

East Hemel Masterplan: Catchment C	Date: 15/07/2025		
	Designed by: LL	Checked by: AK	Approved By:
Report Details: Type: Inflows Summary Storm Phase: Upsized 1in30 ponds	Expedition Engineering:		



Critical Storm Per Item: Rank By: Max. Inflow

Inflow	Storm Event	Inflow Area (ha)	Max. Inflow (L/s)	Total Inflow Volume (m³)
inflow to C.1	FEH: 100 years: +40 %: 30 mins: Winter	1.23	188.9	159.692
Inflow to C.2	FEH: 100 years: +40 %: 30 mins: Winter	9.07	1398.1	1182.691
Inflow to C.3	FEH: 100 years: +40 %: 30 mins: Winter	7.80	1201.7	1016.521
Inflow to C.4	FEH: 100 years: +40 %: 30 mins: Winter	7.70	1186.9	1004.043
Inflow C.5	FEH: 100 years: +40 %: 30 mins: Winter	12.57	1938.2	1639.552
Inflow C.6	FEH: 100 years: +40 %: 30 mins: Winter	1.22	188.7	159.542
Inflow C.7	FEH: 100 years: +40 %: 60 mins: Winter	2.39	310.4	1117.357
Inflow C.8	FEH: 100 years: +40 %: 30 mins: Winter	6.71	1034.5	875.032
Inflow C.9	FEH: 100 years: +40 %: 30 mins: Winter	8.17	1336.6	1228.090
Inflow C.11	FEH: 100 years: +40 %: 30 mins: Winter	6.45	994.5	841.295
School to C.2	FEH: 100 years: +40 %: 30 mins: Winter	2.52	194.2	164.254
School to C7	FEH: 100 years: +40 %: 30 mins: Winter	3.03	233.9	197.827

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Report Details: Type: Junctions Summary Storm Phase: Upsized 1in30 ponds	Expedition Engineering:		



Critical Storm Per Item: Rank By: Max. Outflow

Junction	Storm Event	Cover Level (m)	Invert Level (m)	Max. Level (m)	Max. Depth (m)	Max. Inflow (L/s)	Max. Resident Volume (m³)	Max. Flooded Volume (m³)	Max. Outflow (L/s)	Total Discharge Volume (m³)	Status
Simple Junction	FEH: 30 years: +35 %: 240 mins: Winter				0.000	82.0			82.0	2067.029	OK
Simple Junction (1)	FEH: 100 years: +40 %: 720 mins: Winter				0.000	85.8			85.8	6533.898	OK
Simple Junction (2)	FEH: 2 years: +0 %: 720 mins: Winter				0.000	20.6			20.6	1719.188	OK
Simple Junction (3)	FEH: 30 years: +35 %: 180 mins: Winter				0.000	24.6			24.6	470.807	OK
Simple Junction (4)	FEH: 30 years: +35 %: 720 mins: Summer				0.000	3.9			3.9	310.041	OK

East Hemel Masterplan: Catchment C	Date: 15/07/2025		
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Report Details: Type: Stormwater Controls Summary Storm Phase: Upsized 1in30 ponds	Expedition Engineering:		



Critical Storm Per Item: Rank By: Max. Resident Volume

Stormwater Control	Storm Event	Max. US Level (m)	Max. DS Level (m)	Max. US Depth (m)	Max. DS Depth (m)	Max. Inflow (L/s)	Max. Resident Volume (m³)	Max. Flooded Volume (m³)	Total Lost Volume (m³)	Max. Outflow (L/s)	Total Discharge Volume (m³)	Percentage Available (%)	Status
C.10	FEH: 100 years: +40 %: 1440 mins: Winter	120.846	120.845	1.846	1.845	31.7	1974.778	0.000	0.000	20.6	3509.998	16.329	OK
C.2	FEH: 100 years: +40 %: 360 mins: Winter	115.488	115.488	1.988	1.988	543.9	3841.256	0.000	0.000	60.0	2345.979	1.124	OK
C.3	FEH: 100 years: +40 %: 480 mins: Winter	114.979	114.979	1.979	1.979	381.3	3940.631	0.000	0.000	76.5	4099.321	2.081	OK
C.4	FEH: 100 years: +40 %: 960 mins: Winter	112.945	112.945	1.745	1.745	245.9	6262.480	0.000	0.000	82.0	8563.948	24.727	OK
C.8	FEH: 100 years: +40 %: 1440 mins: Winter	129.340	129.340	1.840	1.840	110.1	4842.355	0.000	0.000	5.4	854.894	14.392	OK
C.9	FEH: 100 years: +40 %: 480 mins: Winter	123.937	123.937	1.937	1.937	346.6	3804.279	0.000	0.000	32.8	1740.402	5.963	OK
C.11	FEH: 100 years: +40 %: 480 mins: Winter	117.048	117.048	3.048	3.048	270.0	2105.333	1379.644	0.000	24.6	1287.274	-190.115	Flood
C.1	FEH: 100 years: +40 %: 480 mins: Winter	116.172	116.172	1.272	1.272	51.3	1149.454	0.000	0.000	3.9	203.054	30.005	OK
C.7	FEH: 100 years: +40 %: 720 mins: Winter	114.121	114.121	2.121	2.121	269.4	7061.851	2261.498	0.000	85.8	6534.028	-47.111	Flood
C.5	FEH: 100 years: +40 %: 180 mins: Winter	124.521	124.518	2.521	2.518	1099.0	2370.908	1220.899	0.000	218.7	3937.595	-106.164	Flood
C.6	FEH: 100 years: +40 %: 360 mins: Winter	118.210	118.210	2.210	2.210	279.0	2821.426	1142.954	0.000	109.3	4646.590	-68.095	Flood

