

East Trunk DCC Stakeholder Review Meeting

September 18, 2020

1450 K.L.O. Road
Kelowna, BC, V1W 3Z4
rdco.com



History – East Trunk DCC's

- Bylaw last updated in 2004
- Engaged Urban Systems to complete review (September, 2016):
 - East Trunk Sanitary Sewer System DCC; and
 - Westside Regional Wastewater Treatment Plant DCC (adopted May 25, 2020)
- Presented benefit allocation options to Stakeholder Committee (August, 2018)
- Draft reports presented to Stakeholder Committee (February, 2019)
- DCC East Trunk report finalized (May, 2019)
- Final report presented to Stakeholder Committee (June, 2019)
- Reports presented to Councils (September, 2019)
- Draft bylaws presented to Ministry for review and comment (2019)
- Public Information Session (September, 2019)
- Meetings with West Kelowna and WFN staff (November, 2019 and March, 2020)

Background – East Trunk DCCs

- Funds growth-related infrastructure needs
 - Trunk sewers
 - Pump stations
- Applies to service stakeholders
 - City of West Kelowna
 - Westbank First Nation (#9 and #10)
- Last updated in 2004
- Updates required to accommodate:
 - New capital projects due to growth
 - Higher construction costs

Current East Trunk DCCs

Use	Unit Charged	East Trunk
Single Detached Residential	Each	\$564
Duplex or Triplex	Each	\$564
Multiple Housing Residential	Each	\$395
Commercial	Per 100m ²	\$233
Industrial	Per 100m ²	\$260
Institutional	Per 100m ²	\$233

Overview of DCCs

▪ What are Development Cost Charges?

- DCCs are levied on new development to pay for the costs of expanding and upgrading the RDCO's utility infrastructure to meet the needs of growth.
- Most local governments use DCCs because they are the best way to fairly distribute growth-related costs.

▪ Who pays DCCs?

- DCCs are paid by applicants who create residential lots or build commercial, industrial or institutional developments.
- DCCs do not apply to home renovations or rebuilds.

Overview of DCCs

- **When are DCCs paid?**

- DCCs are paid by applicants at subdivision approval to create single detached residential, duplex, or triplex lots
- DCCs are paid at building permit stage to construct multiple housing residential, commercial, industrial, and institutional developments.

