



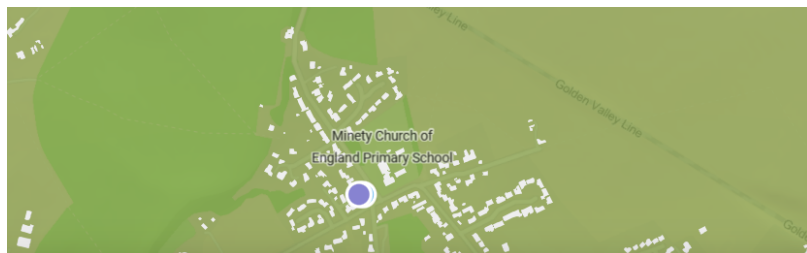
Title: Drainage Strategy - Minety Primary School
Date: 27th April 2026
Authored: K. Gyba
Revision: P01

1.0 Introduction

- 1.1.1 SWJ Consulting Engineers have been appointed to produce a drainage strategy for the works at Minety Primary School.
- 1.1.2 This technical note has been prepared in support of the planning. This technical note is prepared in accordance with the requirements of the National Planning Policy Framework (NPPF) published by the Department of Communities and Local Government. Section 14 of the NPPF and the associated Planning Practice Guidance sets out the framework for planning decisions made by the local, regional, and national government and the Environment Agency (EA).

2.0 Site Surveys and Investigations

- 2.1.1 A Site Investigation was carried out on 7-9th April 2026. The works were carried out included infiltration testing (to BRE365) and ground investigation. The investigation revealed that the site is underlain by Oxford Clay (tested up to depth of 6m below ground). This is confirmed by BGS maps, screenshot below. Infiltration was not possible.



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Bedrock geology

Oxford Clay Formation-Mudstone. These sedimentary rocks are shallow-marine in origin. They are detrital, ranging from coarse- to fine-grained (locally with some carbonate content) forming interbedded sequences.

Minimum Age (Years):	157,300,000
Minimum Period:	Jurassic
Maximum Age (Years):	166,100,000
Maximum Period:	Jurassic

Figure 1 – Screenshot from BGS, confirms Oxford Clay Formation onsite

- 2.1.2 A review of the CCTV drainage onsite revealed that the site benefits from foul and surface water private drainage. The surface water drains towards the watercourse along the western boundary of the development. The foul water drains towards the foul water Wessex Water sewer in the main road to the south.

3.0 Discharge Method

3.1 Surface Water Drainage

3.1.1 New surface water drainage will be required to drain surface water runoff from the proposed extension.

3.1.2 The aim of the drainage strategy is to discharge surface water run-off in accordance with the following hierarchy of surface water disposal options wherever reasonably practicable, (in order of preference):

- To the ground (infiltration);
- To a surface water body;
- To a surface water sewer, highway drain, or another drainage system; or
- To a combined sewer.

3.1.3 As noted during the site investigation, the site is underlain by Oxford Clay. Infiltration is not possible at this site.

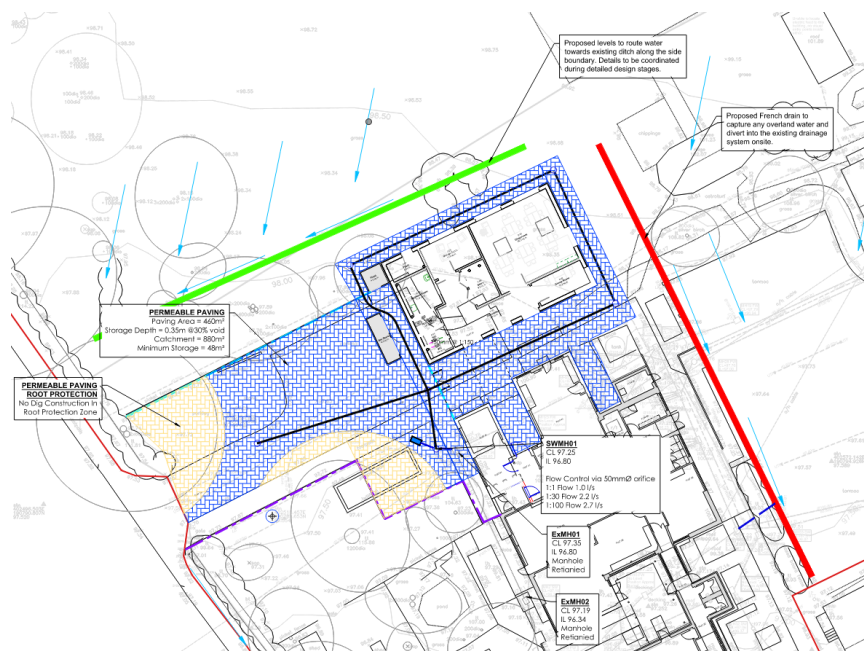
3.1.4 The CCTV confirms that the existing school drains towards a ditch along the western boundary of the school site, hence a discharge towards a watercourse is possible.

