

Kelowna's Water Security Plan

Our approach to responsible water
management

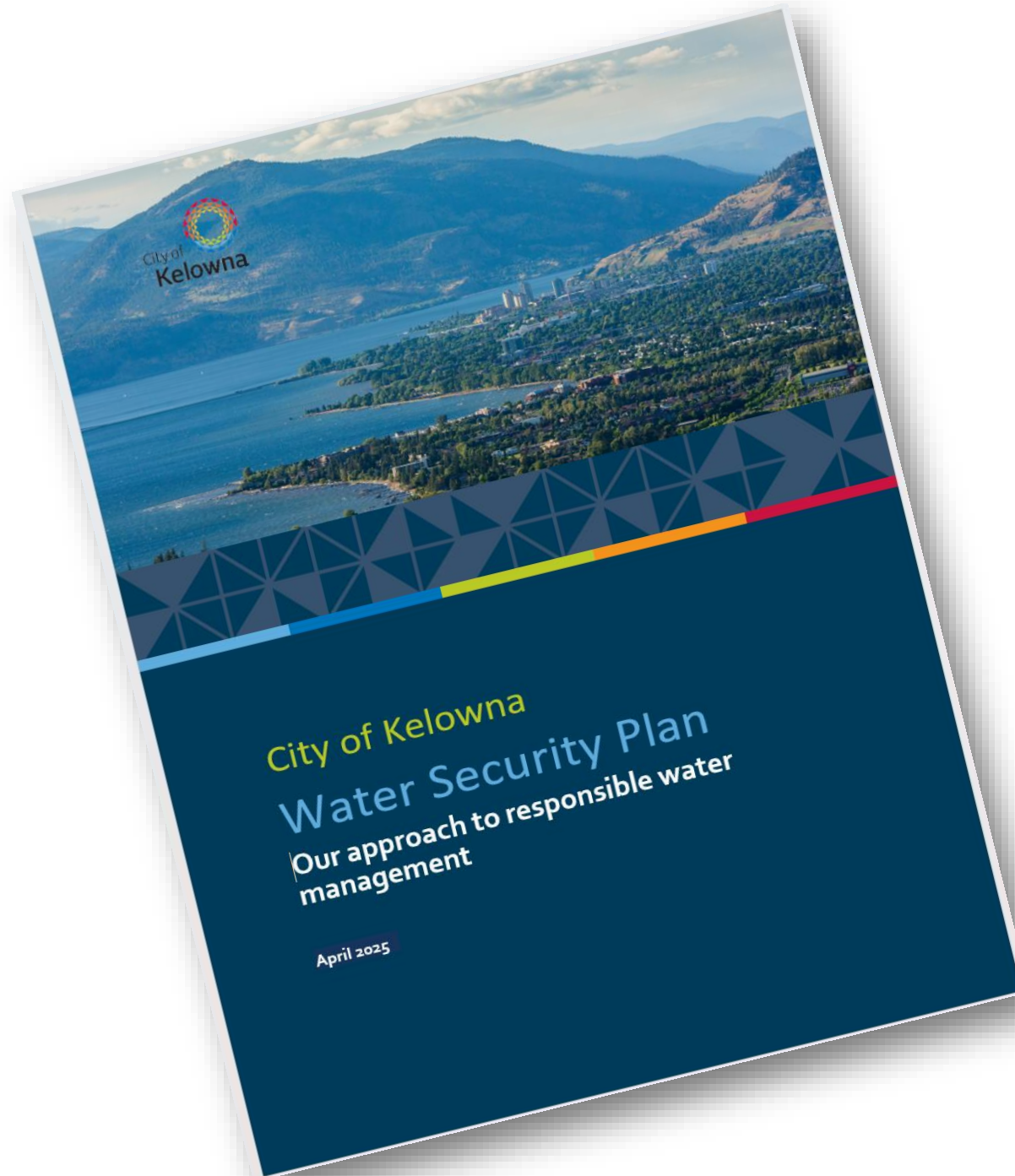
April 14, 2025



Presentation Overview

- Introduction – The Plan
- Action Items
- Summary

The Plan



Engagement / Reviews

- Peer Review (Appendix B)
- Public Engagement (Appendix C)
- *syilx* Review

syilx

Kelowna Guiding Water Security Principles

Council Endorsed – February 13, 2023

1. 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.
2. Protect Okanagan Lake, our human health, and our environment through efficient collection and effective treatment of wastewater.
3. Stormwater is effectively managed without negatively impacting riparian areas, infrastructure, property, or Okanagan Lake.
4. Our community is resilient and resistant to lake and creek flooding.
5. Okanagan Lake and upland watersheds remain a source of high-quality water.
6. Natural Systems are accounted, protected, restored, and enhanced to improve our environmental resiliency.
7. Assure that the quality and quantity of water is available to support a healthy aquatic ecosystem.
8. ~~Indigenous~~ knowledge, practice and permitting is effectively incorporated into water decision processes.
9. The City works in partnership with other water providers and government agencies to ensure water security.

Actions

• Appendix A

40 Actions in this plan.

WATER SUPPLY

GUIDING PRINCIPLES: All residents and water users in the city have a safe, affordable, resilient and sustainable supply of high-quality drinking water and reliable supply of water for agriculture.

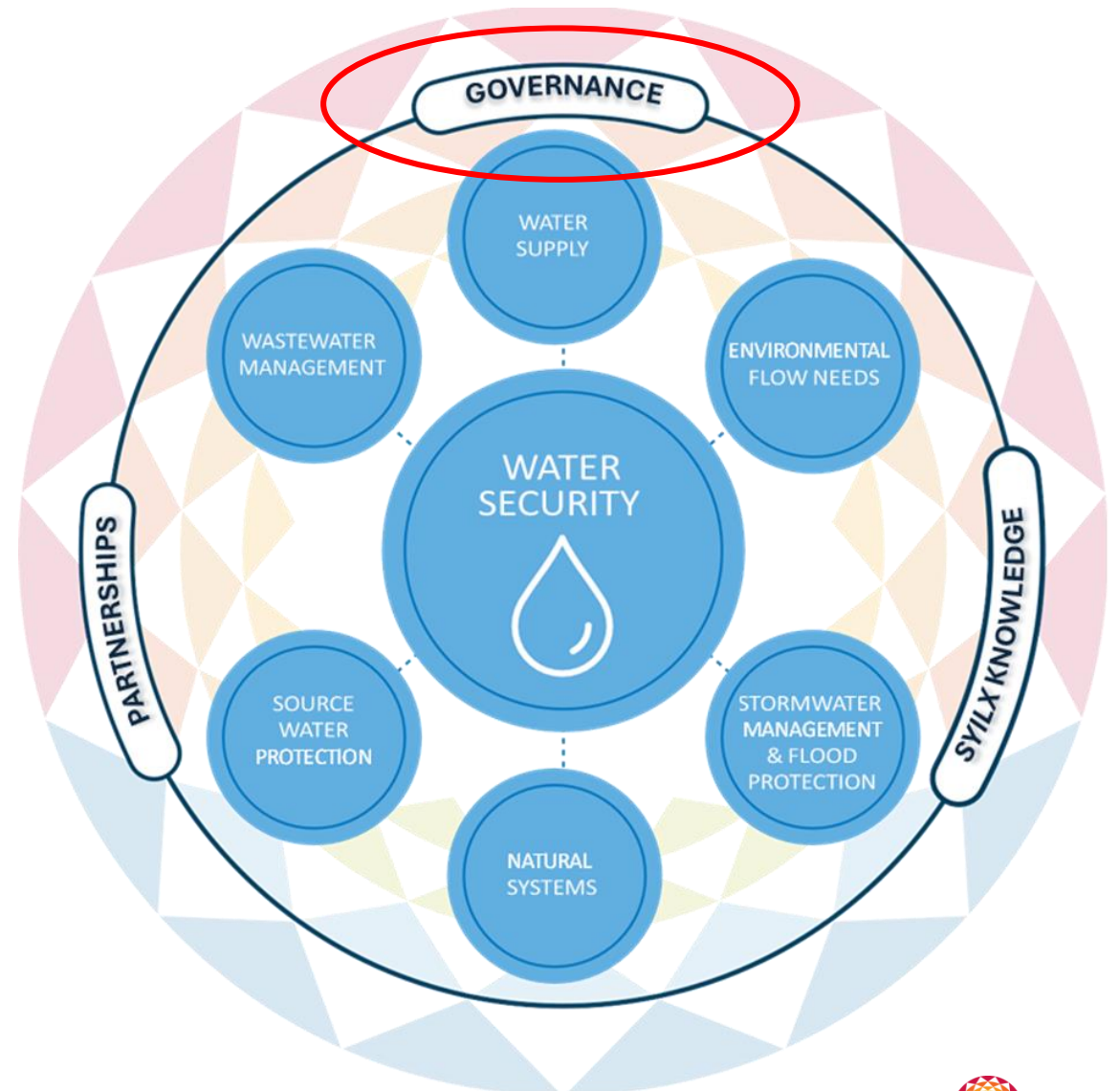
ACTION	RELATED FOCUS AREAS	TIME FRAME	KEY PERFORMANCE INDICATORS
Conserve water. Update water demand criteria in Bylaw 7900 updating infill zoning and new light industrial requirements.	Water Supply	Short-term	Per capita potable water production. Annual water produced divided by the population served.
