

# Report to Council



**Date:** January 7, 2019  
**File:** 1890-20  
**To:** City Manager  
**From:** Rod MacLean, Utility Planning Manager &  
Ron Westlake, Senior Engineer  
**Subject:** Kelowna Area-based Water Management

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## **Recommendation:**

THAT Council receives for information, the joint report from the Utility Planning Manager and the Senior Engineer, dated January 7, 2019 regarding Kelowna Area Based Water Management;

AND THAT Council direct staff to engage with other government and non-government organizations to develop an Area Based Water Management Plan.

## **Purpose:**

To update Council on the Kelowna Integrated Water Supply Plan and to recommend new direction(s) in area-based water resource management.

## **Background:**

The background for this report has evolved from the City's interest in water supply and quality within the city. Kelowna has more than twenty-five independent water suppliers operating within the city in addition to our own water utility. While the primary demands are for domestic or agriculture uses, public health has been a key concern as some of these independent systems have struggled to reliably provide safe drinking water.

Council has recognized the importance of addressing drinking water quality in the City and made it a top priority. A team of senior City staff were assigned to work with the Province and the larger independent water purveyors to improve water quality where possible.

This included facilitating a third party value planning study of the 2012 Kelowna Integrated Water Supply Plan. The study was a requirement of the Province and resulted in the development of the 2017 Kelowna Integrated Water Supply Plan. The 2017 plan calls for a city-wide integrated water system in Kelowna in order achieve the best lowest cost city-wide solution for drinking water that meets Canadian Drinking Water Quality Standards as well as maintains agricultural interests.

Of the large water providers within City boundaries, the South East Kelowna Irrigation District (SEKID) has had the most difficulty in meeting safe drinking water quality for many years. The City approached them in 2016 to take part in the value planning initiative and later that year applied for senior government grants to deliver clean water to their twenty-two hundred customers. The grant application proved successful in early 2017 with \$43.9 million of federal and provincial funding. Construction of the Phase 1 Integration Project is now approaching the mid-way point and is expected to be completed by the spring of 2020. SEKID was dissolved in May 2018 and their organization and operations are currently being incorporated into City operations.

The City now owns and operates an irrigation supply system, complete with reservoirs, dams, pipelines, services and infrastructure. The irrigation reservoirs are outside of the City boundary, and therefore City Infrastructure planning and operations are adjusting to the additional regulations, stakeholders and First Nations concerns that may be involved.

These requirements provide the City the opportunity to lead and possibly address some related long term issues around climate change, flood mitigation, environmental flow needs, drought management, forest fire protection and long term water supply resiliency. This all starts with developing a better understanding of data we have and the partnerships we must foster to assure that efforts aren't duplicated.

We therefore need to take a new and broader approach to water management in the City and Okanagan Lake.

### **Kelowna Area Based Water Management**

Imagine Kelowna documents published in 2018 set out a number of principles that can be directly targeted at water management. They include:

- Protect land, water & air.
- Protect agricultural land
- Preserve Okanagan Lake as a shared resource
- Take action in the face of Climate Change

While these principles demonstrate some of the values of the community, the health and strength of the City will be synonymous with the health of Okanagan Lake and the watershed that supplies it. Kelowna relies on and values Okanagan Lake for its:

- abundant supply;
- high level of water quality; and
- our connections to it, whether through recreation or cultural significance.

This ties in well to the goals of other utilities and systems within the City, where we have responsibilities for **wastewater collection/treatment/discharge** and **storm drainage management**. We have an indirect role in managing public and private development that contributes to water resource management within our jurisdiction. Kelowna's stake in water management is broader than drinking water and can be coordinated better in our approaches.

Our main storm water concerns center around Mission Creek and Mill Creek, where we are vulnerable to seasonal flooding resulting from snow melt and heavy rainfall events. Opportunities exist for mitigation by cross-management of upstream water supply reservoirs (City or other Utilities) for flood storage. We need to work closely with other jurisdictions to optimize our collective ability to manage the greater Kelowna watershed and public infrastructure.

### Balancing our Needs

There are four areas of water management that we have identified as key components of a Kelowna Area Based Water Management Plan: water supply, flood protection, wastewater and eco-system preservation. We should review the current state of management practices with each and collaborate with others to compare those practices with our collective visions(s) or individual needs.

Area based water management must be done within the context of other City and Regional plans. The Regional Growth Management Strategy and the City's Official Community Plan need to reflect important policy around water management. Other policy documents would need to be reviewed and modified in this same context. Capital infrastructure plans and financial plans must be prepared for Council's and possibly other agency approval to support key investments over time.

### Working with Others

The City will need strategic partners to advance this initiative in the most efficient, productive and focused way. Two of these key external partners are the Regional District of Central Okanagan and the Okanagan Basin Water Board. City staff have reached out to these organizations. The Regional District Board has passed a resolution to work in partnership with the City. The OBWB have agreed to act as an advisor and source of information to the Project Team.

This overall initiative is currently being led by the City. However, the work is being shared in a way that respects the agencies jurisdiction and takes advantages of their expertise and resources. The following is a general summary of agency roles:

- Hydrology – OBWB
- Creek headwater & rural (unincorporated) – RDCO/City/Province
- Urban area or area within City (incorporated) – City
- Okanagan Lake – OBWB/Province

The Project Team is working to engage the Province. The Mayor and RDCO Chair wrote a joint letter to the Minister of Forests, Lands, Natural Resource Operations and Rural Development (FLNRORD) on August 28, 2018. The letter was copied to the Ministers of Municipal Affairs and Environment. No official response has been received to date, however, Ministry staff are starting to engage.

### Next Steps

Staff are working in the pre-project commissioning/consultation phase. A six-month Work Plan from November, 2018 to April, 2019 has been prepared to undertake preliminary work in support of existing senior government grants while collaborating with others on the scope of larger joint initiatives to commence in 2019.

Staff will report back to Council in the spring of 2019.

### **Internal Circulation:**

City Clerk  
Communications Consultant  
Deputy City Manager  
Financial Planning Manager  
Policy & Planning Department Manager

**Financial/Budgetary Considerations:**

This initiative is expected to be multi-year in duration. The City has funding through 2019 included in the Water Integration Project that has received senior government funding. The scope of work in 2019 will reflect the current budget limits and additional post-2019 funding requirements will be addressed in future budgets submissions or funding applications to outside agencies.

**Existing Policy**

There are many Council policies in the 2030 OCP that either support this initiative or should be considered during the planning scope.

Other City policy documents that should be reviewed and updated in conjunction with an Area Based Water Management Plan include:

- Environmental Development Permits
- Kelowna Community Climate Action Plan
- Mill Creek Flood Plain Bylaw
- Subdivision & Development Servicing Bylaw

**Communications Comments:**

Depending on the level of agency and stakeholder engagement that is deemed warranted or desirable, a formal Communications Plan may need to be developed.

**Considerations not applicable to this report:**

Legal/Statutory Authority  
Legal/Statutory Procedural Requirements  
External Agency/Public Comments  
Personnel Implications  
Alternate Recommendation

Submitted by:

Rod MacLean,  
Utility Planning Manager

Ron Westlake,  
Senior Engineer

**Approved for inclusion:**



A. Newcombe, Divisional Director, Infrastructure

Attachment 1 – Update on Kelowna Integrated Water Plan and Area Water Management Planning Presentation

cc: Acting Divisional Director, Corporate Strategic Services

City Clerk

Deputy City Manager

Divisional Director, Infrastructure

Divisional Director, Community Planning & Strategic Investments

Divisional Director, Financial Services