



Kelowna Integrated Water Project

City Council Update

September 28, 2020

Presentation Outline



- Project History
- Project Status to Date
- Recent Water Restrictions
- Project Cost / Fee

2017 Kelowna Integrated Water Supply Plan

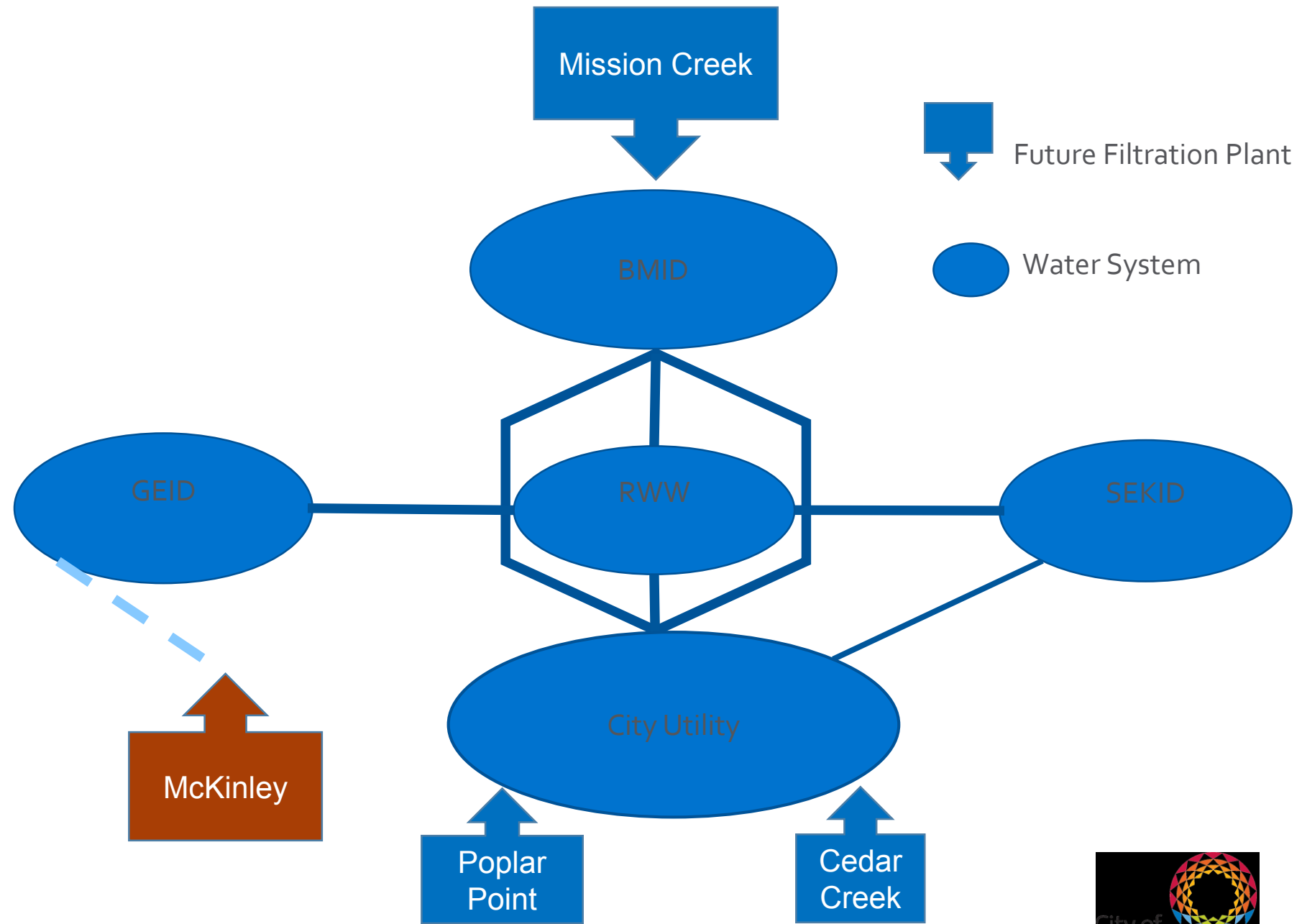
City-wide, integrated water system would achieve:

- ▶ Best, lowest cost city-wide solution
- ▶ Drinking water that meets Canadian Drinking Water Quality Standards
- ▶ Flexibility for administration and operational functions
- ▶ Maintain agriculture interests

Integration plan benefits include:

- ▶ Equitable water rates, quality, supply and service levels for all users
- ▶ Resilient and redundant system that meets long-term domestic and agriculture needs
- ▶ Efficient operations and administration





On June 4, 2018 the South East Kelowna Irrigation District dissolved and ownership of their water system was transferred to the City of Kelowna.

Phase 1 Water Integration Project SEKID/SOMID



Kelowna Integrated Water Project Phase 1

Objectives:

- Provide upgrades to the south end of the City's water utility
- Provide domestic water to the SEKID utility area
- Separate domestic and irrigation / fire water systems in the SEKID area
- Provide SOMID with reliable irrigation supply

Kelowna Integrated Water Project Phase 1

Integration Phase 1 Project Scope

- 82 kms of new watermain
- Upgrades to 3 existing pump stations
- 1 new pump station
- 3 new reservoirs
- 12 new pressure reducing stations
- 815 new water services
- 2100+ new meters

Timeline

- Planning, pre-design and Procurement: February 2017 to May 2018
- Design and Construction: July 2018 to June 2020