Review and upgrade water infrastructure in urban core areas to assure that water supply is adequate to meet firefighting requirements to facilitate densification.	Water Supply	Short-term	All urban centre serviced properties meet minimum requirements of Policy 383 – Water Supply Level of Service.
Increase our measurement of water and focus on evidence-based decision making by aligning water consumption data with irrigation use.	Water Supply	Short-term	Water meter data is incorporated into water utility planning processes.
Advise government and the agricultural community of the commitment required to renew and replace aging supply and delivery infrastructure.	Water Supply	Short-term	Successful meetings with senior government.
	Partnerships		
Develop funding strategy to assure that non-potable water is supplied to agricultural producers	Water Supply	Medium-term	Funding strategy developed. Non-Potable systems are sustainably funded.
	Partnerships		
Assure resiliency and water quality supply risk mitigation through interconnectivity of sources. <ul style="list-style-type: none"> Evaluate transmission connectivity between McKinley intake and Dilworth Reservoir. (Short term) Install multiple connections between GEID and City system to interconnect the networks. 	Water Supply	Medium-term	Percentage of customer properties serviced by two or more sources during emergencies. WQA-person-days and BWN Person days across city are falling or zero.
	Source Water Protection		
Protect public health by developing concept plans and ensuring land is available for addition of filtration facilities at all potable water supply locations.	Water Supply Source Water Protection	Long-term	Plans and land secured for advanced treatment at each source.

