0001 - Miswell Lane, Tring – Care Home Development

The proposed development comprises impermeable areas including:

Care Home Building	1962 m^2
Care Home Access Road, Car Parking	833 m^2
Hardstanding	97 m^2
Total Impermeable Area	**2892 m^2**

A ground investigation has been carried out on the site by Applied Geology Ltd and their report, reference AG3261-21-AM39 Issue 2, dated 21/10/21 is contained within Appendix B.

The ground conditions can be summarised as comprising a thin layer of topsoil overlying the solid formation of Holywell Nodular Chalk formation or New Pit Chalk Formation. These deposits are classified as a principal aquifer, but the site does not lie within a Source Protection Zone.

In-situ ground soakage tests have been carried out in accordance with the procedure given in BRE Digest 365 in two trial pits which were 1.5m deep. Three test fills were carried out in each pit over the course of one day and the results were analysed in accordance with BS 5930 the 'third fill' infiltration rates are 2.03x10-4 and 1.21x10-4 m/s. Groundwater was not present in any of the trial pits or deeper boreholes – Details are contained with Appendix B.

This report follows the principals of the Baker Hall Ltd Drainage Strategy and Flood Risk Assessment report submitted during the planning stage ref NB/LMO/21007/A. A copy is contained within Appendix C.
The proposed surface water strategy will utilise

- Soakaways for the discharge of surface water runoff from the building roof
- Permeable paving to the car parking area to drain access road.

From the infiltration testing complete during the site investigation by Applied Geology the worst recorded rate was 1.21x10-4 m/s it is proposed to utilise a rate of 1x10-4m/s for design.

Due to the site layout the site has been split into a series of smaller soakaways. The full network has been designed to accommodate rainfall events up to 1 in 100 year rainfall event over a range of storm durations with 40% allowance for climate change.

Project:	Date: 20/01/2024		
	Designed by: GraemeBeaven	Checked by:	Approved By:
Report Details: Type: Inflows Storm Phase: Phase	Company Address:		

Catchment Area

Type : Catchment Area

Area (ha)	0.03

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

Catchment Area (1)

Type : Catchment Area

Area (ha)	0.009

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

Catchment Area (2)

Type : Catchment Area

Area (ha)	0.005

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

Catchment Area (4)

Type : Catchment Area

Area (ha)	0.019

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: 20/01/2024		
	Designed by: GraemeBeaven	Checked by:	Approved By:
Report Details: Type: Inflows Storm Phase: Phase	Company Address:		

Catchment Area (5)

Type : Catchment Area

Area (ha)	0.012

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: 20/01/2024		
	Designed by: GraemeBeaven	Checked by:	Approved By:
Report Details: Type: Stormwater Controls Storm Phase: Phase	Company Address:		

Porous Paving

Type : Porous Paving

Dimensions

Exceedance Level (m)	156.620
Depth (m)	0.620
Base Level (m)	156.000
Paving Layer Depth (mm)	420
Membrane Percolation (m/hr)	1000.0
Porosity (%)	30
Length (m)	19.242
Long. Slope (1:X)	10000.00
Width (m)	4.776
Total Volume (m³)	5.514

Inlets

Inlet (1)

Inlet Type	Lateral Inflow
Incoming Item(s)	Catchment Area (4)
Bypass Destination	(None)
Capacity Type	No Restriction

Advanced

Base Infiltration Rate (m/hr)	0.36
Side Infiltration Rate (m/hr)	0.36
Safety Factor	2.0
Conductivity (m/hr)	1000.0

Porous Paving (1)

Type : Porous Paving

Dimensions

Exceedance Level (m)	156.620
Depth (m)	0.620
Base Level (m)	156.000
Paving Layer Depth (mm)	420
Membrane Percolation (m/hr)	1000.0
Porosity (%)	30
Length (m)	6.013
Long. Slope (1:X)	10000.00
Width (m)	10.773
Total Volume (m^3)	3.887

Inlets

Inlet (1)

Inlet Type	Lateral Inflow
Incoming Item(s)	Catchment Area (5)
Bypass Destination	(None)
Capacity Type	No Restriction

Advanced

Base Infiltration Rate (m/hr)	0.36
Side Infiltration Rate (m/hr)	0.36
Safety Factor	2.0
Conductivity (m/hr)	1000.0

Project:	Date: 20/01/2024		
	Designed by: GraemeBeaven	Checked by:	Approved By:
Report Details: Type: Stormwater Controls Storm Phase: Phase	Company Address:		

Porous Paving (2)

Type : Porous Paving

Dimensions

Exceedance Level (m)	156.000
Depth (m)	0.600
Base Level (m)	155.400
Paving Layer Depth (mm)	400
Membrane Percolation (m/hr)	1000.0
Porosity (%)	30
Length (m)	26.424
Long. Slope (1:X)	10000.00
Width (m)	4.752
Total Volume (m^3)	7.534

Inlets

Inlet (1)

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

Advanced

Base Infiltration Rate (m/hr)	0.36
Side Infiltration Rate (m/hr)	0.36
Safety Factor	2.0
Conductivity (m/hr)	1000.0

Porous Paving (3)

Type : Porous Paving

Dimensions

Exceedance Level (m)	156.200
Depth (m)	0.600
Base Level (m)	155.600
Paving Layer Depth (mm)	400
Membrane Percolation (m/hr)	1000.0
Porosity (%)	30
Length (m)	30.001
Long. Slope (1:X)	1000.00
Width (m)	2.281
Total Volume (m^3)	4.106

Inlets

Inlet (1)

Inlet Type	Lateral Inflow
Incoming Item(s)	Catchment Area (1)
Bypass Destination	(None)
Capacity Type	No Restriction

Advanced

Base Infiltration Rate (m/hr)	0.36
Side Infiltration Rate (m/hr)	0.36
Safety Factor	2.0
Conductivity (m/hr)	1000.0

Project:	Date: 20/01/2024		
	Designed by: GraemeBeaven	Checked by:	Approved By:
Report Details: Type: Stormwater Controls Storm Phase: Phase	Company Address:		

Porous Paving (4)

Type : Porous Paving

Dimensions

Exceedance Level (m)	156.600
Depth (m)	0.600
Base Level (m)	156.000
Paving Layer Depth (mm)	400
Membrane Percolation (m/hr)	1000.0
Porosity (%)	30
Length (m)	8.100
Long. Slope (1:X)	1000.00
Width (m)	3.660
Total Volume (m^3)	1.779

Inlets

Inlet

Inlet Type	Lateral Inflow
Incoming Item(s)	Catchment Area (2)
Bypass Destination	(None)
Capacity Type	No Restriction

Advanced

Base Infiltration Rate (m/hr)	0.36
Side Infiltration Rate (m/hr)	0.36
Safety Factor	2.0
Conductivity (m/hr)	1000.0

Project:	Date: 20/01/2024		
	Designed by: GraemeBeaven	Checked by:	Approved By:
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 (2)		Time of Concentration	0.030	100	0	100	0.030
Catchment Area (1)	Porous Paving (3)		Time of Concentration	0.009	100	0	100	0.009
Catchment Area (2)	Porous Paving (4)		Time of Concentration	0.005	100	0	100	0.005
Catchment Area (4)	Porous Paving		Time of Concentration	0.019	100	0	100	0.019
Catchment Area (5)	Porous Paving (1)		Time of Concentration	0.012	100	0	100	0.012
TOTAL		**0.0**		**0.075**				**0.075**

Project:	Date: 20/01/2024		
	Designed by: GraemeBeaven	Checked by:	Approved By:
Report Details: Type: Network Design Criteria Storm Phase: Phase	Company Address:		

Flow Options

Peak Flow Calculation	(UK) Modified Rational Method
Min. Time of Entry (mins)	5
Max. Travel Time (mins)	30

Pipe Options

Lock Slope Options	None
Design Options	Minimise Excavation
Design Level	Level Soffits
Min. Cover Depth (m)	1.200
Min. Slope (1:X)	500.00
Max. Slope (1:X)	40.00
Min. Velocity (m/s)	1.0
Max. Velocity (m/s)	3.0
Use Flow Restriction	☐
Reduce Channel Depths	☐

Pipe Size Library

Default

Add. Increment (mm)	75
Max. Diameter (mm)	0

Diameter (mm)	Min. Slope (1:X)	Max. Slope (1:X)
100	0.00	0.00
150	0.00	0.00

Project:	Date: 20/01/2024		
	Designed by: GraemeBeaven	Checked by:	Approved By:
Report Details: Type: Network Design Criteria Storm Phase: Phase	Company Address:		

Manhole Options

Apply Offset	☐

Manhole Size Library

Default

Diameter / Width

Connection (mm)	Diameter / Length (m)	Width (m)
0	1.200	0.000
375	1.350	0.000
500	1.500	0.000
750	1.800	0.000

Additional Sizing

Connection (mm)	900
Diameter / Length (m)	0.900
Width (m)	0.000

Depth

Depth (m)	Diameter / Length (m)	Width (m)
0.000	1.050	0.000
1.500	1.200	0.000

Access

Depth (m)	Ladder Protrusion (mm)
0.000	130
3.000	230

Benching Requirements

Landing Width (mm)	500
Benching Width (mm)	225

Project:	Date: 20/01/2024		
	Designed by: GraemeBeaven	Checked by:	Approved By:
Report Title: Rainfall Analysis Criteria	Company Address:		

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)	0
Perform No Discharge Analysis	☐

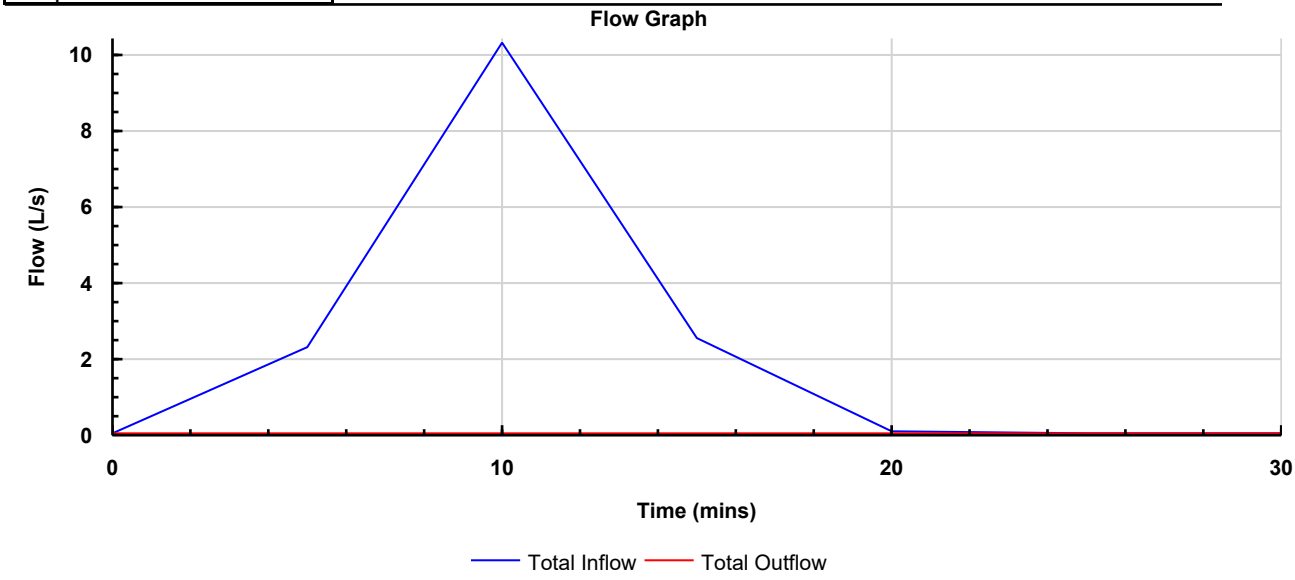
Project:	Date: 20/01/2024		
	Designed by: GraemeBeaven	Checked by:	Approved By:
Report Details: Type: Phase Management Storm Phase: Phase	Company Address:		

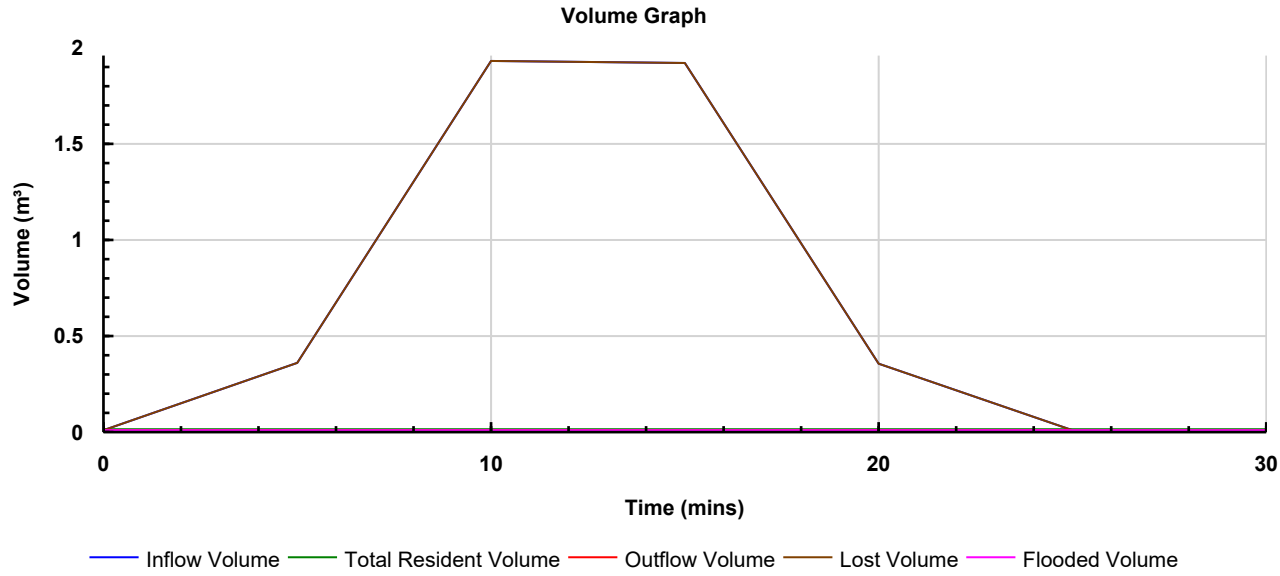
Phase
FEH: 2 years: Increase Rainfall (%): +0: 15 mins: Summer