3.1.5 Discharge to surface water sewers or combined water sewers is not required, as a more sustainable method of discharge is possible.

4.0 Drainage Design

4.1.1 In order to minimise the impact of this development, it is proposed to utilise Sustainable Drainage Features (SuDS) such as permeable paving and a flow control system. To minimize a risk of blockage, and to accommodate the shallow surface water system onsite, it is proposed to utilise permeable paving for storage, treatment and conveyance of surface water. The final outfall will be restricted via a 50mmØ orifice (smaller sizes are not recommended, to prevent blockages).

4.1.2 The runoff rates will be restricted to 2.7 l/s or less for all storms up to and including 1 in 100 + 40% climate change. A copy of the drainage calculations and proposed drainage strategy are included within the appendices of this technical note. The plan also includes the exceedance flow routing for the site. This shows how exceedance flows will not put any properties at risk of flooding from surface water, and existing routes will be intercepted and mitigated as part of this development.





Legend

-  Rainwater Diffuser
-  Permeable Paving
-  Permeable Paving Root Protection Zone

PERMEABLE PAVING
Paving Area = 460m²
Storage Depth = 0.35m @30% void
Catchment = 880m²
Minimum Storage = 48m³

**PERMEABLE PAVING
ROOT PROTECTION**
No Dig Construction In
Root Protection Zone

Proposed levels to route water
towards existing ditch along the side
boundary. Details to be coordinated
during detailed design stages.

Proposed French drain to
capture any overland water and
divert into the existing drainage
system onsite.

SWMH01
CL 97.25
IL 96.80

Flow Control via 50mmØ orifice
1:1 Flow 1.0 l/s
1:30 Flow 2.2 l/s
1:100 Flow 2.7 l/s

ExMH01
CL 97.35
IL 96.90
Manhole
Refurbished

ExMH02
CL 97.19
IL 96.34
Manhole
Refurbished

P1	FIRST ISSUE				27.04.2026	LLM
REV	REVISION DETAILS				DATE	DRAWN BY
CLIENT					ORIGINATOR	
						
PROJECT Mireny Primary School	TITLE Drainage Layout					
	SCALE	1:200 @A1	DRAWN	CHECKED	APPROVED	
			LLM	RL	KG	
PROJECT 2425	ORIGINATOR SWJ	ZONE XX	LEVEL MSXX	TYPE DR	ROLE C	DOC NO 1500
JOB NO. 05165	PURPOSE OF ISSUE FOR INFORMATION				STATUS: S2	REVISION: P1

Project:	Date: 22/04/2026			
	Designed by: Karol.Gyba	Checked by:	Approved By:	
Report Details: Type: Inflows Storm Phase: Phase	Company Address:			



Catchment Area

Type : Catchment Area

Area (ha)	0.088
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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

Project:	Date: 22/04/2026			
	Designed by: Karol.Gyba	Checked by:	Approved By:	
Report Details:	Company Address:			
Type: Stormwater Controls Storm Phase: Phase				



Porous Paving

Type : Porous Paving

Dimensions	
Exceedance Level (m)	97.500
Depth (m)	0.450
Base Level (m)	97.050
Paving Layer Depth (mm)	100
Membrane Percolation (m/hr)	5000.0
Porosity (%)	30
Length (m)	20.000
Long. Slope (1:X)	1000.00
Width (m)	23.000
Total Volume (m³)	48.300

Inlets	
Inlet	
Inlet Type	Lateral Inflow
Incoming Item(s)	Catchment Area
Bypass Destination	(None)
Capacity Type	No Restriction

