

2021 Annual Progress Report Performance Based Regulation

EPCOR Water Services
August 2022



2021 PBR Progress Report

- The 2021 PBR Progress Report provides an annual update to the City of Edmonton on the operational and financial results for In-City Water Services, Wastewater Treatment Services, and Drainage Services in accordance with the PBR plans approved in EPCOR Water Services and Wastewater Treatment Bylaw No. 17698, and EPCOR Drainage Services Bylaw No. 18100
- The annual update includes:
 - Financial performance;
 - Capital expenditures;
 - Operational performance;
 - Bill comparisons with other municipalities; and
 - SIRP and CORe Updates.



Customers and Consumption

In-City Water	2021		
	Forecast	Actual	% Chg
Customers			
Residential	276,347	277,950	0.6%
Multi-Residential	3,929	3,805	-3.2%
Commercial	20,278	20,069	-1.0%
Total	300,555	301,825	0.4%
Annual Consumption (ML)			
Residential	45,459	50,305	10.7%
Multi-Residential	19,268	19,229	-0.2%
Commercial	28,520	22,342	-21.7%
Total	93,247	91,876	-1.5%
Consumption per Customer (m ³ per month)			
Residential	13.7	15.1	10.0%
Multi-Residential	408.6	421.1	3.1%
Commercial	117.2	92.8	-20.8%



Financial Performance - In-City Water

In-City Water	2021		2017-2021	
	Forecast	Actual	Forecast	Actual
	(\$ millions)			
Revenue	217.4	206.9	1,005.4	960.2
Operating expenses	(112.9)	(98.7)	(538.1)	(494.5)
Depreciation and amortization	(30.9)	(32.4)	(141.6)	(144.5)
Interest	(39.4)	(37.1)	(182.5)	(177.4)
Net Income	46.9	51.0	204.5	204.2
Mid-Year equity portion of rate base	439.9	445.2		
Return on Equity	10.18%	11.46%	10.18%	10.12%



Capital Expenditures - In-City Water

Project Category	2021		2017-2021 *	
	PBR Forecast	Actual	PBR Forecast	Actual
	(\$ millions)			
Reliability & Life Cycle Improvements	50.7	63.4	262.4	297.3
Growth/Customer Requirements	26.1	34.2	121.2	152.7
Accelerated	13.5	3.3	67.8	53.7
Performance Efficiency & Improvement	4.7	6.7	44.1	37.1
Health, Safety & Environment	11.9	18.2	26.6	22.9
Regulatory	4.7	12.6	27.4	29.7
Sub-total	111.7	138.4	549.6	593.4
Contributions	(7.7)	(5.7)	(34.3)	(27.4)
Capital Expenditures	104.0	132.7	515.3	566.0

* Amounts include capital expenditures approved through Non-Routine adjustments.

Higher than forecast capital expenditures in 2021 result primarily from the E.L. Smith Solar Farm and attached battery energy system and higher-than-anticipated greenfield development in the City of Edmonton.



Financial Performance - Wastewater

Wastewater	2021		2017-2021	
	Forecast	Actual	Forecast	Actual
	(\$ millions)			
Revenue	120.1	117.0	530.2	508.4
Operating expenses	(60.4)	(56.6)	(286.8)	(257.1)
Depreciation and amortization	(20.0)	(20.6)	(86.1)	(88.7)
Interest	(14.5)	(11.6)	(62.0)	(56.1)
Net Income	21.7	28.0	95.4	106.6
Mid-Year equity portion of rate base	213.6	196.2		
Return on Equity	10.18%	14.25%	10.18%	12.13%



Capital Expenditures - Wastewater

Project Category	2021		2017 - 2021	
	PBR Forecast	Actual	PBR Forecast	Actual
	(\$ millions)			
Reliability and Life Cycle Improvements	18.7	37.6	203.4	199.3
Hydrovac Sanitary Grit	-	0.3	8.4	7.7
Performance Efficiency and Improvement	2.9	3.5	17.6	16.8
Growth/Customer Requirements	-	0.1	1.5	2.1
Health, Safety and Environment	0.6	2.1	4.5	4.2
Regulatory	-	1.5	-	2.8
Capital Expenditures	22.1	45.1	235.4	232.9