Tables

Name	Max. Inflow (L/s)	Total Inflow Volume (m³)	Max. Outflow (L/s)	Total Outflow Volume (m³)
TOTAL	10.3	4.552	0.0	0.000

Graphs





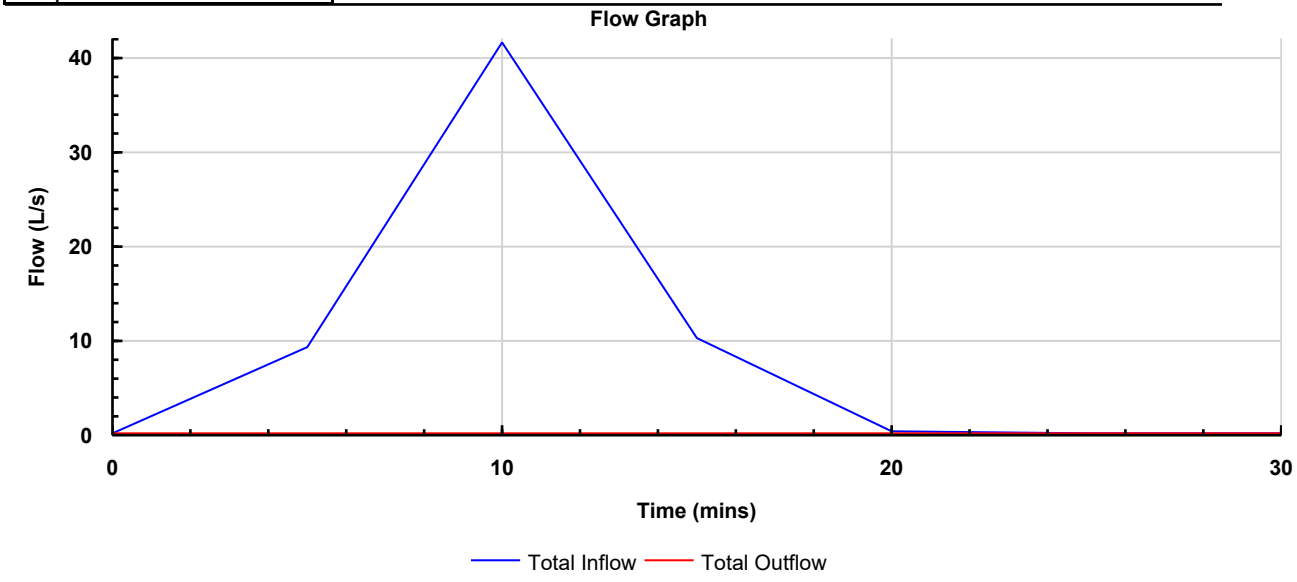
Project:	Date: 20/01/2024		
	Designed by: GraemeBeaven	Checked by:	Approved By:
Report Details: Type: Phase Management Storm Phase: Phase	Company Address:		

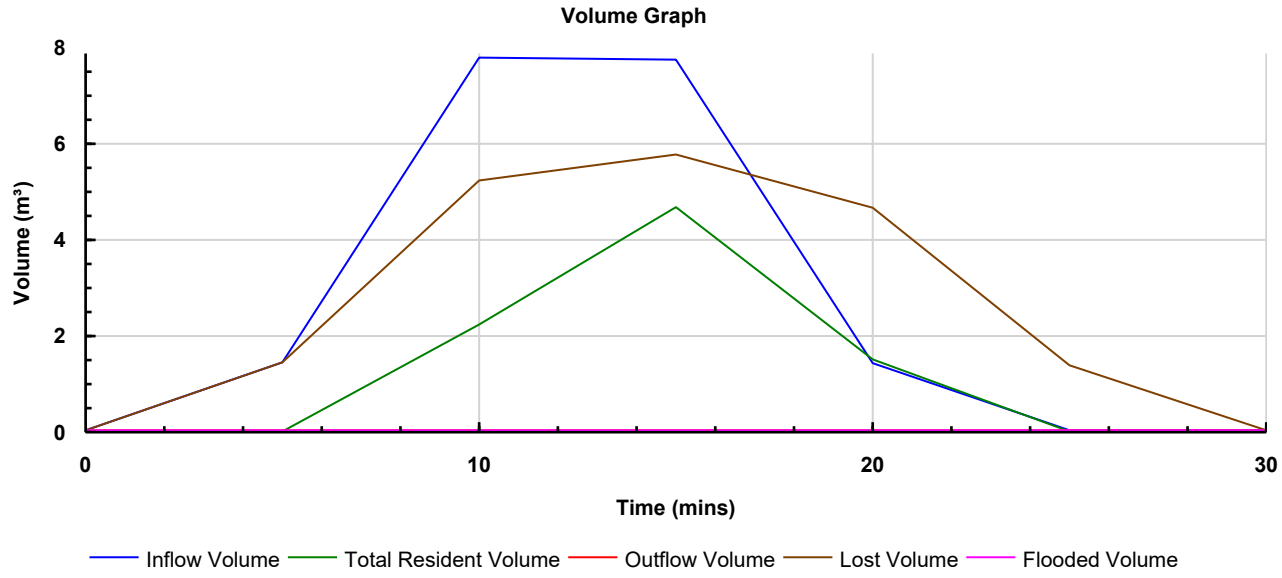
Phase
FEH: 100 years: Increase Rainfall (%): +40: 15 mins: Summer

Tables

Name	Max. Inflow (L/s)	Total Inflow Volume (m³)	Max. Outflow (L/s)	Total Outflow Volume (m³)
TOTAL	41.7	18.368	0.0	0.000

Graphs





Project:	Date: 20/01/2024		
	Designed by: GraemeBeaven	Checked by:	Approved By:
Report Details: Type: Inflow Results Storm Phase: Phase	Company Address:		

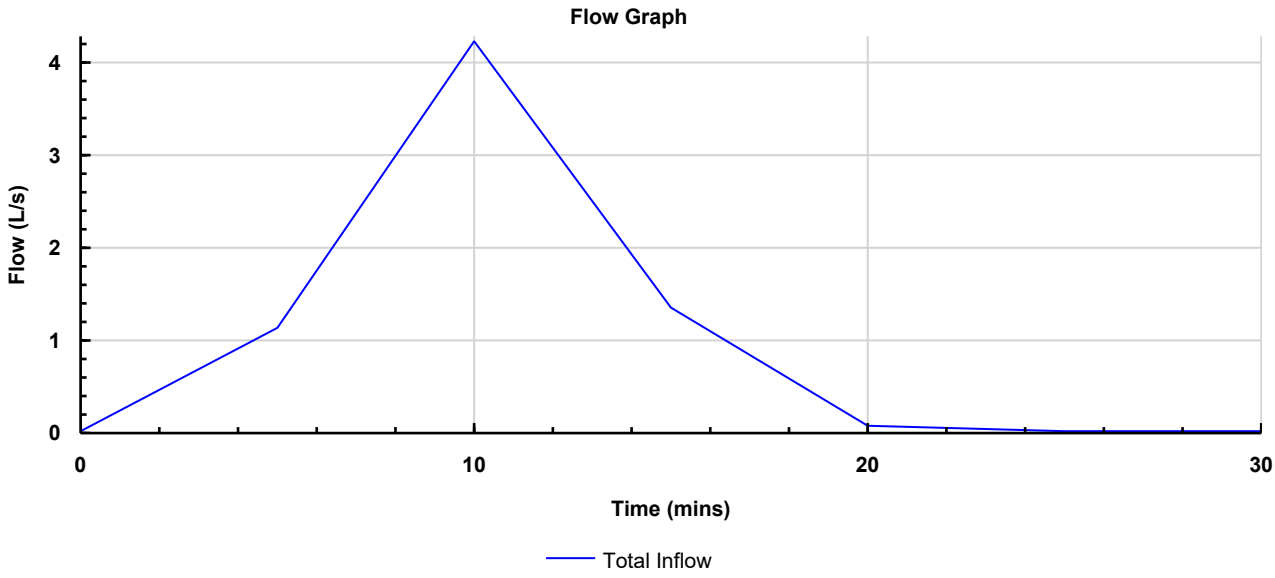
Catchment Area
Critical by Return Period: FEH: 2 years: Increase Rainfall (%): +0: 15 mins: Winter

Type : Catchment Area

Inflow

Max. Inflow (L/s)	4.2
Total Inflow Volume (m³)	2.026

Graphs



Tables

Time (mins)	Total Inflow (L/s)
0	0.0
5	1.1
10	4.2
15	1.3
20	0.1
25	0.0
30	0.0

Project:	Date: 20/01/2024		
	Designed by: GraemeBeaven	Checked by:	Approved By:
Report Details: Type: Inflow Results Storm Phase: Phase	Company Address:		

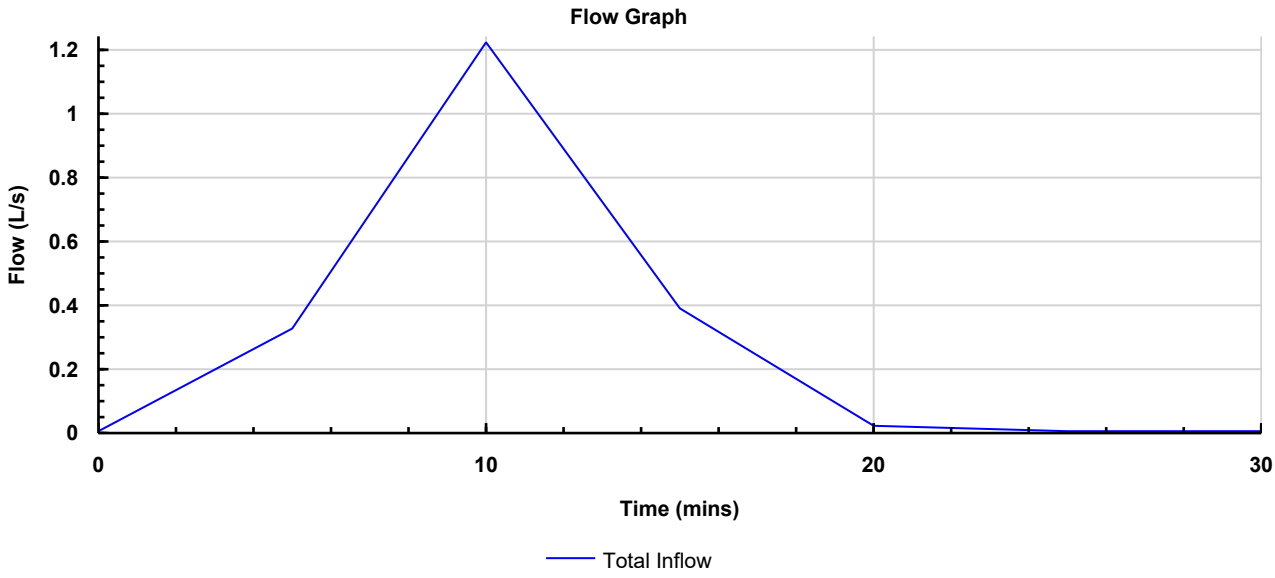
Catchment Area (1)
Critical by Return Period: FEH: 2 years: Increase Rainfall (%): +0: 15 mins: Winter

Type : Catchment Area

Inflow

Max. Inflow (L/s)	1.2
Total Inflow Volume (m³)	0.585

Graphs



Tables

Time (mins)	Total Inflow (L/s)
0	0.0
5	0.3
10	1.2
15	0.4
20	0.0
25	0.0
30	0.0

Project:	Date: 20/01/2024		
	Designed by: GraemeBeaven	Checked by:	Approved By:
Report Details: Type: Inflow Results Storm Phase: Phase	Company Address:		

