

CAPITAL WAREHOUSE, CONSORT WAY, BURGESS HILL

SL08556-HBPW-XX-XX-RP-C-0004

DRAINAGE CALCULATIONS

SL08556

April 2026

DRAINAGE CALCULATIONS

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DOCUMENT HISTORY SHEET

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1. INTRODUCTION

1.1. PROJECT DESCRIPTION

HBPW LLP have been tasked with preparing a drainage design for a proposed new warehouse and surrounding yard located of Consort Way, Burgess Hill.

The water collected from the roof will be discharged at a maximum rate of 10l/s from a proposed attenuation chamber. A hydrobrake device will be installed to limit the outflow from the tank. Introduction of an attenuation structure and a flow control device will provide a betterment on the maximum flow rates from the development.

1.2. EXISTING DRAINAGE FLOW RATES

The existing flows into a public sewer are provided in Table 1-1. These are based on no climate change allowance and a C_v of 1.0.

Table 1-1 Existing site discharge rates

Rainfall Annual Probability	Discharge Rate (l/s)
1 in 2 year	50.9
1 in 30 year	126.7
1 in 100 year	154.5

1.3. PROPOSED FLOW RATES

The existing flows into a public sewer are provided in Table 1-1. These are based on no climate change allowance and a C_v of 1.0.

Table 1-2 Proposed site discharge rates

Rainfall Annual Probability	Discharge Rate (l/s)	Betterment Achieved
1 in 2 year	37.4	26.5%
1 in 30 year	71.4	42.6%
1 in 100 year	89.9	41.8%

1.4. DESIGN RAINFALL EVENTS

The system shall be checked against the following performance criteria:

- 1 in 2-year Storm Event. No surcharge.
- 1 in 30-year Storm Event + 45% climate change. No flooding
- 1 in 100-year Storm Event + 45% climate change. Controlled flooding not to affect any critical site activities or off-site areas.

The model considers both winter and summer storm profiles. Analysed storm durations are 15min, 30min, 60min, 120min, 180min, 240min, 360min, 480min, 600min, 720min, 960min, 1140min & 2160min.

2. MODEL SET UP

Figure 2-1 Model setup with element names

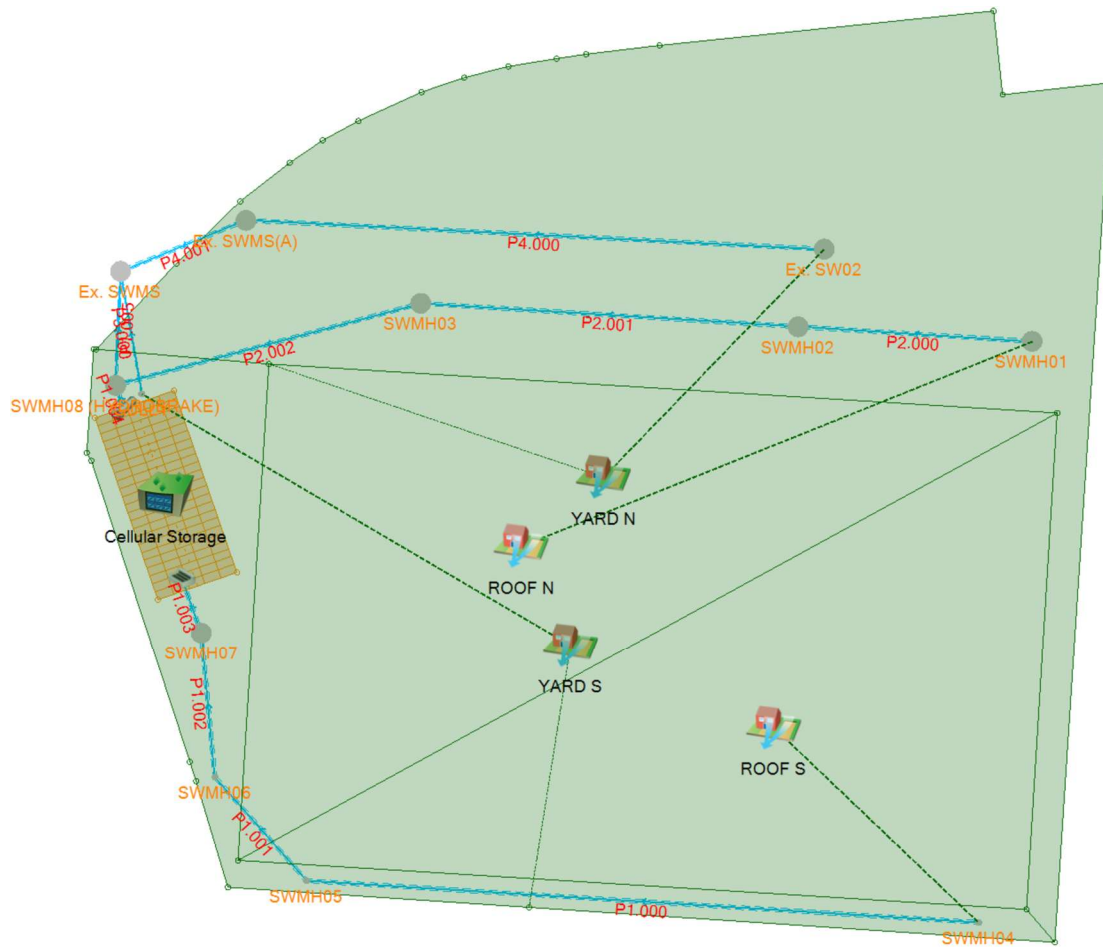
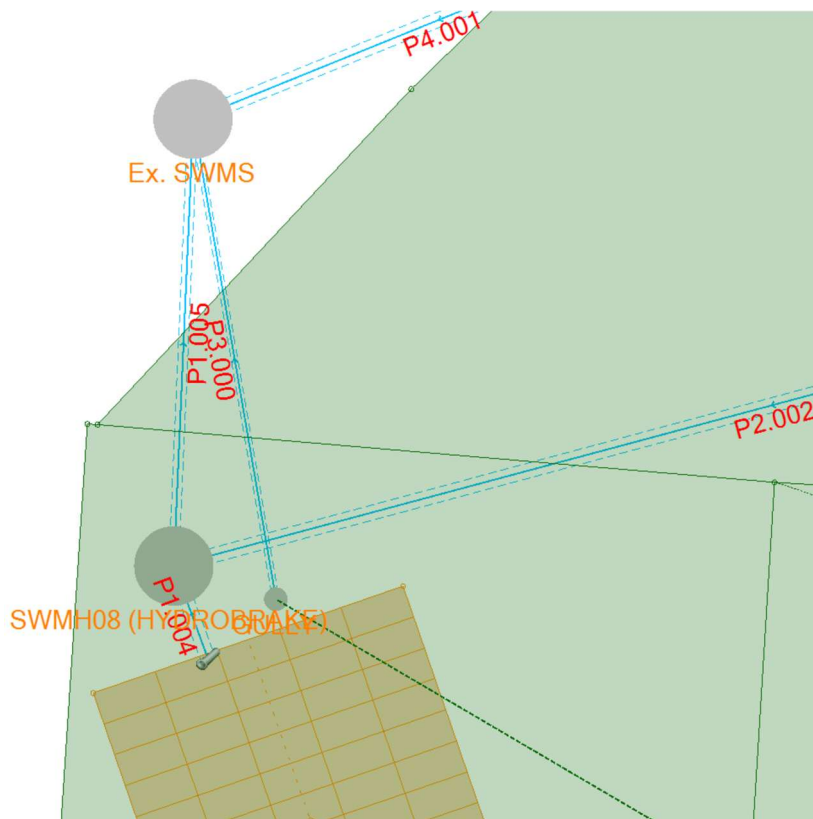


