



HARRISON HOT SPRINGS

Naturally Refreshed

Draft Budget Presentation

January 29, 2025

Scott Schultz, Chief Financial Officer

Presentation Highlights

Budget Timeline

Recap 2024

Budget Summary 2025

Capital Plan

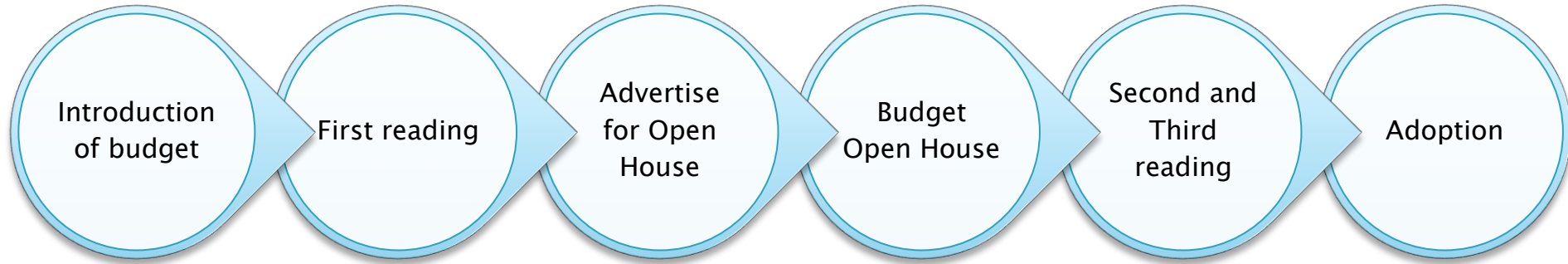
BC Assessment Data

Property Tax Overview

Property Tax Ratio Scenarios



Budget Process



Recap – 2024

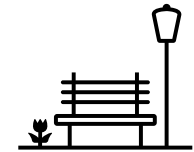
Revenues

- Property Tax, Utility, and Curbside revenues were as expected
- Pay parking revenue was down because of rainy spring
 - Total revenues \$336K
- Strong interest earnings on investments
- Continued grant revenue
 - Including FireSmart, Hot Springs Road drainage, Dike improvements



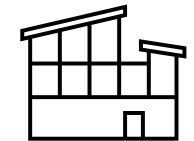
Expenses

- Inflationary pressures continued but showing some signs of softening
- Total expenses under budget



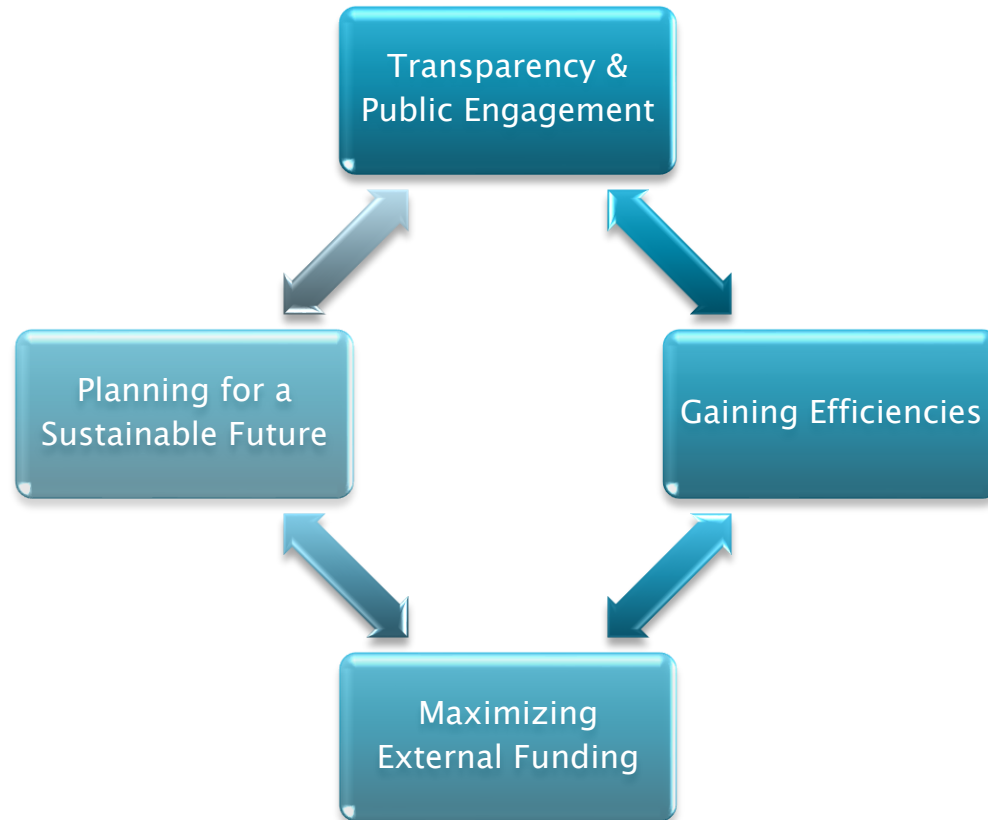
Capital Projects

- Many capital projects kicked off in 2024
 - Including new playground, water and sewer upgrades, and beach redevelopment

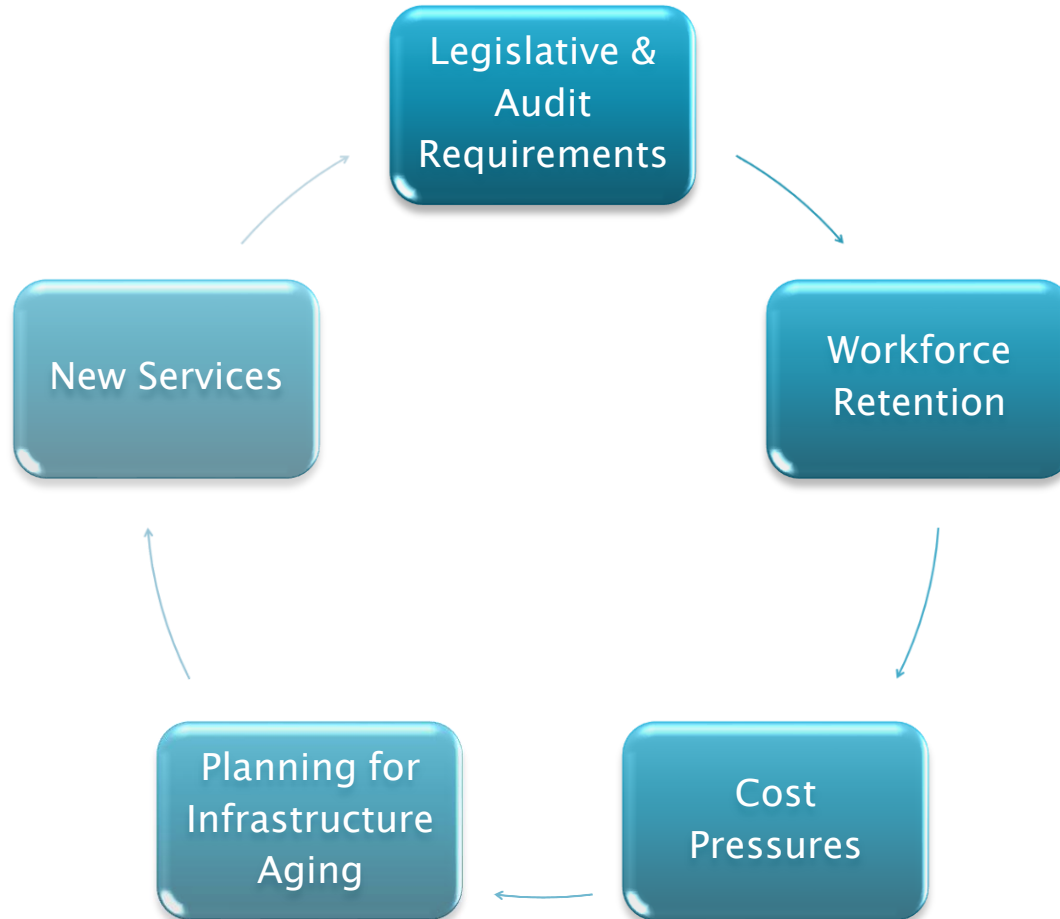


Budget Goals – 2025

Budget Goal: No reduction in services and continued contributions to reserves, while keeping property tax increases to a reasonable level



