

Southgate Council–Staff Visioning Session

Department: **Public Works**

February 12, 2020

Development Charges By-law – Public Works Planned Projects

Infrastructure Costs Covered in the D.C. Calculation – Administration (Growth-Related Studies)

Prj.No	Increased Service Needs Attributable to Anticipated Development	Timing (year)	Gross Capital Cost Estimate (2017\$)	Post Period Benefit	Net Capital Cost	Less:		Subtotal	Less:	Potential DC Recoverable Cost		
						Benefit to Existing Development	Grants, Subsidies and Other Contributions Attributable to New Development		Other (e.g. 10% Statutory Deduction)	Total	Residential Share	Non-Residential Share
	2017-2026										84%	16%
1	Official Plan Update	2017	20,000	-	20,000	10,000		10,000	1,000	9,000	7,560	1,440
2	Official Plan Update	2020-2021	20,000	-	20,000	10,000		10,000	1,000	9,000	7,560	1,440
3	Development Charge Study	2017	28,700	-	28,700	-		28,700	2,870	25,830	21,697	4,133
4	Development Charge Addendum	2017	15,000	-	15,000	-		15,000	1,500	13,500	11,340	2,160
5	Development Charge Study	2020	28,700	-	28,700	-		28,700	2,870	25,830	21,697	4,133
6	Road Needs Study Update	2019	25,000	-	25,000	22,500		2,500		2,500	2,100	400
7	Road Needs Study Update	2024	25,000	-	25,000	22,500		2,500		2,500	2,100	400
8	Community Action Plan (Strategic Plan)	2018-2019	25,000	-	25,000	6,250		18,750	1,875	16,875	14,175	2,700
9	Community Action Plan (Strategic Plan)	2023-2024	25,000	-	25,000	6,250		18,750	1,875	16,875	14,175	2,700
10	Bridge Study	2017-2024	216,000	-	216,000	194,400		21,600		21,600	18,144	3,456
11	Asset Management Plan	2019-2020	10,000	-	10,000	9,000		1,000	100	900	756	144
12	Asset Management Plan	2023-2024	10,000	-	10,000	9,000		1,000	100	900	756	144
13	Urban Expansion Study	2017	10,000	-	10,000	2,500		7,500	750	6,750	5,670	1,080
14	Zoning By-law Review	2017	10,000	-	10,000	5,000		5,000	500	4,500	3,780	720
15	Zoning By-law Review	2021-2022	10,000	-	10,000	5,000		5,000	500	4,500	3,780	720
16	Water/Wastewater Rate Study	2017-2022	25,000	-	25,000	18,750		6,250		6,250	5,250	1,000
17	Community Improvement Plan	2017-2020	15,000	-	15,000	3,750		11,250	1,125	10,125	8,505	1,620
18	Water Distribution System Review	2017-2020	35,000	-	35,000	8,750		26,250		26,250	22,050	4,200
19	Wastewater Collection System Review	2017-2020	50,000	-	50,000	12,500		37,500		37,500	31,500	6,000
20	Municipal Servicing Standards Update	2018-2022	5,000	-	5,000	2,500		2,500	250	2,250	1,890	360
	Reserve Fund Adjustment									(11,178)	(9,389)	(1,788)
	Total		608,400	-	608,400	348,650	-	259,750	16,315	232,257	195,096	37,161

Development Charges By-law – Road Dept. Planned Projects

Infrastructure Costs Covered in the D.C. Calculation –Services Related to a Highway