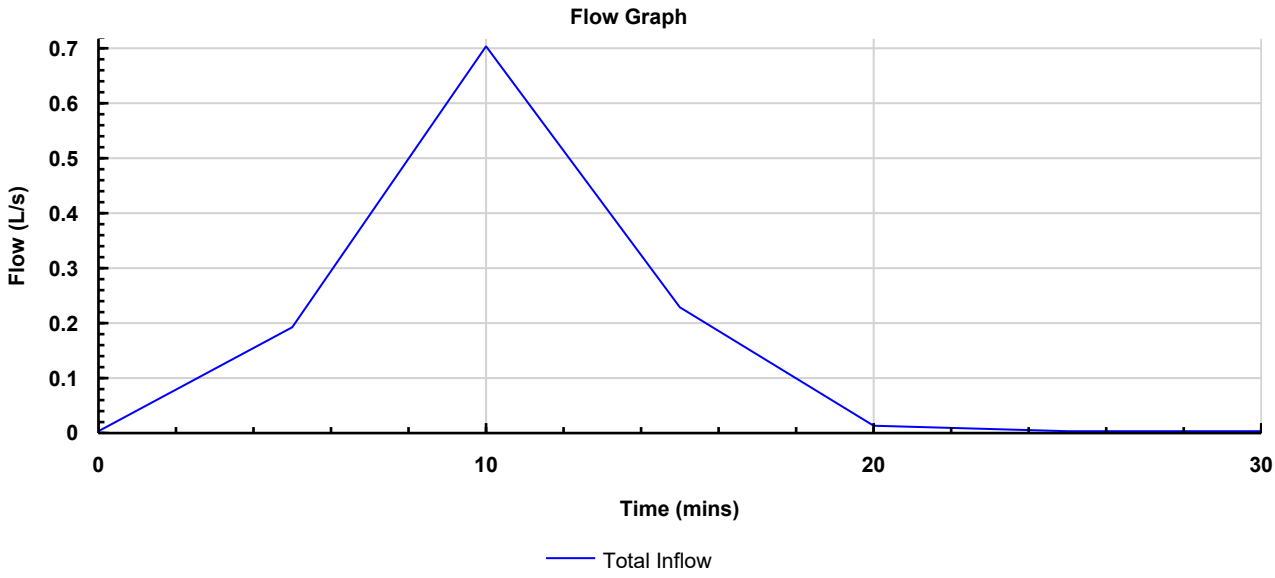
Catchment Area (2)
Critical by Return Period: FEH: 2 years: Increase Rainfall (%): +0: 15 mins: Winter

Type : Catchment Area

Inflow

Max. Inflow (L/s)	0.7
Total Inflow Volume (m³)	0.339

Graphs



Tables

Time (mins)	Total Inflow (L/s)
0	0.0
5	0.2
10	0.7
15	0.2
20	0.0
25	0.0
30	0.0

Project:	Date: 20/01/2024		
	Designed by: GraemeBeaven	Checked by:	Approved By:
Report Details: Type: Inflow Results Storm Phase: Phase	Company Address:		

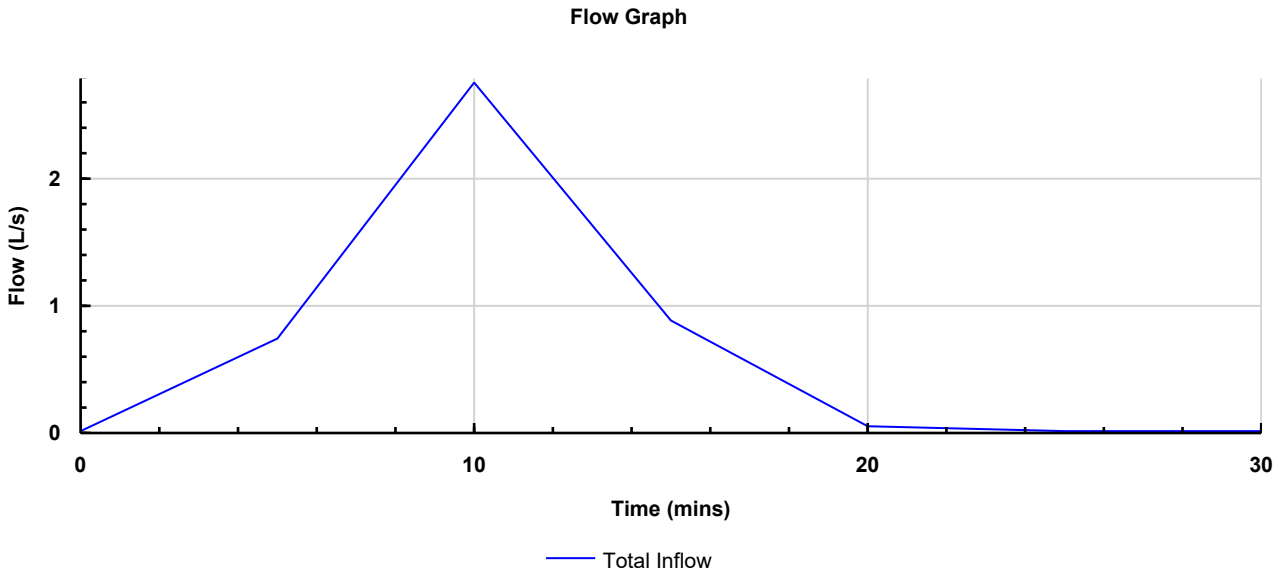
Catchment Area (4)
Critical by Return Period: FEH: 2 years: Increase Rainfall (%): +0: 15 mins: Winter

Type : Catchment Area

Inflow

Max. Inflow (L/s)	2.8
Total Inflow Volume (m³)	1.320

Graphs



Tables

Time (mins)	Total Inflow (L/s)
0	0.0
5	0.7
10	2.8
15	0.9
20	0.0
25	0.0
30	0.0

Project:	Date: 20/01/2024		
	Designed by: GraemeBeaven	Checked by:	Approved By:
Report Details: Type: Inflow Results Storm Phase: Phase	Company Address:		

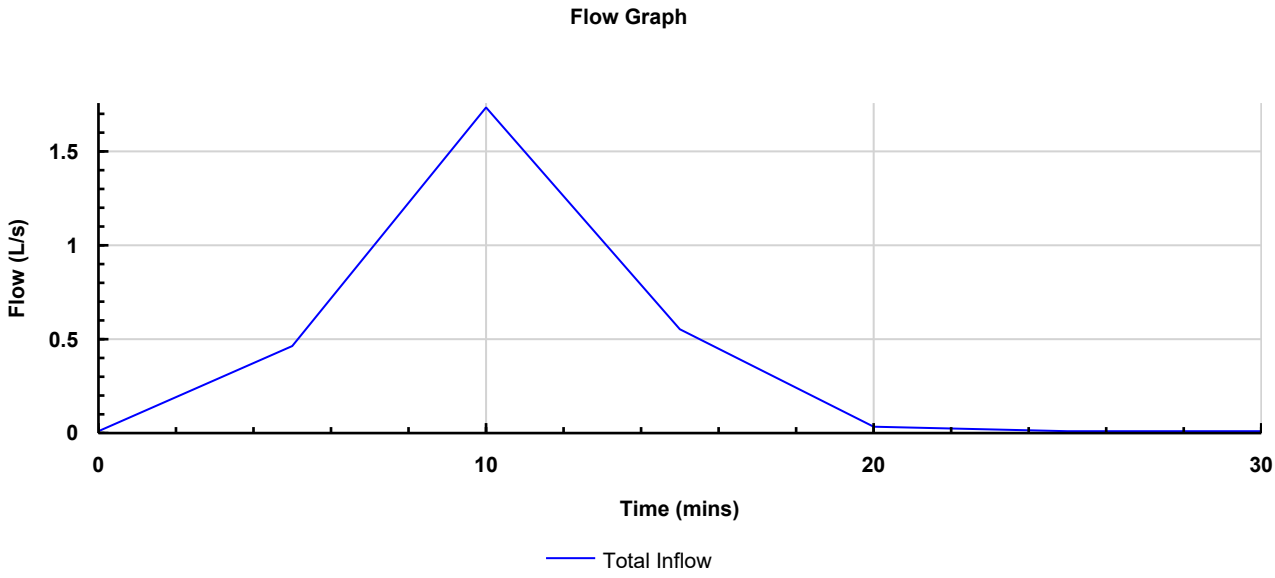
Catchment Area (5)
Critical by Return Period: FEH: 2 years: Increase Rainfall (%): +0: 15 mins: Winter

Type : Catchment Area

Inflow

Max. Inflow (L/s)	1.7
Total Inflow Volume (m³)	0.828

Graphs



Tables

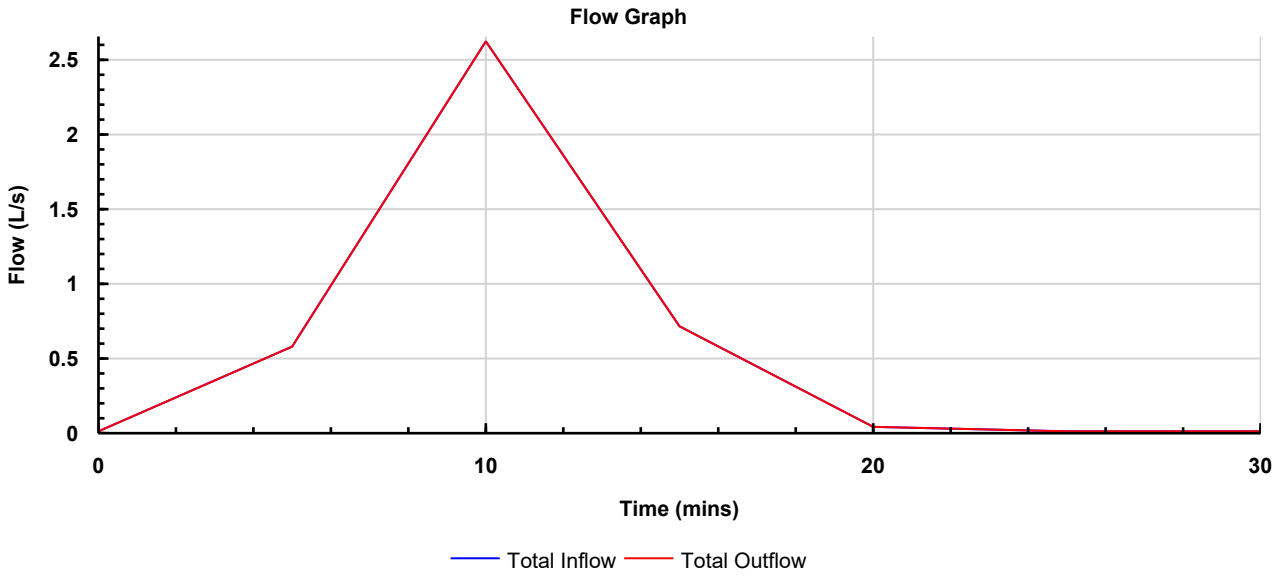
Time (mins)	Total Inflow (L/s)
0	0.0
5	0.5
10	1.7
15	0.5
20	0.0
25	0.0
30	0.0

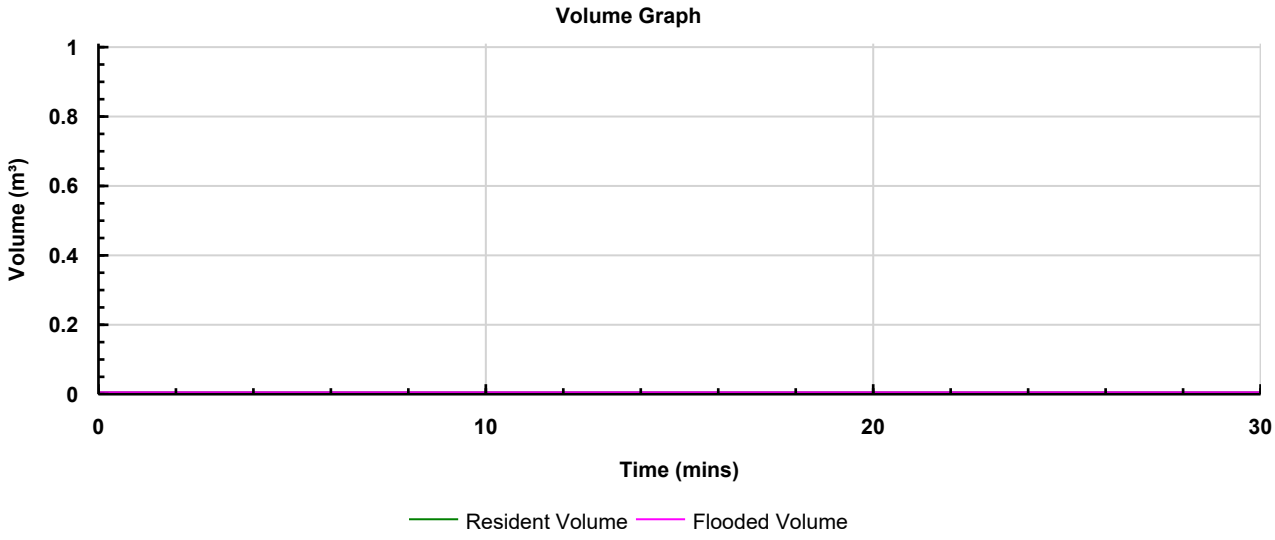
Project:	Date: 20/01/2024		
	Designed by: GraemeBeaven	Checked by:	Approved By:
Report Details: Type: Stormwater Control Results Storm Phase: Phase	Company Address:		

Porous Paving
Critical by Return Period: FEH: 2 years: Increase Rainfall (%): +0: 15 mins: Summer