Budget Pressures – 2025



Budget 2025 – General Revenue Highlights

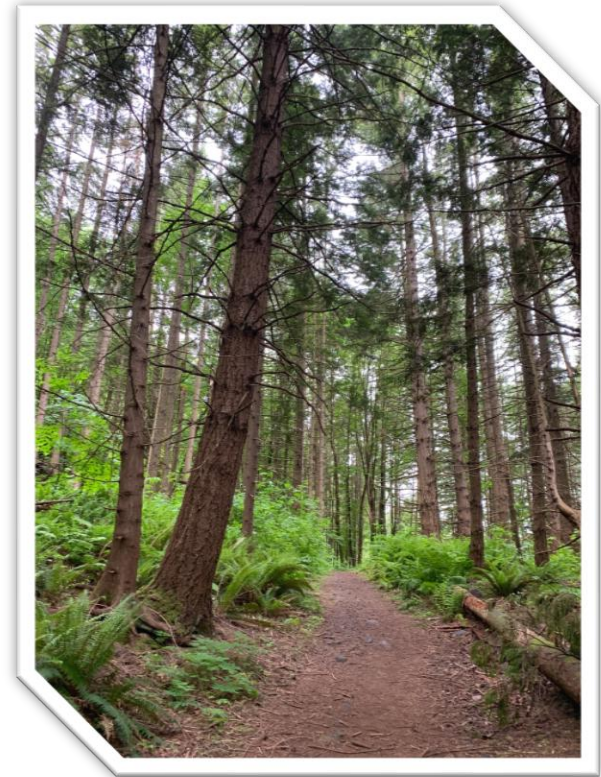
Taxation • \$3.0M

Utilities • \$1.8M

Curbside
Collection • \$166K

Business
Licensing • \$29K

Pay Parking • \$350K



Budget 2025 – General Expense Highlights

Administration

- Wages
- CUPE Collective Agreement for 2025 – 2027 was reached

Professional Services

- \$50,000 – Asset Management Consulting (Gas Tax Grant)
- \$46,000 – Forest Fuel Management (General Reserve)
- \$21,000 – Development Master Plan completion (Gas Tax)

Technology

- Information Technology support services
- \$65,000
- MAIS accounting software, Zoom, Public Consultation Software, Website support, General IT Security and Support

Budget 2025 – General Expense Highlights

Fire
Department
Operating

- Additional Admin support
- Additional training budget

Fire
Department
Capital

- \$28,000 – Fire Turn-Out Gear
- \$20,000 – Equipment refreshing
- \$50,000 – SPU Trailer Outfitting (Grant)

Emergency
Services

- Emergency planning agreement with District of Kent continues



Budget 2024 – General Expense Highlights

Development

- Municipal Engineering
- \$35,000

Planning

- General Planning
- \$100,000
- Parks Master Plan completion
- \$110,000 (Parks DCC's)
- Bylaw Updates (Grant)

Budget 2025 – General Expense Highlights

Public Works

- \$27,000 – Public works small equipment (Reserve)
- \$140,000 – Drainage improvements (Gas Tax Grant)
- \$85,000 – Public works electric truck (Grant)
- \$22,000 – Boat launch dock steel plating (Boat Launch Reserve)
- \$50,000 – Washroom renovations (Grant)



Budget 2025 – General Expense Highlights

Community Services

- New Communications & Community Engagement Coordinator position
- FireSmart Initiatives (Grant)
- Community & Accessibility Programming
 - Chair Yoga
 - Accessible facilities
- Always seeking out new grant opportunities
- Refresh of getintoitharrison.ca



Capital Project Highlights

Dike and WWTP Access Road Improvements

- \$5,650,000 – *Carry Forward* (Funded by Grant)

Hot Springs Road Drainage

- \$1,950,000 – *Carry Forward* (Funded by Grant and Drainage DCC)

Miami Creek North Bridge Improvement

- \$1,105,000 – *Carry Forward* (Funded by Grant)

Spring Park Upgrades

- \$292,000 – *Carry Forward* (Funded by Parks DCC and Reserves)

Capital Project Highlights

Bus Shelters

- **\$42,000** – *Carry Forward* (Funded by Gas Tax)

Village Office Maintenance

- **\$30,000** – *New* Exterior maintenance (Funded by Reserve)
- **\$10,000** – *New* Electrical upgrades (Funded by Grant)

Various Facilities

- **\$15,000** – *New* Accessibility upgrades (Funded by Grant)

Resort Municipality Initiative (RMI)

The RMI supports small, tourism-based communities in building infrastructure and delivering programming that will strengthen and diversify the tourism economy

The Village's Resort Development Strategy (RDS) governs the use of RMI Funds

Beach
Redevelopment

- \$785,000 – Lagoon Walkway Redevelopment

Boat Launch

- \$75,000 – Boat Launch Building Expansion Completion

Tourism
Programming

- Tourism Harrison Events (Canada Day, Lights on the Lake, Sasquatch Days, Festival of the Arts)
- Administration
- Misc. Small infrastructure improvement projects

Wastewater – Capital Projects

The Wastewater Utility is self sustaining and operated on a cost recovery basis

Lift Station 1 Replacement

- **\$550,000 – *Carry Forward* (Reserve and DCC)**

Lift Station 4,5,6 Upgrades

- **\$670,000 – *Carry Forward* (Sewer Reserve)**

Waste Water and Storm Master Plan

- **\$310,000 – *Carry Forward* (Sewer DCC)**

Wastewater – Capital Projects Cont'd

The Wastewater Utility is self sustaining and operated on a cost recovery basis

SCADA System

- **\$40,000** – *New* (Sewer Reserve)

McCombs Sewer Line repair

- **\$60,000** – *New* (Surplus)

New Blower at WWTP

- **\$40,000** – *New* (WWTP Reserve)

Water – Capital Projects

The Water Utility is self sustaining and operated on a cost recovery basis

Water Master Plan

- **\$185,000 *Carry Forward*** (Water DCC)

Replacement Genset

- **\$94,000 *Carry Forward*** (Water Reserve)

SCADA System

- **\$40,000 *New*** (Water DCC)

2025 Opening Balances

Reserves

\$9M

DCC's

\$5.4M

Surplus

\$6.3M



Reserves & DCCs

2025 Budgeted General Reserve Contributions	
General Infrastructure	\$ 400,000
Community Works Fund	\$ 150,000
Public Works Capital	\$ 54,500
Fire Dept Equipment	\$ 45,900
Parking Reserve	\$ 10,000
Office Equipment	\$ 14,000
Dock Replacement reserve	\$ 10,000
Boat Launch	\$ 5,412
Total	\$ 689,812
Budgeted Utilities Reserve Contributions	
Wastewater	\$ 246,200
Water	\$ 285,853
Total	\$ 532,053
Budgeted Transfers From Reserves	
General	\$ 352,699
Wastewater	\$ 945,737
Water	\$ 142,504
Total	\$1,440,940
Budgeted Transfer From DCCs	
Parks DCC	\$ 352,820
Drainage DCC	\$1,250,910
Water DCC	\$ 185,802
Total	\$1,789,532

Tax Assessments 2025 Roll

Note – Subject to change when final roll is released from BC Assessment

Total assessed value of all properties

- \$1.16B

Non-Market Change (Growth)

- \$12.3M

Overall increase to assessments (2024 vs 2025)

- \$60M

- Increase of ~5%

Class % Increase (2024 vs 2025)

- Residential (Class 1) – 3.98% (versus -4.25% in 2023 vs 2024)
- Business (Class 6) – 6.23% (versus 13.98% in 2023 vs 2024)
- Recreational (Class 8) – 7.1% (versus 25.19% in 2023 vs 2024)

Property Tax Components

Two components to property taxes

Municipal portion
(controllable)



Requisitions & Taxes
from other bodies
(not controllable)