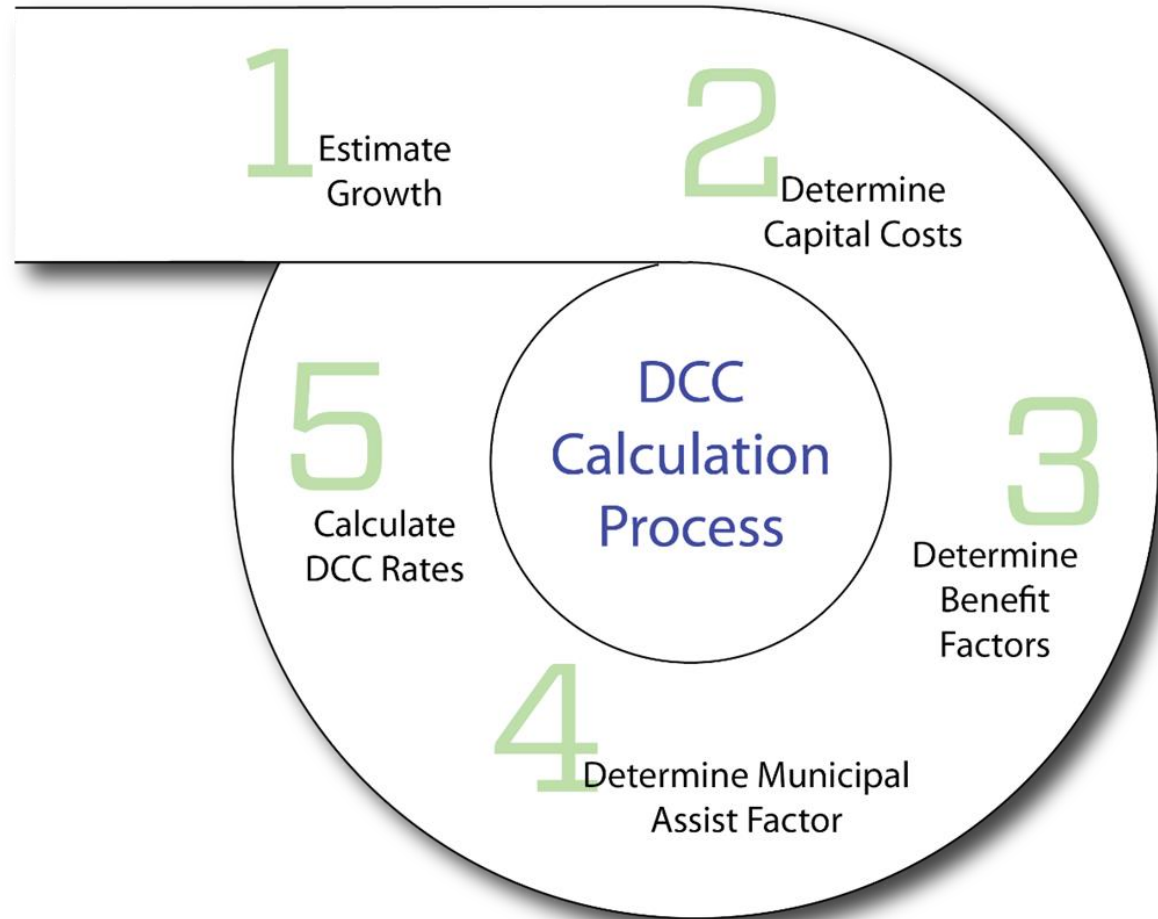
- **What kind of projects are these DCCs used to fund?**

- DCCs are used to meet growth-related infrastructure needs through funding new trunk sewers, sanitary pump stations, and related sewage transmission projects

- **What are DCCs not used for?**

- DCCs do not fund operation and maintenance costs or infrastructure projects strictly related to servicing existing residents and businesses.

How are DCCs Calculated?



How are DCCs Calculated?



Growth over 20 Years

GROWTH 20 YEARS (2018-2038)			
	City of West Kelowna	Westbank First Nation	Total
Projected New Development (units)	1,613	3,622	5,235
Single-Detached Units	270	372	642
Multi-Family Units	1,343	3,250	4,593
Commercial (m ²)	15,000	94,244	109,244
Industrial	45,000	47,122	92,122
Institutional	11,700	15,707	27,407

