



LAKE COUNTRY

Life. The Okanagan Way.

Liquid Waste Management Plan

Presentation Purpose

- ✓ Update Council on Core Components and Implementation of the LWMP
- ✓ Identify guiding principles for finance of the Projects and Programs

Presentation Content

- LWMP Process Overview
- Engagement
- Direction Setting
- Financial Planning



What is a Liquid Waste Management Plan?

- Formal agreement with the BC Minister of Environment and Climate Change Strategy
- Specifies how a community manages liquid waste over the long-term incl. how/where to return water to environment e.g., *three stage process*
- Two primary objectives:



- Protect public health and the environment



- Effectively consult the public

We borrow water wisely and return it safely.

LWMP Focus Areas

Collection System

Treatment System

Cleaned Water
Return

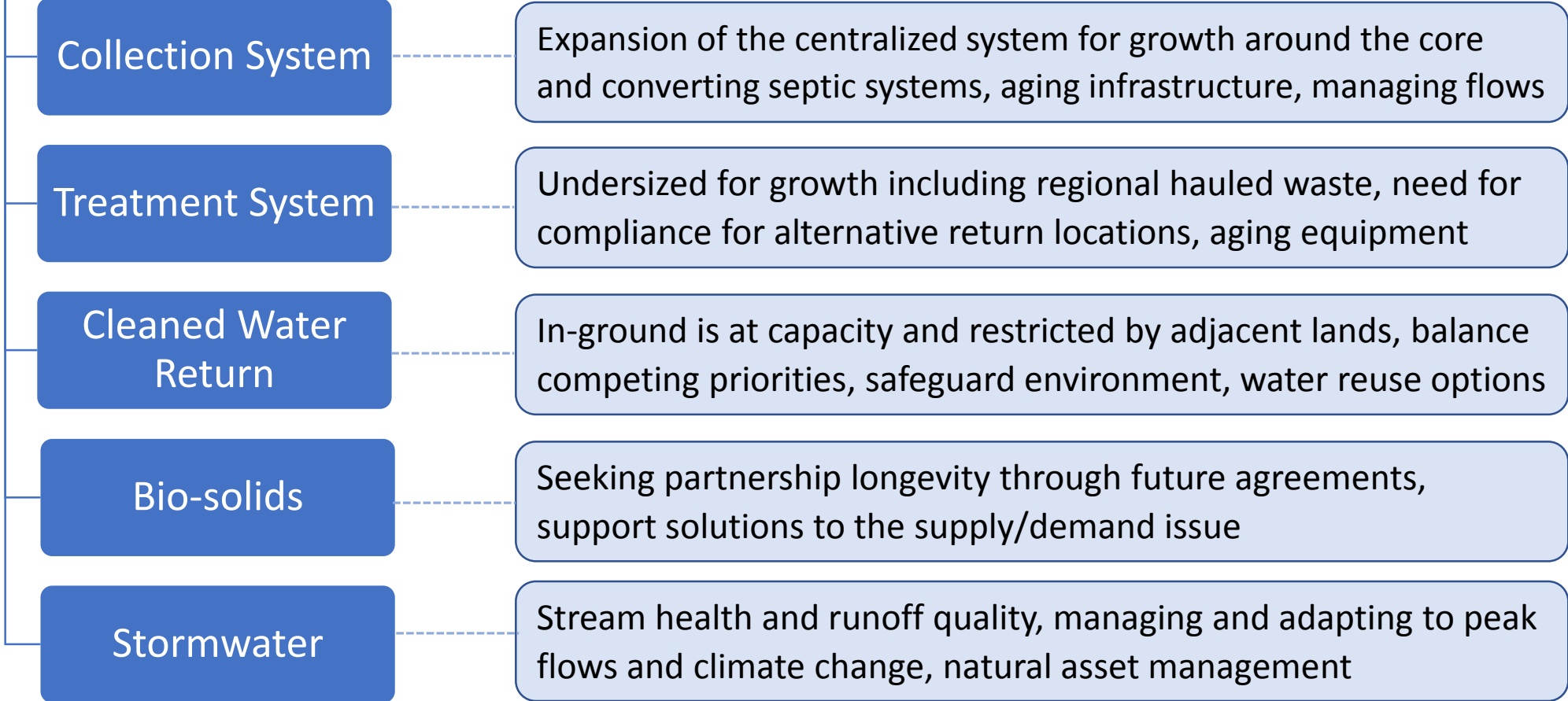
Bio-solids

Stormwater

What are the issues?