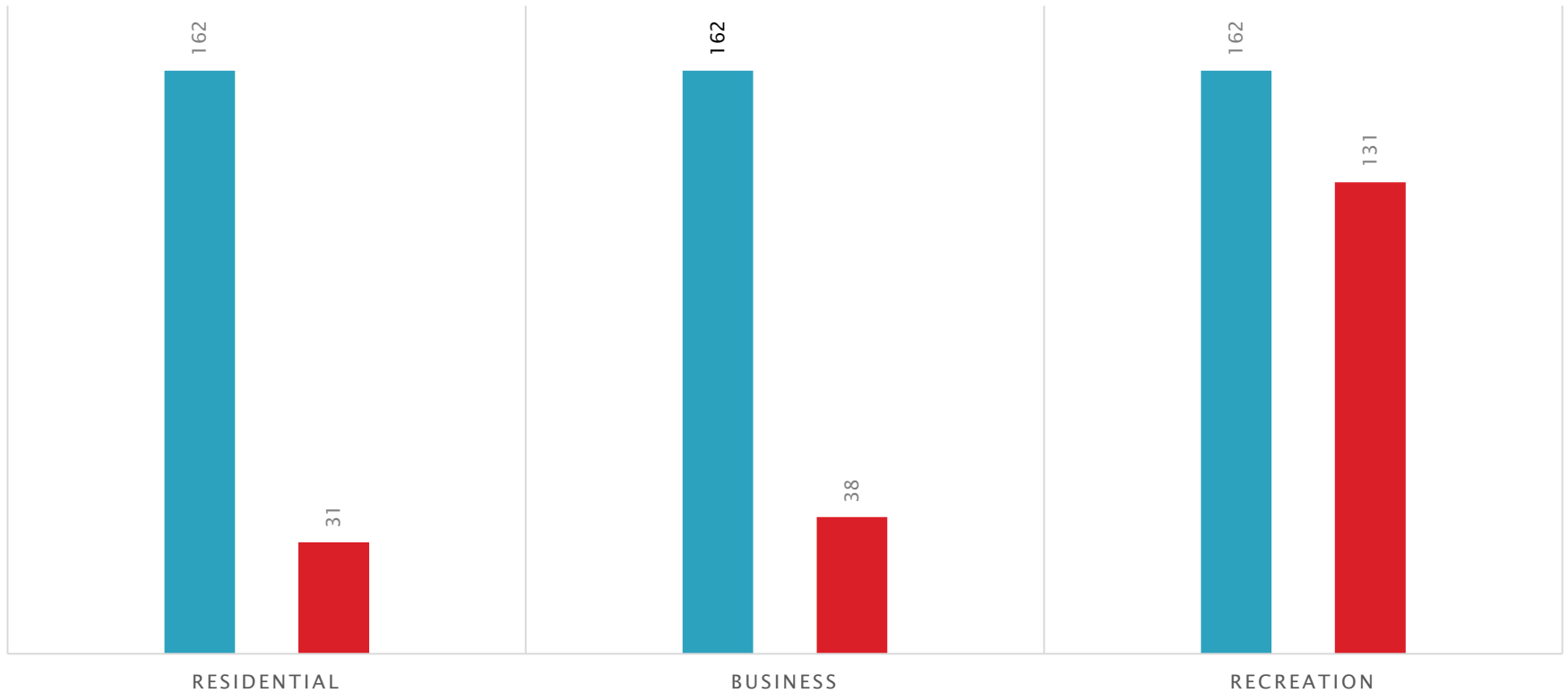


- Regional District
- Regional District Hospital
- Municipal Finance Authority
- BC Assessment
- Police Tax
- School Tax

Property Tax Ranking

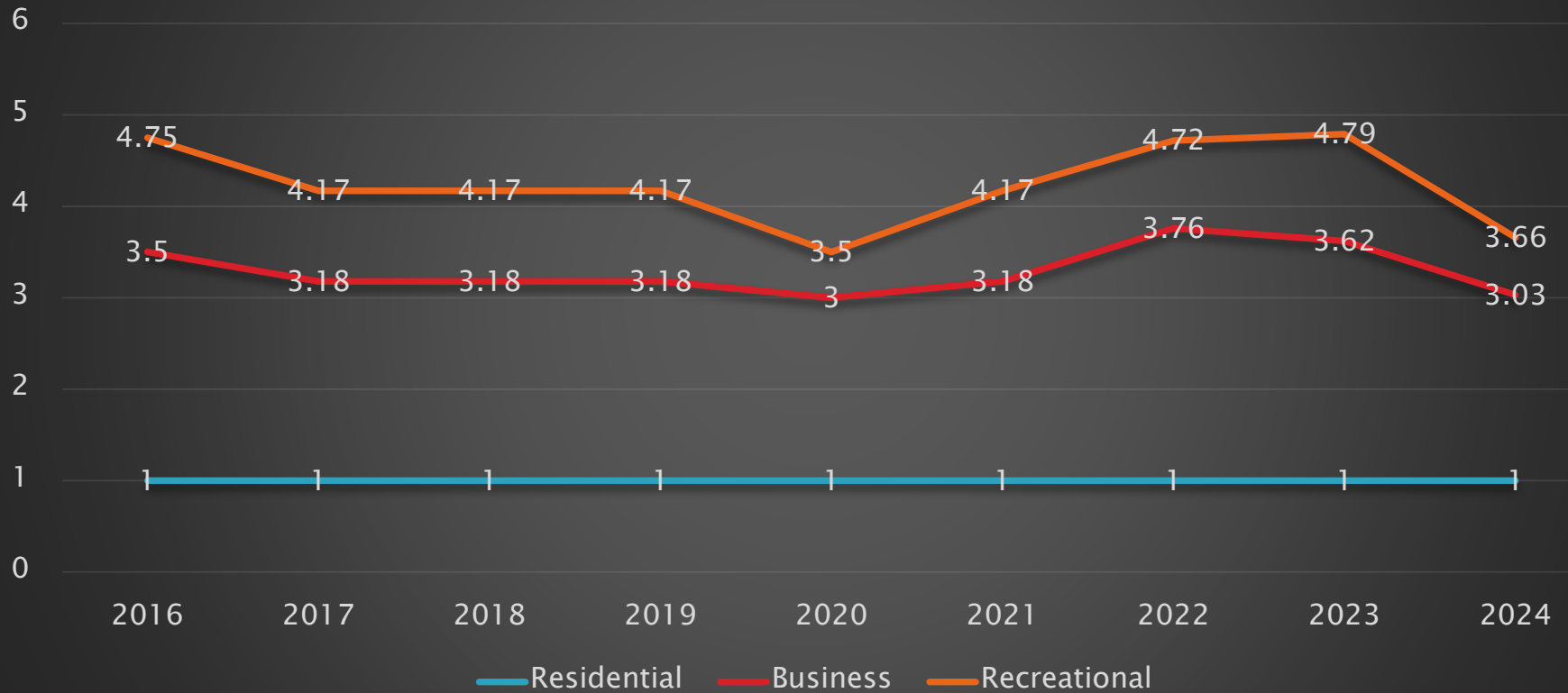
TAX RATE RANKING (2023)

■ Total Municipalities ■ VHHS



Property Tax Ratios

Property Tax Ratio History



Property Tax Ratio – Scenario 1

Same ratios as 2024

Residential: 1 | Business: 3.03 | Recreational: 3.66

Scenario 1 - Same ratios as 2024					
	2024	Average Increase	2025	Annual Inc	% Increase
Avg Mkt Chg		3.98%			
Residential	\$ 950,000.00	\$ 37,810.00	\$ 987,810.00		
Municipal property tax	\$ 1,932.35		\$ 2,035.66	\$ 103.31	5.35%
Avg Mkt Chg		6.23%			
Business	\$ 950,000.00	\$ 59,185.00	\$ 1,009,185.00		
Municipal property tax	\$ 5,874.35		\$ 6,301.51	\$ 427.16	7.27%
Avg Mkt chg		7.10%			
Recreational	\$ 950,000.00	\$ 67,450.00	\$ 1,017,450.00		
Municipal property tax	\$ 7,072.41		\$ 7,674.07	\$ 601.66	8.51%

Property Tax Ratio – Scenario 2

Equalize increase across classes

Residential: 1 | Business: 2.98 | Recreational: 3.56

Scenario 2 - Same ratios as 2024					
	2024	Average Increase	2025	Annual Inc	% Increase
Avg Mkt Chg		3.98%			
Residential	\$ 950,000.00	\$ 37,810.00	\$ 987,810.00		
Municipal property tax	\$ 1,932.35		\$ 2,047.45	\$ 115.10	5.96%
Avg Mkt Chg		6.23%			
Business	\$ 950,000.00	\$ 59,185.00	\$ 1,009,185.00		
Municipal property tax	\$ 5,874.35		\$ 6,233.43	\$ 359.07	6.11%
Avg Mkt chg		7.10%			
Recreational	\$ 950,000.00	\$ 67,450.00	\$ 1,017,450.00		
Municipal property tax	\$ 7,072.41		\$ 7,507.63	\$ 435.22	6.15%



Action Items

- Council feedback / changes to Draft Budget
- Council direction on Property Tax Ratios

2025 Budget Presentation



Thank You



HARRISON HOT SPRINGS

Naturally Refreshed



Harrison Hot Springs Waterfront Flood Mitigation

Update to Council

January 29, 2025

Introductions Project Team

Presenters:

Daniel Maldoff, MEng, PEng
Hydrotechnical Engineer, **NHC**

Jeff Cutler, BCSLA, AALA, OALA, CSLA, ENV SP
Principal, **space2place**

Project Team:



Northwest Hydraulic Consultants
Civil/hydrotechnical engineering
(Prime Consultant)