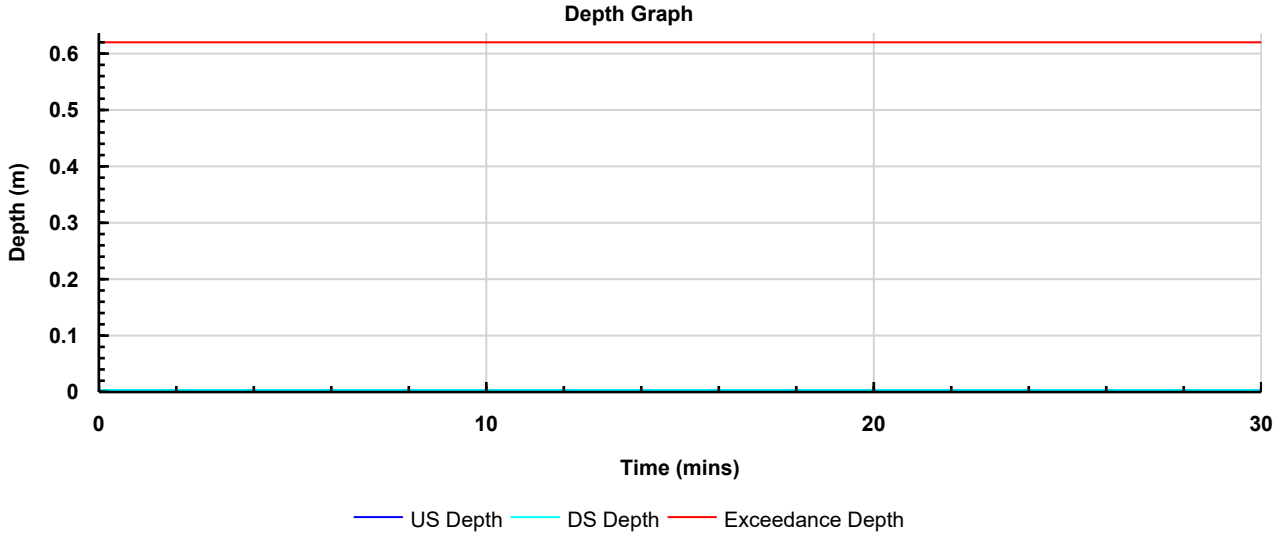
Type : Porous Paving

Graphs





Project:	Date: 20/01/2024		
	Designed by: GraemeBeaven	Checked by:	Approved By:
Report Details: Type: Stormwater Control Results Storm Phase: Phase	Company Address:		



Project:	Date: 20/01/2024		
	Designed by: GraemeBeaven	Checked by:	Approved By:
Report Details: Type: Stormwater Control Results Storm Phase: Phase	Company Address:		

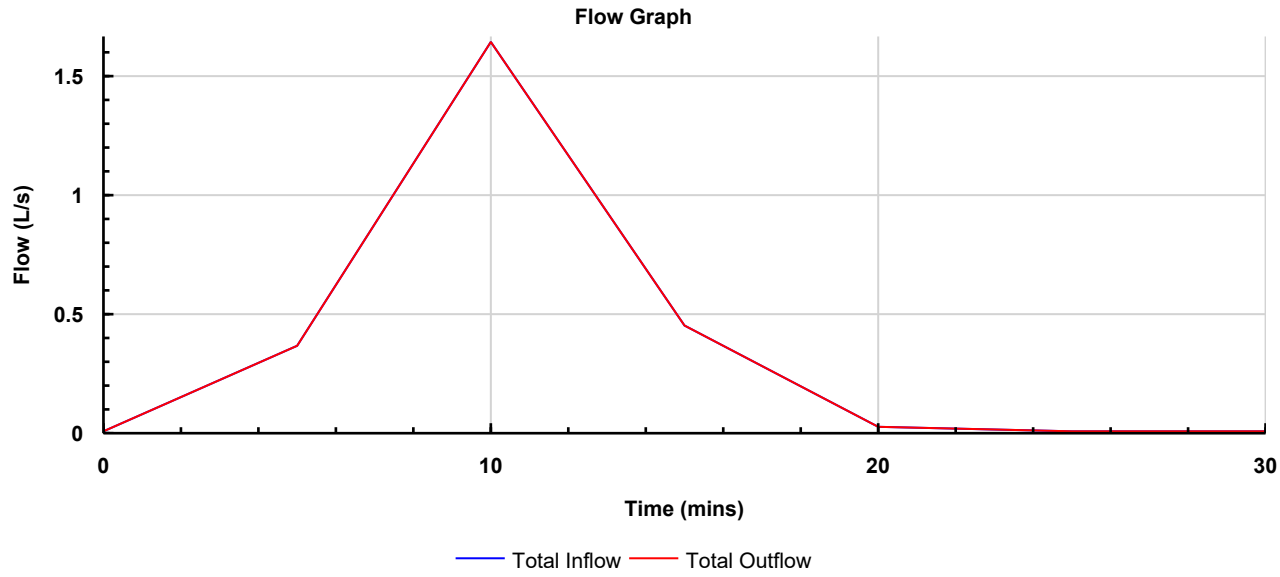
Tables

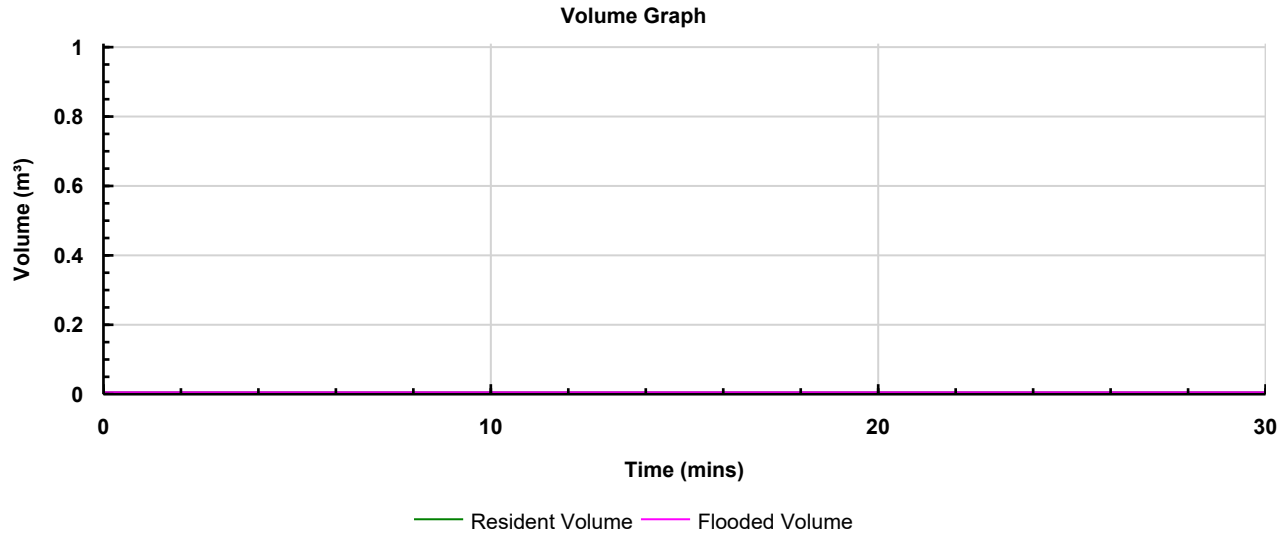
Time (mins)	Total Inflow (L/s)	US Depth (m)	DS Depth (m)	Resident Volume(m³)	Flooded Volume (m³)	Total Outflow (L/s)
0	0.0	0.000	0.000	0.000	0.000	0.0
5	0.6	0.000	0.000	0.000	0.000	0.6
10	2.6	0.000	0.000	0.000	0.000	2.6
15	0.7	0.000	0.000	0.000	0.000	0.7
20	0.0	0.000	0.000	0.000	0.000	0.0
25	0.0	0.000	0.000	0.000	0.000	0.0
30	0.0	0.000	0.000	0.000	0.000	0.0

Porous Paving (1)
Critical by Return Period: FEH: 2 years: Increase Rainfall (%): +0: 15 mins: Summer

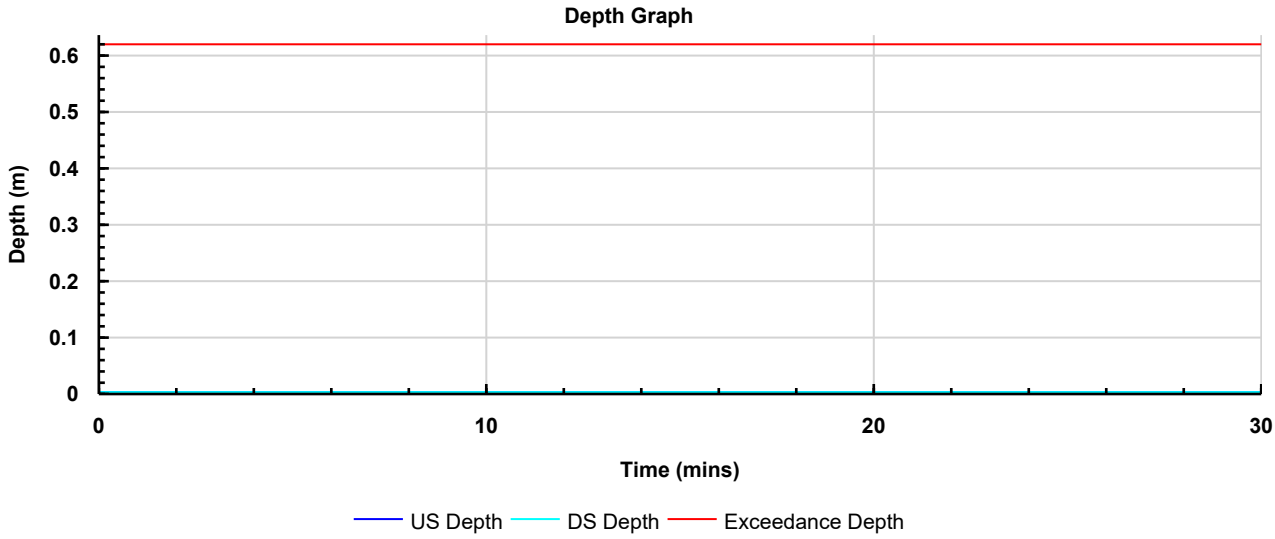
Type : Porous Paving

Graphs





Project:	Date: 20/01/2024		
	Designed by: GraemeBeaven	Checked by:	Approved By:
Report Details: Type: Stormwater Control Results Storm Phase: Phase	Company Address:		



Project:	Date: 20/01/2024		
	Designed by: GraemeBeaven	Checked by:	Approved By:
Report Details: Type: Stormwater Control Results Storm Phase: Phase	Company Address:		

Tables

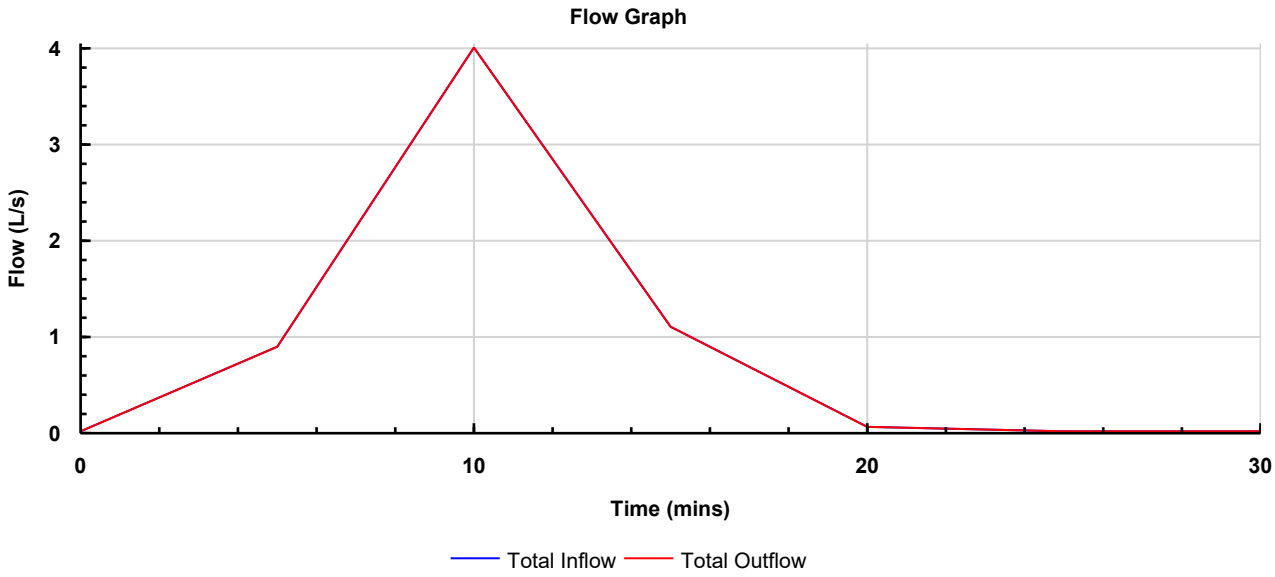
Time (mins)	Total Inflow (L/s)	US Depth (m)	DS Depth (m)	Resident Volume(m³)	Flooded Volume (m³)	Total Outflow (L/s)
0	0.0	0.000	0.000	0.000	0.000	0.0
5	0.4	0.000	0.000	0.000	0.000	0.4
10	1.6	0.000	0.000	0.000	0.000	1.6
15	0.4	0.000	0.000	0.000	0.000	0.4
20	0.0	0.000	0.000	0.000	0.000	0.0
25	0.0	0.000	0.000	0.000	0.000	0.0
30	0.0	0.000	0.000	0.000	0.000	0.0