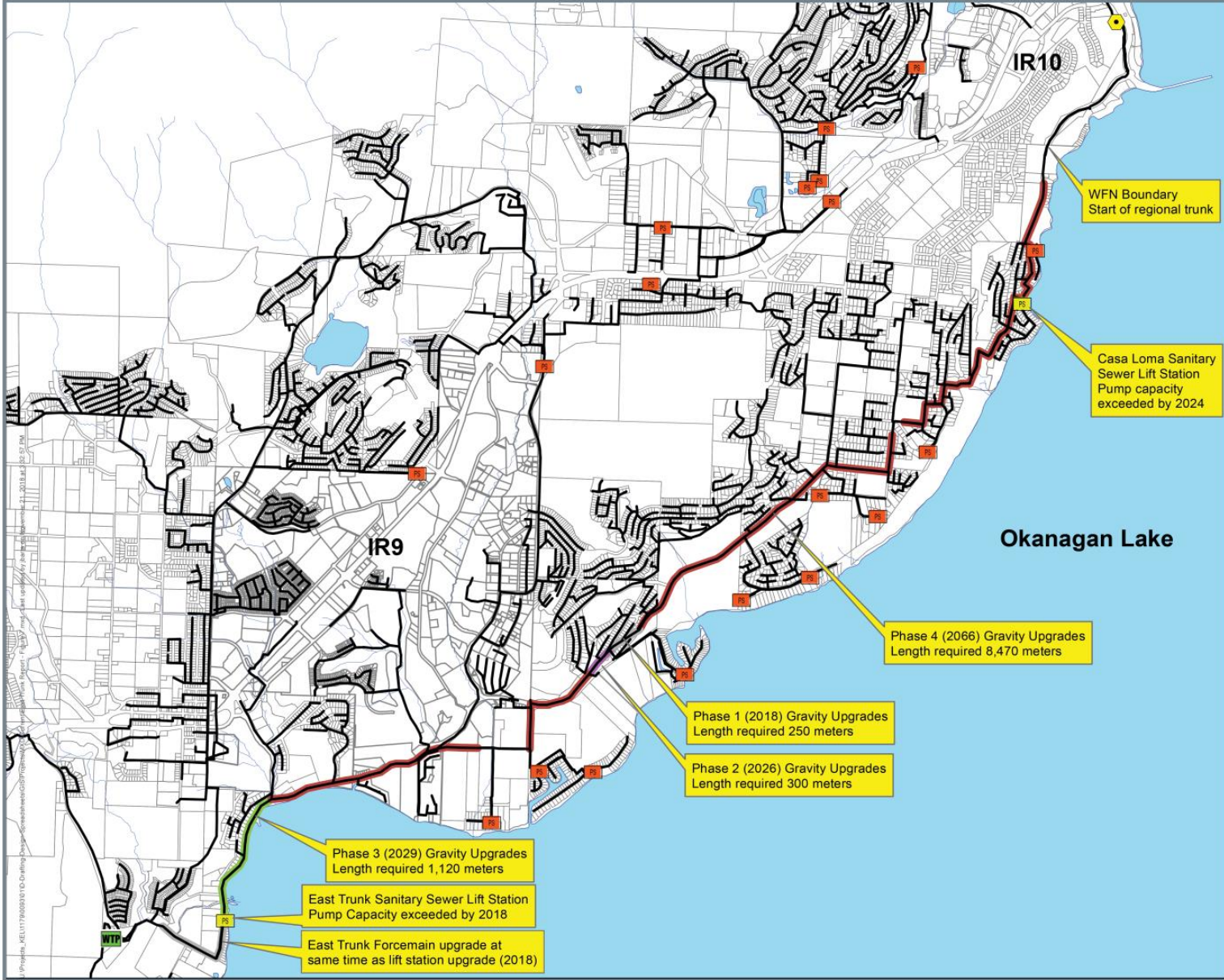
Projects within 20 years

East Trunk Lift Station	\$3,000,000
East Trunk Force Main	\$1,600,000
East Gravity Collection System - Boucherie to Empire	\$500,000
East Gravity Collection System - Empire to Apple Way	\$600,000
East Gravity Collection System - LS to Boucherie	\$3,800,000
Casa Loma Trunk Lift Station and Forcemain Upsize pumps and internal piping. Expand lift station to accommodate larger discharge piping	\$3,600,000
Total	\$13,100,000

Some projects outside the 20 year horizon

- Casa Loma Gravity collection system – upsizing majority of Trunk main
- Upgrade the Casa Loma Forcemain
- Upsizing the East Trunk Gravity line from Gellatly to Lakeview Heights

East Trunk DCC



Regional District of Central Okanagan
East Trunk Sanitary Sewer

East Trunk Sewer Phasing of Upgrades

Legend

- CWK Lift Stations
 - Regional Lift Stations
 - WWTP
 - Dosing Chamber
 - Sewer Mains
- #### Pipe Upgrade Phasing
- 2018
 - 2026
 - 2029
 - 2066
 - Streams
 - Lakes
 - Cadastral

The accuracy & completeness of information shown on this drawing is not guaranteed. It will be the responsibility of the user of the information shown on this drawing to locate & establish the precise location of all existing information whether shown or not.