Outlets	
Outlet	
Outgoing Connection	(None)
Outlet Type	Orifice
Diameter (m)	0.050
Coefficient of Discharge	0.600
Invert Level (m)	97.050

Advanced	
Conductivity (m/hr)	5000.0

Project:	Date: 22/04/2026			
	Designed by:	Checked by:	Approved By:	
	Karol.Gyba			
Report Details: Type: Inflow Summary Storm Phase: Phase		Company Address:		

Inflow Label	Connected To	Flow (L/s)	Runoff Method	Area (ha)	Percentage Impervious (%)	Urban Creep (%)	Adjusted Percentage Impervious (%)	Area Analysed (ha)
Catchment Area	Porous Paving		Time of Concentration	0.088	100	0	100	0.088
TOTAL		0.0		0.088				0.088

Project:	Date: 22/04/2026			
	Designed by: Karol.Gyba	Checked by:	Approved By:	
Report Details: Type: Outfall Details Storm Phase: Phase	Company Address:			

Outfalls

Outfall	Outfall Type	Fixed Surcharged Level (m)	Level Curve
Porous Paving	Free Discharge		

Project:	Date: 22/04/2026			
	Designed by: Karol.Gyba	Checked by:	Approved By:	
	Company Address:			
Report Title: Rainfall Analysis Criteria				

Runoff Type	Dynamic
Output Interval (mins)	5
Time Step	Default
Urban Creep	Apply Global Value
Urban Creep Global Value (%)	0
Junction Flood Risk Margin (mm)	300
Perform No Discharge Analysis	☐

Project:	Date: 22/04/2026		
	Designed by: Karol.Gyba	Checked by:	Approved By:
Report Details: Type: Inflows Summary Storm Phase: Phase	Company Address:		





FSR: 1 years: Increase Rainfall (%): +0: Critical Storm Per Item: Rank By: Max. Inflow

Inflow	Storm Event	Inflow Area (ha)	Max. Inflow (L/s)	Total Inflow Volume (m³)
Catchment Area	FSR: 1 years: +0 %: 15 mins: Winter	0.09	11.8	5.672

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Report Details:	Company Address:			
Type: Inflows Summary Storm Phase: Phase				



FSR: 30 years; Increase Rainfall (%): +35; Critical Storm Per Item: Rank By: Max. Inflow

Inflow	Storm Event	Inflow Area (ha)	Max. Inflow (L/s)	Total Inflow Volume (m³)
Catchment Area	FSR: 30 years: +35 %: 15 mins: Winter	0.09	39.2	18.777

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Report Details: Type: Inflows Summary Storm Phase: Phase	Company Address:		





FSR: 100 years: Increase Rainfall (%): +40: Critical Storm Per Item: Rank By: Max. Inflow

Inflow	Storm Event	Inflow Area (ha)	Max. Inflow (L/s)	Total Inflow Volume (m³)
Catchment Area	FSR: 100 years: +40 %: 15 mins: Winter	0.09	52.7	25.259

Project:	Date: 22/04/2026		
	Designed by: Karol.Gyba	Checked by:	Approved By:
Report Details: Type: Stormwater Controls Summary Storm Phase: Phase	Company Address:		





FSR: 1 years: Increase Rainfall (%): +0: Critical Storm Per Item: Rank By: Max. Avg. Depth

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. Residant Volume (m³)	Max. Flooded Volume (m³)	Total Lost Volume (m³)	Max. Outflow (L/s)	Total Discharge Volume (m³)	Half Drain Down Time (mins)	Percentage Available (%)
Porous Paving	FSR: 1 years: +0 %: 180 mins: Winter	97.129	97.112	0.059	0.062	3.0	8.471	0.000	0.000	1.0	10.674		82.462

Project:	Date: 22/04/2026		
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	Report Details: Type: Stormwater Controls Summary Storm Phase: Phase		
Company Address:			

Status

OK

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Report Details: Type: Stormwater Controls Summary Storm Phase: Phase	Company Address:		





FSR: 30 years: Increase Rainfall (%): +35: Critical Storm Per Item: Rank By: Max. Avg. Depth