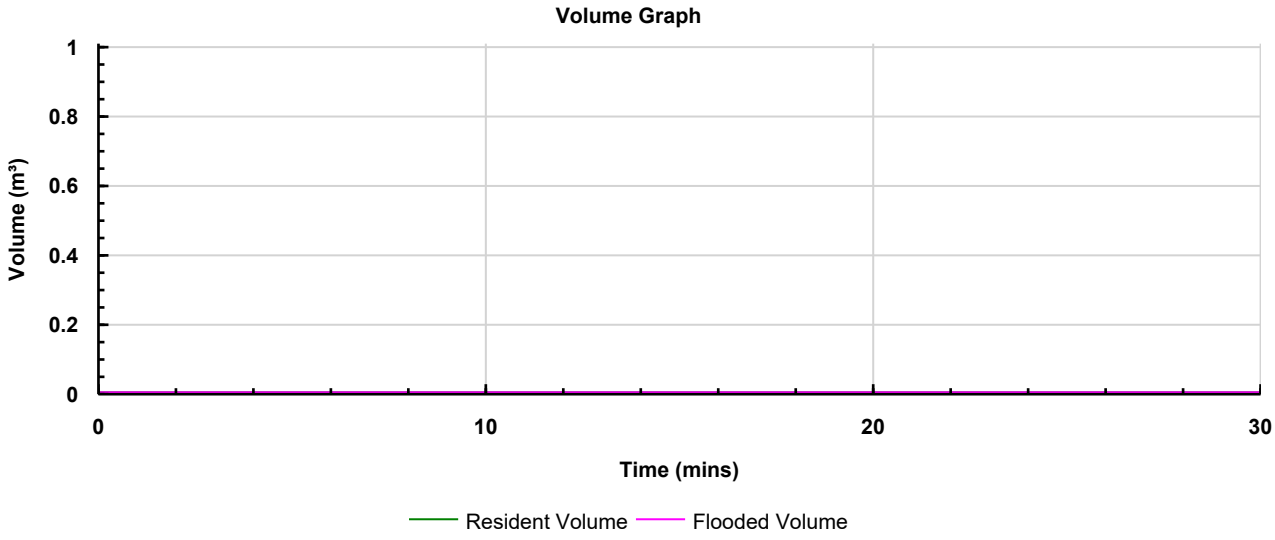
Project:	Date: 20/01/2024		
	Designed by: GraemeBeaven	Checked by:	Approved By:
Report Details: Type: Stormwater Control Results Storm Phase: Phase	Company Address:		

Porous Paving (2)
Critical by Return Period: FEH: 2 years: Increase Rainfall (%): +0: 15 mins: Summer

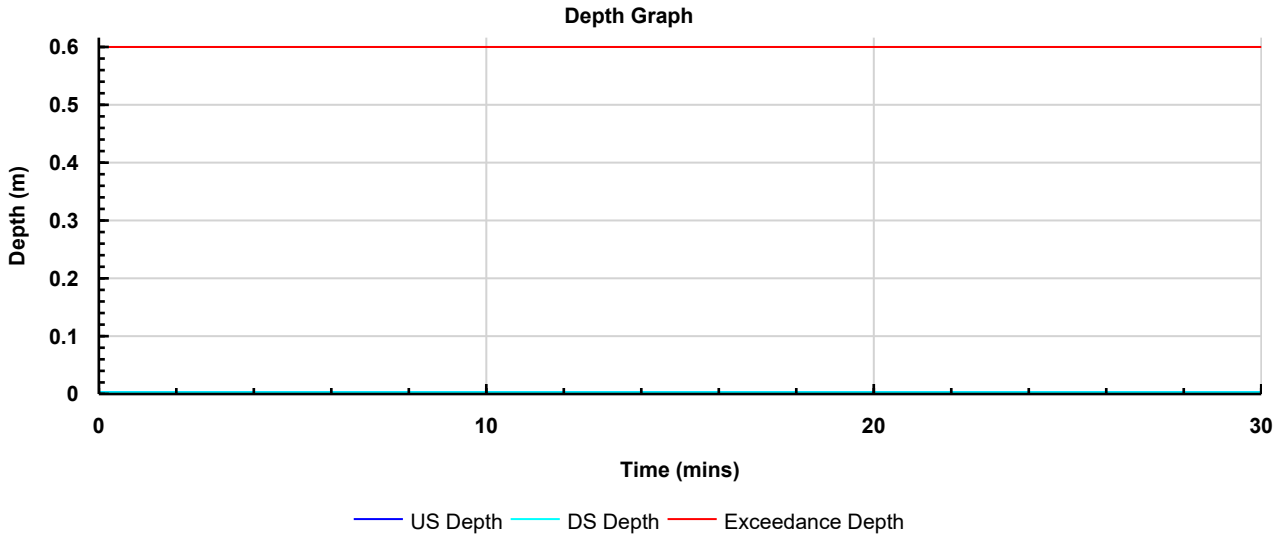
Type : Porous Paving

Graphs





Project:	Date: 20/01/2024		
	Designed by: GraemeBeaven	Checked by:	Approved By:
Report Details: Type: Stormwater Control Results Storm Phase: Phase	Company Address:		



Project:	Date: 20/01/2024		
	Designed by: GraemeBeaven	Checked by:	Approved By:
Report Details: Type: Stormwater Control Results Storm Phase: Phase	Company Address:		

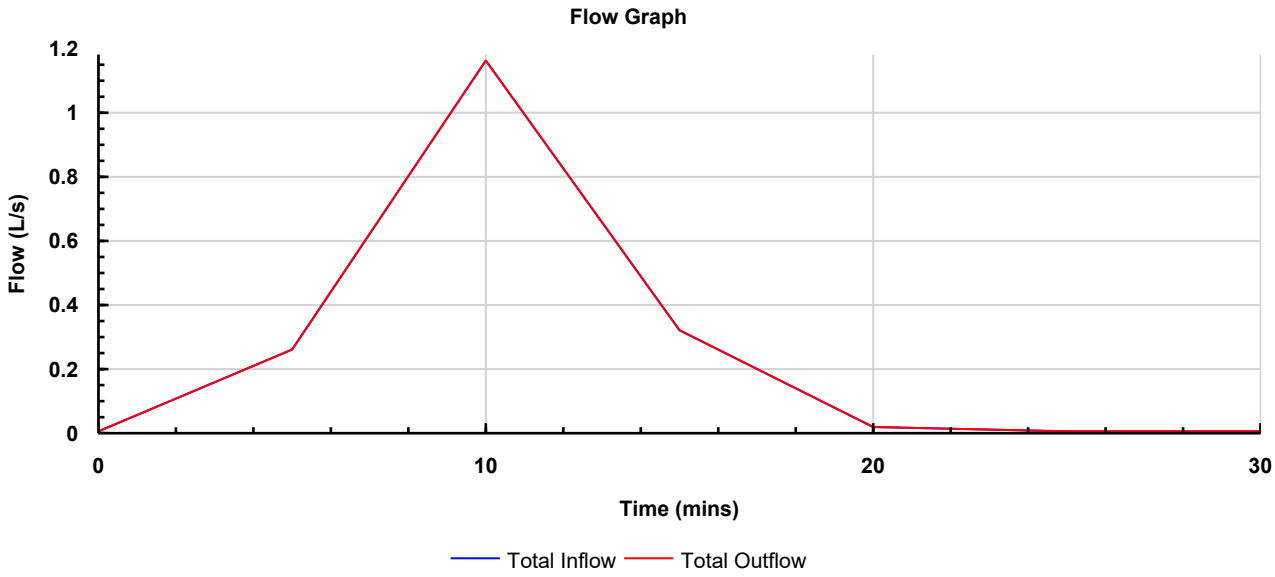
Tables

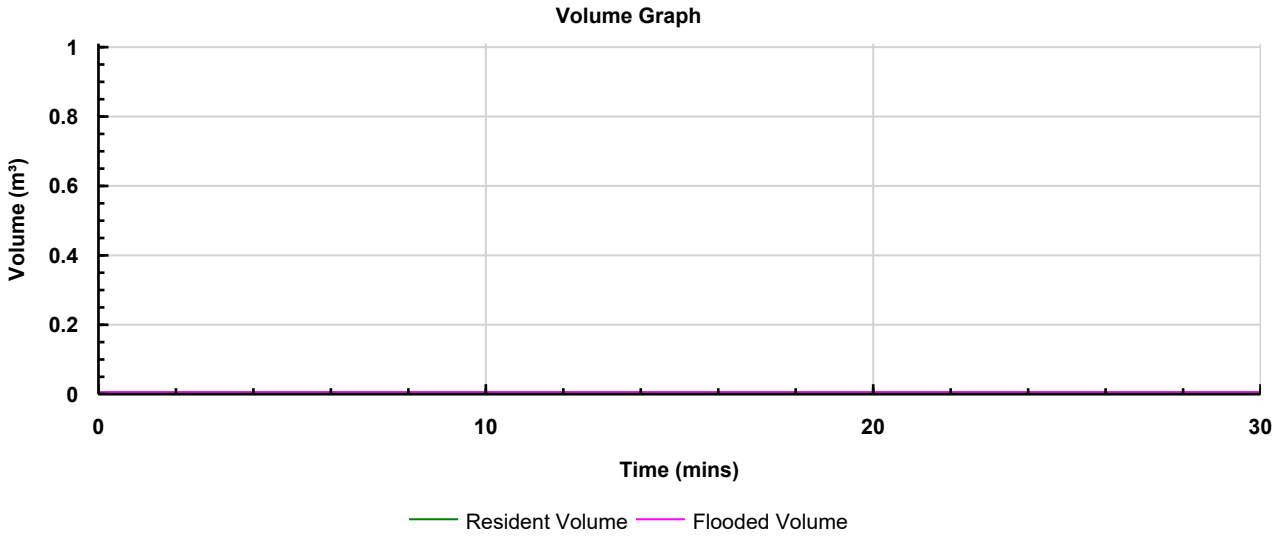
Time (mins)	Total Inflow (L/s)	US Depth (m)	DS Depth (m)	Resident Volume(m³)	Flooded Volume (m³)	Total Outflow (L/s)
0	0.0	0.000	0.000	0.000	0.000	0.0
5	0.9	0.000	0.000	0.000	0.000	0.9
10	4.0	0.000	0.000	0.000	0.000	4.0
15	1.1	0.000	0.000	0.000	0.000	1.1
20	0.0	0.000	0.000	0.000	0.000	0.0
25	0.0	0.000	0.000	0.000	0.000	0.0
30	0.0	0.000	0.000	0.000	0.000	0.0

Porous Paving (3)
Critical by Return Period: FEH: 2 years: Increase Rainfall (%): +0: 15 mins: Summer

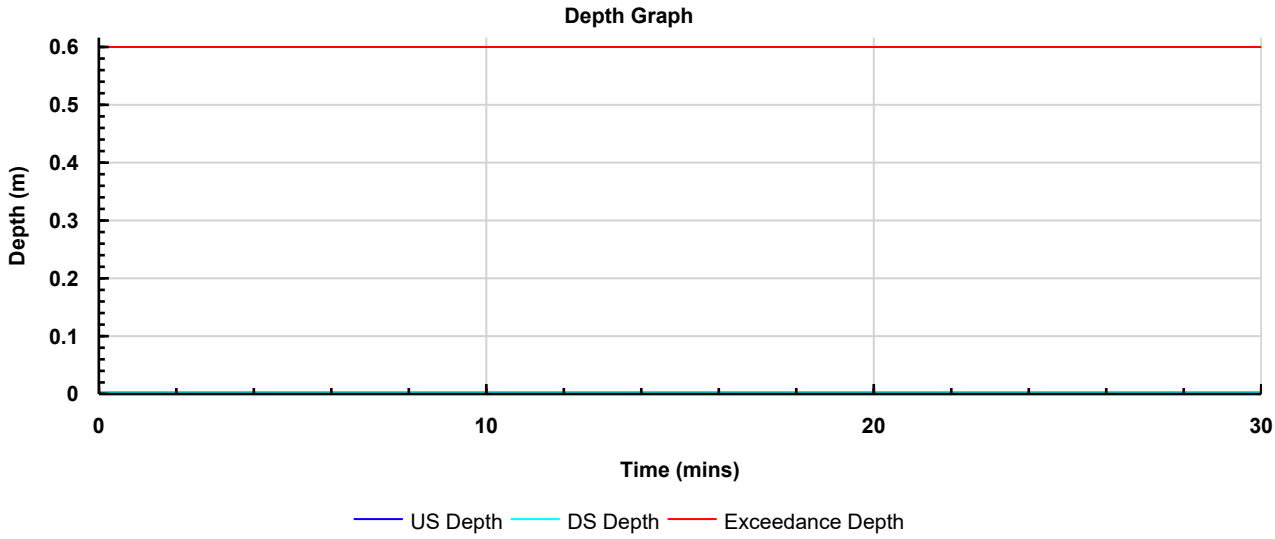
Type : Porous Paving

Graphs





Project:	Date: 20/01/2024		
	Designed by: GraemeBeaven	Checked by:	Approved By:
Report Details: Type: Stormwater Control Results Storm Phase: Phase	Company Address:		