0 190 380 760 1,140
Metres

Coordinate System: NAD 1983 UTM Zone 11N
Scale: 1:30,000

Data Sources: Data provided by -

Project #: 1179.0093.01
Author: JB
Checked: JC
Status: - DRAFT -
Revision: A
Date: 2018 / 11 / 21



FIGURE 7

Application of Benefit Allocation and Assist Factors

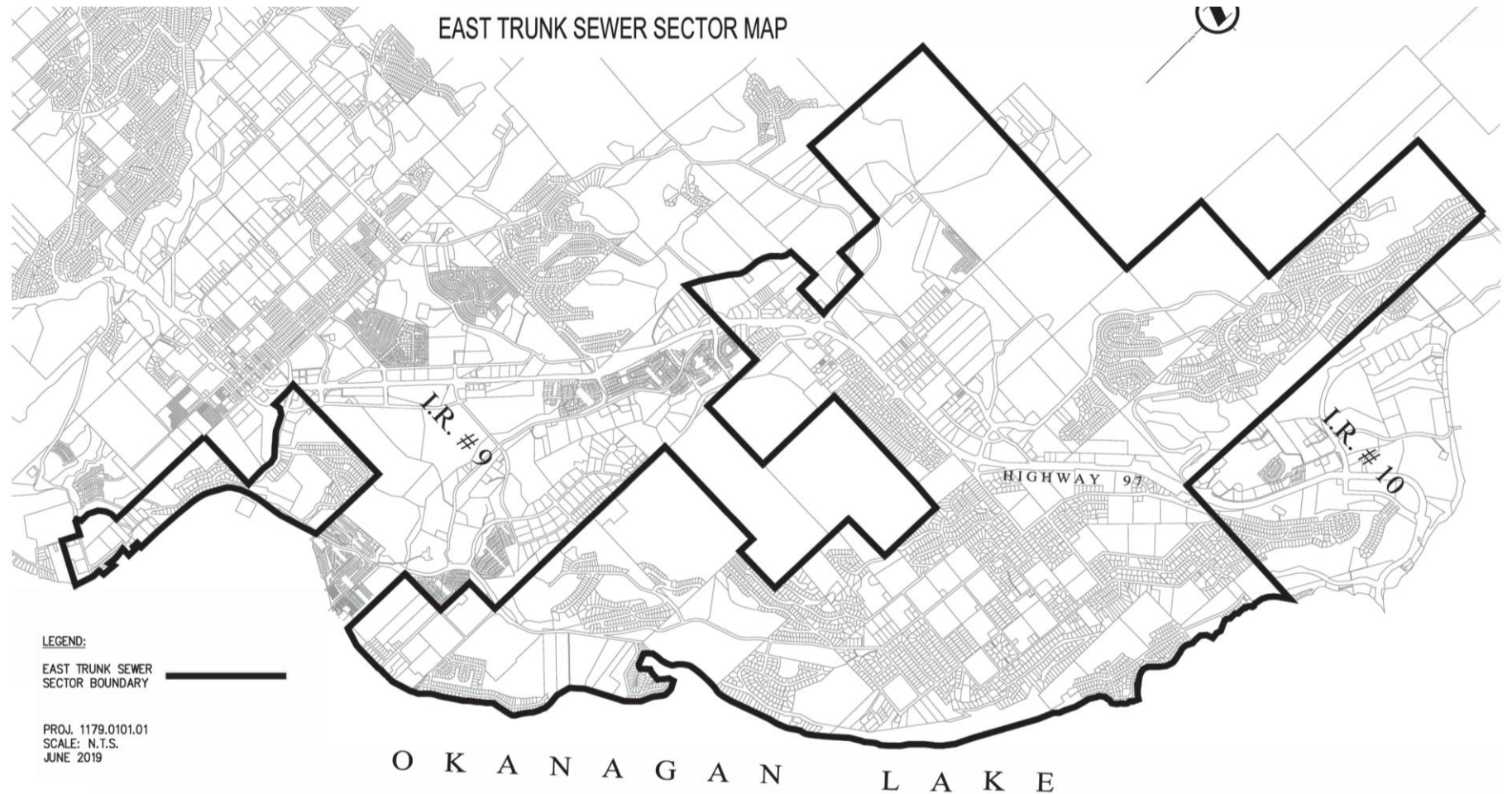
SANITARY DCC PROGRAM							
Project No	Description	Cost plus E&C per component	Percentage Allocation to New Growth	Benefit to New Dev.	Assist Factor 1%	DCC Recoverable	Total RDCO Responsibility
ET1	East Trunk Lift Station	\$3,000,000	100.0%	\$3,000,000	\$30,000	\$2,970,000	\$30,000
ET2	East Trunk Force Main	\$1,600,000	100.0%	\$1,600,000	\$16,000	\$1,584,000	\$16,000
ET3	East Gravity Collection System - Boucherie to Empire	\$500,000	100.0%	\$500,000	\$5,000	\$495,000	\$5,000
ET4	East Gravity Collection System - Empire to Apple Way	\$600,000	100.0%	\$600,000	\$6,000	\$594,000	\$6,000
ET5	East Gravity Collection System - LS to Boucherie	\$3,800,000	100.0%	\$3,800,000	\$38,000	\$3,762,000	\$38,000
ET6	Casa Loma Trunk Lift Station and Forcemain	\$3,600,000	100.0%	\$3,600,000	\$36,000	\$3,564,000	\$36,000
	Total	\$13,100,000		\$13,100,000	\$131,000	\$12,969,000	\$131,000