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. Residant Volume (m³)	Max. Flooded Volume (m³)	Total Lost Volume (m³)	Max. Outflow (L/s)	Total Discharge Volume (m³)	Half Drain Down Time (mins)	Percentage Available (%)
Porous Paving	FSR: 30 years: +35 %: 180 mins: Winter	97.268	97.256	0.198	0.206	9.4	27.952	0.000	0.000	2.2	31.587	55	42.129

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Company Address:				

Status

OK

Project:	Date: 22/04/2026		
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Report Details: Type: Stormwater Controls Summary Storm Phase: Phase	Company Address:		





FSR: 100 years: Increase Rainfall (%): +40: Critical Storm Per Item: Rank By: Max. Avg. Depth

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. Residant Volume (m³)	Max. Flooded Volume (m³)	Total Lost Volume (m³)	Max. Outflow (L/s)	Total Discharge Volume (m³)	Half Drain Down Time (mins)	Percentage Available (%)
Porous Paving	FSR: 100 years: +40 %: 180 mins: Winter	97.348	97.338	0.278	0.288	12.8	39.090	0.000	0.000	2.7	39.964	130	19.069

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			Company Address:	

Status

OK

Project:	Date: 22/04/2026		
	Designed by: Karol.Gyba	Checked by:	Approved By:
Report Details:	Company Address:		
Type: Phase Management			
Storm Phase: Phase			





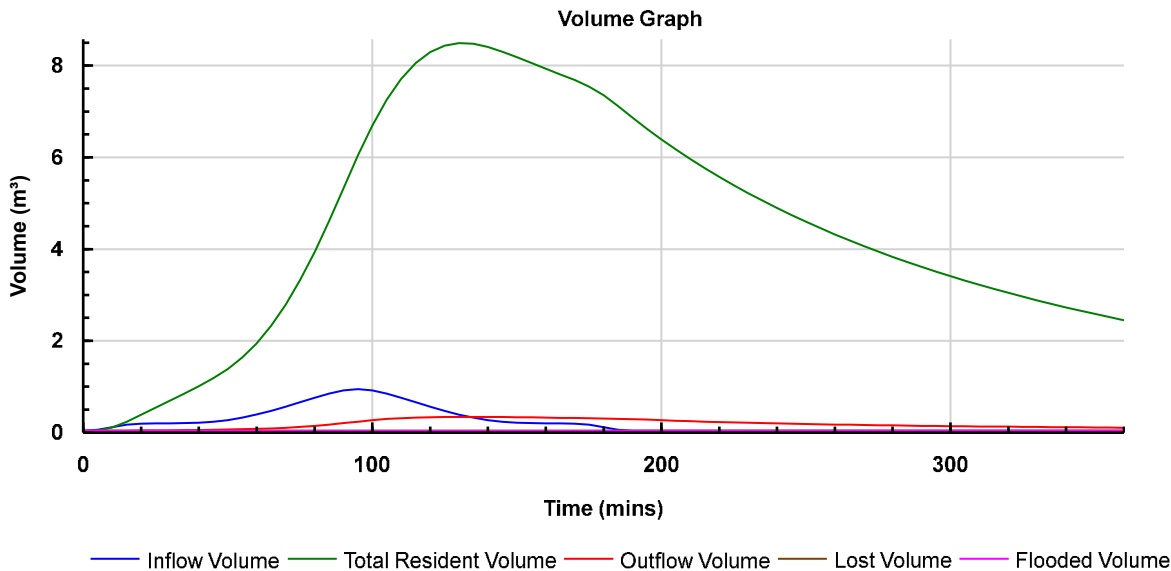
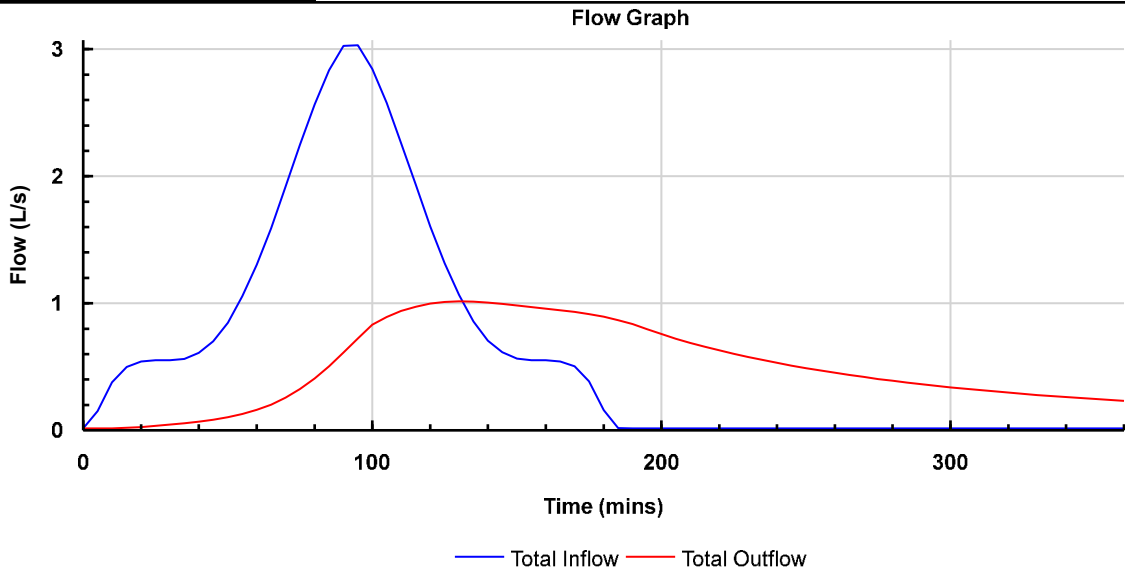
Phase