Prj .No	Increased Service Needs Attributable to Anticipated Development 2017-2036	Timing (year)	Gross Capital Cost Estimate (2017\$)	Post Period Benefit	Net Capital Cost	Less:		Potential DC Recoverable Cost		
						Benefit to Existing Development	Grants, Subsidies and Other Contributions Attributable to New Development	Total	Residential Share 83%	Non-Residential Share 17%
1	New Road Construction and Upgrades	2017-2036	2,000,000	-	2,000,000	800,000		1,200,000	996,000	204,000
2	Hwy #10 Industrial Access Road	2022	2,200,000	770,000	1,430,000	-		1,430,000	1,186,900	243,100
3	Vehicle – Single Axle for Dundalk Depot	2025	250,000	-	250,000	-		250,000	207,500	42,500
4	Vehicle–Tandem for Hopeville Depot	2025	325,000	-	325,000	-		325,000	269,750	55,250
5	Vehicle – Loader	2020	150,000	-	150,000	54,000		96,000	79,680	16,320
6	Sidewalk Plow	2025	140,000	-	140,000	-		140,000	116,200	23,800
7	Dundalk Facility – New Bay	2025	250,000	80,000	170,000	32,500		137,500	114,125	23,375
8	New Street Sweeper	2027	350,000	-	350,000	126,000		224,000	185,920	38,080
	Reserve Fund Adjustment							(198,716)	(164,934)	(33,782)
	Total		5,665,000	850,000	4,815,000	1,012,500	-	3,603,785	2,991,141	612,643

Development Charges By-law – Stormwater Dept. Planned Projects

Infrastructure Costs Covered in the D.C. Calculation – Stormwater Services

Prj.No	Increased Service Needs Attributable to Anticipated Development 2017-2036 Urban Area	Timing (year)	Gross Capital Cost Estimate (2017\$)	Post Period Benefit	Net Capital Cost	Less:		Potential DC Recoverable Cost		
						Benefit to Existing Development	Grants, Subsidies and Other Contributions Attributable to New Development	Total	Residential Share 87%	Non-Residential Share 13%
1	Highpoint Drain Improvements	2020-2025	330,000	-	330,000	49,500		280,500	244,035	36,465
2	Main St. Culvert Crossing	2018-2020	1,110,000	666,000	444,000	166,500		277,500	241,425	36,075
	Reserve Fund Adjustment							(47,876)	(41,652)	(6,224)
	Total		1,440,000	666,000	774,000	216,000	-	510,124	443,808	66,316

Visioning Session - Road Dept.

Reserves & Reserve Funds

Reserve - Roads - Roads	\$413,700.00
DC Reserve - Transportation	(\$496,104.97)
DC Reserve - Stormwater Management	\$139,277.70
DC Reserve – Admin- Roads Needs Study Update	\$1,161.27
DC Reserve – Admin- Bridge Study	\$ 5,016.68
DC Reserve – Admin- Municipal Servicing Standards Update	\$522.57
Reserve Fund - Admin - Federal Gas Tax	\$ 0.00

Note:

I. Reserve numbers are as of the end of 2020.

Visioning Session - Road Dept.

Reserves & Reserve Funds

Reserve Fund - Admin - Main St Revitalization	\$ 0.00
Reserve Fund - MNR Deposit Gravel Pit	\$ 2,028.29
Reserve - Roads - Tax Stabilization - Winter Maintenance	\$ 57,187.96
Reserve - Roads - Tax Stabilization - Emergency Disaster	\$ 50,000.00
Reserve - Cemetery – Infrastructure	\$ 6,800.00
Reserve Fund - Cemetery	\$ 4,114.41
Reserve - Cemetery - Columbarium maintenance	\$ 1,200.00

Note:

I. Reserve numbers are as of the end of 2020.

Visioning Session - Road Dept.

2020 - Capital Projects and Operation Plans

I. Reality:

◇ 2019-2023 Southgate CAP Goals with Strategic Initiatives

◇ Goal 2 - Revitalizing Downtown Dundalk Action 2:

- ◇ The residents and businesses of Southgate envision our largest town once again becoming a source of community pride and a hotbed of community activity, with a much-improved appearance and a broader range of business opportunity.

◇ Strategic Initiatives 2-A (2019-2023):

- ◇ The County and the Township will have reconstructed Main Street.

- ◇ Reconstruction of Dundalk Main Street East in 2019, to have final asphalt & restoration in spring of 2020

- ◇ Envision Proton Street north being closed off in the Downtown core promenade streetscape, trees, café tables, benches and area for events with possible parking to the west.

Visioning Session – Road Dept.

