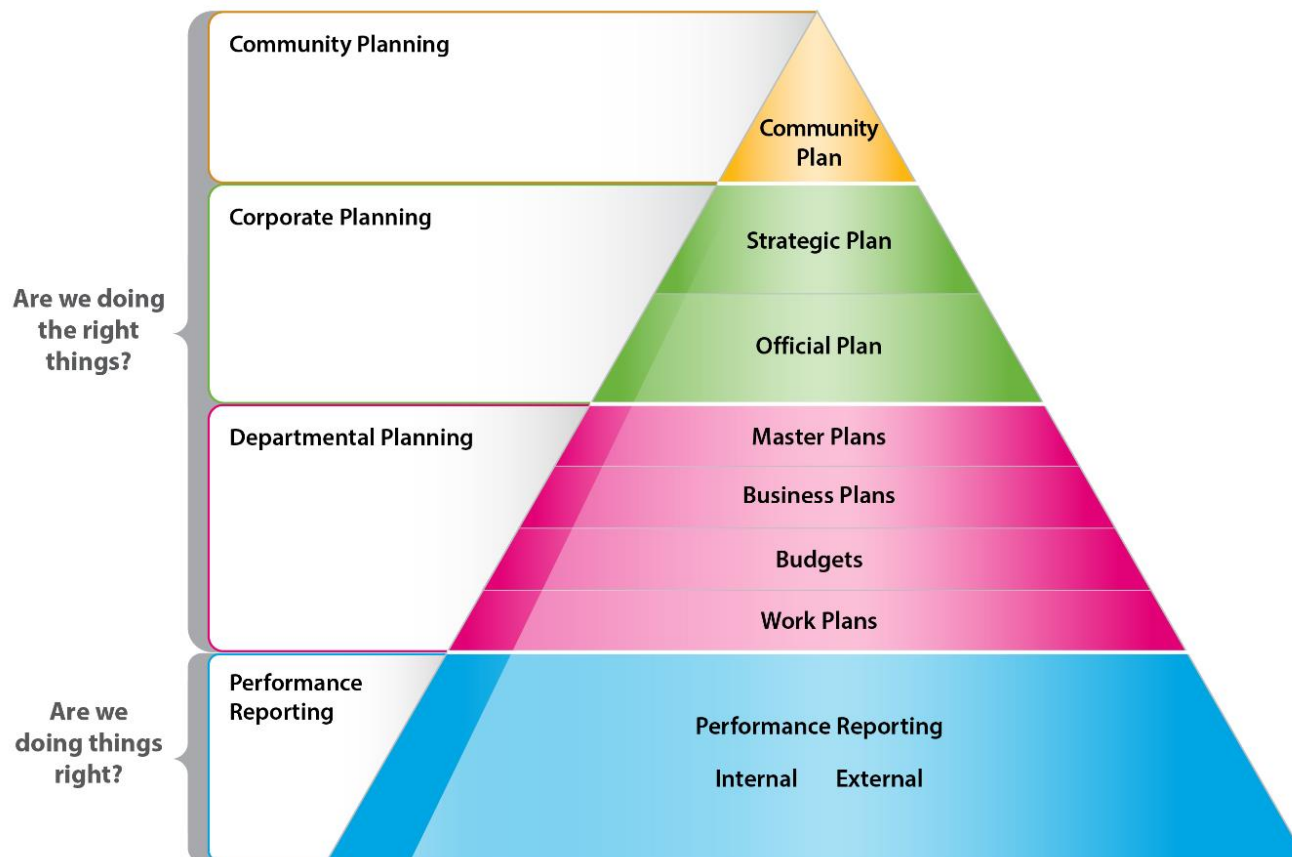


2022 Wastewater Treatment and Biosolids Management Master Plan Update & 2021 Water Supply Master Plan Update

Jennifer Rose, B.Sc; B.A; M.A
GM, Environmental Services

June 7, 2022

Master Plan Alignment to Strategic Plan



Environmental Services Mandate

Strategic Plan Alignment

Sustaining our Future: An environment that sustains us

Entrusted stewards and passionate water, wastewater and solid waste professionals delivering reliable services to our progressive community, while sustaining our finite resources for future generations, with care for the natural environment



Stakeholder Engagement

Internal:

Many city departments consulted to support the One City approach

External:

- Community Liaison Groups and Community Advisory Groups
- Neighbouring Municipalities
- Indigenous Nations
- Provincial participation and input



MP Themes and Conclusions



Found all the 'easy' water
Future water sources will be more expensive and further away
Continuation of water efficiency programs



Focus on wastewater as a resource to highlight current and future work led to new name *Water Resource and Recovery Centre*