Sample Sector Action Plan for Water Supply Appendix A

Governance

Actions

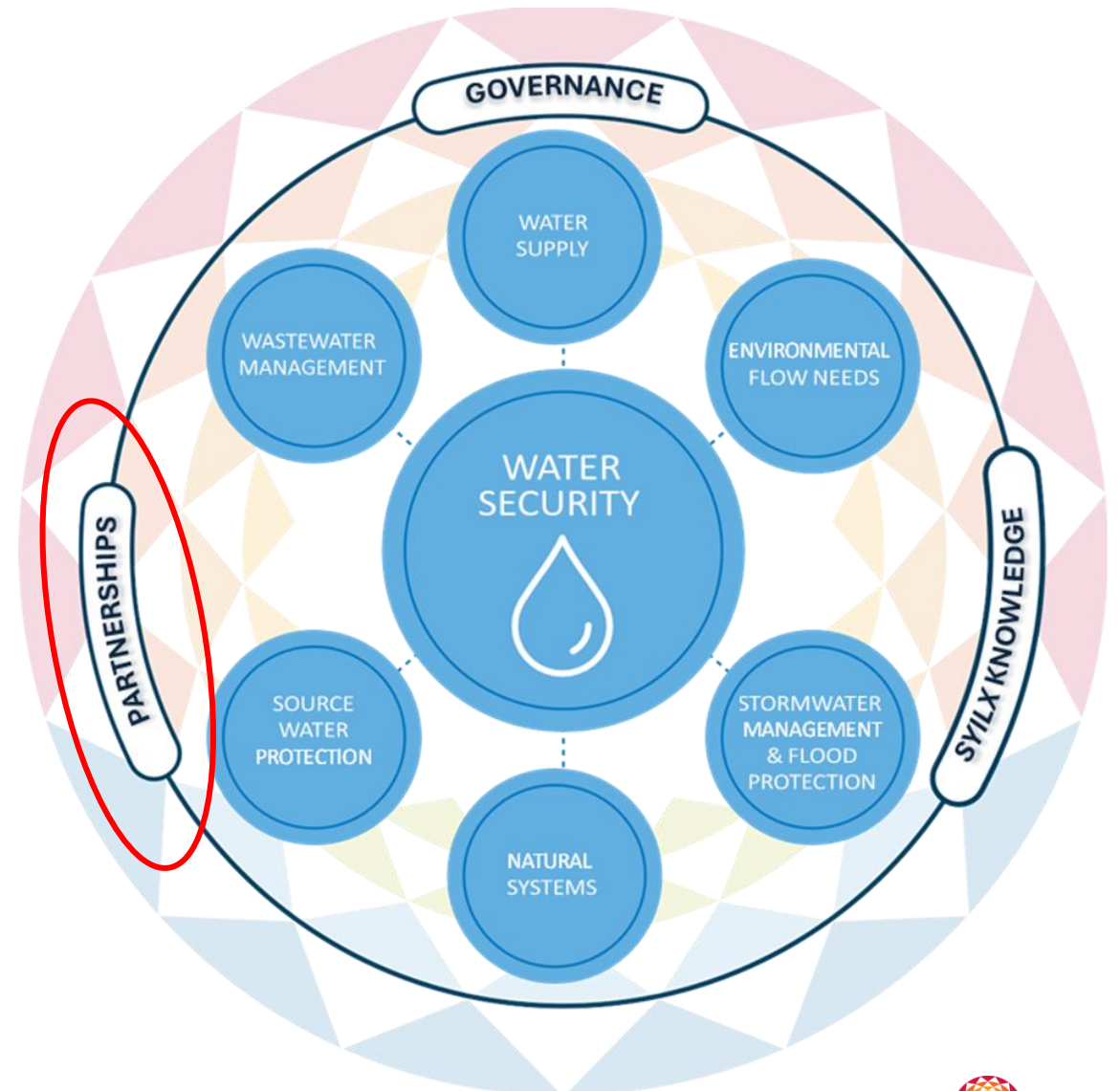
- Short Term
 - Align City operations, level of service, and key performance indicators with the guiding principles.
- Medium Term
 - Adjust risk registries and contingency plans for water security infrastructure assets.