2020 - Capital Projects and Operation Plans

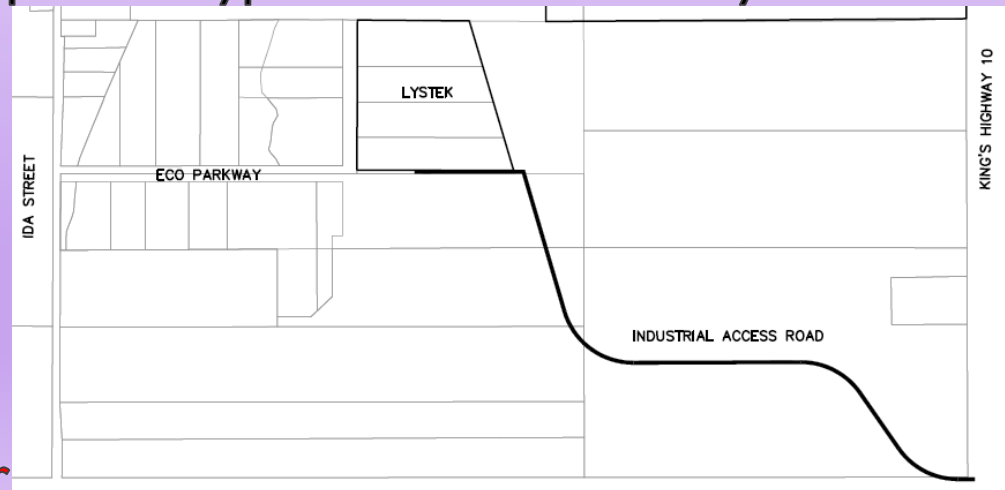
1. **Reality:**
2. New Garage Bay – Dundalk \$250,000 DC's = \$137,500
3. Wilder Lake Road to SDR 41 – asphalt - \$440,000 Solar Fund \$25,000, remainder Gas Tax
4. Southgate Road 26 to Homestead Road – asphalt - \$55,000, Donation = \$35,000
5. Southgate Road 22 from SDR 03 to SDR 07 – asphalt - \$325,000, OCIF = \$183,000
6. School Flashing Lights - \$22,000
7. Second Dundalk sidewalk maintenance machine with seasonal operator approved.
8. 2020 will have operations focusing on routine road maintenance, consideration of rural depots staff 10 hour staggered weekly coverage shifts.
9. 2020 Construction to hire more equipment & contractors under Southgate staff direction
10. Researching and testing new materials & technologies – cold patch alternatives
11. Consider additional one FTE dedicated to operating excavator with brusher head for year-round trimming

Visioning Session - Road Dept.

2021 & 2022 – Planned Capital Projects and Operation Goals for Consideration

Visualization:

- ◆ **Action I:** The residents and businesses of Southgate envision a growing and diverse local economy, which respects our agricultural background development, and development will be underway.
- ◆ **I-B** - By 2023, the Township will have completed a bypass road between Hwy 10 and the industrial park
- ◆ Construction costs with water & sanitary mains = \$4,000,000 DC's - \$1,757,000
- ◆ Eco Park land sales - \$841,422.35
- ◆ Second Dundalk New Single Axle Plow
- ◆ Truck – need additional seasonal operator



Visioning Session - Road Dept.

2023 to 2029 Plan for New Infrastructure & Service Delivery that is a requirement based on Southgate's present Assessment Base

◆ Ideas:

◆ Goal 5 - Upgrading our "Hard Services" Action 5:

- ◆ The residents and businesses of Southgate recognize our linear services - roads, bridges, water and sewer works, for example - to be a fundamental purpose of municipal government. This infrastructure needs to be serviceable and sustainable so that our businesses and communities can thrive and grow.
- ◆ **5-E** - The Township will have produced savings by examining alternatives when bridges or culverts require replacement, including where appropriate installing dual culverts instead of replacing box culverts
- ◆ The replacement of Bridge Structure S31 is being designed for twin CSP culverts

Visioning Session - Road Dept.

**2023 to 2029 Plan for New Infrastructure & Service Delivery
that is a requirement based on Southgate's on anticipated
future Development Growth**

Concept:

◆ Strategic Initiatives:

- ◆ **5-A** - While continuing to invest an average of 45% of tax dollars on maintenance/ repair/ reconstruction of road and bridge infrastructure, Council will consider an additional 1% levy, compounding, dedicated exclusively for upgrading the road and bridge network.
- ◆ The overall taxation 2020 Budget reflects 46% of the total budget being dedicated to Roads.
- ◆ 2025 - Highpoint Drain Improvements - \$330,000 DC's = \$280,500
- ◆ 2026 – Braemore Storm Works - \$149,000

Visioning Session - Road Dept.

