

Report to Council



Date: April 14, 2025
To: Council
From: City Manager
Subject: Water Security Plan Adoption
Department: Utility Services

Recommendation:

THAT Council receives for information the report from Utility Services dated April 14, 2025, regarding the adoption of the Water Security Plan;

AND THAT Council adopts the Water Security Plan.

Purpose:

To adopt the Water Security Plan.

Council Priority Alignment:

Climate & Environment

Background:

The City of Kelowna has drafted its first Water Security Plan, which is a comprehensive strategy to ensure a more holistic approach to how we use, protect and share water, now and in the future. The actions included in this Water Security Plan focus on ways the City of Kelowna can ensure long-term security in the supply and quality of our water and build an understanding and awareness of the shared responsibility of partners and community members to sustainably manage water in the Central Okanagan.

The purpose of the Water Security Plan is to highlight the common needs, challenges and opportunities related to water and, using a holistic "one water" lens, allow the City to responsibly manage the water that is supplied to, consumed or flows through our community. It identifies the links of its various operations, approaches, operational needs and leadership opportunities into the future.

Water security also describes the needs and pressures involved in providing a safe supply of water to our urban and agricultural customers, our responsibility towards assuring that strategies to protecting water

quality in our creeks and lakes are clearly understood, and a path forward on how we partner with different levels of government and First Nations.

In June 2023 a workshop that included 34 representatives from 11 different organizations, including the province, local governments, improvement districts, and Interior Health was held to gather input on the six water sectors included in this plan. The engagement included focus groups on each water sector and drove many of the action items. Common actions across all sectors included obtaining better data for decision making, increasing the City’s role in water management in the valley, and increasing community awareness of the impact of municipal decisions on water. A full engagement summary report is included in the plan as Appendix B.

From the 2023 workshop, and based on the guiding principles approved by Council, a draft plan was prepared for feedback from participants of the previous workshop as well as the public. This engagement occurred in late spring 2024. Overall takeaways included having the City place a greater focus on protecting water in decision making, protecting our water and the need for individuals to take responsibility for water conservation. An engagement summary report is included in the plan as Appendix C.

Staff engaged with local First Nations including representatives from the Okanagan Indian Band and Okanagan Nation Alliance in November 2024. The draft plan was finalized in early 2025 based on these engagements.

The Water Security Plan has been produced for both internal and public use. The plan fills an obligation to the Province’s Auditor General, to have a long-term plan available that defines our path forward to various drinking water initiatives.

Previous Council Resolution

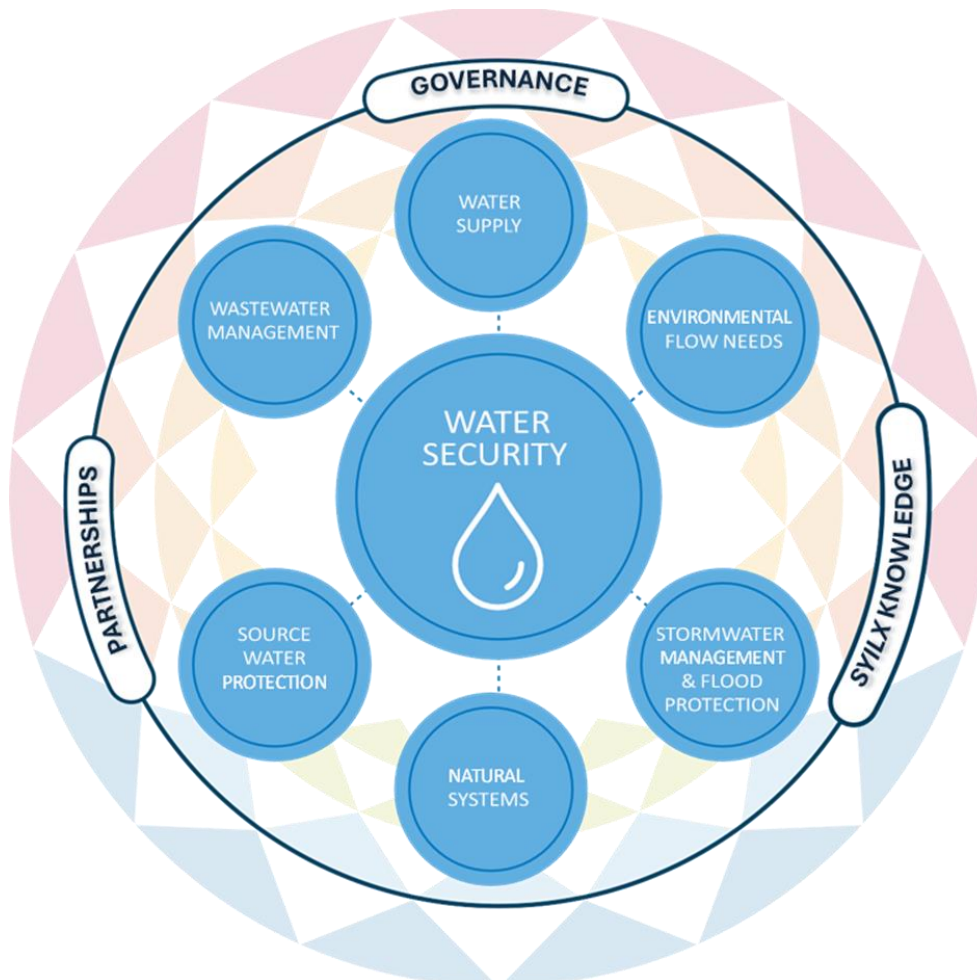
Resolution	Date
<p>THAT Council receives for information, the report from Utility Services dated February 6, 2023, with regard to the Water Security Plan (formerly Area Based Water Management Plan) update;</p> <p>AND THAT Council adopt the nine (9) water related Principles described in this report to guide development of a Water Security Plan;</p> <p>AND THAT Council instruct staff to develop a draft Water Security Plan for public engagement and input prior to final Council review and adoption.</p>	<p>February 13, 2023</p>