Figure 2-2 Close up of element names north of proposed tank



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ROOF N

Type : Catchment Area

Area (ha)	0.07
-----------	------

Dynamic Sizing

Runoff Method	Time of Concentration
Summer Volumetric Runoff	1.000
Winter Volumetric Runoff	0.840
Time of Concentration (mins)	5
Percentage Impervious (%)	100



ROOF S

Type : Catchment Area

Area (ha)	0.07
-----------	------

Dynamic Sizing

Runoff Method	Time of Concentration
Summer Volumetric Runoff	1.000
Winter Volumetric Runoff	0.840
Time of Concentration (mins)	5
Percentage Impervious (%)	100



YARD S

Type : Catchment Area

Area (ha)	0.029
-----------	-------

Dynamic Sizing

Runoff Method	Time of Concentration
Summer Volumetric Runoff	0.750
Winter Volumetric Runoff	0.840
Time of Concentration (mins)	5
Percentage Impervious (%)	100



YARD N

Type : Catchment Area

Area (ha)	0.108
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Dynamic Sizing

Runoff Method	Time of Concentration
Summer Volumetric Runoff	0.750
Winter Volumetric Runoff	0.840
Time of Concentration (mins)	5
Percentage Impervious (%)	100

SL08556 Capital Warehouse: Unit A, Consort Way Burgess Hill	Date: 23/04/2026		
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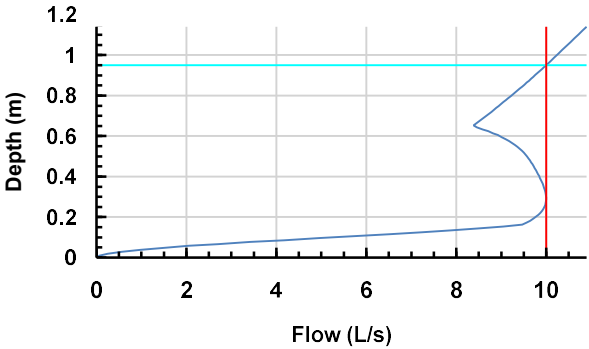
Name	Junction Type	Easting (m)	Northing (m)	Cover Level (m)	Depth (m)	Invert Level (m)	Chamber Shape	Diameter (m)
SWMH01	Manhole	530223.374	118757.530	28.500	1.000	27.500	Circular	1.200
SWMH02	Manhole	530209.376	118758.399	28.500	1.090	27.410	Circular	1.200
SWMH03	Manhole	530186.804	118759.801	28.500	1.160	27.340	Circular	1.200
SWMH04	Manhole	530220.178	118722.743	28.600	0.600	28.000	Circular	0.600
SWMH05	Manhole	530179.975	118725.239	28.500	1.170	27.330	Circular	0.600
SWMH06	Manhole	530174.498	118731.441	28.500	1.230	27.270	Circular	0.600
SWMH07	Manhole	530173.678	118740.088	28.500	1.660	26.840	Circular	1.200
SWMH08 (HYDROBRAKE)	Manhole	530168.560	118754.897	28.300	1.650	26.650	Circular	1.200
Ex. SWMS	Manhole	530168.853	118761.718	28.830	2.250	26.580	Circular	1.200
Ex. SW02	Manhole	530210.941	118763.043	28.500	1.330	27.170	Circular	1.200
Ex. SWMS(A)	Manhole	530176.353	118764.756	28.540	1.716	26.824	Circular	1.200
GULLY	Manhole	530170.117	118754.389	28.500	0.500	28.000	Circular	0.350

Name	Lock
SWMH01	None
SWMH02	None
SWMH03	None
SWMH04	None
SWMH05	None
SWMH06	None
SWMH07	None
SWMH08 (HYDROBRAKE)	None
Ex. SWMS	None
Ex. SW02	None
Ex. SWMS(A)	None
GULLY	None

Inlets

Junction	Inlet Name	Incoming Item(s)	Bypass Destination	Capacity Type
SWMH01	Inlet	ROOF N	(None)	No Restriction
SWMH02	Inlet	P2.000	(None)	No Restriction
SWMH03	Inlet	P2.001	(None)	No Restriction
SWMH04	Inlet	ROOF S	(None)	No Restriction
SWMH05	Inlet	P1.000	(None)	No Restriction
SWMH06	Inlet	P1.001	(None)	No Restriction
SWMH07	Inlet	P1.002	(None)	No Restriction
SWMH08 (HYDROBRAKE)	Inlet	P2.002	(None)	No Restriction
	Inlet	P1.004		
Ex. SWMS	Inlet	P1.005	(None)	No Restriction
	Inlet (1)	P4.001	(None)	No Restriction
	Inlet (2)	P3.000	(None)	No Restriction
Ex. SW02	Inlet (1)	YARD N	(None)	No Restriction
Ex. SWMS(A)	Inlet	P4.000	(None)	No Restriction
GULLY	Inlet	YARD S	(None)	No Restriction

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Outlets			
Junction	Outlet Name	Outgoing Connection	Outlet Type
SWMH01	Outlet	P2.000	Free Discharge
SWMH02	Outlet	P2.001	Free Discharge
SWMH03	Outlet	P2.002	Free Discharge
SWMH04	Outlet	P1.000	Free Discharge
SWMH05	Outlet	P1.001	Free Discharge
SWMH06	Outlet	P1.002	Free Discharge
SWMH07	Outlet	P1.003	Free Discharge
SWMH08 (HYDROBRAKE)	Outlet	P1.005	Hydro-Brake®
	Invert Level (m)	26.650	
	Design Depth (m)	0.950	
	Design Flow (L/s)	10.0	
	Objective	Minimise Upstream Storage Requirements	
	Application	Surface Water Only	
	Sump Available	☒	
	Unit Reference	SHE-0147-1000-0950-1000	
			
Ex. SW02	Outlet	P4.000	Free Discharge
Ex. SWMS(A)	Outlet	P4.001	Free Discharge
GULLY	Outlet	P3.000	Free Discharge

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Cellular Storage

Type : Cellular Storage

Dimensions

Exceedance Level (m)	28.400
Depth (m)	0.800
Base Level (m)	26.690
Number of Crates Long	23
Number of Crates Wide	5
Number of Crates High	2
Porosity (%)	95
Crate Length (m)	0.5
Crate Width (m)	1
Crate Height (m)	0.4
Total Volume (m³)	44.610

Inlets

Inlet

Inlet Type	Point Inflow
Incoming Item(s)	P1.003
Bypass Destination	(None)
Capacity Type	No Restriction

Outlets

Outlet

Outgoing Connection	P1.004
Outlet Type	Free Discharge

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Name	Length (m)	Connection Type	Slope (1:X)	Manning's n	Colebrook-White Roughness (mm)	Diameter / Base Width (mm)	Upstream Cover Level (m)	Upstream Invert Level (m)
P2.000	14.024	Pipe	155.827		0.6	225	28.500	27.500
P2.001	22.616	Pipe	323.081		0.6	225	28.500	27.410
P2.002	18.892	Pipe	27.379		0.6	225	28.500	27.340
P1.000	40.281	Pipe	60.121		0.6	225	28.600	28.000
P1.001	8.274	Pipe	137.892		0.6	225	28.500	27.330
P1.002	8.687	Pipe	20.201		0.6	225	28.500	27.270
P1.005	6.826	Pipe	97.521		0.6	150	28.300	26.650
P1.003	3.477	Pipe	23.179		0.6	225	28.500	26.840
P1.004	1.534	Pipe	38.339		0.6	225	28.400	26.690
P4.000	34.631	Pipe	100.000		0.6	225	28.500	27.170
P4.001	8.092	Pipe	33.207		0.6	225	28.540	26.824
P3.000	7.437	Pipe	5.237		0.6	100	28.500	28.000