2023 to 2029 Plan for New Infrastructure & Service Delivery that is a requirement based on future changes in Legislation, Community Demographics and/or Climate Change

Foresight:

- ◆ Climate change mitigation strategies and efficiencies related to future changes that are likely:
 - ◆ Flood mitigation road construction & possible impacts to bridge structures with increased heavy flows could also lead to closing bridges and roads that are less travelled to address economic pressures. Bridge SI 19 replacement cost \$1.8 million slated for 2023.
 - ◆ Increased urban stormwater systems capacity expansions to exceed 100-year storm events
 - ◆ Road classification changes due to increased traffic volumes, requires higher levels of service, leading to an afternoon patrol & shift. Reduce speed limits to 70km/hr.

Visioning Session – Road Dept.



Questions & Comments



Development Charges By-law – Waste Diversion Dept. Planned Projects

Infrastructure Costs Covered in the D.C. Calculation – Waste Diversion Services

Prj .No	Increased Service Needs Attributable to Anticipated Development	Timing (year)	Gross Capital Cost Estimate (2017\$)	Post Period Benefit	Other Deductions	Net Capital Cost	Less:		Subtotal	Less:	Potential DC Recoverable Cost		
							Benefit to Existing Development	Grants, Subsidies and Other Contributions Attributable to New Development		Other (e.g. 10% Statutory Deduction)	Total	Residential Share	Non-Residential Share
	2017-2026											84%	16%
1	Dundalk Transfer Station Upgrades	2018-2025	150,000	-	60,000	90,000	67,500		22,500	2,250	20,250	17,010	3,240
2	1-Roll-off Bins 40 yard	2018-2022	6,325	-	2,530	3,795	1,898		1,898	190	1,708	1,435	273
3	1-Roll-off Bin 50 yard	2018-2023	8,000	-	3,200	4,800	2,400		2,400	240	2,160	1,814	346
4	New Hazardous Waste Container	2020-2026	15,000	-		15,000	7,500		7,500	750	6,750	5,670	1,080
	Total		179,325	-	65,730	113,595	79,298	-	34,298	3,430	30,868	25,929	4,939

Visioning Session - Waste Diversion Dept.

Reserves & Reserve Funds

Reserve - Solid Waste - Egremont Site Well Monitoring	\$ 0.00
Reserve - Solid Waste - Dundalk site	\$57,500.00
Reserve - Solid Waste - Equipment	\$ 0.00
Reserve - Solid Waste - Proton Site	\$45,278.69
Reserve - Solid Waste - Egremont Site Rehab	\$20,000.00
DC Reserve - Waste & Waste Related	(\$10,012.63)

Note:

I. Reserve numbers are as of the end of 2020.

Visioning Session - Waste Diversion Dept.

2020 - Capital Projects and Operation Plans

I. Reality:

- Dundalk Transfer Station upgrades - \$400,000 DC's = \$20,250. Should Council consider reducing the scope of the upgrades if more responsibility is on the producers for end of life cycle of products, as the Township could opt out of some diversion strategies.
- Waste Re-location – Old Fill Area (Phase I) - \$30,000 awaiting Environmental Compliance Approval (ECA) amendment, possibly gaining an additional 25 years of landfill site capacity when completed seasonally over 3 years.

