



WATER TREATMENT PLANT

LONG TERM CAPITAL STRATEGY

DECISION QUALITY REVIEW



Executive Summary

In 2021 AECOM provided their Capital Development and Expansion Plan (CDEP) to Saskatoon Water and provided options for increasing capacity at the Water Treatment Plant (WTP) to 450MLD including the addition of a second WTP. Saskatoon Water initiated a Decision Quality (DQ) Review in 2021 using a Decision Dialogue Process (DDP) to ensure alignment with Senior Leadership and continue developing DQ maturity within the organization. The DDP utilizes a dedicated Project Team to prepare the evaluation and a Decision Board to ensure the project meets the goals and provide feedback along the way. The DDP is used when high analytical complexity and high institutional complexity are involved.

DQ requires alignment on the following six elements of a good decision.

- Appropriate Frame,
- Creative Alternatives,
- Values and Tradeoffs,
- Relevant and Reliable Information,
- Sound Reasoning, and
- Commitment to Action.

The following Technical memorandums (TMs) were prepared by the Project Team outlining DQ elements and summarizing the work completed. Feedback from the Decision Board was incorporated following presentations at key milestones.

- TM1 – Decision Frame
- TM2 – Values and Tradeoffs
- TM3 – Creative Alternatives
- TM4 – Alternative Evaluation and Recommended Decision
- TM5 – Commitment to Action

The overall treatment demand was projected out until 2065 and multiple scenarios for system flows, construction staging, capital costs, and operating costs were considered. Saskatoon Water's rate model was used to assess the impact of capital spending and increases to the water rate. The Project Team worked to quantify each value using a monetary equivalent and assess the impact on each strategy which is fully outlined in TM4.

The Decision Board held a final meeting to review TM4 and agreed to the recommendation from the Project Team that Alternative C would be chosen as the long-term strategy (Strategy) for treatment capacity. Alternative C includes limited upgrades at the current WTP with a new WTP constructed early in the project timeline, within 10 to 15 years, to allow for additional capacity. Alternative C is the highest scoring alternative and is one of the lowest cost alternatives available. Further analysis on the economic impact of Alternative C is currently underway and will be reported on at a later date.

With the declaration of decision by the Decision Board, the Project Team has Commitment to Action for the final stages of the Strategy. Next steps include reporting to City Council for their decision, development of the detailed plan based on the approved Strategy, and implementation of the capital plan. That work is significant but with the Strategy determined, the City can work with the understanding that this Alternative will provide the infrastructure that aligns best with its Values.