Name	Downstream Cover Level (m)	Downstream Invert Level (m)	Lock	Flow Restriction (L/s)
P2.000	28.500	27.410	None	
P2.001	28.500	27.340	None	
P2.002	28.300	26.650	None	
P1.000	28.500	27.330	None	
P1.001	28.500	27.270	None	
P1.002	28.500	26.840	None	
P1.005	28.830	26.580	None	10.9
P1.003	28.400	26.690	None	
P1.004	28.300	26.650	None	
P4.000	28.540	26.824	None	
P4.001	28.830	26.580	None	
P3.000	28.830	26.580	None	

SL08556 Capital Warehouse: Unit A, Consort Way Burgess Hill		Date: 23/04/2026		
Report Details: Type: Manhole Schedule Storm Phase: Phase (1)		Designed by: DPS	Checked by: EP	
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		HBPW LLP : 43 Bridgegate Retford DN22 7UX		

Name	Cover Level (m) Invert Level (m)		Connection Details				Type
Coordinates (m)	Depth (m)	Manhole Size (m)	Incoming Connections	Connection Type	Connection Invert (m)	Connection Size (mm)	Junction Type
			Outgoing Connections				Cover
SWMH01	28.500 27.500	Diameter / Length: 1.200					Manhole
E:530223.374 N:118757.530	1.000		{a} P2.000	Pipe	27.500	Diam/Width:225	Not Applicable
SWMH02	28.500 27.410	Diameter / Length: 1.200	{1} P2.000	Pipe	27.410	Diam/Width:225	Manhole
E:530209.376 N:118758.399	1.090		{a} P2.001	Pipe	27.410	Diam/Width:225	Not Applicable
SWMH03	28.500 27.340	Diameter / Length: 1.200	{1} P2.001	Pipe	27.340	Diam/Width:225	Manhole
E:530186.804 N:118759.801	1.160		{a} P2.002	Pipe	27.340	Diam/Width:225	Not Applicable
SWMH04	28.600 28.000	Diameter / Length: 0.600					Manhole
E:530220.178 N:118722.743	0.600		{a} P1.000	Pipe	28.000	Diam/Width:225	Not Applicable
SWMH05	28.500 27.330	Diameter / Length: 0.600	{1} P1.000	Pipe	27.330	Diam/Width:225	Manhole
E:530179.975 N:118725.239	1.170		{a} P1.001	Pipe	27.330	Diam/Width:225	Not Applicable

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Report Details: Type: Manhole Schedule Storm Phase: Phase (1)		HBPW LLP : 43 Bridgegate Retford DN22 7UX		

Name	Cover Level (m) Invert Level (m)	Manhole Size (m)	Connection Details				Type
Coordinates (m)	Depth (m)		Incoming Connections	Connection Type	Connection Invert (m)	Connection Size (mm)	Junction Type
			Outgoing Connections				Cover
SWMH06	28.500 27.270	Diameter / Length: 0.600	{1} P1.001	Pipe	27.270	Diam/Width:225	Manhole
E:530174.498 N:118731.441	1.230		{a} P1.002	Pipe	27.270	Diam/Width:225	Not Applicable
SWMH07	28.500 26.840	Diameter / Length: 1.200	{1} P1.002	Pipe	26.840	Diam/Width:225	Manhole
E:530173.678 N:118740.088	1.660		{a} P1.003	Pipe	26.840	Diam/Width:225	Not Applicable
SWMH08 (HYDROBRAKE)	28.300 26.650	Diameter / Length: 1.200	{1} P2.002	Pipe	26.650	Diam/Width:225	Manhole
E:530168.560 N:118754.897	1.650		{2} P1.004	Pipe	26.650	Diam/Width:225	
			{a} P1.005	Pipe	26.650	Diam/Width:150	Not Applicable
Ex. SWMS	28.830 26.580	Diameter / Length: 1.200	{1} P1.005	Pipe	26.580	Diam/Width:150	Manhole
E:530168.853 N:118761.718	2.250		{2} P4.001	Pipe	26.580	Diam/Width:225	
			{3} P3.000	Pipe	26.580	Diam/Width:100	
							Not Applicable

SL08556 Capital Warehouse: Unit A, Consort Way Burgess Hill		Date: 23/04/2026			
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Report Details: Type: Manhole Schedule Storm Phase: Phase (1)		HBPW LLP : 43 Bridgegate Retford DN22 7UX			

Name	Cover Level (m) Invert Level (m)		Connection Details				Type
Coordinates (m)	Depth (m)	Manhole Size (m)	Incoming Connections	Connection Type	Connection Invert (m)	Connection Size (mm)	Junction Type
			Outgoing Connections				Cover
Ex. SW02	28.500 27.170	Diameter / Length: 1.200					Manhole
E:530210.941 N:118763.043	1.330		{a} P4.000	Pipe	27.170	Diam/Width:225	Not Applicable
Ex. SWMS(A)	28.540 26.824	Diameter / Length: 1.200	{1} P4.000	Pipe	26.824	Diam/Width:225	Manhole
E:530176.353 N:118764.756	1.716		{a} P4.001	Pipe	26.824	Diam/Width:225	Not Applicable
GULLY	28.500 28.000	Diameter / Length: 0.350					Manhole
E:530170.117 N:118754.389	0.500		{a} P3.000	Pipe	28.000	Diam/Width:100	Not Applicable

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Inflow Label	Connected To	Flow (L/s)	Runoff Method	Area (ha)	Percentage Impervious (%)	Urban Creep (%)	Adjusted Percentage Impervious (%)	Area Analysed (ha)
ROOF N	SWMH01		Time of Concentration	0.070	100	0	100	0.070
ROOF S	SWMH04		Time of Concentration	0.070	100	0	100	0.070
YARD N	Ex. SW02		Time of Concentration	0.108	100	0	100	0.108
YARD S	GULLY		Time of Concentration	0.029	100	0	100	0.029
TOTAL		0.0		0.278				0.278

SL08556 Capital Warehouse: Unit A, Consort Way Burgess Hill	Date: 23/04/2026		
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Report Details: Type: Outfall Details Storm Phase: Phase (1)	HBPW LLP : 43 Bridgegate Retford DN22 7UX		



Outfalls

Outfall	Outfall Type	Gated	Fixed Surcharged Level (m)	Level Curve
Ex. SWMS	Free Discharge			

3. SUMMARIES OF RESULTS

3.1. 1 IN 2 YEAR STORM EVENTS

SL08556 Capital Warehouse: Unit A, Consort Way Burgess Hill	Date: 23/04/2026		
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Report Title: Rainfall Analysis Criteria	HBPW LLP : 43 Bridgegate Retford DN22 7UX		



Runoff Type	Dynamic
Output Interval (mins)	1
Time Step	Default
Urban Creep	Apply Global Value
Urban Creep Global Value (%)	0
Junction Flood Risk Margin (mm)	300
Perform No Discharge Analysis	☐