Thurber Engineering
Geotechnical/seismic engineering



Space2place
Landscape architecture
Public engagement



Legacy Environmental
Environmental/permitting
Indigenous consultation

Presentation Outline



- 1. Project Overview
- 2. Dike Design
- 3. Concept Refinement for Commercial Waterfront Area
- 4. Example: Calgary Flood Wall
- 5. Next Steps

Project Overview

Problem Definition



WWTP Road and Shoreline: inundation and erosion

Waterfront Dike: overtopping

→ ACTIONS

- Raise WWTP road from El. 12.5 m to El. 14.7 m
- Armour WWTP road and shoreline
- Raise dike from El. 13.9 m to El. 15.1 m

Project Overview

June 25, 2024 Council Meeting



Items covered at this previous meeting:

- Conceptual design update (3 concept options)
- Public engagement Dec 2023 – Jan 2024
- Flood history and project rationale

Action item from meeting:

- Refine dike concept for commercial waterfront

Project Overview Components

WWTP Road and Shoreline (Zones 1 and 2)

Waterfront Dike (Zones 3, 4, 5 & 6)



Project Overview

Available Funding



\$11M of grant funding approved

- \$6M UBCM Strategic Priorities Fund
- \$5M Provincial Community Emergency Preparedness Fund

Dike Design

Provincial Dike Design Standards

- **Design Criteria**

- water level (200-yr | Flood of Record)
 - + settlement
 - + climate change (future)
 - + wave runup
 - + freeboard

Fraser River Flood (Hazard 1)

- Flood of Record (1894 Flood) + summer wind/wave
(reference: Dike Design and Construction Guide, Best Management Practices for British Columbia, 2003)

Harrison Lake Inflows (Hazard 2)

- 200-year fall/winter lake level + fall/winter wind/wave

Landslide Generated Wave (Hazard 3)

- Outside of dike design

Dike Design

Dike Crest Level

• Existing dike crest elevation	13.9 m
• water level (Flood of Record):	14.1 m
+ settlement	~0 m
+ climate change (future)	0.8 m to 1.7 m
+ wave runup (but manageable on land side):	0 m to >0.6 m
+ freeboard	0.6 m

Possible Range	15.1 m to 17.0 m
• Proposed Minimum Design Crest Elevation	15.1 m

Notes:

- Meets Provincial standard for design lake level
- Wave overtopping likely during a large flood
- Future climate change adaptations likely required
- Approach is subject to Inspector of Dikes approval

Dike Design Level of Protection

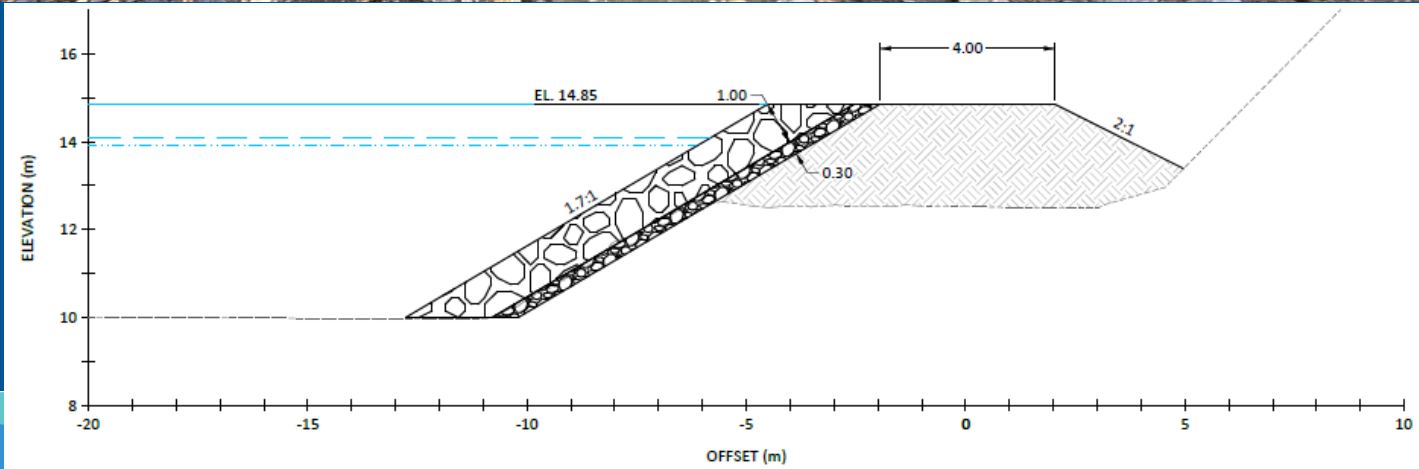
- **Existing dike:** 100-year present day conditions
- **Upgraded dike:** 500-year present day conditions
100- to 500-yr future (with waves overtopping)

Probability of dike being exceeded within a range of time horizons:

Duration	Exceedance Probability over Time	
	Existing Dike (~100-yr design)	Proposed Dike (~500-yr design)
1 Year	1%	0.2%
10 Years	10%	2%
30 Years	26%	6%
75 Years	53%	14%

Dike Design WWTP Road/Shoreline (Zones 1 & 2)

- ~15-20% of \$11M grant funding
- Includes:
 - Raising the elevation of the WWTP access road
 - Addressing bank protection deficiencies



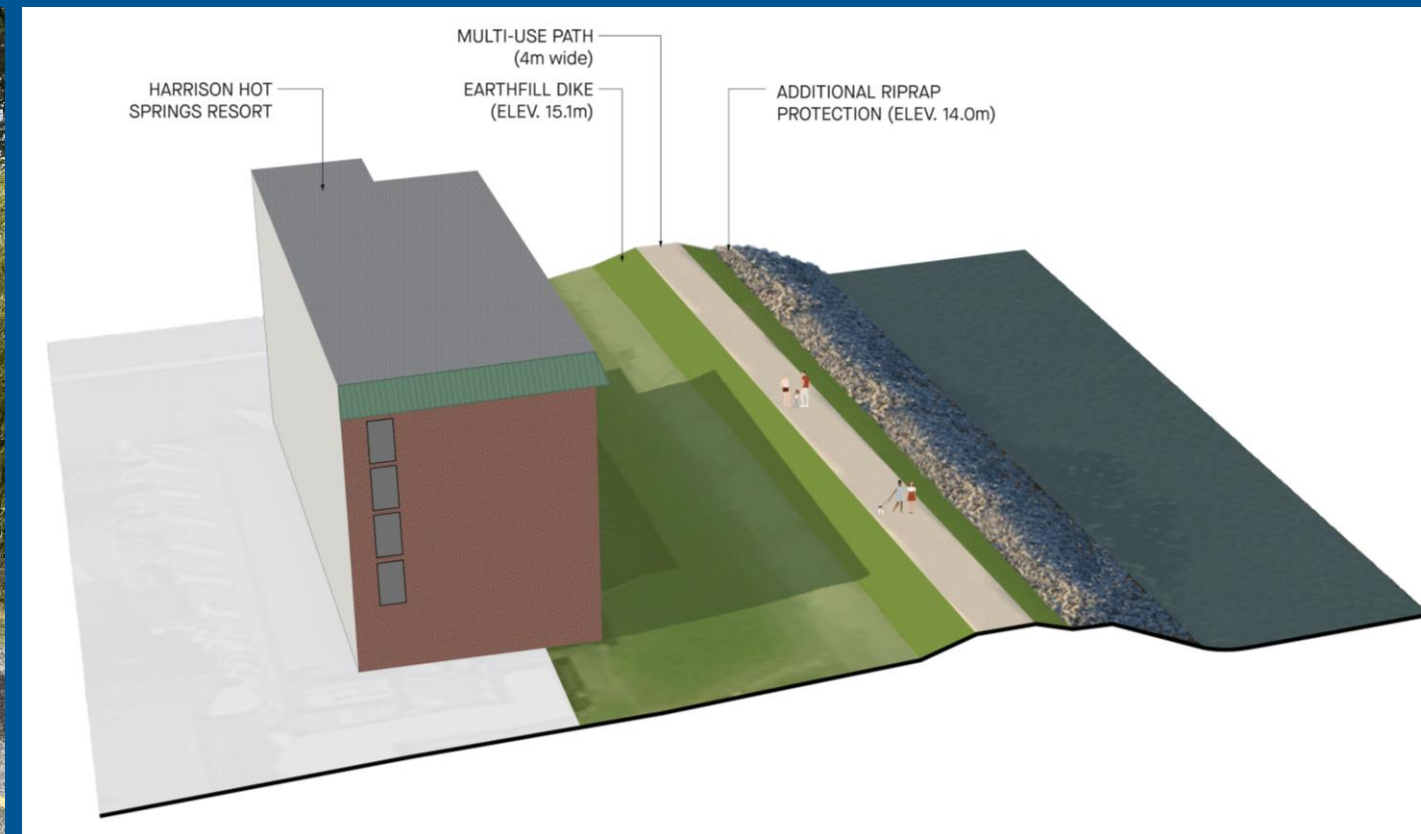
Dike Design

Dike Upgrades (Zones 3 & 6)