Resulting DCCs

DCC RATE SUMMARY				
Use	Unit charged	Existing Charge Per Unit	Proposed Charge Per unit	% Change
Single Detached Residential	For Each parcel Created at Subdivision	\$564	\$2,353	317%
Duplex or Triplex	For each unit permitted on the parcel at time of subdivision	\$564	\$2,353	317%
Multiple Housing Residential	For Each Dwelling Unit	\$395	\$1,569	297%
Commercial	For each 100 sq.m. of gross floor area	\$233	\$1,020	338%
Industrial	For each 100 sq.m. of gross floor area	\$260	\$1,020	292%
Institutional	For each 100 sq.m. of gross floor area	\$233	\$863	270%

East Trunk Sewer Sector Bylaw Map

- DCCs paid in map area
- DCCs paid in IR#9 and IR#10



Benefit Allocation

- Rule of Thumb method as set out in the Best Practices Guide
- If the only reason the project is required is because of growth, then allocate 100% to growth
- Or... if no growth occurred – would you still need these projects?

- These projects are only needed due to growth, so allocated 100% to growth

Other Benefit Allocation Options Considered

- Earlier analyses identified other benefit allocation approaches
- This was considered when the entire East Trunk Gravity line was included – note that a refined analysis identified that part of this line could be delayed beyond the 20 year time frame
- The other options considered:
 - Based on sewage flows
 - Based on time horizon
 - Based on remaining life
 - Based on a hybrid of remaining life and time horizon

Based on Sewage Flows

- The percentage allocation is based on sewage flows from existing units vs flows from new growth.

Project No	Location	Percentage Allocation to New Growth
ET1a	East Trunk Lift Station	58.1%
ET1b	East Trunk Forcemain	100.0%
ET2	East Gravity Collection System	50.6%
ET3	Casa Loma Trunk Lift Station	36.2%

Based on Time Horizon

- The portion of the costs equal to the percentage of projected flows that fall beyond the 20 year time frame are allocated outside the DCC horizon

Project No	Location	Percentage Allocation to New Growth Over next 20 years
ET1a	East Trunk Lift Station	58.1%
ET1b	East Trunk Forcemain	100.0%
ET2	East Gravity Collection System	9.5%
ET3	Casa Loma Trunk Lift Station	36.2%

Based on Remaining Life

- Based on the remaining life in the various East Trunk infrastructure components.
- E.g. a pipe was installed 29 years ago, and it lasts 100 years. If replaced now, 29 years or 29% of the life is consumed, so that is allocated to existing users and the remaining 71% allocated to new growth