Rainfall

FSR

Type: FSR

Region	England And Wales
M5-60 (mm)	20.1
Ratio R	0.319
Summer	☒
Winter	☒

Return Period

Return Period (years)	Increase Rainfall (%)
2.0	45.000

Storm Durations

Duration (mins)	Run Time (mins)
15	30
30	60
60	120
120	240
180	360
240	480
360	720
480	960
600	1200
720	1440
960	1920
1440	2880

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Report Details: Type: Inflows Summary Storm Phase: Phase (1)		HBPW LLP : 43 Bridgegate Retford DN22 7UX			



Critical Storm Per Item: Rank By: Max. Inflow

Inflow	Storm Event	Inflow Area (ha)	Max. Inflow (L/s)	Total Inflow Volume (m³)
ROOF N	FSR: 2 years: +45 %: 15 mins: Summer	0.07	22.0	9.527
ROOF S	FSR: 2 years: +45 %: 15 mins: Summer	0.07	22.0	9.528
YARD S	FSR: 2 years: +45 %: 15 mins: Winter	0.03	7.0	3.252
YARD N	FSR: 2 years: +45 %: 15 mins: Winter	0.11	26.7	12.323

SL08556 Capital Warehouse: Unit A, Consort Way Burgess Hill		Date: 23/04/2026		
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Critical Storm Per Item: Rank By: Max. Depth

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)	Total Discharge Volume (m³)	Max. Outflow (L/s)	Status
SWMH01	FSR: 2 years: +45 %: 15 mins: Summer	28.500	27.500	27.629	0.129	22.0	0.146	0.000	9.527	21.8	OK
SWMH02	FSR: 2 years: +45 %: 15 mins: Summer	28.500	27.410	27.547	0.137	21.8	0.155	0.000	9.514	21.5	OK
SWMH03	FSR: 2 years: +45 %: 15 mins: Summer	28.500	27.340	27.411	0.071	21.5	0.080	0.000	9.512	21.7	OK
SWMH04	FSR: 2 years: +45 %: 15 mins: Summer	28.600	28.000	28.088	0.088	22.0	0.025	0.000	9.533	21.8	OK
SWMH05	FSR: 2 years: +45 %: 15 mins: Summer	28.500	27.330	27.443	0.113	21.8	0.032	0.000	9.518	21.5	OK
SWMH06	FSR: 2 years: +45 %: 15 mins: Summer	28.500	27.270	27.339	0.069	21.5	0.020	0.000	9.517	21.5	OK
SWMH07	FSR: 2 years: +45 %: 60 mins: Summer	28.500	26.840	26.988	0.148	15.6	0.168	0.000	16.612	15.7	OK
SWMH08 (HYDROBR AKE)	FSR: 2 years: +45 %: 60 mins: Summer	28.300	26.650	26.987	0.337	15.7	0.381	0.000	35.843	10.0	Surcharged
Ex. SWMS	FSR: 2 years: +45 %: 30 mins: Summer	28.830	26.580	26.656	0.076	37.4	0.000	0.000	39.753	37.4	OK
Ex. SW02	FSR: 2 years: +45 %: 15 mins: Winter	28.500	27.170	27.291	0.121	26.7	0.136	0.000	12.325	26.4	OK
Ex. SWMS (A)	FSR: 2 years: +45 %: 15 mins: Winter	28.540	26.824	26.916	0.092	26.4	0.104	0.000	12.316	26.1	OK
GULLY	FSR: 2 years: +45 %: 15 mins: Winter	28.500	28.000	28.035	0.035	7.0	0.003	0.000	3.251	7.0	OK

SL08556 Capital Warehouse: Unit A, Consort Way Burgess Hill		Date: 23/04/2026			
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Critical Storm Per Item: Rank By: Max. Flooded Volume

Stormwater Control	Storm Event	Max. Flooded Volume (m³)	Status	Max. US Level (m)	Max. DS Level (m)	Max. US Depth (m)	Max. DS Depth (m)	Max. Inflow (L/s)	Max. Residual Volume (m³)	Total Lost Volume (m³)	Max. Outflow (L/s)	Total Discharge Volume (m³)	Percentage Available (%)
Cellular Storage	FSR: 2 years: +45 %: 15 mins: Summer	0.000	OK	26.918	26.918	0.228	0.228	35.6	12.440	0.000	8.2	6.273	72.113

SL08556 Capital Warehouse: Unit A, Consort Way Burgess Hill	Date: 23/04/2026		
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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
P2.000	FSR: 2 years: +45 %: 15 mins: Summer	Pipe	SWMH01	SWMH02	28.500	27.629	0.133	9.527	0.9	0.52	21.8	OK
P2.001	FSR: 2 years: +45 %: 15 mins: Summer	Pipe	SWMH02	SWMH03	28.500	27.547	0.104	9.514	1.2	0.75	21.5	OK
P2.002	FSR: 2 years: +45 %: 15 mins: Summer	Pipe	SWMH03	SWMH08 (HYDRO BRAKE)	28.500	27.411	0.153	9.512	1.0	0.22	21.7	OK
P1.000	FSR: 2 years: +45 %: 15 mins: Summer	Pipe	SWMH04	SWMH05	28.600	28.088	0.101	9.533	1.3	0.32	21.8	OK
P1.001	FSR: 2 years: +45 %: 15 mins: Summer	Pipe	SWMH05	SWMH06	28.500	27.443	0.091	9.518	1.4	0.49	21.5	OK
P1.002	FSR: 2 years: +45 %: 15 mins: Summer	Pipe	SWMH06	SWMH07	28.500	27.339	0.078	9.517	1.8	0.19	21.5	OK
P1.005	FSR: 2 years: +45 %: 60 mins: Summer	Pipe	SWMH08 (HYDR OBRAKE)	Ex. SWMS	28.300	26.987	0.075	32.048	1.2	0.55	10.0	Surcharged
P1.003	FSR: 2 years: +45 %: 15 mins: Summer	Pipe	SWMH07	Cellular Storage	28.500	26.927	0.154	9.520	2.1	0.2	21.3	OK
P1.004	FSR: 2 years: +45 %: 30 mins: Summer	Pipe	Cellular Storage	SWMH08 (HYDRO BRAKE)	28.400	26.963	0.225	8.650	0.2	0.1	8.8	Surcharged
P4.000	FSR: 2 years: +45 %: 15 mins: Winter	Pipe	Ex. SW02	Ex. SWMS (A)	28.500	27.291	0.106	12.325	1.4	0.51	26.4	OK
P4.001	FSR: 2 years: +45 %: 15 mins: Winter	Pipe	Ex. SWMS (A)	Ex. SWMS	28.540	26.916	0.081	12.316	2.0	0.29	26.1	OK
P3.000	FSR: 2 years: +45 %: 15 mins: Winter	Pipe	GULLY	Ex. SWMS	28.500	28.035	0.052	3.251	1.7	0.26	7.0	OK

SL08556 Capital Warehouse: Unit A, Consort Way Burgess Hill	Date: 23/04/2026		
	Designed by: DPS	Checked by: EP	Approved By: EP
Report Details: Type: Phase Management Storm Phase: Phase (1)	HBPW LLP : 43 Bridgegate Retford DN22 7UX		