- Earthfill dike at east and west end
 - Similar to existing dike, but higher



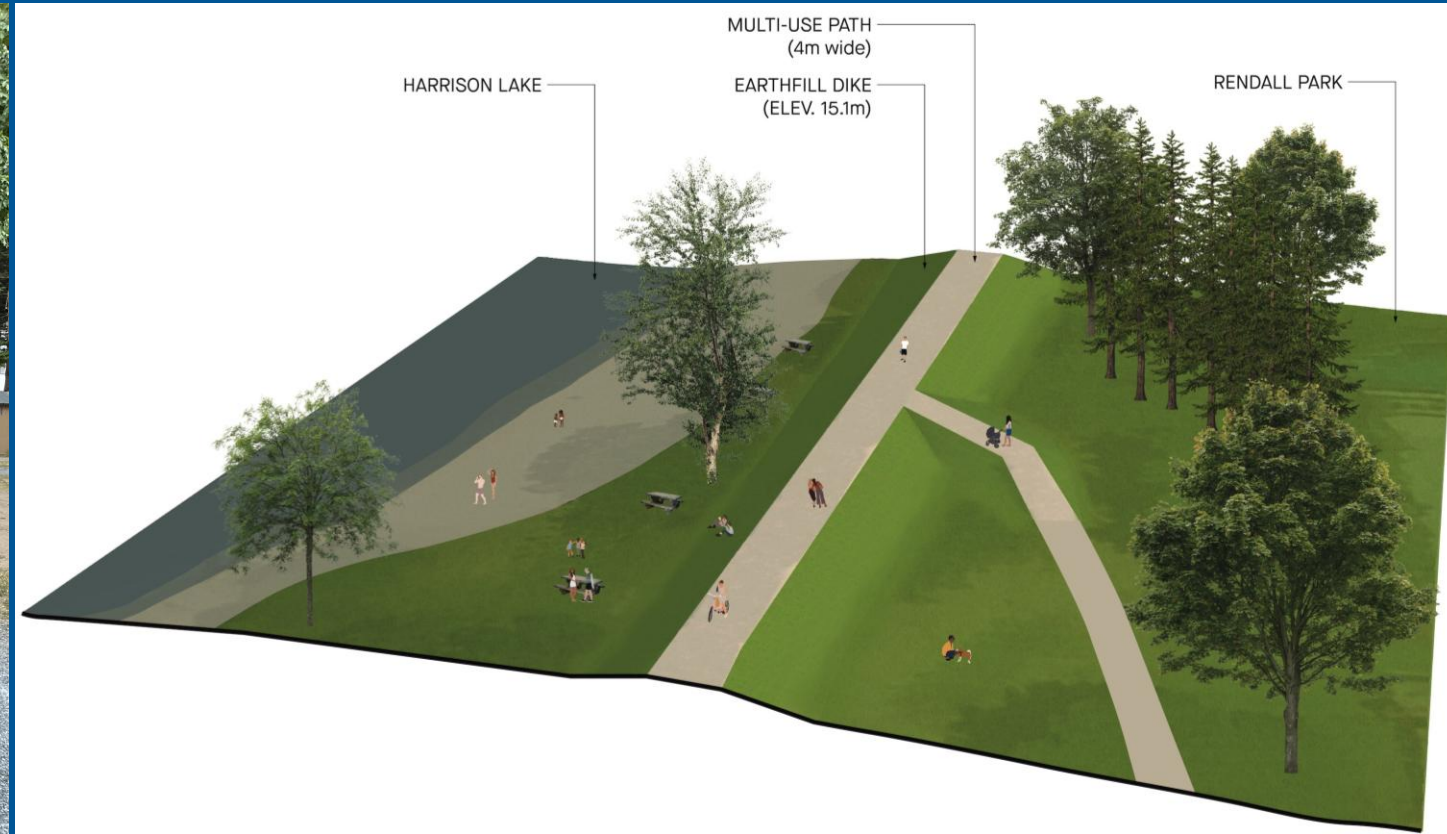
Zone 3: Harrison Hot Springs Resort



Dike Design

Dike Upgrades (Zones 3 & 6)

- Earthfill dike at east and west end
 - Similar to existing dike, but higher



Zone 6: Rendall Park

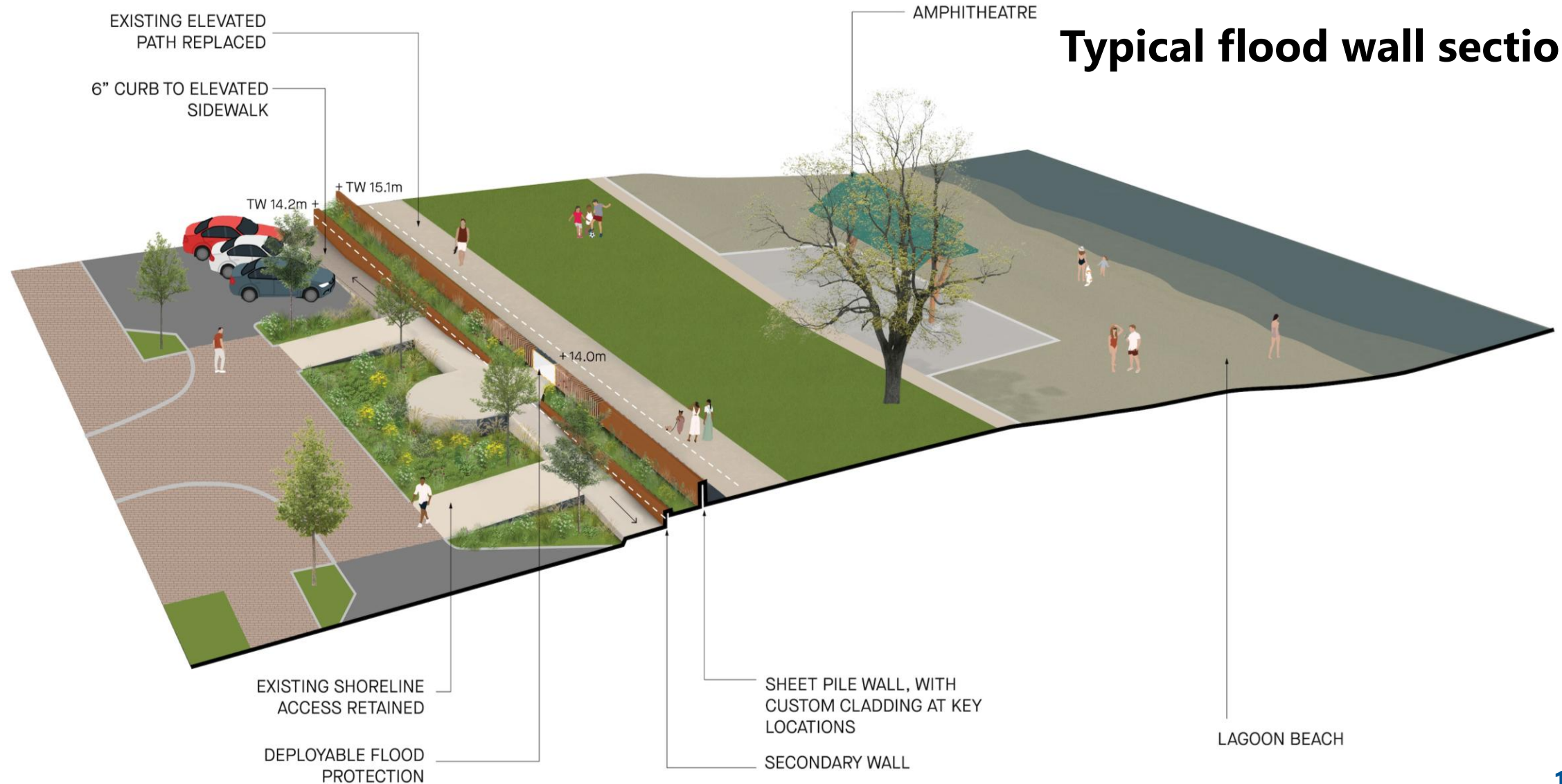
Concept Refinement Dike Upgrades (Zones 4 & 5)