Higher than forecast capital expenditures in 2021 primarily catch up on reliability & life cycle improvements work delayed due to the COVID 19 restrictions in prior years. Increases mainly in:

- HVAC rehabilitation
- structural rehabilitation and
- operations center

Financial Performance - Drainage

Drainage	2021		2018-2021	
	Budget	Actual	Budget	Actual
	(\$ millions)			
Drainage Revenue	205.7	222.5	787.7	803.8
Operating expenses	(123.4)	(132.6)	(473.5)	(484.9)
Depreciation and amortization	(39.8)	(38.0)	(137.2)	(138.9)
Interest	(38.1)	(26.6)	(120.5)	(91.5)
Net Income	13.5	34.3	91.1	124.2
Mid-year equity portion of rate base	603.5	621.7		
Return on Equity	2.24%	5.52%	3.92%	5.13%

As there is no approved PBR – the basis for comparison is the EPCOR 2018 Budget presented on a regulated basis and escalated at inflation for comparison.



Capital Expenditures - Drainage

Project Category	2021		2018 - 2021	
	Budget	Actual	LTP	Actual
	(\$ millions)			
Drainage Neighbourhood Renewal	51.8	29.1	175.8	116.2
Drainage System Expansion	26.9	23.4	84.2	91.1
Drainage System Rehabilitation	31.1	66.7	119.2	238.4
Environmental Quality Enhancement	26.1	14.5	100.8	43.1
Flood Mitigation	60.6	48.3	247.5	110.7
SSSF Projects	34.9	23.3	137.8	96.6
Real Estate	-	3.0	-	21.8
NRA-LRT Projects	42.2	36.0	60.9	59.6
NRA-CORe	31.8	36.5	53.7	76.0
Total Capital Expenditures	305.4	280.9	980.0	853.6
Contributions	(51.2)	(36.1)	(197.9)	(126.9)
Capital Expenditures, net	254.3	244.8	782.1	726.6

Lower than forecast capital expenditures in 2021 result primarily from refocusing on system rehabilitation not identified in the LTP, partially offset by reductions in flood mitigation and SSSF projects.

Operational Performance In-City Water & Wastewater

Performance Measure Index	Index Target	Points Earned
In-City Water		
Water Quality Index	25.0	25.0
Customer Service Index	20.0	21.1
System Reliability and Optimization Index	25.0	28.5
Environmental Index	15.0	16.5
Safety Index	15.0	16.5
Total	100.0	107.6
Wastewater		
Water Quality and Environmental Index	55.0	60.5
Customer Service Index	15.0	16.5
System Reliability and Optimization Index	15.0	16.5
Safety Index	15.0	16.5
Total	100.0	110.0