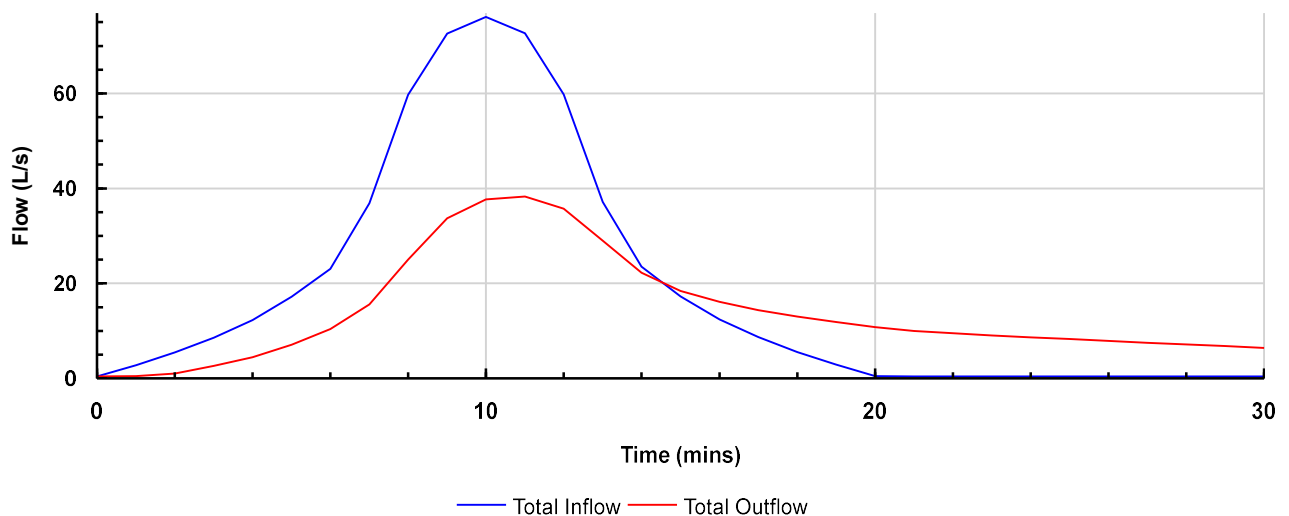
Phase (1)
FSR: 2 years: Increase Rainfall (%): +45: 15 mins: Summer

Tables

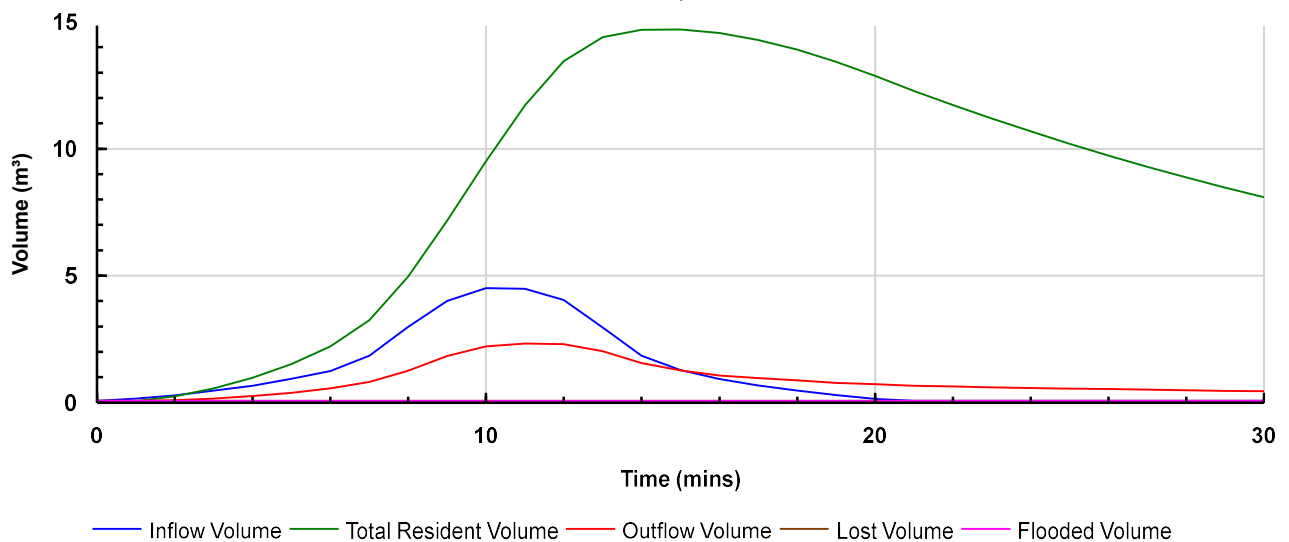
Name	Max. Inflow (L/s)	Total Inflow Volume (m³)	Max. Outflow (L/s)	Total Outflow Volume (m³)
Ex. SWMS			38.1	24.981
TOTAL	76.1	32.969	38.1	24.981

Graphs

Flow Graph



Volume Graph



3.2. 1 IN 30 YEAR STORM EVENTS

SL08556 Capital Warehouse: Unit A, Consort Way Burgess Hill	Date: 23/04/2026		
	Designed by: DPS	Checked by: EP	Approved By: EP
Report Title: Rainfall Analysis Criteria	HBPW LLP : 43 Bridgegate Retford DN22 7UX		



Runoff Type	Dynamic
Output Interval (mins)	1
Time Step	Default
Urban Creep	Apply Global Value
Urban Creep Global Value (%)	0
Junction Flood Risk Margin (mm)	300
Perform No Discharge Analysis	☐

Rainfall

FSR

Type: FSR

Region	England And Wales
M5-60 (mm)	20.1
Ratio R	0.319
Summer	☒
Winter	☒

Return Period

Return Period (years)	Increase Rainfall (%)
30.0	45.000

Storm Durations

Duration (mins)	Run Time (mins)
15	30
30	60
60	120
120	240
180	360
240	480
360	720
480	960
600	1200
720	1440
960	1920
1440	2880

SL08556 Capital Warehouse: Unit A, Consort Way Burgess Hill		Date: 23/04/2026			
		Designed by: DPS	Checked by: EP		Approved By: EP
Report Details: Type: Inflows Summary Storm Phase: Phase (1)		HBPW LLP : 43 Bridgegate Retford DN22 7UX			



Critical Storm Per Item: Rank By: Max. Inflow

Inflow	Storm Event	Inflow Area (ha)	Max. Inflow (L/s)	Total Inflow Volume (m³)
ROOF N	FSR: 30 years: +45 %: 15 mins: Summer	0.07	41.6	18.075
ROOF S	FSR: 30 years: +45 %: 15 mins: Summer	0.07	41.7	18.079
YARD S	FSR: 30 years: +45 %: 15 mins: Winter	0.03	13.4	6.171
YARD N	FSR: 30 years: +45 %: 15 mins: Winter	0.11	50.6	23.385

SL08556 Capital Warehouse: Unit A, Consort Way Burgess Hill		Date: 23/04/2026		
Report Details: Type: Junctions Summary Storm Phase: Phase (1)		Designed by: DPS	Checked by: EP	
		Approved By: EP		
		HBPW LLP : 43 Bridgegate Retford DN22 7UX		