- Permanent flood wall sections
- Large openings to be closed off during a flood
- Considerations:
 - Crest level
 - Beach/shorelines access
 - Accessibility
 - Waterfront views
 - Operations and maintenance
 - Reasonable deployment time
 - Storage of temporary dike
 - Cost (temporary dike is 2-3x cost of permanent flood wall)



Concept Refinement Dike Upgrades (Zones 4 & 5)

Typical flood wall section



Concept Refinement Dike Upgrades (Zones 4 & 5)

View north toward Harrison Lagoon from Esplanade Ave

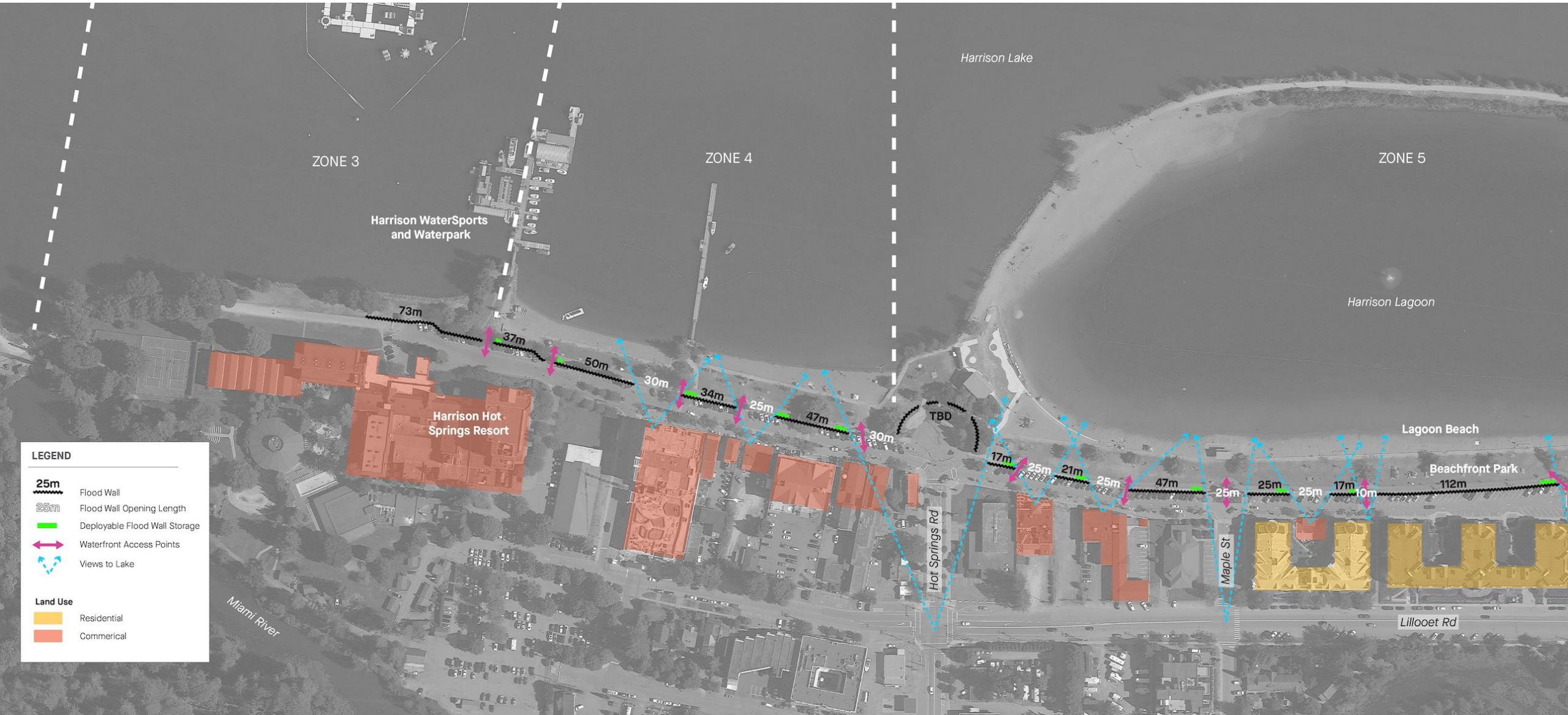


Concept Refinement Dike Upgrades (Zones 4 & 5)

View west from the corner of Esplanade Ave and Hot Springs Rd



Concept Refinement Dike Upgrades (Zones 4 & 5)



LEGEND

- 25m Flood Wall
- 25m Flood Wall Opening Length
- Deployable Flood Wall Storage
- Waterfront Access Points
- Views to Lake

Land Use

- Residential
- Commerical

ZONE 3

ZONE 4

ZONE 5

Harrison WaterSports and Waterpark

Harrison Hot Springs Resort

TBD

Lagoon Beach

Beachfront Park

Lillooet Rd

Miami River

Harrison Lake

Harrison Lagoon

Hot Springs Rd

Maple St

73m

37m

50m

30m

34m

25m

47m

30m

17m

25m

21m

25m

47m

25m

25m

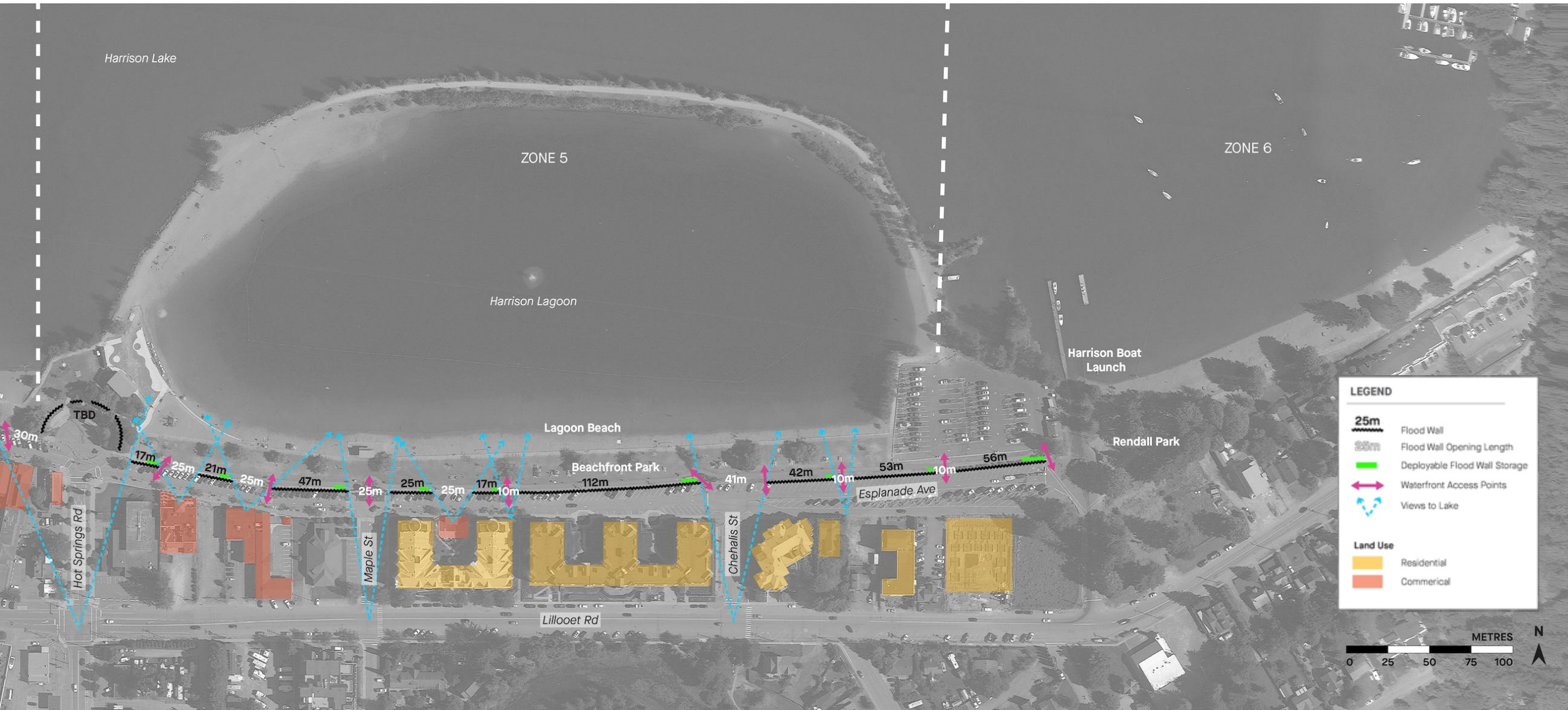
25m

17m

10m

112m

Concept Refinement Dike Upgrades (Zones 4 & 5)