Project No	Location	Percentage Allocation to New Growth Over next 20 years
ET1a	East Trunk Lift Station	54.0%
ET1b	East Trunk Forcemain	100.0%
ET2	East Gravity Collection System	71.0%
ET3	Casa Loma Trunk Lift Station	61.0%

Hybrid of Remaining Life and Time Horizon

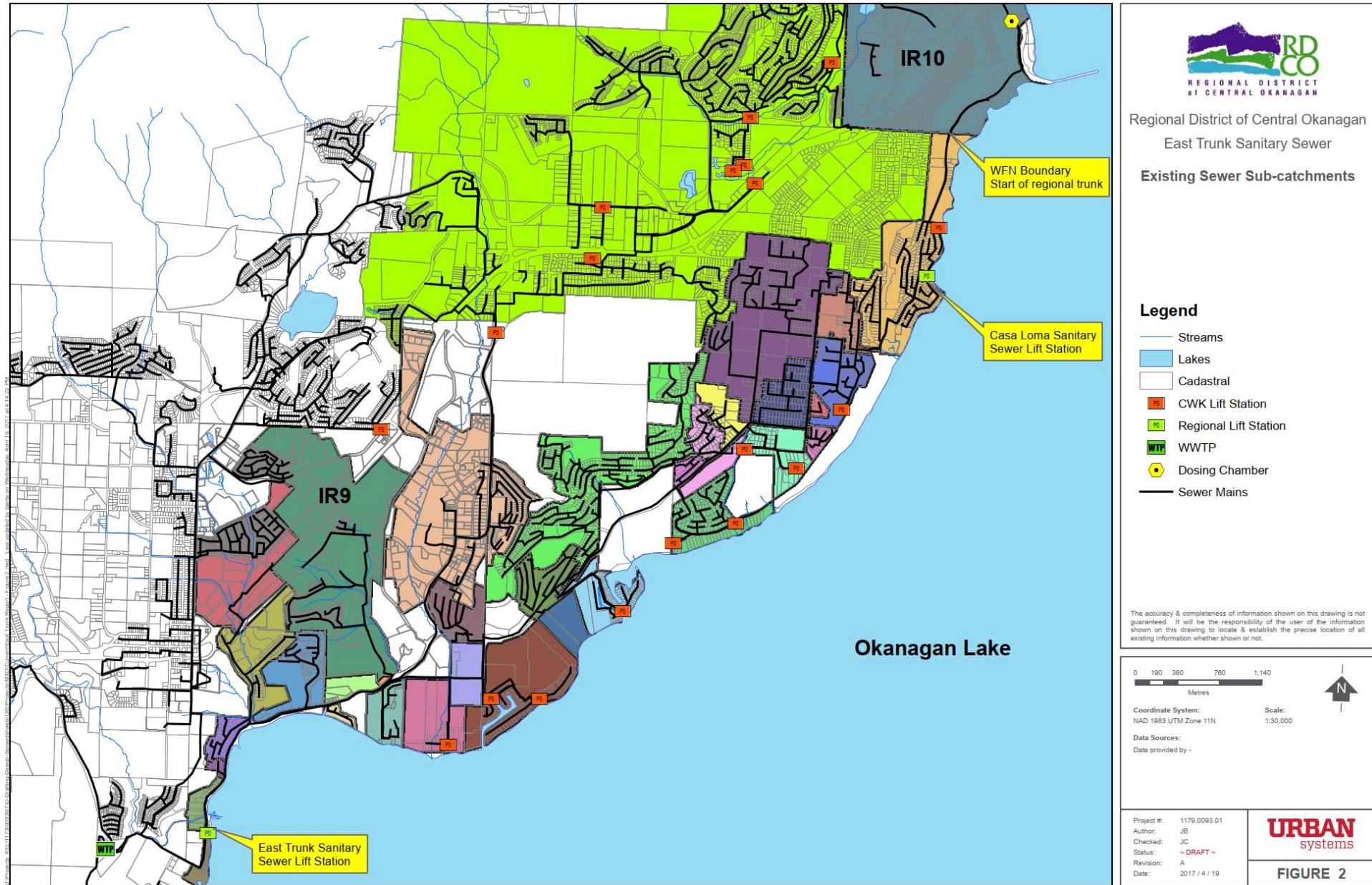
Horizon

- A blended hybrid of Remaining life and time horizon particularly for the East Gravity Collection system

Project No	Location	Percentage Allocation to New Growth Over next 20 years
ET1a	East Trunk Lift Station	54.0%
ET1b	East Trunk Forcemain	100.0%
ET2	East Gravity Collection System	28.7%
ET3	Casa Loma Trunk Lift Station	61.0%

DCC Sectors?