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)	Total Discharge Volume (m³)	Max. Outflow (L/s)	Status
SWMH01	FSR: 30 years: +45 %: 15 mins: Summer	28.50 0	27.50 0	27.738	0.238	41.6	0.269	0.000	18.067	40.6	Surcharged
SWMH02	FSR: 30 years: +45 %: 15 mins: Summer	28.50 0	27.41 0	27.626	0.216	40.6	0.245	0.000	18.059	40.6	OK
SWMH03	FSR: 30 years: +45 %: 15 mins: Summer	28.50 0	27.34 0	27.439	0.099	40.6	0.112	0.000	17.966	40.4	OK
SWMH04	FSR: 30 years: +45 %: 15 mins: Summer	28.60 0	28.00 0	28.129	0.129	41.7	0.037	0.000	18.077	41.4	OK
SWMH05	FSR: 30 years: +45 %: 15 mins: Summer	28.50 0	27.33 0	27.500	0.170	41.4	0.048	0.000	18.061	40.9	OK
SWMH06	FSR: 30 years: +45 %: 15 mins: Summer	28.50 0	27.27 0	27.371	0.101	40.9	0.029	0.000	18.052	40.7	OK
SWMH07	FSR: 30 years: +45 %: 15 mins: Summer	28.50 0	26.84 0	27.179	0.339	40.7	0.384	0.000	17.563	40.7	Surcharged
SWMH08 (HYDROBR AKE)	FSR: 30 years: +45 %: 60 mins: Summer	28.30 0	26.65 0	27.388	0.738	29.8	0.834	0.000	66.912	10.0	Surcharged
Ex. SWMS	FSR: 30 years: +45 %: 15 mins: Winter	28.83 0	26.58 0	26.680	0.100	71.4	0.000	0.000	43.005	71.4	OK
Ex. SW02	FSR: 30 years: +45 %: 15 mins: Winter	28.50 0	27.17 0	27.362	0.192	50.6	0.218	0.000	23.383	49.8	OK
Ex. SWMS (A)	FSR: 30 years: +45 %: 15 mins: Winter	28.54 0	26.82 4	26.961	0.137	49.8	0.155	0.000	23.368	49.3	OK
GULLY	FSR: 30 years: +45 %: 15 mins: Winter	28.50 0	28.00 0	28.050	0.050	13.4	0.005	0.000	6.168	13.3	OK

SL08556 Capital Warehouse: Unit A, Consort Way Burgess Hill		Date: 23/04/2026		
		Designed by: DPS	Checked by: EP	Approved By: EP
Report Details: Type: Stormwater Controls Summary Storm Phase: Phase (1)		HBPW LLP : 43 Bridgegate Retford DN22 7UX		





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

Stormwater Control	Storm Event	Max. Flooded Volume (m³)	Status	Max. US Level (m)	Max. DS Level (m)	Max. US Depth (m)	Max. DS Depth (m)	Max. Inflow (L/s)	Max. Resident Volume (m³)	Total Lost Volume (m³)	Max. Outflow (L/s)	Total Discharge Volume (m³)	Percentage Available (%)
Cellular Storage	FSR: 30 years: +45 %: 15 mins: Summer	0.000	OK	27.179	27.179	0.489	0.489	68.8	26.718	0.000	9.6	6.827	40.108

SL08556 Capital Warehouse: Unit A, Consort Way Burgess Hill	Date: 23/04/2026		
	Designed by: DPS	Checked by: EP	Approved By: EP
Report Details: Type: Connections Summary Storm Phase: Phase (1)	HBPW LLP : 43 Bridgegate Retford DN22 7UX		



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
P2.000	FSR: 30 years: +45 %: 15 mins: Summer	Pipe	SWMH01	SWMH02	28.500	27.738	0.225	18.067	1.0	0.98	40.6	Surcharged
P2.001	FSR: 30 years: +45 %: 15 mins: Summer	Pipe	SWMH02	SWMH03	28.500	27.626	0.158	18.059	1.4	1.41	40.6	OK
P2.002	FSR: 30 years: +45 %: 15 mins: Summer	Pipe	SWMH03	SWMH08 (HYDRO BRAKE)	28.500	27.439	0.225	17.966	1.2	0.4	40.4	OK
P1.000	FSR: 30 years: +45 %: 15 mins: Summer	Pipe	SWMH04	SWMH05	28.600	28.129	0.150	18.077	1.5	0.62	41.4	OK
P1.001	FSR: 30 years: +45 %: 15 mins: Summer	Pipe	SWMH05	SWMH06	28.500	27.500	0.136	18.061	1.6	0.93	40.9	OK
P1.002	FSR: 30 years: +45 %: 15 mins: Summer	Pipe	SWMH06	SWMH07	28.500	27.371	0.186	18.052	2.0	0.35	40.7	OK
P1.005	FSR: 30 years: +45 %: 15 mins: Winter	Pipe	SWMH08 (HYDRO BRAKE)	Ex. SWMS	28.300	27.084	0.095	13.468	1.2	0.56	10.0	Surcharged
P1.003	FSR: 30 years: +45 %: 15 mins: Summer	Pipe	SWMH07	Cellular Storage	28.500	27.179	0.225	17.563	2.4	0.37	40.7	Surcharged
P1.004	FSR: 30 years: +45 %: 60 mins: Summer	Pipe	Cellular Storage	SWMH08 (HYDRO BRAKE)	28.400	27.388	0.225	24.062	0.2	0.12	9.7	Surcharged
P4.000	FSR: 30 years: +45 %: 15 mins: Winter	Pipe	Ex. SW02	Ex. SWMS (A)	28.500	27.362	0.165	23.383	1.6	0.96	49.8	OK
P4.001	FSR: 30 years: +45 %: 15 mins: Winter	Pipe	Ex. SWMS (A)	Ex. SWMS	28.540	26.961	0.118	23.368	2.3	0.54	49.3	OK
P3.000	FSR: 30 years: +45 %: 15 mins: Winter	Pipe	GULLY	Ex. SWMS	28.500	28.050	0.075	6.168	2.1	0.5	13.3	OK

SL08556 Capital Warehouse: Unit A, Consort Way Burgess Hill	Date: 23/04/2026		
	Designed by: DPS	Checked by: EP	Approved By: EP
Report Details: Type: Phase Management Storm Phase: Phase (1)	HBPW LLP : 43 Bridgegate Retford DN22 7UX		