- Long Term
 - Assess and refine development policies.



Partnerships

Actions

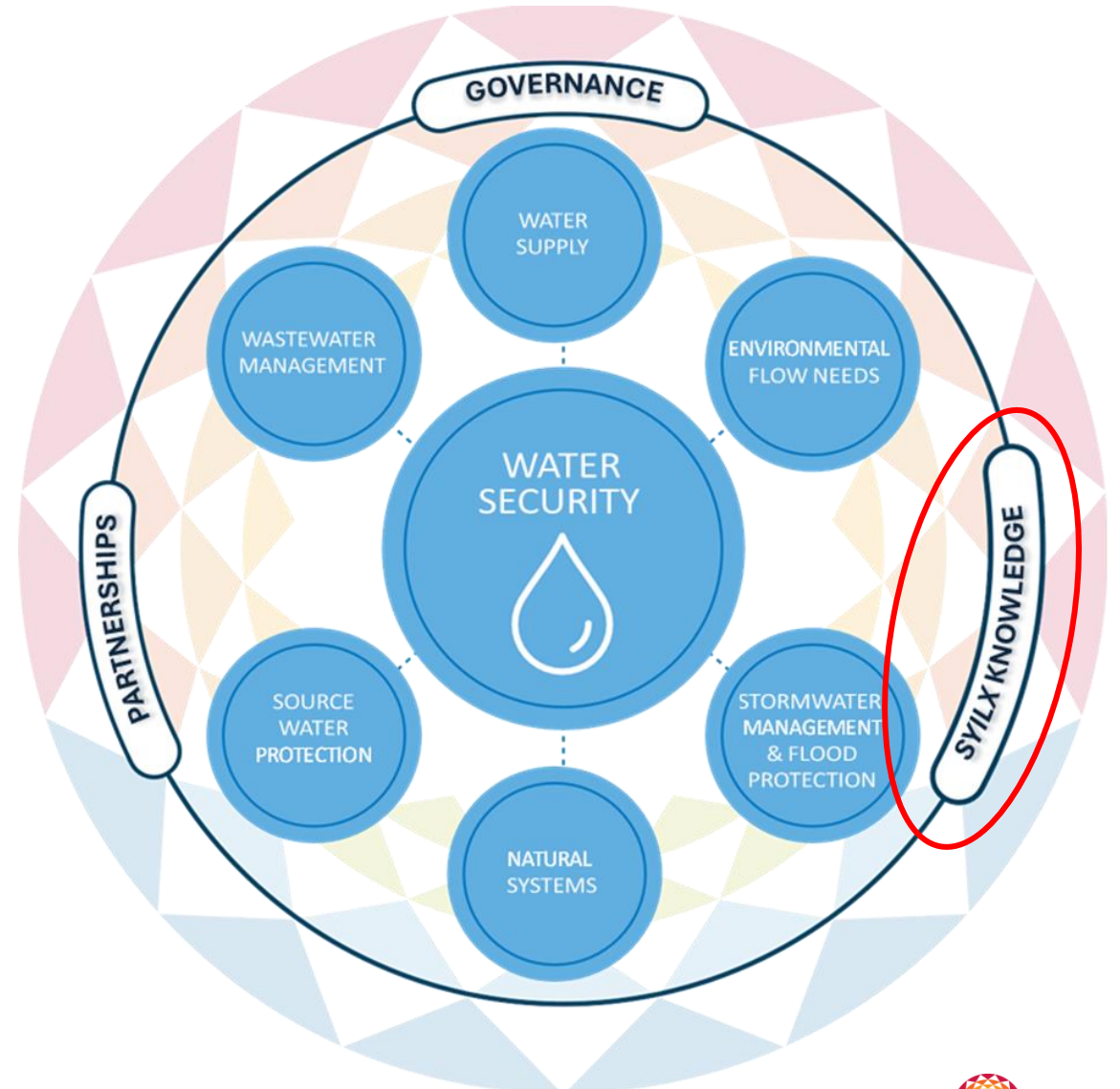
- Short Term
 - Meet regularly with other water purveyors in Kelowna to share experiences & expertise.
- Medium Term
 - Develop BMP's that work.
- Long Term
 - Partner with senior government