Project:	Date: 20/01/2024		
	Designed by: GraemeBeaven	Checked by:	Approved By:
Report Details: Type: Stormwater Control Results Storm Phase: Phase	Company Address:		

Tables

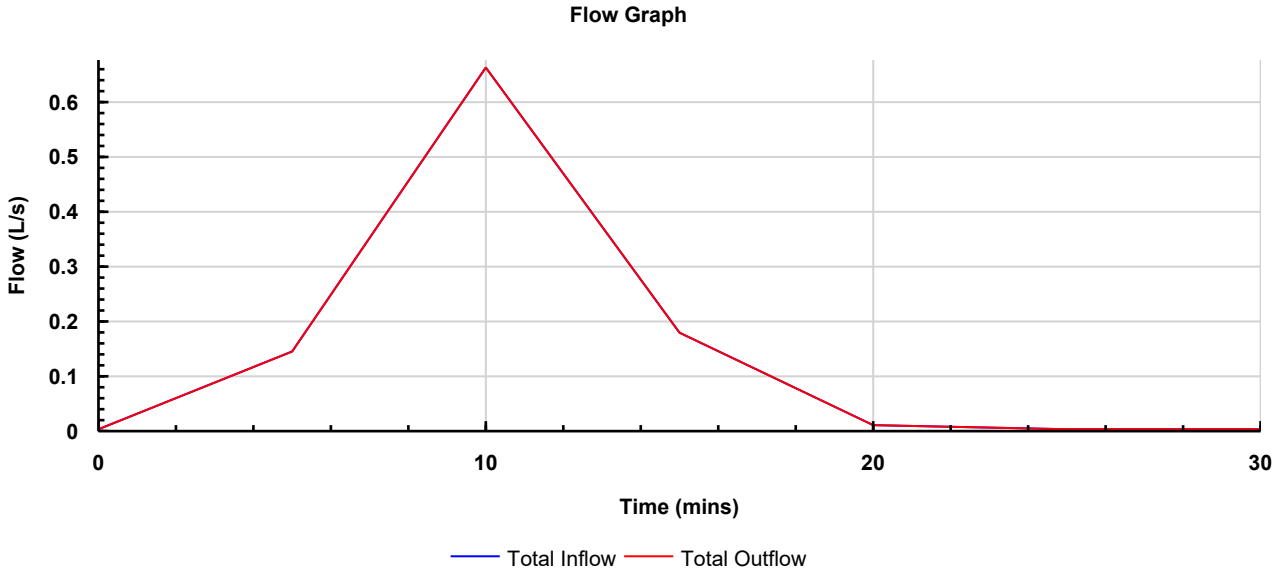
Time (mins)	Total Inflow (L/s)	US Depth (m)	DS Depth (m)	Resident Volume(m³)	Flooded Volume (m³)	Total Outflow (L/s)
0	0.0	0.000	0.000	0.000	0.000	0.0
5	0.3	0.000	0.000	0.000	0.000	0.3
10	1.2	0.000	0.000	0.000	0.000	1.2
15	0.3	0.000	0.000	0.000	0.000	0.3
20	0.0	0.000	0.000	0.000	0.000	0.0
25	0.0	0.000	0.000	0.000	0.000	0.0
30	0.0	0.000	0.000	0.000	0.000	0.0

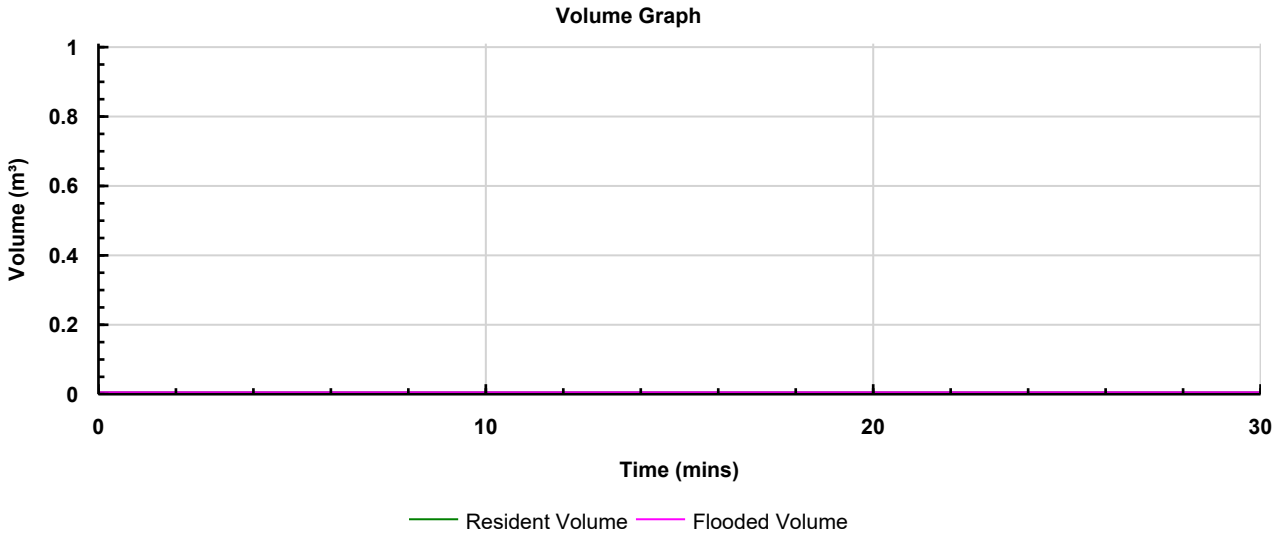
Project:	Date: 20/01/2024		
	Designed by: GraemeBeaven	Checked by:	Approved By:
Report Details: Type: Stormwater Control Results Storm Phase: Phase	Company Address:		

Porous Paving (4)
Critical by Return Period: FEH: 2 years: Increase Rainfall (%): +0: 15 mins: Summer

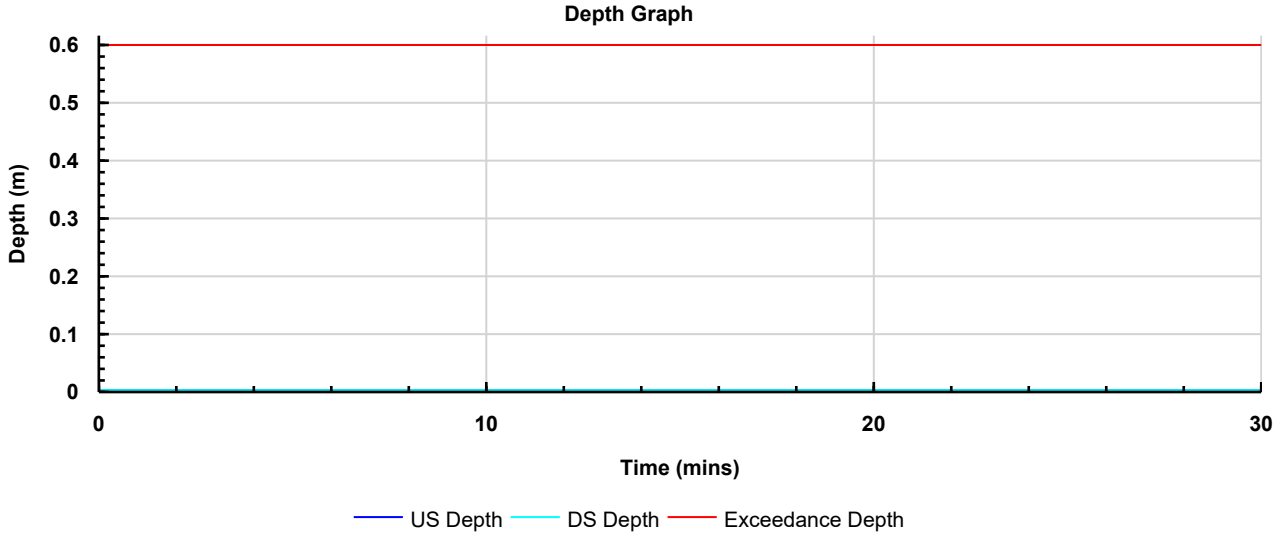
Type : Porous Paving

Graphs





Project:	Date: 20/01/2024		
	Designed by: GraemeBeaven	Checked by:	Approved By:
Report Details: Type: Stormwater Control Results Storm Phase: Phase	Company Address:		



Project:	Date: 20/01/2024		
	Designed by: GraemeBeaven	Checked by:	Approved By:
Report Details: Type: Stormwater Control Results Storm Phase: Phase	Company Address:		

Tables

Time (mins)	Total Inflow (L/s)	US Depth (m)	DS Depth (m)	Resident Volume(m³)	Flooded Volume (m³)	Total Outflow (L/s)
0	0.0	0.000	0.000	0.000	0.000	0.0
5	0.1	0.000	0.000	0.000	0.000	0.1
10	0.7	0.000	0.000	0.000	0.000	0.7
15	0.2	0.000	0.000	0.000	0.000	0.2
20	0.0	0.000	0.000	0.000	0.000	0.0
25	0.0	0.000	0.000	0.000	0.000	0.0
30	0.0	0.000	0.000	0.000	0.000	0.0

Project:	Date: 20/01/2024		
	Designed by: GraemeBeaven	Checked by:	Approved By:
Report Details: Type: Inflow Results Storm Phase: Phase	Company Address:		

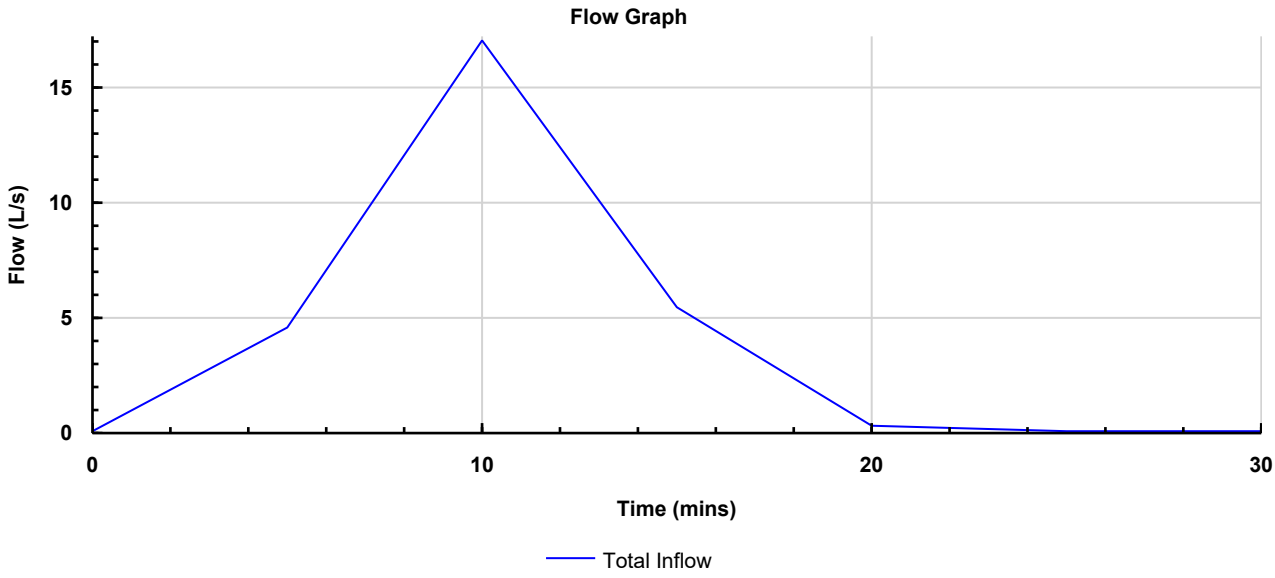
Catchment Area
Critical by Return Period: FEH: 100 years: Increase Rainfall (%): +40: 15 mins: Winter

Type : Catchment Area

Inflow

Max. Inflow (L/s)	17.0
Total Inflow Volume (m³)	8.166

Graphs



Tables

Time (mins)	Total Inflow (L/s)
0	0.0
5	4.5
10	17.0
15	5.4
20	0.2
25	0.0
30	0.0

Project:	Date: 20/01/2024		
	Designed by: GraemeBeaven	Checked by:	Approved By:
Report Details: Type: Inflow Results Storm Phase: Phase	Company Address:		