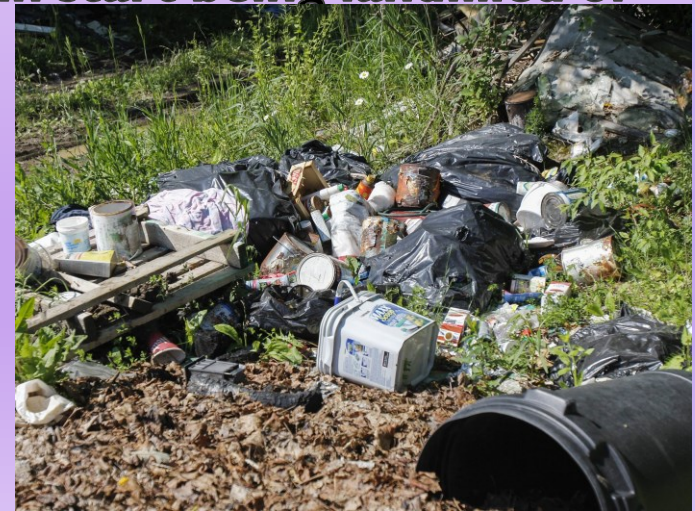


Visioning Session - Waste Diversion Dept.

2021 & 2022 – Planned Capital Projects and Operation Goals for Consideration

Visualization:

- **With the Province's consideration of transitioning the Municipal Hazardous and Special Waste and the Blue Box Program Plan, municipalities will have to decide if they wish to stay involved with the collection of these materials. If opting out, residents will have to return items to designated facilities, which for rural Ontario could be an inconvenience and the materials may again start being landfilled or discarded on the roadside.**
- **Continuation of present service levels will require funded tax dollars that will not be covered with Extended Producer Responsibility program roll outs.**



Visioning Session - Waste Diversion Dept.

2023 to 2029 Plan for New Infrastructure & Service Delivery that is a requirement based on Southgate's present Assessment Base

Ideas:

Comments received from ShapeSouthgate and the public include :

- Have Weekly waste and recycling collections.
- Consider longer Transfer Station hours being open and additional days open.
- Staff Suggestion – Implement a second Orange Drop container.

Visioning Session - Waste Diversion Dept.

2023 to 2029 Plan for New Infrastructure & Service Delivery that is a requirement based on Southgate's on anticipated future Development Growth

Concept:

- With the residential growth, expanded route collections could involve another full-time truck working collections and another FTE driver in the Waste Resources and Diversion Management Department (WRDM).
- 2026 replacement new collection truck - \$340,000
- 2029 replacement new collection truck - \$360,000
- Initiate a WRDM service review
- Collection services-contract out and negotiations

Visioning Session - Waste Diversion Dept.

**2023 to 2029 Plan for New Infrastructure & Service Delivery
that is a requirement based on future changes in Legislation,
Community Demographics and/or Climate Change**

Foresight:

Government mandate for larger municipalities to implement an Organics Program, may be a prospect for the Egremont Composting Facility to expand into accommodating the needs which would result in more operations staff and a Lead hand to manage operations.






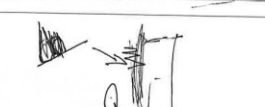
With the government's goal to get to Zero Waste targets for 2050 and the current Southgate landfilling rates, there is 80 years of site life remaining.

This may be an opportune time for Southgate to sell off the Egremont Landfill asset and contract out collection services.

Visioning Session – Waste Diversion Dept.



Questions & Comments

OPTION 1	OPT ON 2
www.sortsouthgate.ca	
Edgar egg cart	 
Waste burning ve	 
Transfer stati	 

Development Charges By-law – Water Dept. Planned Projects

Infrastructure Costs Covered in the D.C. Calculation – Water Services

Prj.No	Increased Service Needs Attributable to Anticipated Development 2017-2036 Urban Area	Timing (year)	Gross Capital Cost Estimate (2017\$)	Post Period Benefit	Net Capital Cost	Less:		Potential DC Recoverable Cost		
						Benefit to Existing Development	Grants, Subsidies and Other Contributions Attributable to New Development	Total	Residential Share 84%	Non-Residential Share 16%
1	New Well D5	2018-2020	3,100,000	155,000	2,945,000	-		2,945,000	2,473,800	471,200
2	New Water Tower	2020-2025	3,300,000	-	3,300,000	594,000		2,706,000	2,273,040	432,960
3	Main St E Oversizing	2019-2024	2,035,000	-	2,035,000	724,944	1,030,020	280,037	235,231	44,806
4	Main St W Oversizing	2023-2028	1,584,000	-	1,584,000	564,280		1,019,720	856,564	163,155
5	Hwy #10 Industrial Access Road Watermain Servicing	2020-2030	510,000	204,000	306,000	-		306,000	257,040	48,960
6	Water Meter Readings Collection Tower	2018-2027	35,000	10,500	24,500	-		24,500	20,580	3,920
	Reserve Fund Adjustment							(151,219)	(127,024)	(24,195)
	Total		10,564,000	369,500	10,194,500	1,883,224	1,030,020	7,130,037	5,989,231	1,140,806

Visioning Session - Water Dept.