Syilx Knowledge

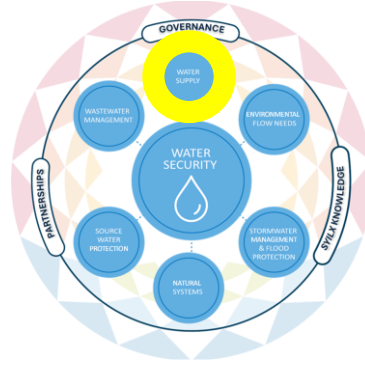
Actions

- Short Term
 - Familiarize ourselves with the *syilx* Water Declaration.
 - Adopt fish passage into City Projects.
- Medium Term
 - Participate in *syilx* water resource activities.
 - BMP's & policies include *syilx* Knowledge.
- Long Term
 - Adapt to updates in Provincial Law.



Water Supply

Actions



- Short Term
 - Adjust water demand criteria to prepare for growth.
 - Improve water quality and quantity analytics.
 - Investigate additional Non-Potable allotments for agriculture.
- Medium Term
 - Improve system resiliency through interconnectivity.

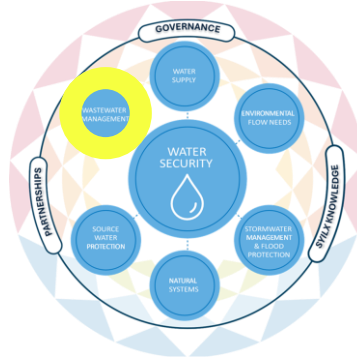


Poplar Point Lake Intake
& Pump Station

Wastewater

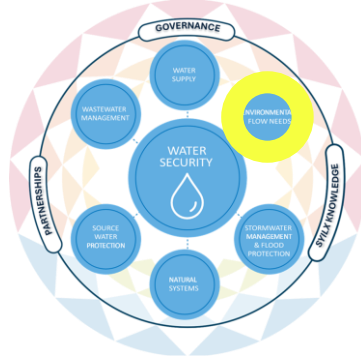
Actions

- Short Term
 - Address WWTP upgrades related to recent growth estimates.
- Medium Term
 - Track emerging contaminants of concern.
- Long Term
 - Eliminate on-site septic systems in urbanized areas.