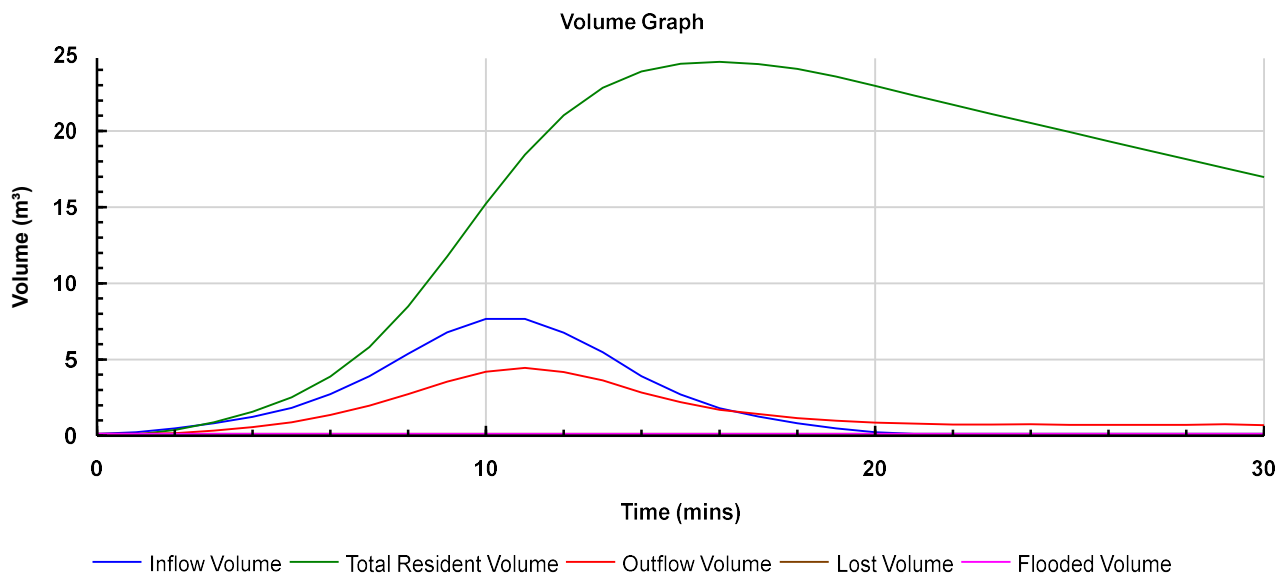
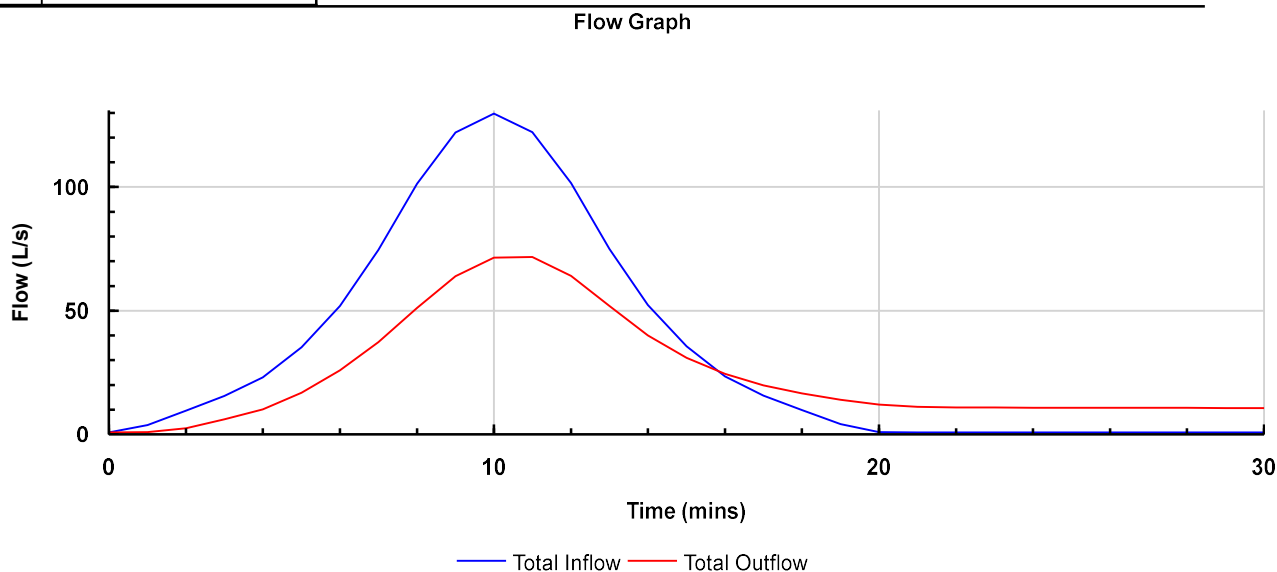
Phase (1)

FSR: 30 years: Increase Rainfall (%): +45: 15 mins: Winter

Tables

Name	Max. Inflow (L/s)	Total Inflow Volume (m³)	Max. Outflow (L/s)	Total Outflow Volume (m³)
Ex. SWMS			71.4	43.005
TOTAL	129.7	59.914	71.4	43.005

Graphs



3.3. 1 IN 100 YEAR STORM EVENTS

SL08556 Capital Warehouse: Unit A, Consort Way Burgess Hill	Date: 23/04/2026		
	Designed by: DPS	Checked by: EP	Approved By: EP
Report Title: Rainfall Analysis Criteria	HBPW LLP : 43 Bridgegate Retford DN22 7UX		



Runoff Type	Dynamic
Output Interval (mins)	1
Time Step	Default
Urban Creep	Apply Global Value
Urban Creep Global Value (%)	0
Junction Flood Risk Margin (mm)	300
Perform No Discharge Analysis	☐

Rainfall

FSR	Type: FSR
-----	-----------

Region	England And Wales
M5-60 (mm)	20.1
Ratio R	0.319
Summer	☒
Winter	☒

Return Period

Return Period (years)	Increase Rainfall (%)
100.0	45.000

Storm Durations

Duration (mins)	Run Time (mins)
15	30
30	60
60	120
120	240
180	360
240	480
360	720
480	960
600	1200
720	1440
960	1920
1440	2880

SL08556 Capital Warehouse: Unit A, Consort Way Burgess Hill		Date: 23/04/2026			
		Designed by: DPS	Checked by: EP		Approved By: EP
Report Details: Type: Inflows Summary Storm Phase: Phase (1)		HBPW LLP : 43 Bridgegate Retford DN22 7UX			



Critical Storm Per Item: Rank By: Max. Inflow

Inflow	Storm Event	Inflow Area (ha)	Max. Inflow (L/s)	Total Inflow Volume (m³)
ROOF N	FSR: 100 years: +45 %: 15 mins: Summer	0.07	53.9	23.399
ROOF S	FSR: 100 years: +45 %: 15 mins: Summer	0.07	54.0	23.409
YARD S	FSR: 100 years: +45 %: 15 mins: Winter	0.03	17.3	7.987
YARD N	FSR: 100 years: +45 %: 15 mins: Winter	0.11	65.5	30.271

SL08556 Capital Warehouse: Unit A, Consort Way Burgess Hill	Date: 23/04/2026		
	Designed by: DPS	Checked by: EP	Approved By: EP
Report Details: Type: Junctions Summary Storm Phase: Phase (1)	HBPW LLP : 43 Bridgegate Retford DN22 7UX		



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)	Total Discharge Volume (m³)	Max. Outflow (L/s)	Status
SWMH01	FSR: 100 years: +45 %: 15 mins: Summer	28.50 0	27.50 0	27.978	0.478	53.9	0.541	0.000	23.382	52.0	Surcharged
SWMH02	FSR: 100 years: +45 %: 15 mins: Summer	28.50 0	27.41 0	27.799	0.389	52.0	0.440	0.000	23.386	52.3	Surcharged
SWMH03	FSR: 100 years: +45 %: 15 mins: Summer	28.50 0	27.34 0	27.456	0.116	52.3	0.132	0.000	23.275	52.3	OK
SWMH04	FSR: 100 years: +45 %: 15 mins: Summer	28.60 0	28.00 0	28.157	0.157	54.0	0.045	0.000	23.404	53.5	OK
SWMH05	FSR: 100 years: +45 %: 15 mins: Summer	28.50 0	27.33 0	27.534	0.204	53.5	0.058	0.000	23.393	53.6	OK
SWMH06	FSR: 100 years: +45 %: 15 mins: Summer	28.50 0	27.27 0	27.390	0.120	53.6	0.034	0.000	23.349	55.1	OK
SWMH07	FSR: 100 years: +45 %: 15 mins: Summer	28.50 0	26.84 0	27.360	0.520	55.1	0.588	0.000	22.582	52.7	Surcharged
SWMH08 (HYDROBR AKE)	FSR: 100 years: +45 %: 60 mins: Summer	28.30 0	26.65 0	28.208	1.558	39.0	1.762	0.000	75.688	10.9	Flood Risk
Ex. SWMS	FSR: 100 years: +45 %: 15 mins: Winter	28.83 0	26.58 0	26.697	0.117	89.9	0.000	0.000	51.861	89.9	OK
Ex. SW02	FSR: 100 years: +45 %: 15 mins: Winter	28.50 0	27.17 0	27.598	0.428	65.5	0.485	0.000	30.269	63.4	Surcharged
Ex. SWMS (A)	FSR: 100 years: +45 %: 15 mins: Winter	28.54 0	26.82 4	26.988	0.164	63.4	0.186	0.000	30.260	63.6	OK
GULLY	FSR: 100 years: +45 %: 15 mins: Winter	28.50 0	28.00 0	28.058	0.058	17.3	0.006	0.000	7.984	17.2	OK