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Critical Storm Per Item: Rank By: Max. Flow

Connection	Storm Event	Connection Type	From	To	Upstream Cover Level (m)	Max. US Water Level (m)	Max. Flow Depth (m)	Discharge Volume (m³)	Max. Velocity (m/s)	Flow / Capacity	Max. Flow (L/s)	Status
C2-3	FEH: 30 years: +35 %: 120 mins: Winter	No Delay	C.2	C.3		115.151	0.061	830.377	0.0		60.0	
C3-4	FEH: 100 years: +40 %: 360 mins: Winter	No Delay	C.3	C.4		114.964	0.075	3068.698	0.0		76.5	
C5-6	FEH: 30 years: +35 %: 180 mins: Winter	No Delay	C.5	C.6		123.838	0.067	3252.571	0.0		218.7	
C6-7	FEH: 2 years: +0 %: 15 mins: Summer	No Delay	C.6	C.7		117.066	0.053	196.744	0.0		109.3	
C8-9	FEH: 100 years: +40 %: 1440 mins: Winter	No Delay	C.8	C.9		129.340	0.018	854.889	0.0		5.4	
C9-10	FEH: 100 years: +40 %: 360 mins: Winter	No Delay	C.9	C.10		123.927	0.101	1304.037	0.0		32.8	
C.4 to sewer	FEH: 30 years: +35 %: 240 mins: Winter	No Delay	C.4	Simple Junction		112.651	0.085	2067.029	0.0		82.0	
C.7 to sewer	FEH: 100 years: +40 %: 720 mins: Winter	No Delay	C.7	Simple Junction (1)		114.121	0.076	6533.898	0.0		85.8	
C.11 to sewer	FEH: 30 years: +35 %: 180 mins: Winter	No Delay	C.11	Simple Junction (3)		116.228	0.049	470.807	0.0		24.6	
C.10 to sewer	FEH: 2 years: +0 %: 720 mins: Winter	No Delay	C.10	Simple Junction (2)		120.202	0.047	1719.188	0.0		20.6	
C.1 to sewer	FEH: 30 years: +35 %: 720 mins: Summer	No Delay	C.1	Simple Junction (4)		116.031	0.013	310.041	0.0		3.9	

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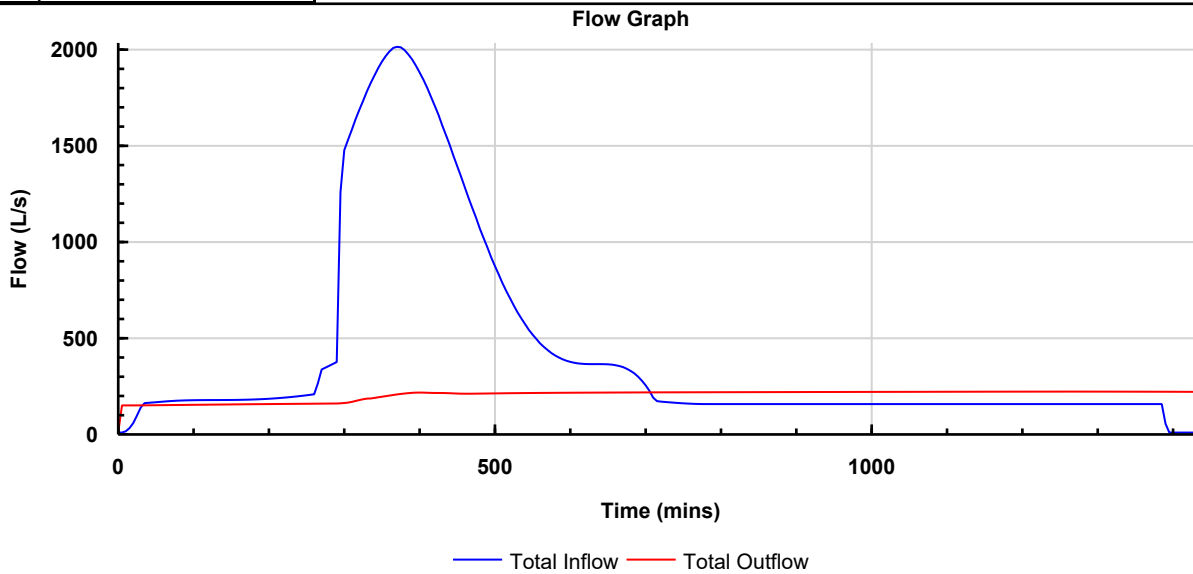



Upsized 1in30 ponds
FEH: 100 years: Increase Rainfall (%): +40: 720 mins: Winter

Tables

Name	Max. Inflow (L/s)	Total Inflow Volume (m³)	Max. Outflow (L/s)	Total Outflow Volume (m³)
Simple Junction			82.0	6398.693
Simple Junction (1)			85.8	6533.898
Simple Junction (2)			20.6	1743.506
Simple Junction (3)			24.6	1931.262
Simple Junction (4)			3.9	304.254
TOTAL	2014.5	34642.172	213.9	16911.613

Graphs



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Volume Graph