Secondary Clarifiers
Raymer Wastewater Treatment Plant

Environmental Flow Needs



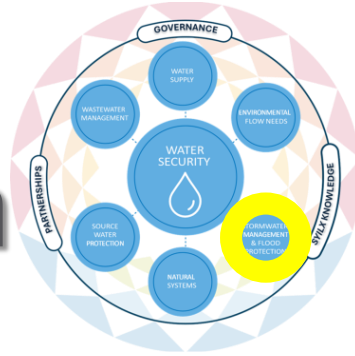
Actions

- Short Term
 - Incorporate critical flow needs into the City's drought and water shortage plans.
- Medium Term
 - Look to modify infrastructure to accommodate automated releases
 - Look for more watershed reservoir storage.



Riffles and Spawning Area
Mission Creek - Reach 4

Stormwater & Flood Protection



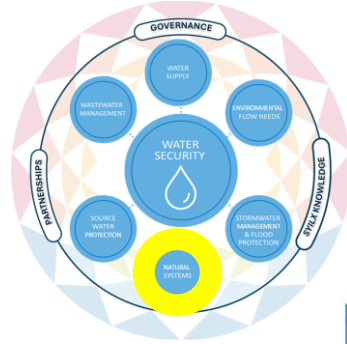
Actions

- Short Term
 - Redirect focus to Stormwater Quality
 - Flood protection works to include fish spawning and riparian health.
- Medium Term
 - Incentivize effective stormwater quality on private property.
 - Examine a Stormwater Utility



Vac-Truck used to regularly
to clean out Catch Basins and drains

Natural Systems



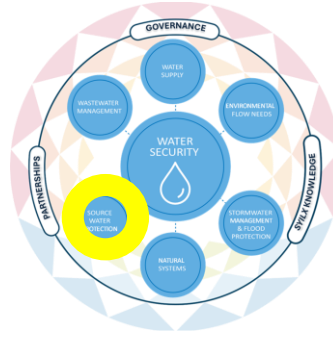
Actions

- Short Term
 - Create a Habitat Compensation Bank.
- Medium Term
 - Provide Natural system protection by designating Natural Park zoning.

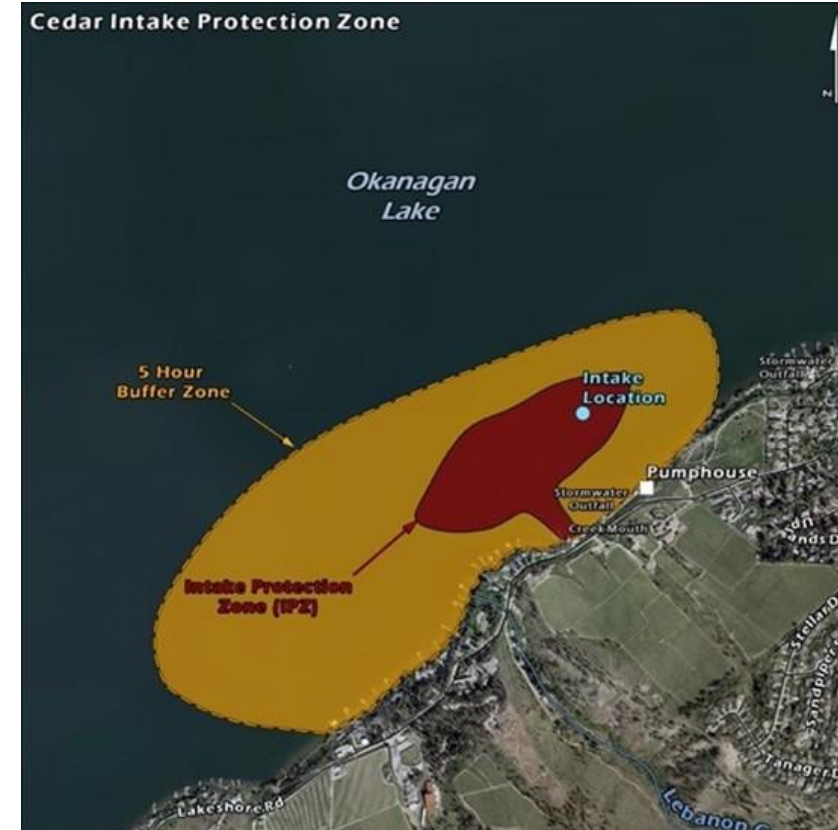


Burne Park – New 39 metre riparian section on Mill Creek
Natural or Green Infrastructure?