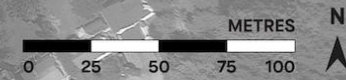


LEGEND

- 25m** Flood Wall
- 112m** Flood Wall Opening Length
- Green Arrow** Deployable Flood Wall Storage
- Pink Arrow** Waterfront Access Points
- Blue Arrow** Views to Lake

Land Use

- Yellow** Residential
- Orange** Commercial



Concept Refinement Temporary Dike Sections

Stoplogs



Photo: NHC

Muscle Wall Barriers



Photo: Floodproofing.com

Flexible Tube Barriers



Photo: Floodproofing.com

Geodesign Barriers



Photo: geodesignbarriers.com

Example: Calgary Flood Wall

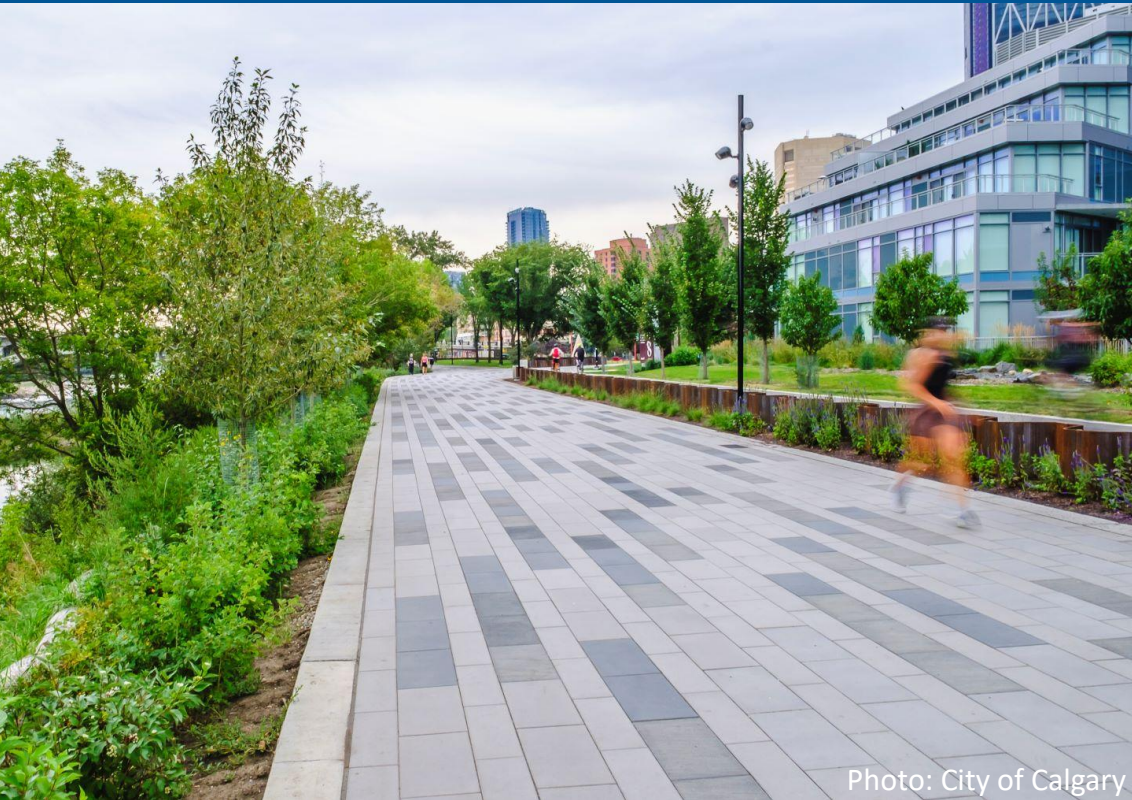


Photo: City of Calgary

Sheet pile flood wall



Photo: City of Calgary

Flood wall contains regular openings

Example: Calgary Flood Wall



Photo: floodcontrolcanada.com

Deployable flood wall installed during flood events



Photo: City of Calgary

Deployable flood wall stored in boxes adjacent to openings

Next Steps

Proceed with detailed design based on current concept:

- El. 15.1 m dike crest level
- West end: earthfill dike
- Commercial waterfront: permanent flood wall with large openings
- East end (Rendall Park): earthfill dike

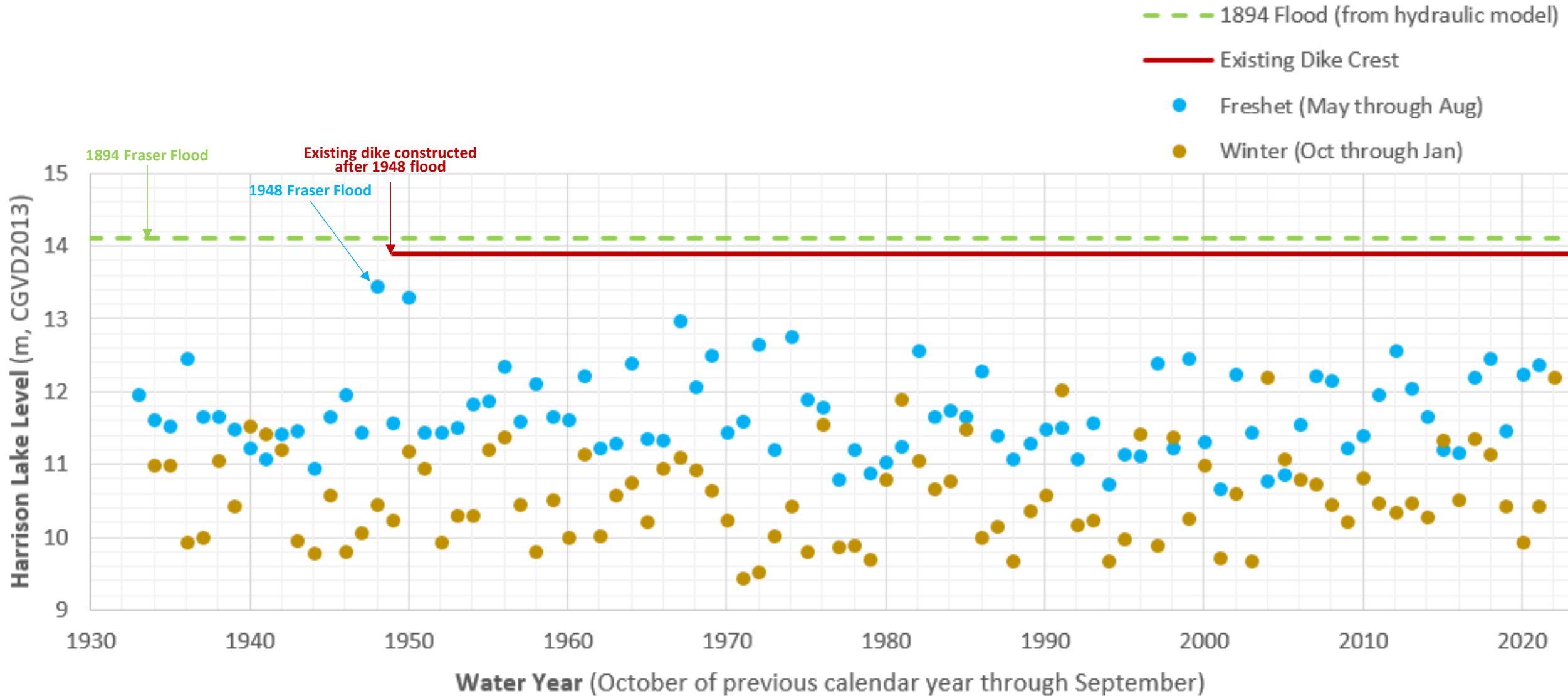
Thank you

Questions and Discussion

Flood Hazard

- Three main flood conditions:
- **Hazard 1: Fraser River Freshet (spring/early summer snowmelt)**
 - Elevated lake level from Harrison River backwater (waves typically small)
 - Inundation from south under failure of Kent Dike
- **Hazard 2: Harrison Lake Inflow Flooding (fall/winter rainfall)**
 - Elevated lake levels from local precipitation (season of largest waves)
- **Hazard 3: Landslide Generated Waves**
 - Slope failure on Mount Breakenridge (tsunami wave, potentially 20-25 m high)