There is enough water supply and assimilative capacity in the river to support growth to 2051

Finite resources



Groundwater



Surface Water

Key Projects to Support Sustainability and Growth – Water



Water Conservation

Optimize and expand existing groundwater system

- Internal sources
- External to City sources

Establish new surface water supply if required

Key Projects to Support Sustainability and Growth - Wastewater

What Goes
DOWN
Comes Around

Utilization of existing infrastructure

- Plant expansions
- Treatment upgrades

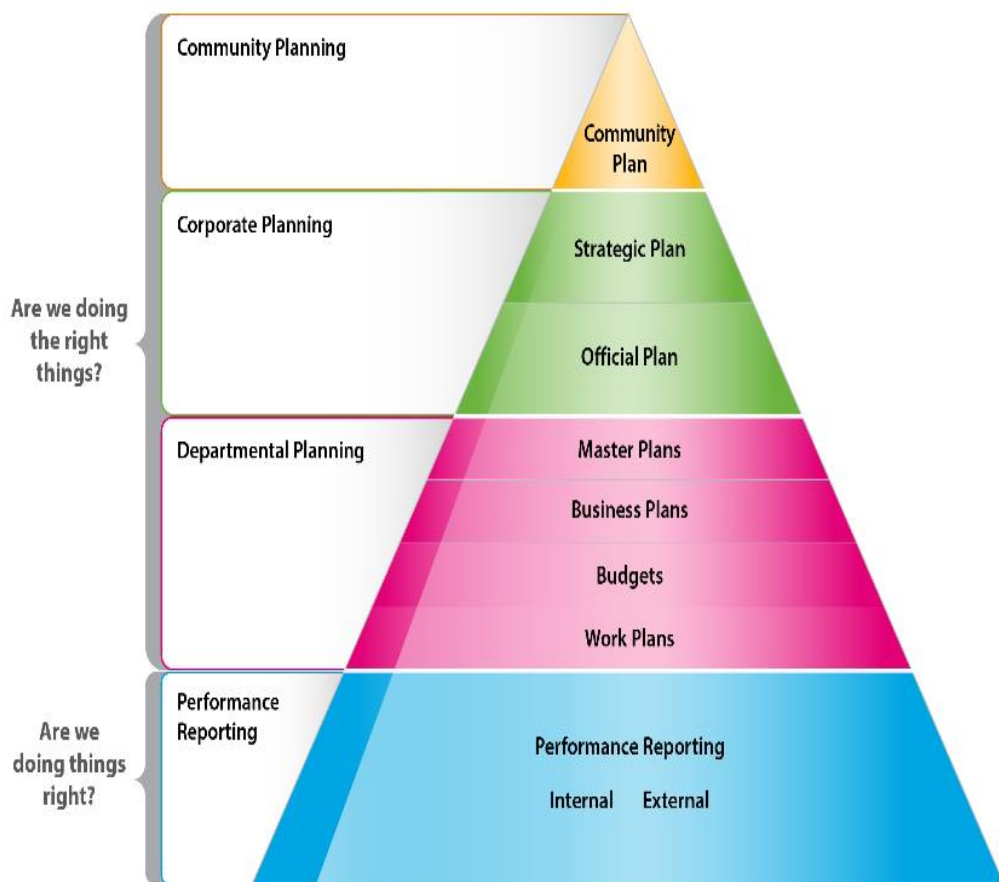
New technologies

- Combined heat and power process to save energy costs
- Disk filters to increase capacity

Environmental Protection

- River assimilative capacity

Measuring the Master Plans



Water KPI – Demand reduction in average day production

Target (2022) – 3293 m³

Current (2021) – 6895 m³

Wastewater KPI – Total Energy Use (kWhe) per collected and treated wastewater (m³)

Target (2022) – 0.85 kWhe/m³

Current (2021) – 0.97 kWhe/m³

Budget Estimate – Wastewater

Short Term (0 to Year 5)	Medium Term (Year 6 to 15)	Long Term (Year 16 to 2051)
\$105 million	\$ 43.5 million	\$ 13.4 million OR \$34.2 million (based on pilot results)
(\$ 94.5 million in current approved capital plan)	(\$ 40.8 million in current approved capital plan)	(beyond 10-year capital plan)

Budget Estimate – Water

Short Term (0 to 10 years)	Medium Term (11 to 20 years)	Long Term (21 years to 2051)
\$ 48.3 million	\$ 43.9 million	\$ 72.5 million or \$ 117 million (based on information garnered through future MP work)
(\$ 45.2 million in current approved capital plan)	(beyond 10 year capital plan)	(beyond 10 year capital plan)

Thank you!