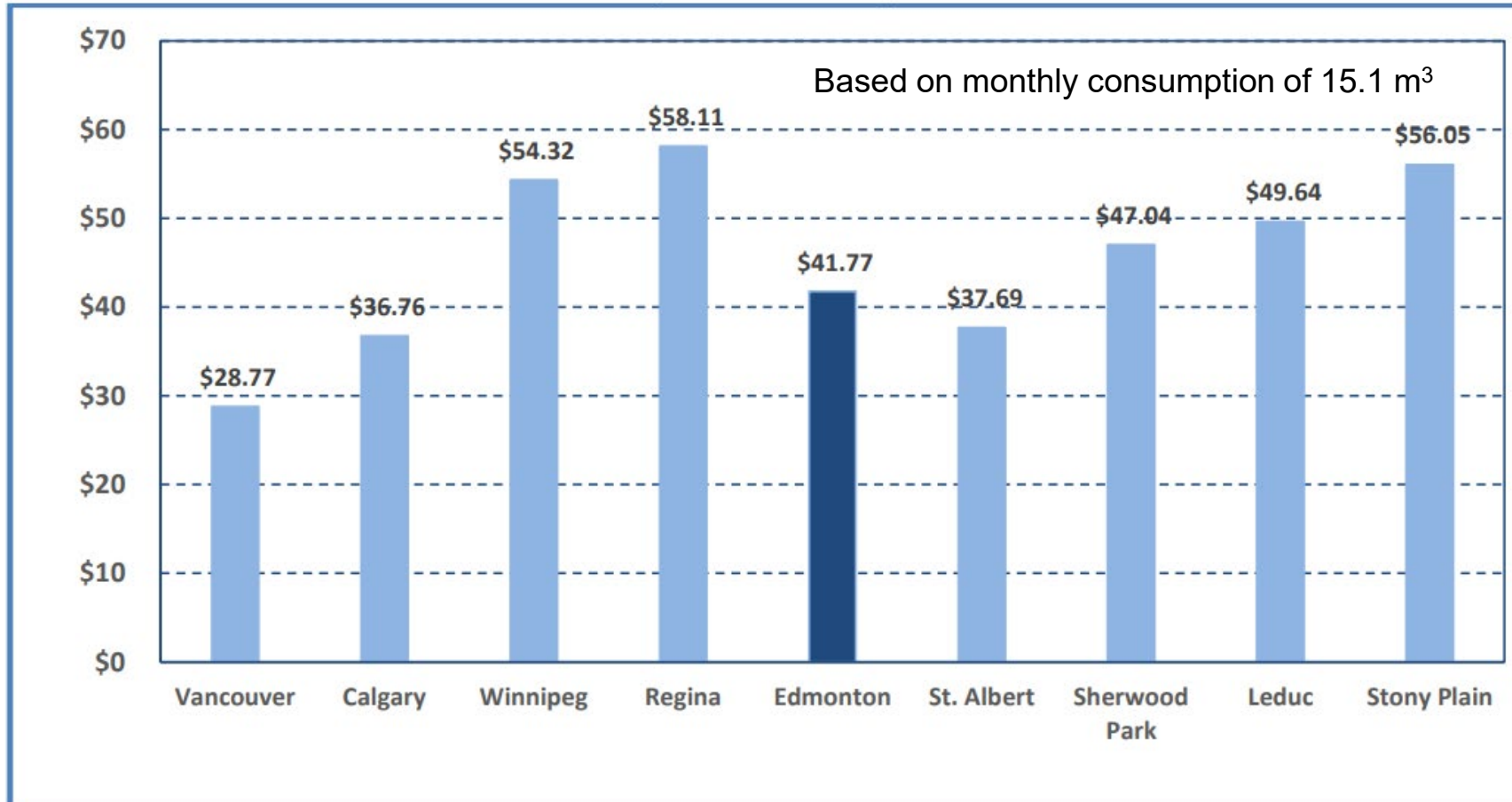


Operational Performance Drainage

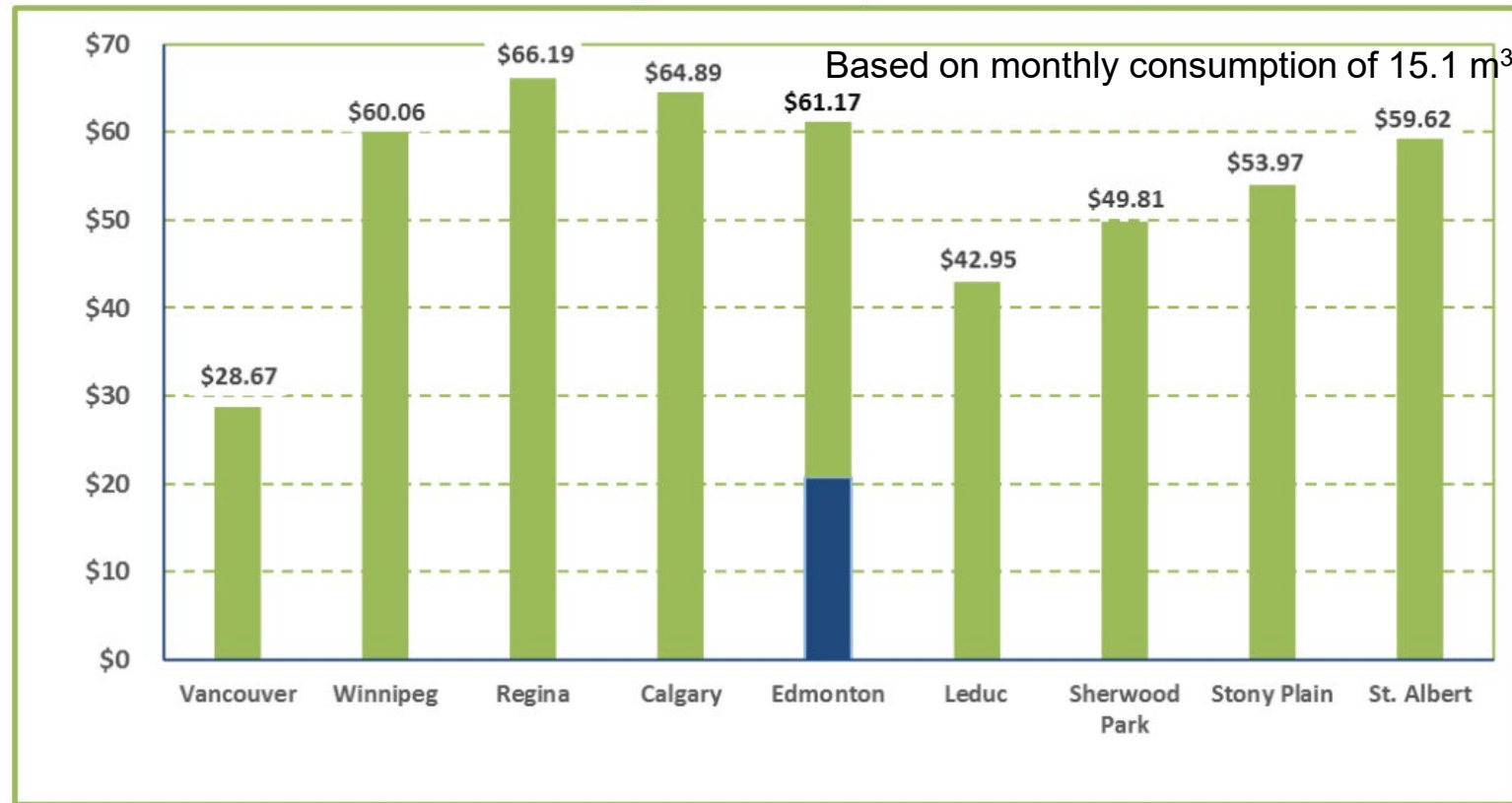
Performance Measure Index	Index Target	Points Earned
In-City Water		
Environmental Index	30.0	33.0
Customer Service Index	20.0	22.0
Reliability and Optimization Index	35.0	30.4
Safety Index	15.0	16.5
Total	100.0	101.9



Residential Water Bill - 2021



Residential Wastewater Bill - 2021



Edmonton's \$61.17 average monthly bill consists of Wastewater charges of \$20.71 and Drainage Services charges of \$40.46.



Common Initiatives - 2021 Highlights

- Aligned with EPCOR's Environmental Social Governance (ESG) initiatives focused on climate change risk mitigation continue, including flood proofing of the treatment facilities from river flooding and community flood risk reduction for river and urban flooding via SIRP initiatives.
- Water Drainage synergies initiatives underway with 17 specific work functions identified for alignment across the water cycle. Also supported by the consolidation of water distribution and drainage operation and construction functions at new facility in Aurum.
- Utility of the Future initiative launched with initial focus on Situational Awareness and Procurement Partnerships and Alliance approaches.
- Continued optimization of project coordination with City of Edmonton Roadways BGN and LRT construction projects including coordination on Yellowhead Trail and Terwillegar Drive enhancements
- Developer coordination enhancements through design standard modernization, City Plan implementation support and infill development specific approaches to improve processes



Water and Wastewater Treatment - 2021 Highlights

- Construction of the kīsikāw pīsim Solar Farm expected to generate 21,500 MWh of renewable electricity annually. The solar farm also includes a battery energy storage system that is largely grant-funded.
- Integrated Watershed Management strategy developed aligning previous separate water and drainage initiatives covering watershed impacts upstream and downstream of Edmonton
- Updated residuals strategy based on Sustainable Return on Investment approaches proposed to Alberta Environment & Parks for more detailed evaluation of impacts of discharges into the river
- 144 high-priority Lead Service Lines replaced (public and private line portions); Construction of orthophosphate dosing systems in progress at both water treatment plants.
- Advanced Metering Infrastructure (AMI) initiative to upgrade water meters and meter reading practices across the City vendor selection in progress



Stormwater Integrated Resource Plan (SIRP) 2021 Highlights

SLOW

- 31 new dry ponds reviewed and assessed; construction substantially completed for Malcolm Twedde, Parkallen and Tawa. 4 new ponds in design stage in Kenilworth, Lauderdale, Parkdale, and Ottewell
- LID installed at 23 locations in 2020 & 2021