Wastewater treatment has historical significance: it was a first-order priority upon incorporation. This tradition continues, with core investments to safeguard the environment.

LWMP Focus Areas



Engagement Process Overview



9 Indigenous communities invited to participate in the Advisory Committee or separately



Recurring Fact Friday's providing informative content on liquid waste



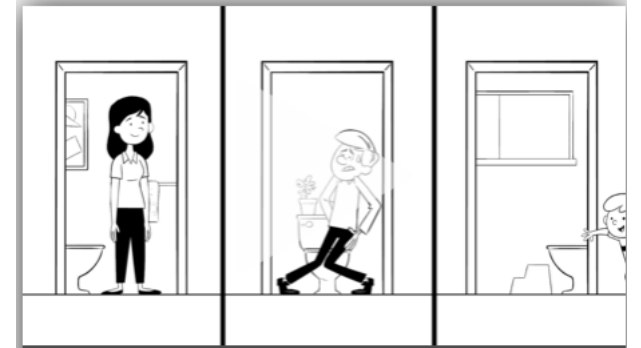
2 Advisory Committee Meetings



Wanted it to be *Engaging* and **approachable**.
Award Winning *UBCM's* – **Honourable
Mention, Excellence in Governance**



Public Survey: Septic systems, OgoGrow, Water reuse, stormwater management, Input on the options



What Happens After You Flush – Poop 101



Talking about number 2

Engagement Process Results

- Multiple Council Engagements
- Achieved our objective to **Inform and Listen**
 - Open process: present it all
 - Expanded Q&A Section with regular updates
 - Fact Fridays to outline liquid waste issues
 - Multiple phone calls and online requests e.g. *sani-dump*
 - Mail-outs, hard copy surveys, front counter
 - **Inform** → **Survey** → Listen → **Interpret**
- Attained > 1,000 touchpoints throughout
 - 250+ survey responses
 - 28 *posed questions*
 - ~170 video views
 - Hundreds of online visits, downloads, and queries

Indigenous Communities

Consultation with Indigenous peoples is being implemented through a separate but parallel government-to-government process.

- Westbank First Nation
- Lower Similkameen Indian Band
- Nooaitch Indian Band
- Okanagan Indian band
- Penticton Indian Band
- Upper Nicola Band
- Okanagan Nation Alliance
- Splatshin First Nation
- Scw'exmx Tribal Council

Active
Consultation

to Completion

Spring '21

Fall/Winter '22

Summer '22

Summer '23

Winter '23/24



Cleaned Water Return: Options for Public Input



Option #1: Base Approach

- 100% of flows to Okanagan Lake
- Opportunity for water reuse → future



Option 1 is straightforward, cost-effective, and safe. It requires add-ons to meet public interest in water sustainability.



Approved Option Hybrid Safe Return

- Maximize in-ground
- Some future water reuse (irrigation)
- Remaining flows to Ok Lake



Option 2 means more infrastructure and costs, but it does more for the public interest in the environment.



Option #3: Partnership

- Service partnership with Public Utility
- Access to larger teams, equipment purchasing, and potential cost savings
- Relinquish some autonomy



Option 3 shifts risk and responsibilities but equals less autonomy, some uncertainty, and likely some new costs.