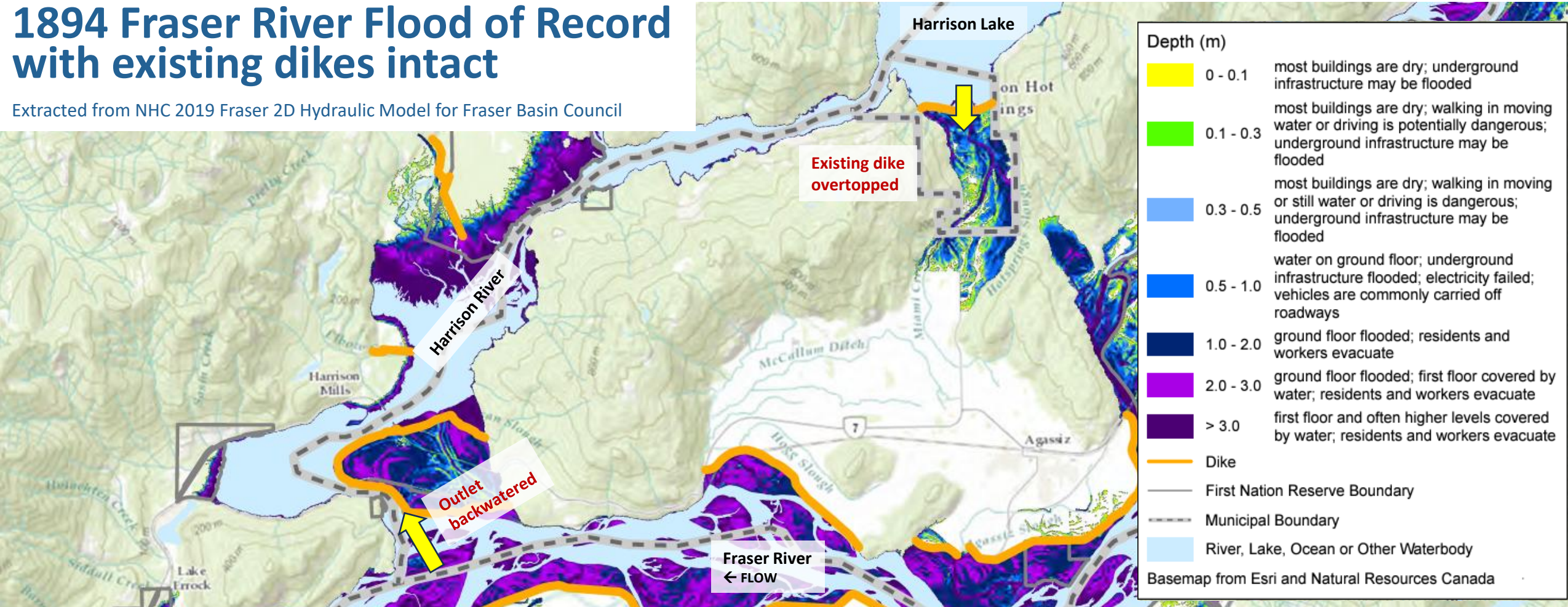
Flood History (Hazards 1 and 2)



Floodplain Mapping

1894 Fraser River Flood of Record with existing dikes intact

Extracted from NHC 2019 Fraser 2D Hydraulic Model for Fraser Basin Council

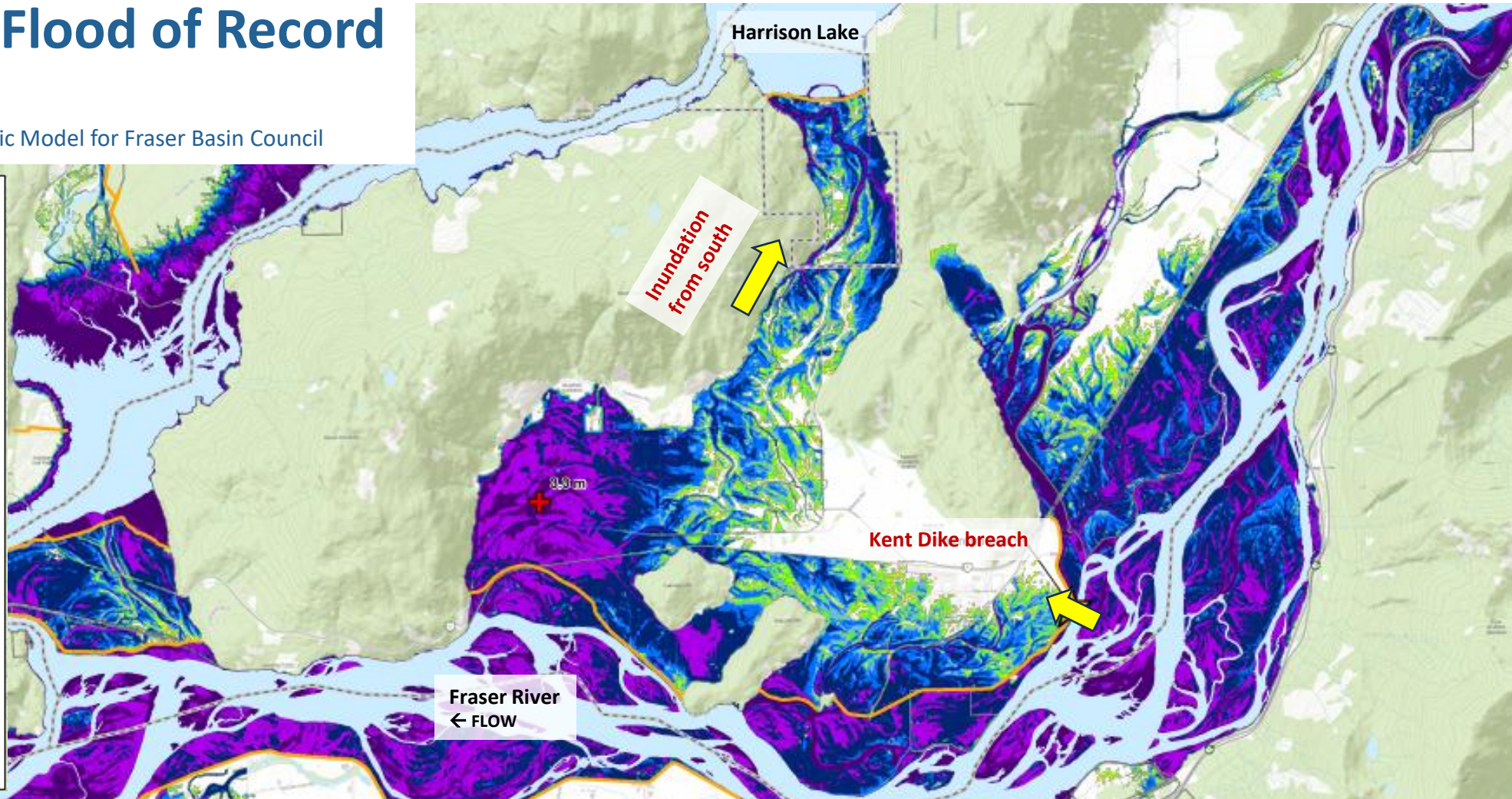
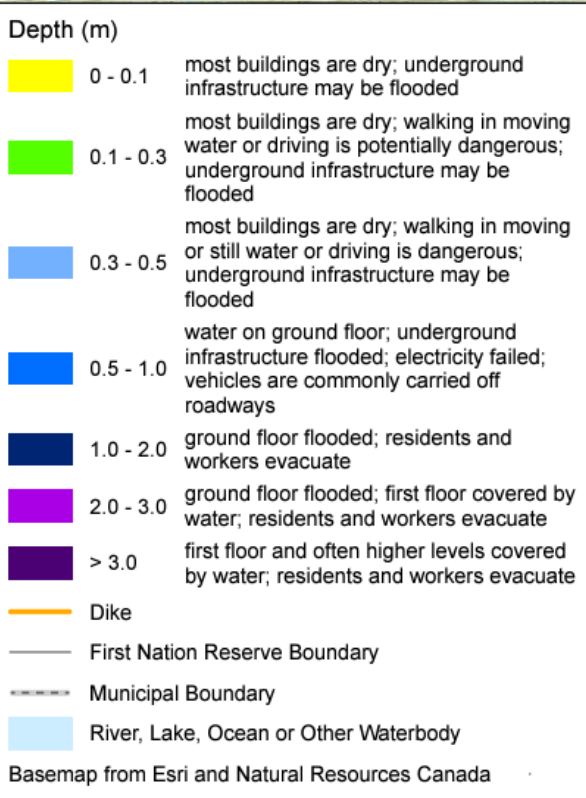


Harrison Lake dike is overtopped before Kent Dikes; therefore, flooding from the north occurs if dikes remain intact during design event

Floodplain Mapping

1894 Fraser River Flood of Record with dike breach

Extracted from NHC 2019 Fraser 2D Hydraulic Model for Fraser Basin Council



Flooding from the south is possible if Kent Dikes breach, or during an event larger than the design event