Source Water Protection Actions

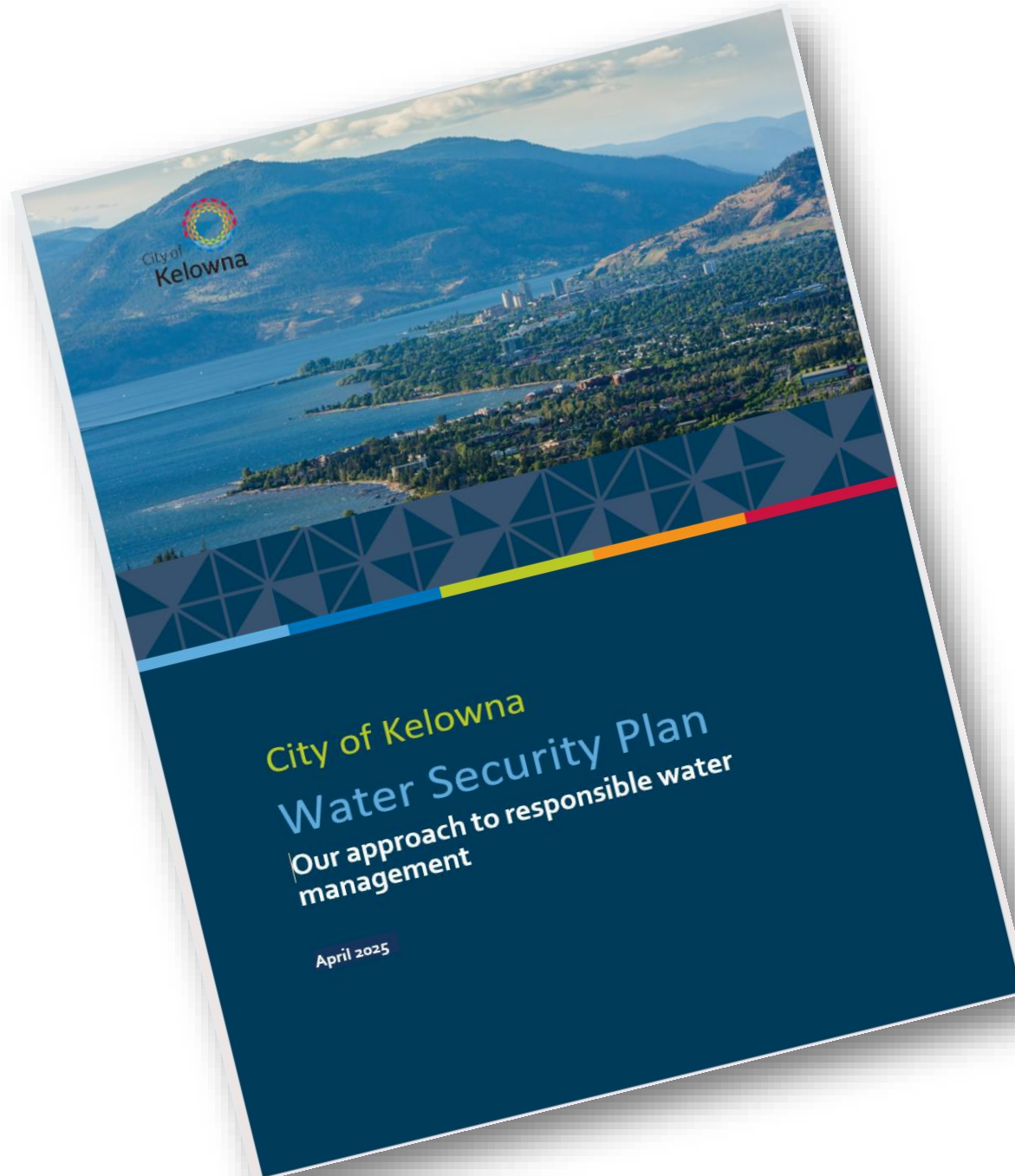


- Short Term
 - Develop processes where decisions include “a look through the Water Lens”.
 - Water recreation expansion,
 - Effluent discharges
 - Lake disruption.
- Medium Term
 - Participate in a new Watershed Sustainability Plan for Mission Creek.
 - Continue OBWB participation
 - Add resource to managed the Source Water Protection Portfolio.



Intake Protection Zone – Cedar Creek Intake
(From 2040 OCP)

Summary





Thank you