MOVE

- Ditches & swales manual developed with City Roadways operations team; formal process to manage and address flooding concerns

SECURE

- >1000 manholes relined in 2020 & 2021
- Additional resources hired to support property owners through the flood inspection and backwater subsidy programs

PREDICT

- SIRP dashboard implemented; integrating real time sensor data with GIS

RESPOND

- Purchase of two mobile flood response trailers with Tiger dams
- Completed and shared flood risk assessment on 1300 City owned properties





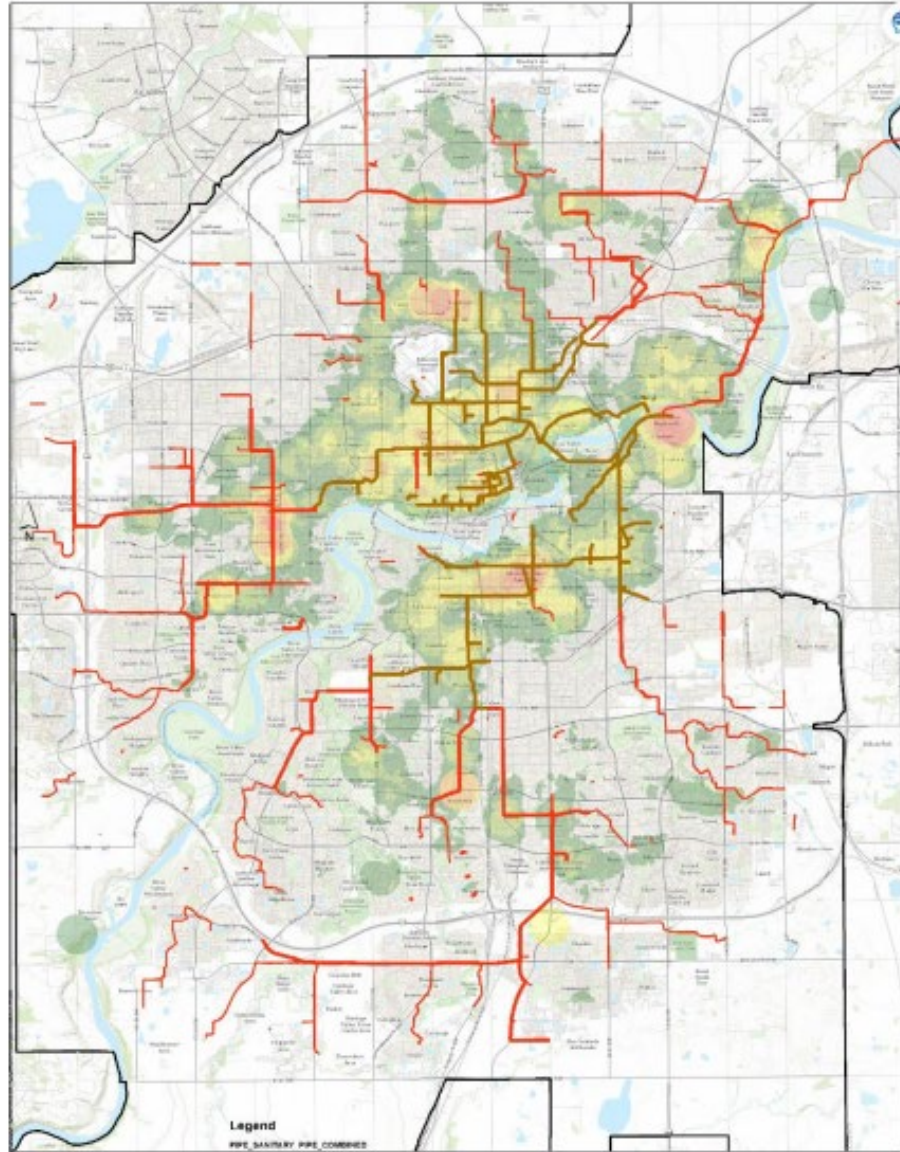
Corrosion and Odour Reduction (CORe) 2021 Highlights