FSR: 1 years: Increase Rainfall (%): +0: 180 mins: Winter

Tables

Name	Max. Inflow (L/s)	Total Inflow Volume (m³)	Max. Outflow (L/s)	Total Outflow Volume (m³)
Porous Paving			1.0	10.674
TOTAL	3.0	13.104	1.0	10.674

Graphs



Project:	Date: 22/04/2026		
	Designed by: Karol.Gyba	Checked by:	Approved By:
Report Details:	Company Address:		
Type: Phase Management			
Storm Phase: Phase			





Phase

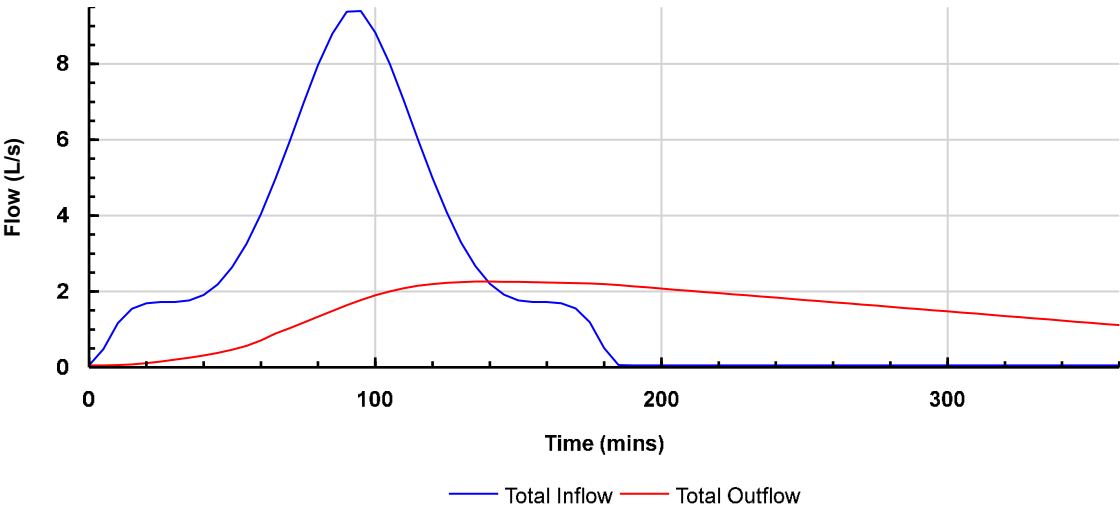
FSR: 30 years: Increase Rainfall (%): +35: 180 mins: Winter

