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Strada Proposed Quarry

Model vs Observed Stream Flows

Geographic Location	Appendix E Model Virtual Base Flow [1] Lowest Aug. to Sept.			Strada Observed Flows Aug 15, 2024 [2]		Genivar Observed Flows Sept 17, 2009 [3]		NVCA 2008 [5]	
	Station		*L/s*	*Station*	*L/s*	*Station*	*L/s*	*Station*	*L/s*
Newell Funston	STR2	Fig 3.22	**0**	SW17	**38.9**	SW8	**30**		
15th SR	STR3	Fig 3.22	**13**	SW4	**61.7**	-			
H.M Lake	STR9	Fig 4.10	18	-		-			
Main Street	STR8	Fig 4.11	**56**	SW5	**139.7**	-			
Mill Pond R.R	STR7	Fig 4.11	**85**	SW24	**211.4**	SW9	**174**		
Campbell 124 Cty Rd	STR1		NA	SW16	36.9	SW7	29		
Campbell 15th SR	STR4		NA	SW3	45.3	-			
Honeywood 15th SR				SW15	5.3	SW14	15		
Townline R.R				SW14	332.5	SW10	311		
Honeywood Line R.R				SW25	449.5	-			
Pine River at Prince of Wales Rd								Pine 1	**600**
Pine River at Everett [4]		Fig 3.38	**830**	-		-			
Golf Course 124	STR14	Fig 3.18	**0**	SW13	**28.2**	-			

Note: R.R: River Road H.M: Horning's Mills NA: Not Available

Date Source:

1) Draft Impact Assessment Report, Proposed Strada Pit/Quarry, by Earthfx Inc, August 2024

2) Strada Manual Streamflow Summary, Received on Sept 20, 2024 from NDACT

3) Table E-2, Surface Water Flow Rates, The Highland Companies Proposed Melancthon Mega Quarry Hydrogeologic and Hydrologic Assessment, Geographic Township of Melancthon, County of Dufferin, Volume 4 of 4, by Genivar Inc., January 2011

4) Appendix D Model Development and Calibration Report, Proposed Strada Pit/Quarry, by Earthfx Inc, August 2024

5) Niagara Escarpment Baseflow Study, Nottawasaga Valley Conservation Authority, January 27, 2009

File Date: January 23, 2025

StreamFlowCompare_20251223.xlsx

Table 2.2: Monthly groundwater budget under baseline conditions (in mm/month) Wetland NAT-18

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Avg
Net Water from Storage	-0.30	-0.25	-0.18	0.07	0.77	0.71	0.19	0.10	-0.14	-0.35	-0.28	-0.20	0.01
Recharge	2.31	2.04	2.55	2.35	1.23	0.83	1.07	0.92	1.13	1.47	1.86	2.09	1.65
Net Lateral Flow In	904.3	854.6	963.9	936.4	917.6	848.3	851.8	830.8	793.3	821.2	812.6	861.2	866.3
GW ET	-0.38	-0.58	-1.79	-10.56	-67.18	-99.91	-92.78	-77.52	-48.06	-11.92	-1.88	-0.39	-34.41
Surface Leakage	-499.4	-474.4	-537.3	-519.7	-477.1	-417.6	-420.8	-416.0	-410.1	-444.0	-445.8	-474.7	-461.4
Stream Leakage	-67.35	-65.80	-76.44	-74.08	-63.57	-52.75	-52.10	-51.02	-50.44	-55.64	-57.04	-61.97	-60.68
Net Lake Seepage	-337.0	-315.0	-349.4	-334.5	-311.8	-279.6	-287.4	-286.7	-284.8	-308.7	-308.0	-325.7	-310.7
Streamflow In (L/s)	50.7	56.7	60.5	61.7	50.8	43.1	39.8	37.6	36.6	37.9	40.7	44.3	46.7
Streamflow Out (L/s)	79.0	86.1	91.3	93.0	79.8	69.2	64.4	61.9	61.2	63.3	67.0	71.4	74.0
Avg Lake Stage (masl)	450.8	450.8	450.8	450.8	450.8	450.7	450.7	450.7	450.7	450.7	450.7	450.7	450.8

Source: Table 2.2, Extract from Earthfx January 31, 2025 Appendix E Impact Assessment (pg 43)

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