- PREVENT**
 - Duggan tunnel replacement detailed design completed
 - Seven large trunk rehabilitation projects in progress or completed
 - 5.3 km of sanitary and combined trunkline inspections completed; 2.5 km of excessive debris identified and cleaned
 - 83 trunkline access manholes inspected to identify trunklines with severe deterioration
- OPTIMIZE**
 - NEST trunk system, Big Lake and Duggan area pumping operations and chemical dosing optimized
- MONITOR**
 - CORe monitoring completed at >300 sites across the city to inform overall CORe program initiatives and confirm success of interventions
- CONTROL**
 - Eight drop structure modification projects completed in Allendale / Strathcona; five more under design or construction
 - >30 one way flaps and ten manhole seals installed to date; very effective at reducing odour

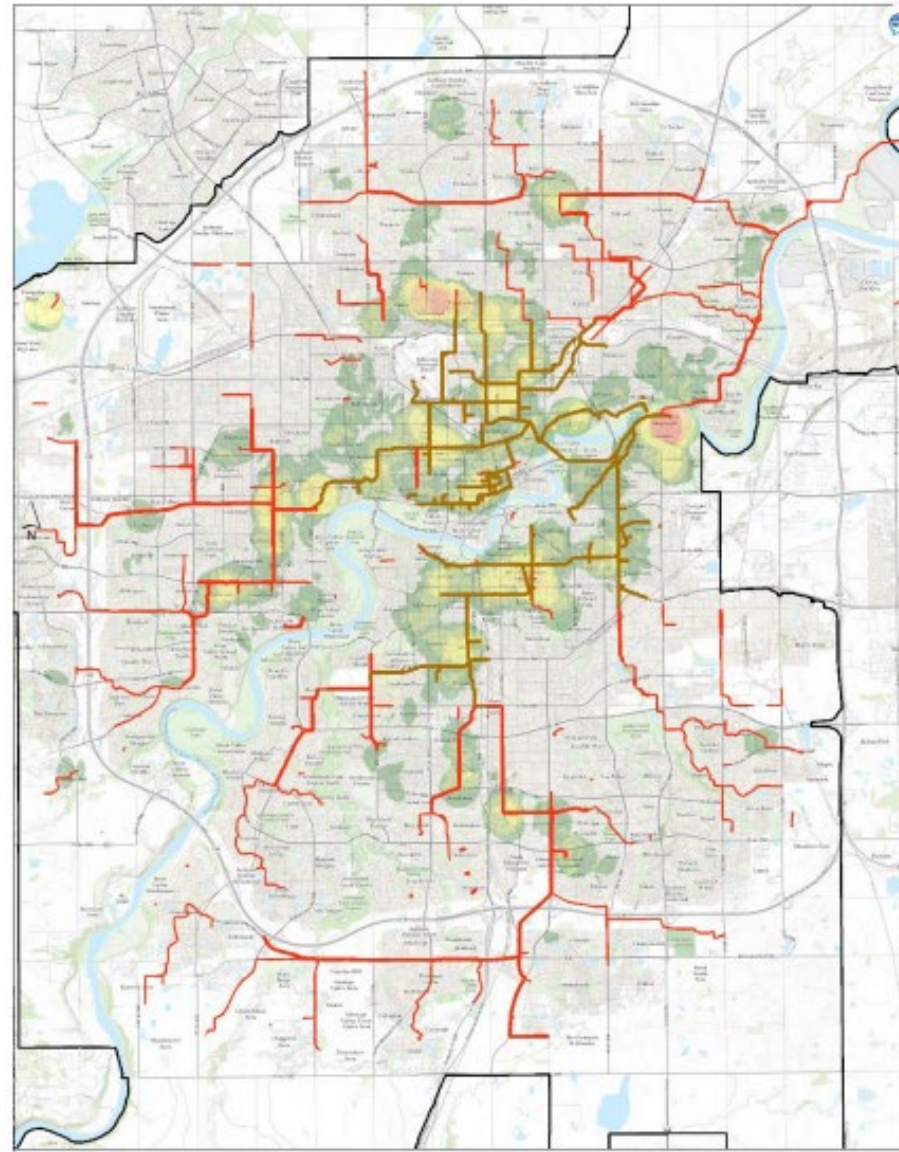


Edmonton Odour Locations 2018 vs. 2021

Odour Complaint Density 2018



Odour Complaint Density 2021





Questions?