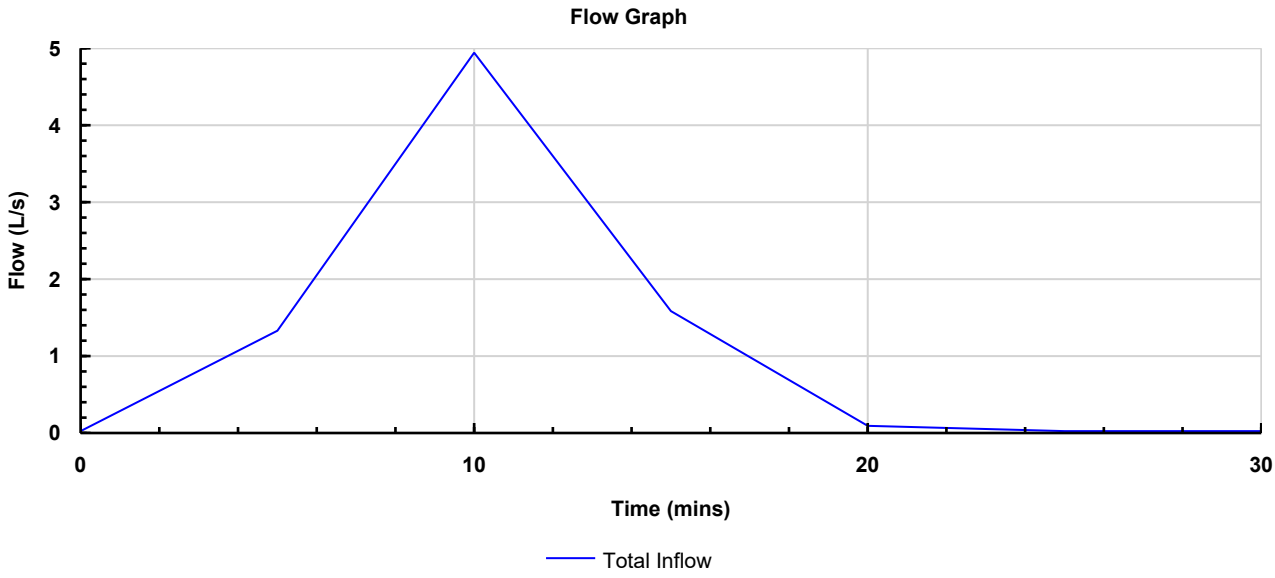
Catchment Area (1)
Critical by Return Period: FEH: 100 years: Increase Rainfall (%): +40: 15 mins: Winter

Type : Catchment Area

Inflow

Max. Inflow (L/s)	4.9
Total Inflow Volume (m³)	2.368

Graphs



Tables

Time (mins)	Total Inflow (L/s)
0	0.0
5	1.3
10	4.9
15	1.6
20	0.1
25	0.0
30	0.0

Project:	Date: 20/01/2024		
	Designed by: GraemeBeaven	Checked by:	Approved By:
Report Details: Type: Inflow Results Storm Phase: Phase	Company Address:		

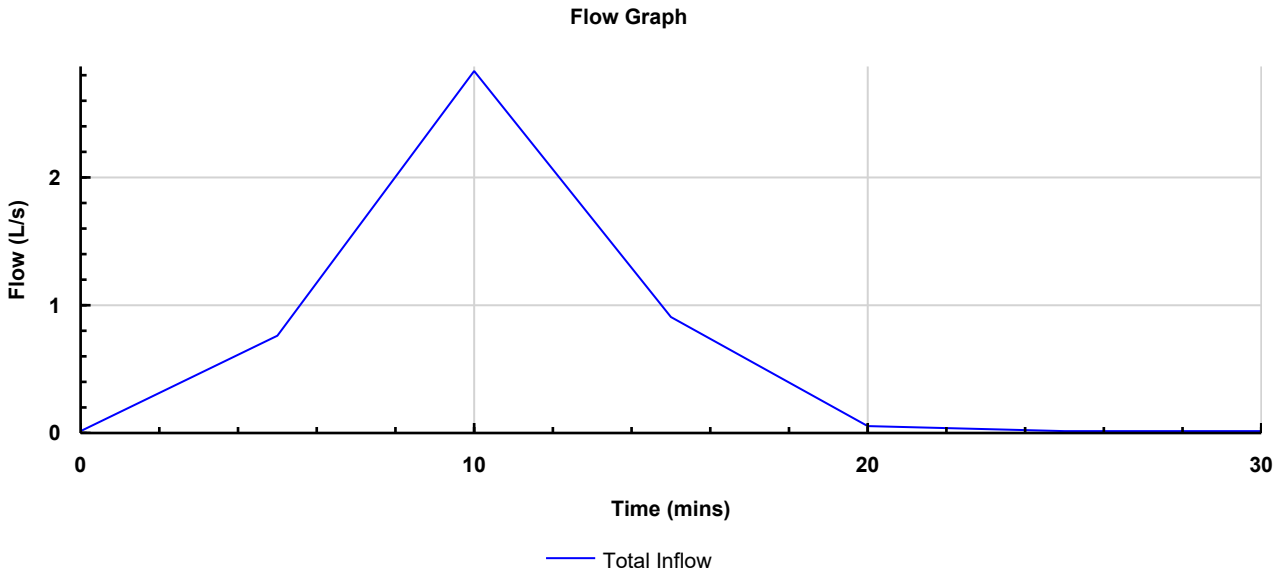
Catchment Area (2)
Critical by Return Period: FEH: 100 years: Increase Rainfall (%): +40: 15 mins: Winter

Type : Catchment Area

Inflow

Max. Inflow (L/s)	2.8
Total Inflow Volume (m³)	1.356

Graphs



Tables

Time (mins)	Total Inflow (L/s)
0	0.0
5	0.8
10	2.8
15	0.9
20	0.0
25	0.0
30	0.0

Project:	Date: 20/01/2024		
	Designed by: GraemeBeaven	Checked by:	Approved By:
Report Details: Type: Inflow Results Storm Phase: Phase	Company Address:		

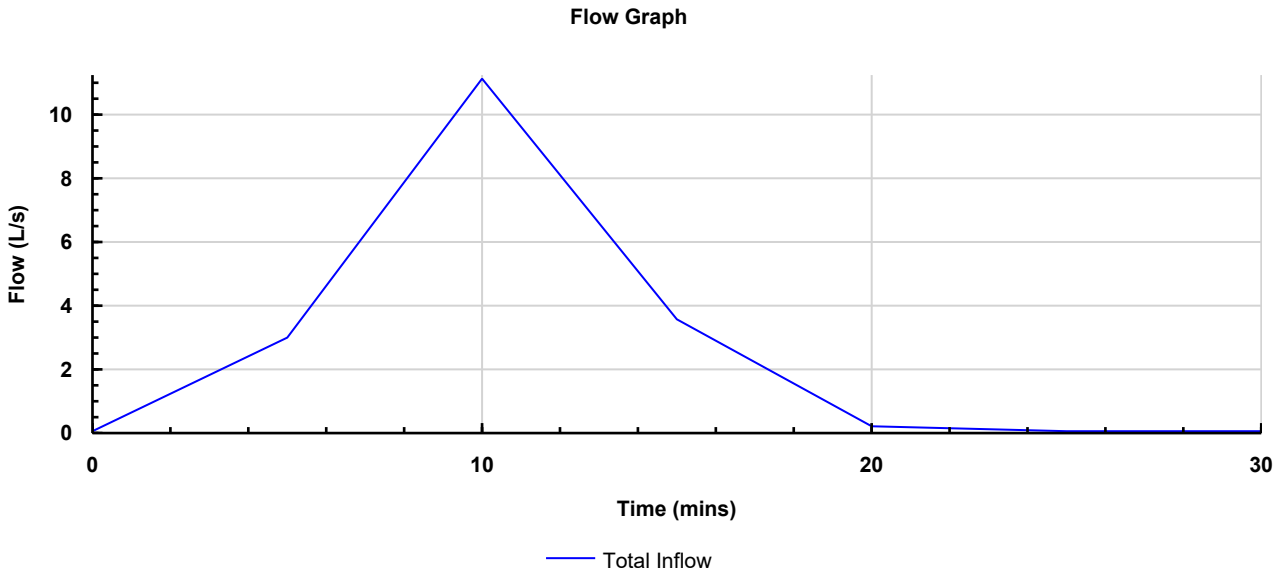
Catchment Area (4)
Critical by Return Period: FEH: 100 years: Increase Rainfall (%): +40: 15 mins: Winter

Type : Catchment Area

Inflow

Max. Inflow (L/s)	11.1
Total Inflow Volume (m³)	5.333

Graphs



Tables

Time (mins)	Total Inflow (L/s)
0	0.0
5	3.0
10	11.1
15	3.5
20	0.2
25	0.0
30	0.0

Project:	Date: 20/01/2024		
	Designed by: GraemeBeaven	Checked by:	Approved By:
Report Details: Type: Inflow Results Storm Phase: Phase	Company Address:		

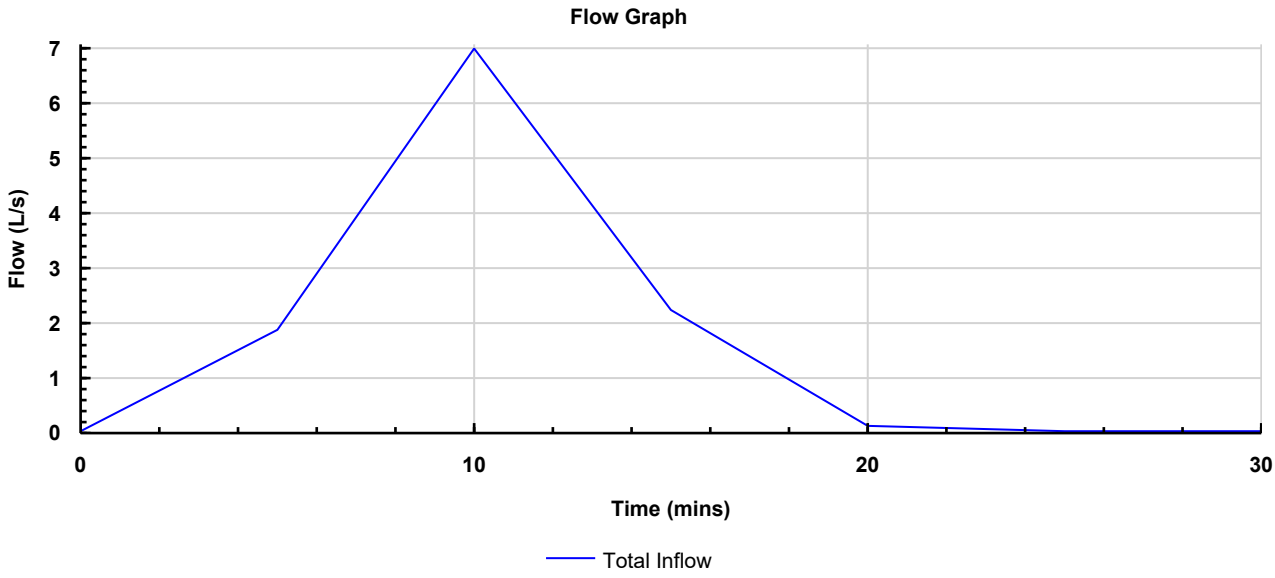
Catchment Area (5)
Critical by Return Period: FEH: 100 years: Increase Rainfall (%): +40: 15 mins: Winter