- Could split the East Trunk Service Area into multiple areas with different DCCs
- Map shows catchment areas



DCC Assist Factors

- The municipal assist factor is a reflection of the community's support towards the financing of infrastructure required to serve development
 - Minimum 1%
 - Maximum 100%
- Can be amended for time to time
 - Requires bylaw and approval of ministry
- Must be the same for each type of development within the same category of infrastructure:
 - Can vary between infrastructure categories: road/sewer/water/park DCC's

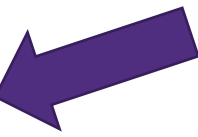
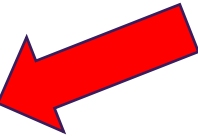
2 Year Phase In: Sample DCC Rates

(Bylaw Phased in over 2 Years)

Land Use	Existing Development Cost Charge	2020 Development Cost Charge (50% of Net Increase)	2021 Development Cost Charge (50% of Net Increase)
Single Detached Residential			
Mobile Home, Modular Home, Manufactured Home Duplex or Triplex	\$564	\$1,459	\$2,353
Multiple Housing Residential	\$395	\$982	\$1,569
Industrial (per 100 m2)	\$233	\$627	\$1,020
Commercial (per 100 m2)	\$260	\$640	\$1,020
Institutional (per 100 m2)	\$233	\$548	\$863

Cost Impact of 2 Year DCC Phase In

Phasing Impact - Lost Revenue		Year 2020		Year 2021	
West Kelowna -20 Year Average Development					
81 Dwelling Units per year					
	Single detached	14	\$12,523	\$12,523	\$25,046
	Multifamily	67	\$39,329	\$39,329	\$78,658
	Industrial	2250	\$8,854	\$8,854	\$17,708
	Commercial	750	\$2,850	\$2,850	\$5,700
	Institutional	585	\$1,843	\$1,843	\$3,686
Estimated Total Cost					\$130,797
Westbank First Nations -20 Year Average Development					
181 Dwelling Units per year					
	Single detached	19	\$16,996	\$16,996	\$33,991
	Multifamily	162	\$95,094	\$95,094	\$190,188
	Industrial	2356	\$9,271	\$9,271	\$18,543
	Commercial	4712	\$17,906	\$17,906	\$35,813
	Institutional	785	\$2,474	\$2,474	\$4,948
Estimated Total Cost					\$283,482



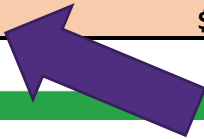
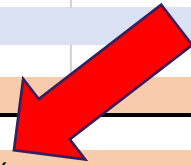
DCC – Cost Allocation by Community

Growth Period 20 Years (2018-2038)	City of West Kelowna	Westbank First Nation	City of West Kelowna	Westbank First Nation	City of West Kelowna	Westbank First Nation
Single Detached Residential						
Mobile Home, Modular Home, Manufactured Home Duplex or Triplex	270	372	42.1%	57.9%	\$641,727	\$884,158
Multiple Housing Residential (per dwelling unit)	1343	3250	29.2%	70.8%	\$2,128,452	\$5,150,758
Industrial (per 100 m2 gross floor area)	45000	47122	48.8%	51.2%	\$463,636	\$485,499
Commercial (per 100 m2 gross floor area)	15000	94244	13.7%	86.3%	\$154,545	\$970,999
Institutional (per 100 m2 gross floor area)	11700	15707	42.7%	57.3%	\$101,991	\$136,921
Total DCC Paid					\$3,490,352	\$7,628,334
Percentage of Total DCC Paid					31.4%	68.6%