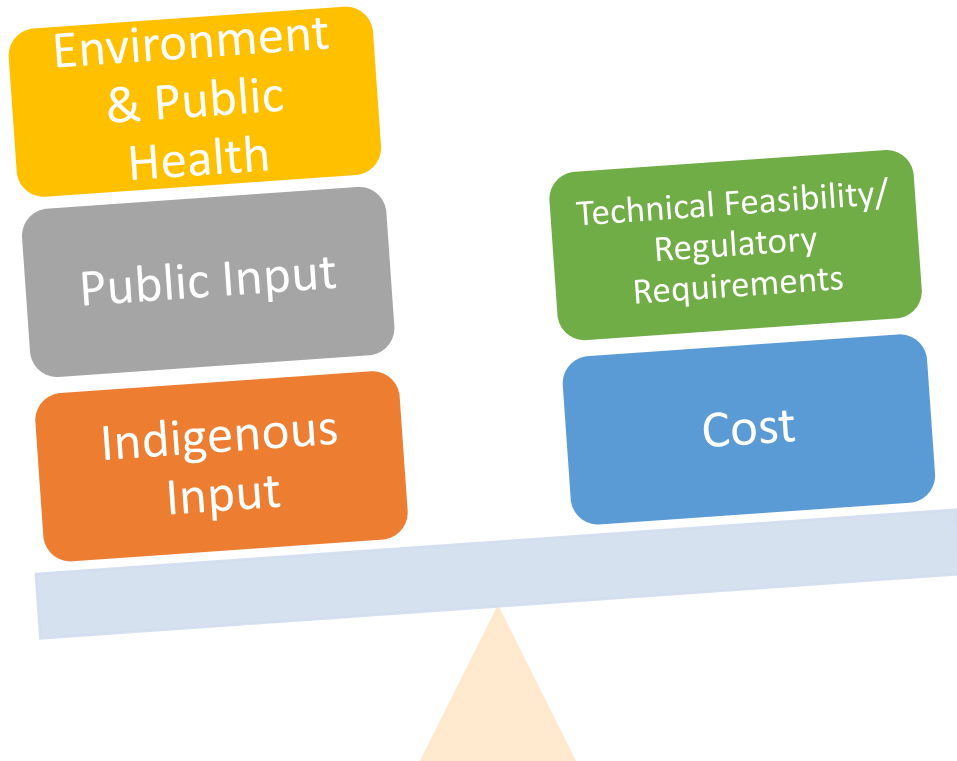
Environmental Impact Study

- Review existing environment, **baseline conditions**, and **cumulative effects**
- Assesses **risks and impact of sending cleaned water to Okanagan Lake** e.g. *return water safely.*
- Interim findings: low risk; acceptable method of returning water to environment

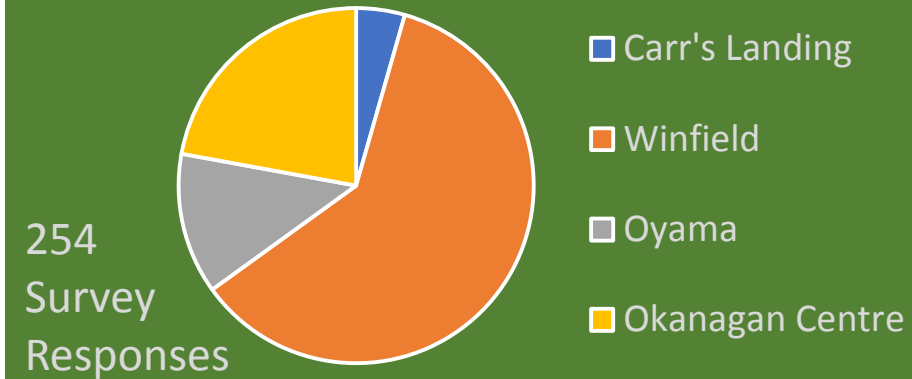


Engagement and Direction Setting Process

Balancing Priorities



Survey Statistics



- Strong desire for return water to Ok Lake that is safe
- Mixed views on whether to pursue lowest cost or costly reuse systems
- Local emphasis that growth pays for growth
- Steady demand to expand community system out from the core to replace aging septic
- Expressed desire for enhanced stormwater runoff for Ok Lake

Engagement and Direction Setting Process



Approved Option Hybrid Safe Return

- Maximize in-ground
- Some future water reuse (irrigation)
- Remaining flows to Ok Lake



Option 2 means more infrastructure and costs, but it does more for the public interest in the environment.