Tables

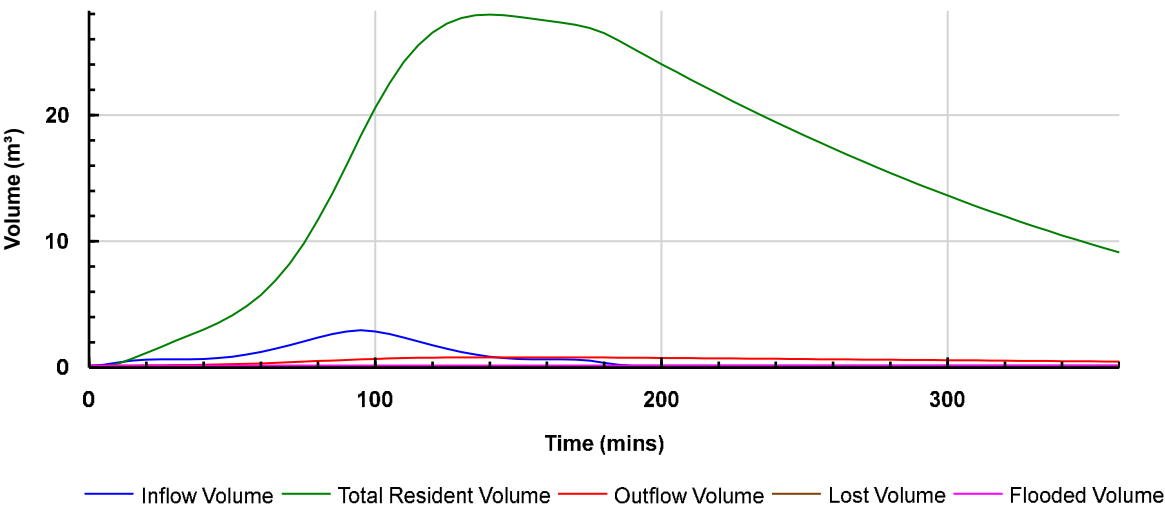
Name	Max. Inflow (L/s)	Total Inflow Volume (m³)	Max. Outflow (L/s)	Total Outflow Volume (m³)
Porous Paving			2.2	31.587
TOTAL	9.4	40.680	2.2	31.587

Graphs

Flow Graph



Volume Graph



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Report Details:	Company Address:			
Type: Phase Management Storm Phase: Phase				



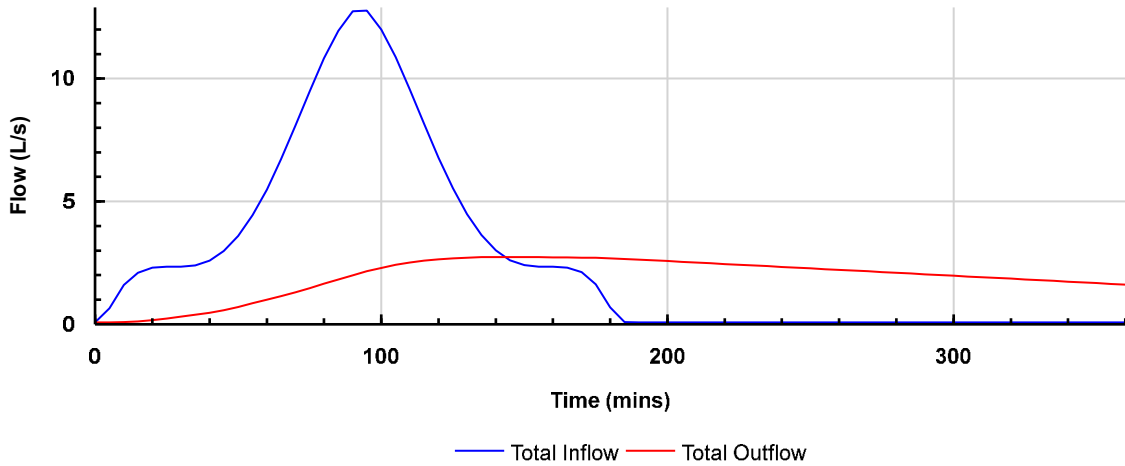
Phase
FSR: 100 years: Increase Rainfall (%): +40: 180 mins: Winter

Tables

Name	Max. Inflow (L/s)	Total Inflow Volume (m³)	Max. Outflow (L/s)	Total Outflow Volume (m³)
Porous Paving			2.7	39.964
TOTAL	12.8	55.272	2.7	39.964

Graphs

Flow Graph



Volume Graph