SL08556 Capital Warehouse: Unit A, Consort Way Burgess Hill		Date: 23/04/2026		
		Designed by: DPS	Checked by: EP	Approved By: EP
Report Details: Type: Stormwater Controls Summary Storm Phase: Phase (1)		HBPW LLP : 43 Bridgegate Retford DN22 7UX		





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

Stormwater Control	Storm Event	Max. Flooded Volume (m³)	Status	Max. US Level (m)	Max. DS Level (m)	Max. US Depth (m)	Max. DS Depth (m)	Max. Inflow (L/s)	Max. Residual Volume (m³)	Total Lost Volume (m³)	Max. Outflow (L/s)	Total Discharge Volume (m³)	Percentage Available (%)
Cellular Storage	FSR: 100 years: +45 %: 15 mins: Summer	0.000	OK	27.360	27.360	0.670	0.670	93.0	36.576	0.000	9.2	5.862	18.010

SL08556 Capital Warehouse: Unit A, Consort Way Burgess Hill	Date: 23/04/2026		
	Designed by: DPS	Checked by: EP	Approved By: EP
Report Details: Type: Connections Summary Storm Phase: Phase (1)		HBPW LLP : 43 Bridgegate Retford DN22 7UX	



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
P2.000	FSR: 100 years: +45 %: 15 mins: Summer	Pipe	SWMH01	SWMH02	28.500	27.978	0.225	23.382	1.3	1.25	52.0	Surcharged
P2.001	FSR: 100 years: +45 %: 15 mins: Summer	Pipe	SWMH02	SWMH03	28.500	27.799	0.225	23.386	1.4	1.82	52.3	Surcharged
P2.002	FSR: 100 years: +45 %: 15 mins: Summer	Pipe	SWMH03	SWMH08 (HYDRO BRAKE)	28.500	27.456	0.225	23.275	1.3	0.52	52.3	OK
P1.000	FSR: 100 years: +45 %: 15 mins: Summer	Pipe	SWMH04	SWMH05	28.600	28.157	0.181	23.404	1.6	0.8	53.5	OK
P1.001	FSR: 100 years: +45 %: 15 mins: Summer	Pipe	SWMH05	SWMH06	28.500	27.534	0.162	23.393	1.8	1.21	53.6	OK
P1.002	FSR: 100 years: +45 %: 15 mins: Summer	Pipe	SWMH06	SWMH07	28.500	27.390	0.225	23.349	2.0	0.47	55.1	OK
P1.005	FSR: 100 years: +45 %: 120 mins: Summer	Pipe	SWMH08 (HYDRO BRAKE)	Ex. SWMS	28.300	28.300	0.083	102.597	1.2	0.61	10.9	Flood
P1.003	FSR: 100 years: +45 %: 15 mins: Summer	Pipe	SWMH07	Cellular Storage	28.500	27.360	0.225	22.582	2.5	0.49	52.7	Surcharged
P1.004	FSR: 100 years: +45 %: 60 mins: Summer	Pipe	Cellular Storage	SWMH08 (HYDRO BRAKE)	28.400	28.209	0.225	19.516	0.2	0.12	9.7	Surcharged
P4.000	FSR: 100 years: +45 %: 15 mins: Winter	Pipe	Ex. SW02	Ex. SWMS (A)	28.500	27.598	0.225	30.269	1.6	1.22	63.4	Surcharged
P4.001	FSR: 100 years: +45 %: 15 mins: Winter	Pipe	Ex. SWMS (A)	Ex. SWMS	28.540	26.988	0.141	30.260	2.4	0.7	63.6	OK
P3.000	FSR: 100 years: +45 %: 15 mins: Winter	Pipe	GULLY	Ex. SWMS	28.500	28.058	0.087	7.984	2.4	0.64	17.2	OK

SL08556 Capital Warehouse: Unit A, Consort Way Burgess Hill	Date: 23/04/2026		
	Designed by: DPS	Checked by: EP	Approved By: EP
Report Details: Type: Phase Management Storm Phase: Phase (1)	HBPW LLP : 43 Bridgegate Retford DN22 7UX		



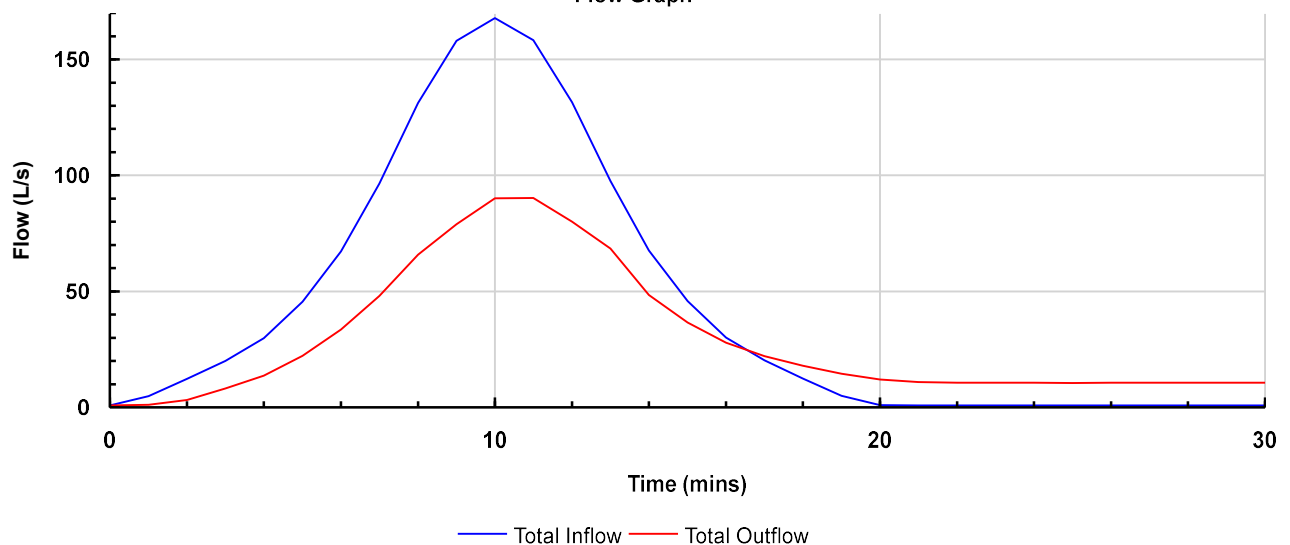
Phase (1)
FSR: 100 years: Increase Rainfall (%): +45: 15 mins: Winter

Tables

Name	Max. Inflow (L/s)	Total Inflow Volume (m³)	Max. Outflow (L/s)	Total Outflow Volume (m³)
Ex. SWMS			89.9	51.861
TOTAL	167.9	77.556	89.9	51.861

Graphs

Flow Graph



Volume Graph