Discussion:

The Water Security Plan encompasses three foundational elements; Governance, Partnerships and *syilx* knowledge that support each of the following six water sectors:

1. **Water Supply:** The system that ensures we have water to use in our homes, at workplaces, for agriculture and in public spaces and amenities
2. **Wastewater Management:** How wastewater from homes and businesses in Kelowna is collected, treated and discharged to the environment.

3. **Environmental Flow Needs:** The ideal volume, timing and quality of water flow needed to keep an aquatic ecosystem healthy and sustainable.
4. **Stormwater Management and Flood Protection:** How the City of Kelowna controls runoff from rainwater or melted snow to prevent flood damage and impact on Okanagan Lake water quality.
5. **Natural Systems:** Includes lakes, creeks, wetlands, forests, soil and sometimes “green infrastructure” which are enhanced and engineered to provide similar benefits to natural systems.
6. **Source Water Protection:** Protecting the water we use at its source, which is crucial to ensure that we have clean, safe, and reliable drinking water.



The following Vision was developed for the Water Security Plan:

Water management in Kelowna is approached from a holistic, “one water,” lens that guides decision-making and long-term planning, reflecting the importance of water for our communities and our environment.

To achieve the vision the Plan is guided by the following nine guiding principles:

- All residents and water users in the City have a safe, affordable, resilient and sustainable supply of high-quality drinking water and a reliable supply of water for agriculture.
- Protect Okanagan Lake, our human health, and our environment through efficient collection and effective treatment of wastewater.
- Stormwater is effectively managed without negatively impacting riparian areas, infrastructure, property, or Okanagan Lake.
- The community is resilient and resistant to lake and creek flooding.
- Okanagan Lake and upland watersheds remain a source of high-quality water.
- Account, protect, restore, and enhance natural systems that make up our asset inventory and increase environmental resiliency.
- Assure that the quality and quantity of water is available to support a healthy aquatic ecosystem.
- Indigenous knowledge, practice and permitting is effectively incorporated into water decision processes.
- The City works in partnership with other water providers and government agencies to ensure water security.

The plan identifies 40 actions that are focused across the foundational elements and various water sectors. The actions are identified as Short Term (1-3 years), Medium Term (3-7 years) and Long Term (7 years or more).

Many of the values and principles found in this final plan have already been incorporated into the 2040 Official Community Plan, City Financial Planning and Utility reporting. The Water Security Plan identifies some of the issues we all face towards sustaining our long-term social and environmental needs. New strategies are identified to address some of the opportunities and procedural changes needed in the future.

There are a few short / medium term actions in the plan that have had limited discussion within the community and are worth highlighting at this time:

1. **Water Supply:** Advise Government and the agricultural community of the commitment required to renew and replace aging supply and delivery infrastructure. A substantial amount of agricultural water infrastructure was installed around 1970 as part of the Agricultural and Rural Development Act (ARDA). These assets are nearing end-of-life and few organizations have set aside funds for renewal or have the revenues needed to renew these systems. This includes the City's non-potable water system inherited from SEKID, as well as some of the GEID infrastructure.
2. **Environmental Flow Needs:** Incorporate critical flow needs into the City's drought management and water shortage response plans. Defining and understanding environmental and critical flow needs for Mission Creek and Mill Creek will become critical to ensure sustainable operation of our systems as well as any obtaining any new or changed water licenses by the City.
3. **Stormwater Management:** Developing best management practices for operations and life cycle ownership and ensuring more sustainable stormwater funding is important for the City to move from re-active to proactive stormwater management.
4. **Source Water Protection:** The City should clearly identify source water protection for our lake intakes from both a planning and development perspective as well as increasing transparency for lake users.

Conclusion:

Effective and holistic water management is vital to support the different and sometimes competing needs for water. The responsibilities around water management are multi-jurisdictional and complex. In the Okanagan these needs include personal water demand, public health, agriculture, the environment, businesses, culture, and land use, to name a few. These shared needs mean there are many partners and community members that also share the responsibility to manage and use water sustainably.

Our water responsibilities all relate from source, to creek, to lake, to tap, to wastewater and back to lake. Addressing our long-term water needs and responsibilities requires this holistic view where decision processes are looked at through a “one water” lens.

Internal Circulation:

Communications

Considerations applicable to this report:

Consultation and Engagement:

Development of the plan included three separate engagements that included invitations to several groups with an interest in water in 2023, and the same groups and broader public in June 2024. In Fall 2024, a final draft was reviewed with members of the *syilx* First Nation and the Okanagan Nation Alliance.

Communications Comments:

When adopted, the Water Supply Plan will be shared with stakeholders that participated in the engagement sessions and will be prominently placed on the City’s website.

Considerations not applicable to this report:

Legal/Statutory Authority:

Legal/Statutory Procedural Requirements:

Existing Policy:

Financial/Budgetary Considerations:

Submitted by: K. Van Vliet, Utilities Services Manager

Approved for inclusion: M. Logan, Infrastructure General Manager

Attachments:

Attachment 1 - City of Kelowna Water Security Plan, April 2025