- ✓ Stage 2 Report **Accepted** by Ministry of Environment
- ✓ Direction to **Proceed to Stage 3** and Implementation Work

Stage 3: Implementation begins with financial, human, and construction capacity.



Stage 3: Core Phases of Implementation

\$

\$35M

Phase 5

Treatment Upgrades
and Outfall



\$30M+ \$21M

Collection System Expansion

Expand Service Area(s)
and Upgrade Major
Transmission Systems



\$TBD

Reclaimed Water Development

Selective Utility
Establishment



+\$87M

over 20 years
(2022 dollars)

2023

20 Year Time Frame for Implementation

2043

Estimates now include the Oyama trunk main, an adjustment from the Stage 1/2 Report

Guiding Principles for LWMP Implementation

- Principles for cost-recovery guide the financial analysis
- Today's Focus: Explore how the principles work



Sewer Service is Self-Funding



Growth Pays for Growth



Sewer Retrofit through Local
Service Area



Septage Facility is Self-
Supporting



Stormwater Funded with
Mobility



Sewer Service is Self-Funding

- Full cost recovery by those directly benefiting
- Increase user fees to phase out: Sewer Parcel Tax + Environmental Levy.



Growth Pays for Growth

- Development pays for their share of future works to service development e.g., DCCs, frontage upgrades



Sewer Retrofit through Local Service Area

- One large initiative across several neighborhoods to realize economies of scale e.g., Oyama, Winfield
- Funded by local area taxes, not utility fees, where grants are essential e.g., after WWTP Ph 5 complete



Septage Facility is Self-Supporting

- Funded as a regional service, through agreements, where haulers charge users to cover tipping charges



Stormwater Funded with Mobility

- Funded under General Revenue and Transportation Parcel Tax

What will these Principles produce?



- ✓ Sewer Parcel Tax eliminated
- ✓ Environmental Levy eliminated
- ✓ User Fees adjusted to replace Parcel tax and Env Levy
- ✓ Development Cost Charges rise
- ✓ Local Area Services established

Sewer Parcel Tax

- Origin: Pay for initial Sewage Treatment System
- Applies to 3,200 parcels e.g., connected or could be connected to the Sewage Treatment System
- Currently set at \$275 per year per parcel

Environmental Levy

- Origin: Pay for original Sewage Treatment System
- Applies to all parcels ~6, 300 in Lake Country
- Currently set at \$75 per year per parcel

User Fees

- User fees apply only to those connected to the Sewage Treatment System
- \$250 // \$100 // \$250 per year for 1) family dwellings, 2) secondary suites, 3) commercial units - respectively

LWMP Finance and Implementation

- **Full cost recovery by those directly benefiting**
- **Sewer paid by those connected to system**

Existing Sewer Funding	Proposed Sewer Funding
\$250/year User Fees	Adjusted User Fees
\$275/year Sewer Parcel Tax	No Sewer Parcel Tax
\$75/year Env Levy	No Env Levy
<hr/>	<hr/>
\$600/year	Relatively Stable Rates

- **Sanitary Sewer DCCs** increase ++ to account for rising infrastructure costs
- **Local Service Areas** Winfield and Oyama → **focus on** Grant funding, borrowing, and Local Service Area process

What strategies do we need to adopt to make this successful?