Budget

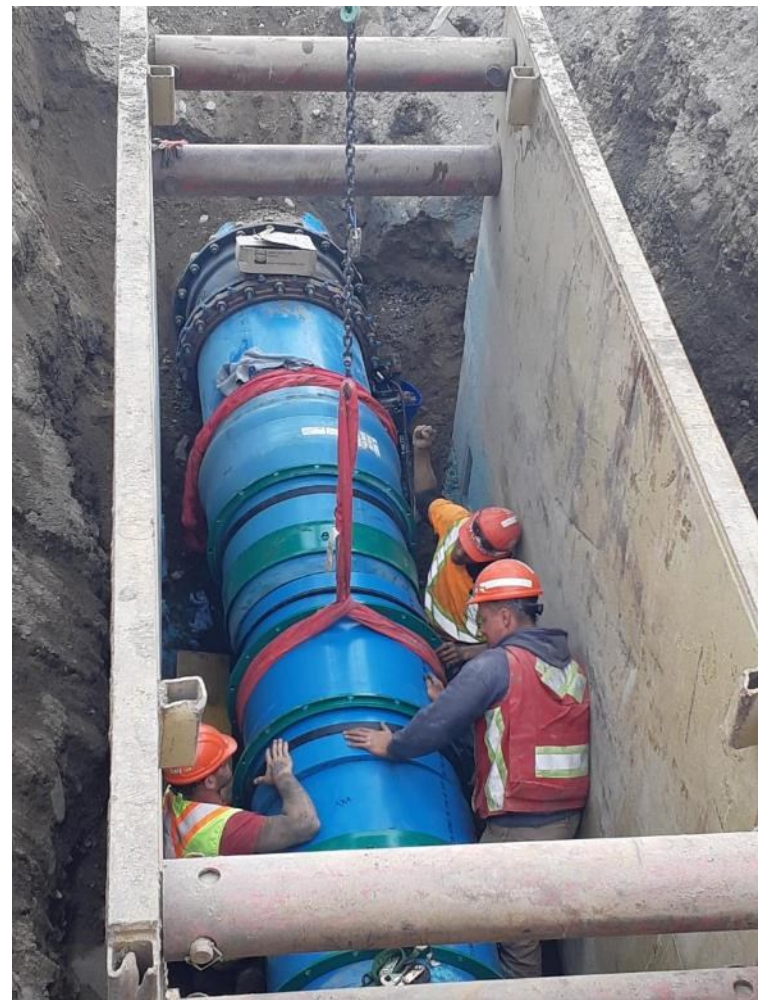
- \$86 million





Waterline construction

Note the 3 pipes in this trench servicing separate pressure zones



750 mm trunk main from
Kettle Valley Reservoir



HDPE watermain used in challenging terrain



200mm watermain through Myra Bellevue Provincial Park. Alignment making use of abandoned irrigation flume



600mm trunk main across Bellevue Creek
Pedestrian bridge was constructed to cross creek and improve pedestrian access



Innovative New Products
Mueller Metering Pit with Dual Check Valve Assembly



Pressure Relief Valve (PRV) in a kiosk



PRV serving dual pressure zones



Stellar Pump Station and Reservoir



Stellar Pump Station



Jean Pump Station and Reservoir



Jean Pump Station and Reservoir

Phase 1 Project Stats



- 480,000 person-hours
- 650 Engineering Drawings
- 23,000 construction photos

- Installation of remaining water meters and services currently underway

Kelowna Integrated Water Project Phase 1

Stake Holders and Project Team

- SEKID customers
- South East Kelowna Businesses
- City of Kelowna
 - Infrastructure Delivery
 - Utility Operations
 - Pump Operations
 - Water Distribution
 - Real Estate
 - Finance
 - Human Resources
 - Purchasing
 - Transportation
 - Parks
 - Recreation

- Federal Government
 - Funding
- Provincial Government
 - Municipal Affairs
 - Forests Lands and Natural Resources
 - Interior Health

- Design Build Team – Emil Anderson Construction
 - Maple Reinders
 - Cumming Construction
 - R&L Construction
 - Onsite Civil Excavating
 - Civil Excavating
 - Flury Earth Works
 - Freddex Construction
 - Valley Curbing
 - Rap Tech
 - Keldon Electric
 - Eaton Electric
 - Centrix
 - Iconix
 - Mearl's Machine
 - Stantec
 - Urban Systems
 - Interior Testing
 - CWMM



Phase 2 Project Update

In June 2018, the BC Government announced an additional \$12M grant to support additional works to facilitate works to facilitate the objective of the 2017 KIWSP

Project work that is still on-going, as part of the additional \$12M grant:

- Westpoint Trunk Main – Raymer Rd to Dehart Rd, under construction, completion in Late Fall 2020
- Kettle Valley Reservoir Expansion, completion in Spring 2021



Westpoint Trunk Main
under construction

Water Restrictions in Crawford and SE Kelowna

- Stage 3 Water Restrictions were imposed between July 17 and September 1. This action was necessary in response to the risk of not meeting the high demand.
- Higher than expected demand attributed to:
 - Water leaks on private property that have gone unnoticed without meters
 - Irrigation connections for larger suburban properties not yet utilizing ag water
 - Un-metered historical water usage

Water Restrictions in Crawford and SE Kelowna

- Future Water Restrictions outside the norm are not anticipated once:
 - Metering and billing based on usage is in place
 - Agricultural service installation is complete and utilized
 - Further education is completed
 - Culture of water conservation is developed
 - Hydraulic constraints are eliminated and supply upgrades are complete
- Constraints and upgrades currently under design with implementation prior to 2021 irrigation season.

Project Cost / Fee

- Final Project costs will not be compiled until project is complete in 2021
- A project fee of \$32/month was implemented by SEKID (2018) for each customer
- This was to be replaced by a Local Area Service charge of approximately \$40/month in 2021
- Local Area Service implementation is proposed to be delayed until 2022 to allow for a complete and total summation of costs reconciled in 2021.

Questions?

For more information, visit kelowna.ca/water.