Cost of Various Assist Factors

REGIONAL DISTRICT OF CENTRAL OKANAGAN									
EAST TRUNK SEWER - Assist Factor Options - 2 Year Phase in Period - Estimate Cost to Service Areas									
	Assist Factor	0%	1%	10%	20%	30%	50%	75%	90%
	Existing DCCs	Raw DCC Rate	Proposed DCCs						
Single Detached Residential Mobile Home, Modular Home, Manufactured Home Duplex or Triplex	\$564	\$2,377	\$2,353	\$2,139	\$1,901	\$1,664	\$1,188	\$594	\$238
Multiple Housing Residential (per dwelling unit)	\$395	\$1,585	\$1,569	\$1,426	\$1,268	\$1,109	\$792	\$396	\$158
Industrial (per 100 m2 gross floor area)	\$233	\$1,030	\$1,020	\$927	\$824	\$721	\$515	\$258	\$103
Commercial (per 100 m2 gross floor area)	\$260	\$1,030	\$1,020	\$927	\$824	\$721	\$515	\$258	\$103
Institutional (per 100 m2 gross floor area)	\$233	\$872	\$863	\$785	\$697	\$610	\$436	\$218	\$87
Total Project Costs	\$2,145,209	\$13,100,000							
Funding Shortfall due to Assist Factor			\$131,000	\$1,310,000	\$2,620,000	\$3,930,000	\$6,550,000	\$9,825,000	\$11,790,000
Funding Shortfall due to 2 Year Phase			\$415,000	\$415,000	\$415,000	\$415,000	\$415,000	\$415,000	\$415,000
Estimate Funding Shortfall			\$546,000	\$1,725,000	\$3,035,000	\$4,345,000	\$6,965,000	\$10,240,000	\$12,205,000
Estimate City of West Kelowna Share of Shortfall	31.4%		\$171,399	\$541,508	\$952,740	\$1,363,972	\$2,186,436	\$3,214,517	\$3,831,365
Estimated Westbank First Nation Share of Shortfall	68.6%		\$374,601	\$1,183,492	\$2,082,260	\$2,981,028	\$4,778,564	\$7,025,483	\$8,373,635



2 Year Phase in + Assist Factor

REGIONAL DISTRICT OF CENTRAL OKANAGAN								
EAST TRUNK SEWER - Assist Factor Options - 2 Year Phase in Period - Estimate Cost to Service Areas								
	Assist Factor	0%	1%	10%	20%	30%	50%	75%
Estimate City of West Kelowna Share of Shortfall	31.4%		\$171,399	\$541,508	\$952,740	\$1,363,972	\$2,186,436	\$3,214,517
Estimated Westbank First Nation Share of Shortfall	68.6%		\$374,601	\$1,183,492	\$2,082,260	\$2,981,028	\$4,778,564	\$7,025,483



Funding Shortfall

Funding shortfalls are the responsibility of the service area:

Action	Estimated Cost
Increased Assist Factors:	Each 1% increase in the assist factor will cost the service area members \$131,000
Phasing of the Bylaw	Each year of phasing will cost approximately \$200,000
Construction Funding Shortfalls	The DCC Reserve is currently underfunded and financing costs will cost between \$100-150,000 per year
Implementation Delay	Each year the Bylaw remains unchanged costs \$410,000

The impact of possible a funding shortfall on project timelines may be to delay some development. Cost to the Development Community = ????

Grant Funding not Included

- The Best Practices Guide recommends that grants not be considered as a source of funding when preparing DCCs.
- All available grant funding will be sourced for all projects
- Once a grant has been confirmed, then and only then should the DCC bylaw be amended to reflect the new source of funding.

Next Steps – East Trunk DCCs

- Introduce amending DCC bylaw for Regional Board consideration for three readings
- Send the bylaws to the Ministry for approval
- Regional Board gives the bylaw fourth and final reading
- Implement new DCC bylaw

Questions

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