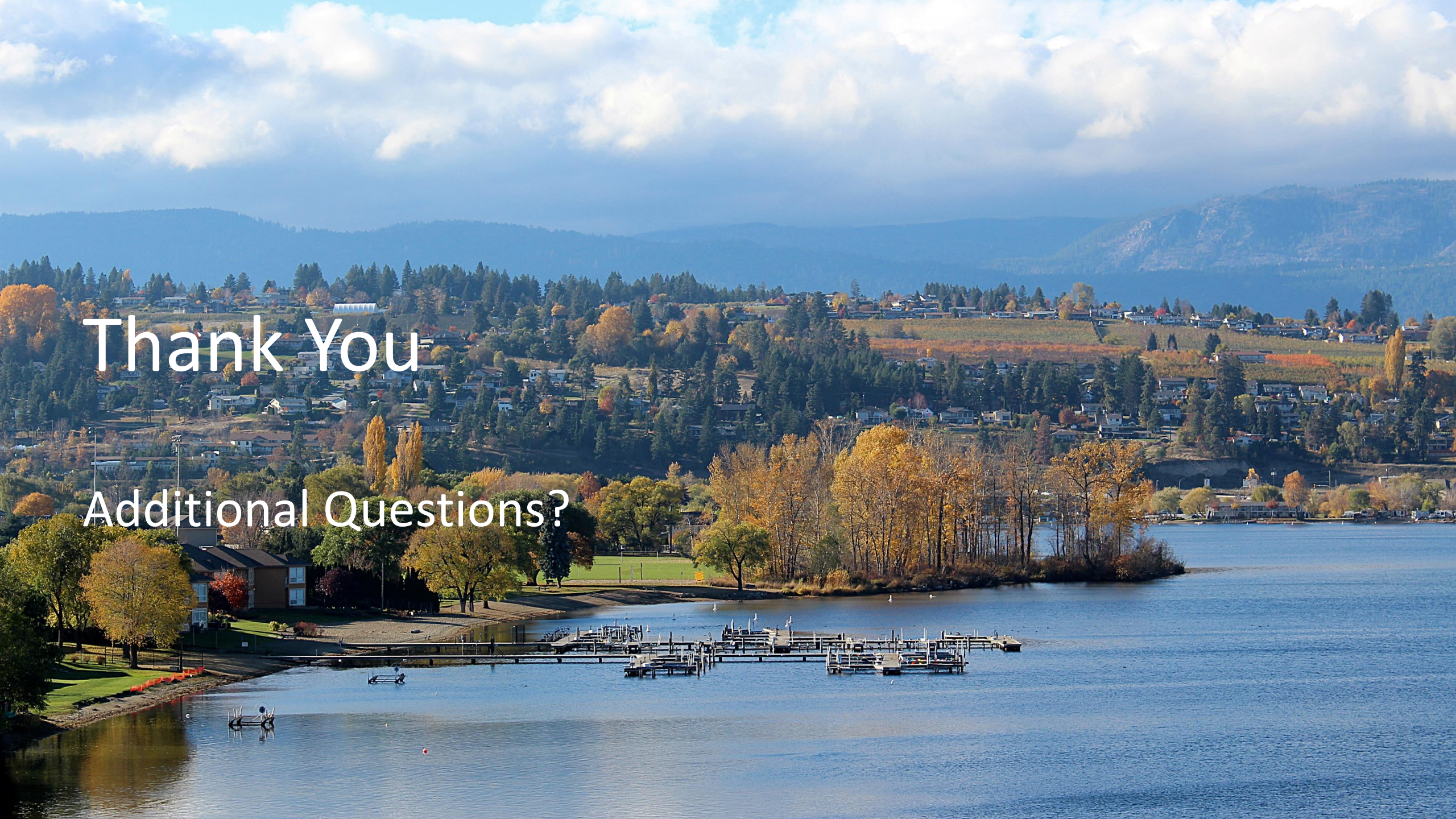
- Apply for Grants and Prepare to Align with Funders' Expectations
- Borrow for Major Projects >\$5M
- Increase DCCs regularly to pay for costs of growth
- Adapt to escalation//inflation, pace of growth, borrowing costs, etc. by carefully updating user rates regularly

Next Steps and Stage 3 Implementation

- Complete engagement process
- Finalize financial strategy
- Bring Stage 3 report with financial strategy to Council for approval
- Ministry Approval of LWMP stage 3

Implementation of LWMP





Thank You

Additional Questions?