Reserves & Reserve Funds

Reserve - Water - Infrastructure	\$197,541.40
DC Reserve - Water	(\$121,845.23)
DC Reserve – Admin- Water Distribution System Review	\$6,096.66
DC Reserve- Admin- Water Rates Study	\$1,451.59

Note:

I. Reserve numbers are as of the end of 2020.

Visioning Session - Water Dept.

2020 - Capital Projects and Operation Plans

- **Reality:**
- Gold & Hagan Street Watermain Loop \$40,000
- Glenelg Street Watermain Servicing \$40,000
- Water Tower Engineering & Design \$30,000

Visioning Session - Water Dept.

2021 & 2022 – Planned Capital Projects and Operation Goals for Consideration

Visualization:

2019-2023 Southgate CAP Goals with Strategic Initiatives

5-D - The Township will have erected a new water tower in Dundalk.

2021 – Water tower cost = \$3,225,000 - DC's = \$2,706,000

2022 - Bulk Water Fill Station \$45,000



Visioning Session - Water Dept.

2023 to 2029 Plan for New Infrastructure & Service Delivery that is a requirement based on Southgate's present Assessment Base

- Ideas:
- 2023 - Owen Sound Street Watermain Loop \$425,000
- 2026 – Main Street West Watermain Oversizing \$1,584,000 DC's = \$1,019,720.
 - This project will be coordinated with Grey County and their road budget timeline.

Visioning Session - Water Dept.

**2023 to 2029 Plan for New Infrastructure & Service Delivery
that is a requirement based on Southgate's on anticipated
future Development Growth**

- **Concept:**
- 2023 - New Dundalk Well D6 EA \$ 250,000
- 2024 - Construct Well D6 \$4,000,000
- 2029 - New Dundalk Well D7 EA \$ 290,000

Visioning Session - Water Dept.

**2023 to 2029 Plan for New Infrastructure & Service Delivery
that is a requirement based on future changes in Legislation,
Community Demographics and/or Climate Change**

Foresight:

- **Source Water Protection**
- **Environmental Protection Compliance**
- **Water conservation practices**

Visioning Session – Water Dept.



Questions & Comments



Development Charges By-law – Wastewater Dept. Planned Projects

Infrastructure Costs Covered in the D.C. Calculation – Wastewater Services

Prj.No	Increased Service Needs Attributable to Anticipated Development	Timing (year)	Gross Capital Cost Estimate (2017\$)	Post Period Benefit	Net Capital Cost	Less:		Potential DC Recoverable Cost		
						Benefit to Existing Development	Grants, Subsidies and Other Contributions Attributable to New Development	Total	Residential Share	Non-Residential Share
	2017-2036 Urban Area								84%	16%
1	Sewage Treatment Facility Upgrades	2020-2035	16,286,200	-	16,286,200	1,628,620	3,664,395	10,993,185	9,234,275	1,758,910
2	Waste Water Technology Upgrades	2017-2018	350,000	-	350,000	-		350,000	294,000	56,000
3	Hwy #10 Industrial Access Road Sewer Servicing	2020-2030	680,000	272,000	408,000	-		408,000	342,720	65,280
	Reserve Fund Adjustment							(297,439)	(249,849)	(47,590)
	Total		17,316,200	272,000	17,044,200	1,628,620	3,664,395	11,453,746	9,621,146	1,832,599

Visioning Session - Wastewater Dept.

Reserves & Reserve Funds

Reserve - Wastewater - Infrastructure	\$3,148,840.01
DC Reserve – Wastewater	\$1,750,886.25
DC Reserve –Admin- Wastewater Collection System Review	\$ 8,709.51

Note:

I. Reserve numbers are as of the end of 2020.

Visioning Session - Wastewater Dept.

2020 - Capital Projects and Operation Plans

- **Reality:**
- Rows Lane Sanitary Sewer Main Installation = \$200,000
- Complete Wastewater Environmental Assessment (EA) Engineering & Design = \$100,000

Visioning Session - Wastewater Dept.

2021 & 2022 – Planned Capital Projects and Operation Goals for Consideration

Visualization:

2019-2023 Southgate CAP Goals with Strategic Initiatives

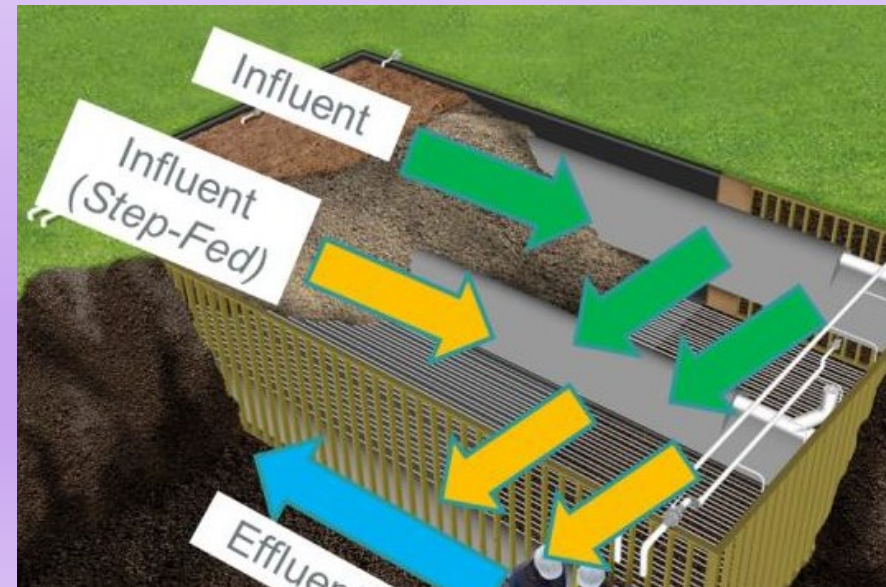
5-C - The Township will have increased wastewater treatment capacity in Dundalk to support growth.

2022 – Sewage Treatment Facility Upgrades

Projected Project Cost = \$16,286,200

Potential DC funding = \$10,993,185

Existing User Cost = \$ 5,293,015



Visioning Session - Wastewater Dept.

2023 to 2029 Plan for New Infrastructure & Service Delivery that is a requirement based on Southgate's present Assessment Base

Ideas:

- The wastewater upgrades Request For Information (RFI) released in June 2019, had 10 proposals submitted. A review and evaluation was conducted by staff from Triton Engineering, Grand River Conservation Authority Optimization Team and Southgate, and are investigating 2 technology proposals further that meet current and future effluent water quality parameters and increased flows.
- Investigation into lowering influent wet well at the headworks could gain elevations to service the west side of Dundalk by gravity feed and eliminate costly sanitary sewage pumping stations to construct, operate and maintain.

Visioning Session - Wastewater Dept.

2023 to 2029 Plan for New Infrastructure & Service Delivery that is a requirement based on Southgate's on anticipated future Development Growth

Concept:

- The Dundalk Wastewater Environmental Assessment considers technologies that enhance and optimize the current lagoon system, however factors will have to be considered if this is a short term solution or the continued forecast of residential, commercial and industrial growth for Dundalk that a full mechanical plant is the ultimate option to pursue.
- 2027 Glenelg Street sanitary sewer \$1,000,000



Visioning Session - Wastewater Dept.

**2023 to 2029 Plan for New Infrastructure & Service Delivery
that is a requirement based on future changes in Legislation,
Community Demographics and/or Climate Change**

Foresight:

- With Climate Change experiencing more intense weather events, the Dundalk lagoons could be more susceptible to being at fuller capacity at times and risk of breaching lagoon structures causing not only integrable infrastructure damage and environmental concerns of partially treated or raw sewage contamination.
- Tighter wastewater effluent water quality parameters will be required when amending the wastewater treatment ECA.

Visioning Session – Wastewater Dept.



Questions & Comments