Type : Catchment Area

Inflow

Max. Inflow (L/s)	7.0
Total Inflow Volume (m³)	3.349

Graphs



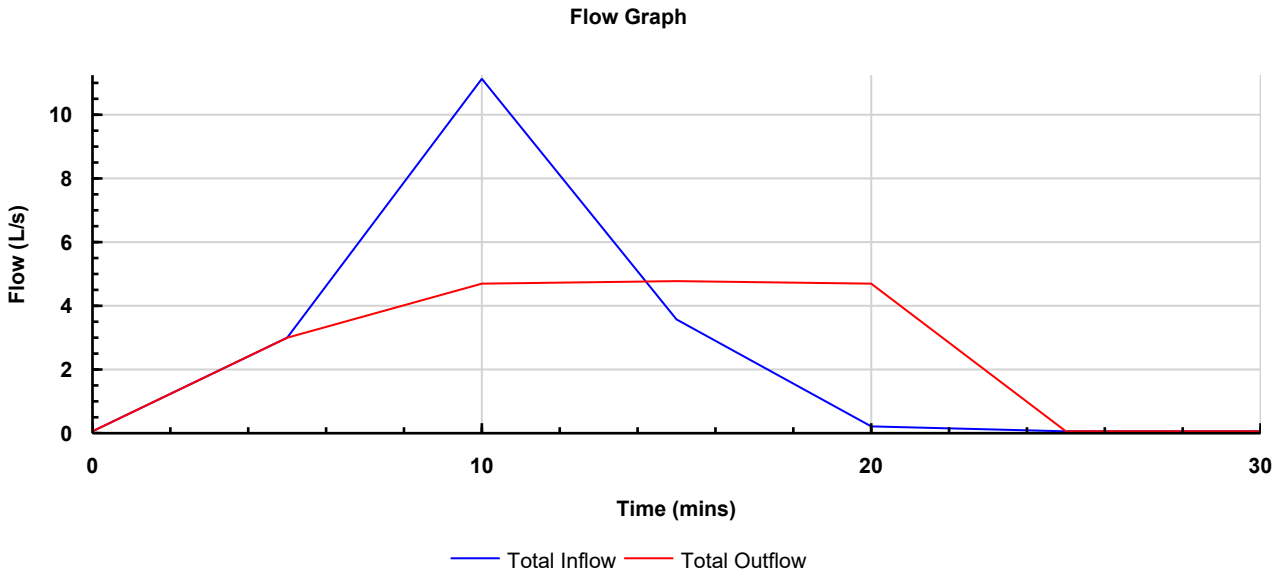
Tables

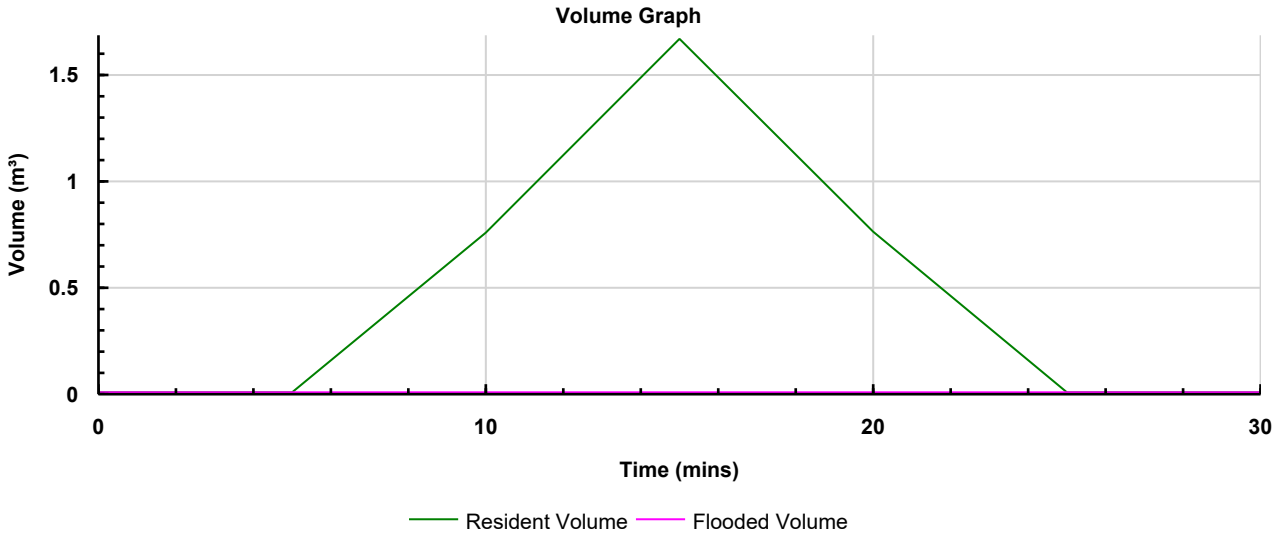
Time (mins)	Total Inflow (L/s)
0	0.0
5	1.9
10	7.0
15	2.2
20	0.1
25	0.0
30	0.0

Porous Paving
Critical by Return Period: FEH: 100 years: Increase Rainfall (%): +40: 15 mins: Winter

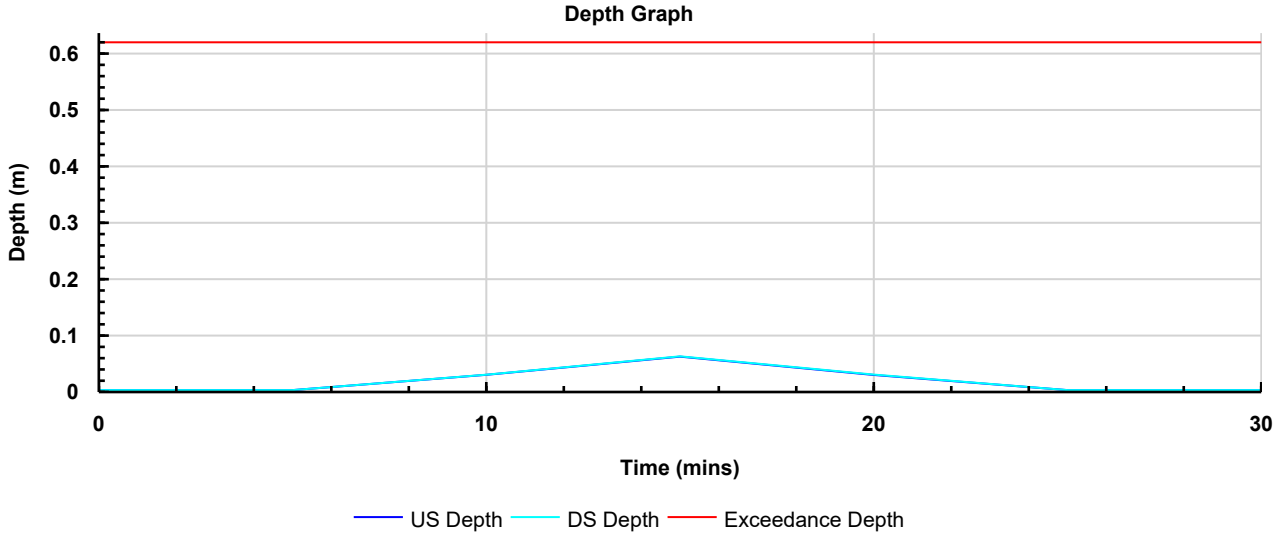
Type : Porous Paving

Graphs





Project:	Date: 20/01/2024		
	Designed by: GraemeBeaven	Checked by:	Approved By:
Report Details: Type: Stormwater Control Results Storm Phase: Phase	Company Address:		



Project:	Date: 20/01/2024		
	Designed by: GraemeBeaven	Checked by:	Approved By:
Report Details: Type: Stormwater Control Results Storm Phase: Phase	Company Address:		

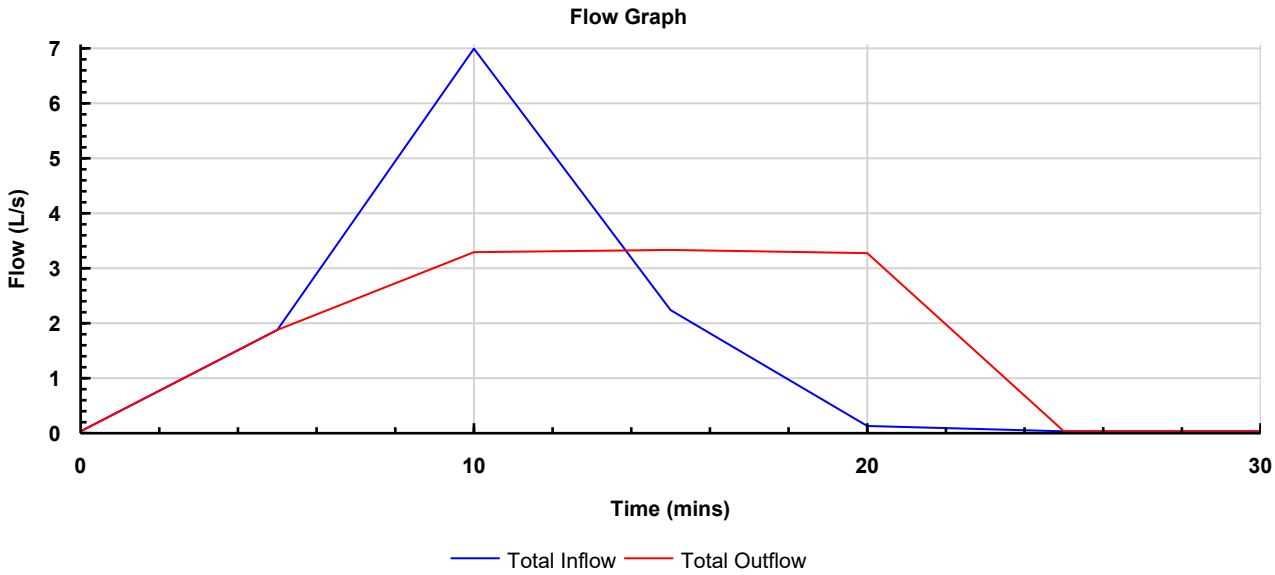
Tables

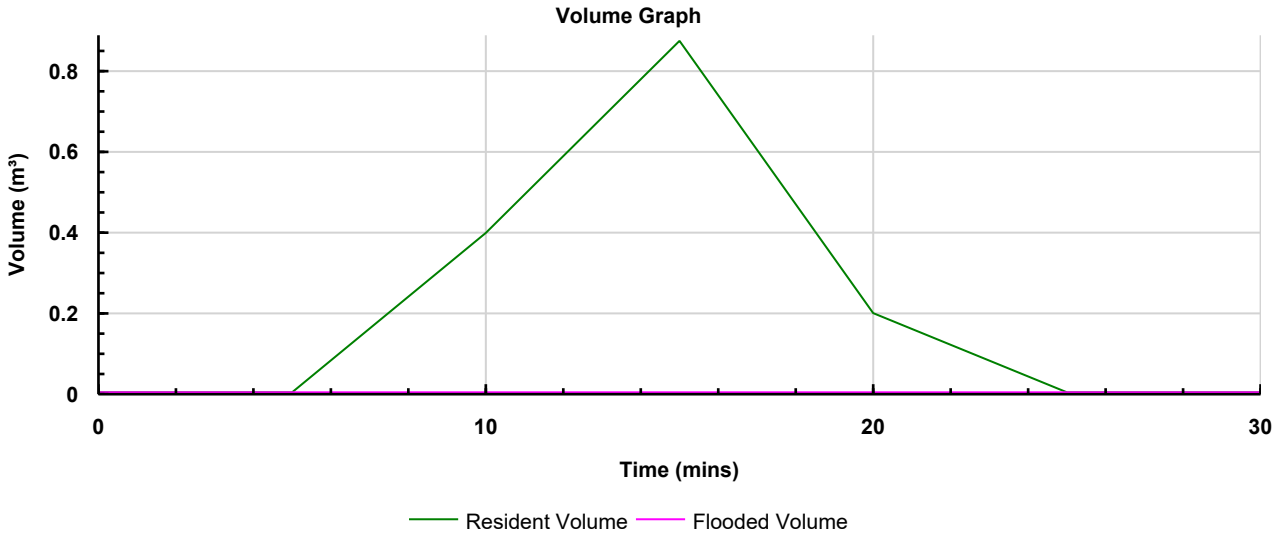
Time (mins)	Total Inflow (L/s)	US Depth (m)	DS Depth (m)	Resident Volume(m³)	Flooded Volume (m³)	Total Outflow (L/s)
0	0.0	0.000	0.000	0.000	0.000	0.0
5	3.0	0.000	0.000	0.000	0.000	3.0
10	11.1	0.027	0.027	0.754	0.000	4.7
15	3.5	0.060	0.060	1.670	0.000	4.7
20	0.2	0.027	0.028	0.759	0.000	4.7
25	0.0	0.000	0.000	0.000	0.000	0.0
30	0.0	0.000	0.000	0.000	0.000	0.0

Porous Paving (1)
Critical by Return Period: FEH: 100 years: Increase Rainfall (%): +40: 15 mins: Winter

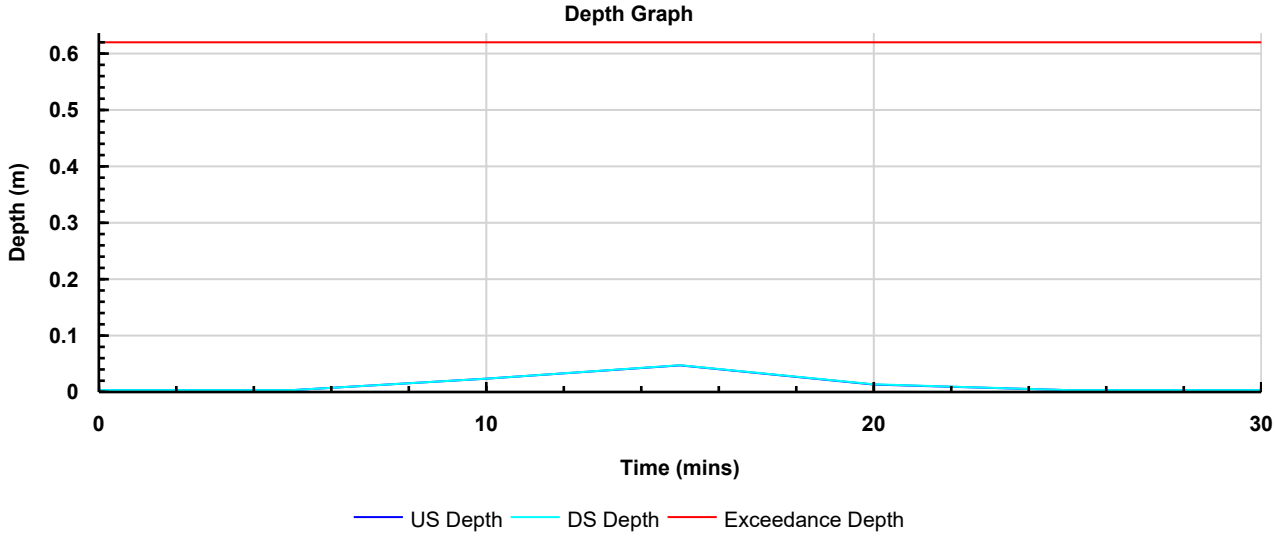
Type : Porous Paving

Graphs





Project:	Date: 20/01/2024		
	Designed by: GraemeBeaven	Checked by:	Approved By:
Report Details: Type: Stormwater Control Results Storm Phase: Phase	Company Address:		



Project:	Date: 20/01/2024		
	Designed by: GraemeBeaven	Checked by:	Approved By:
Report Details: Type: Stormwater Control Results Storm Phase: Phase	Company Address:		

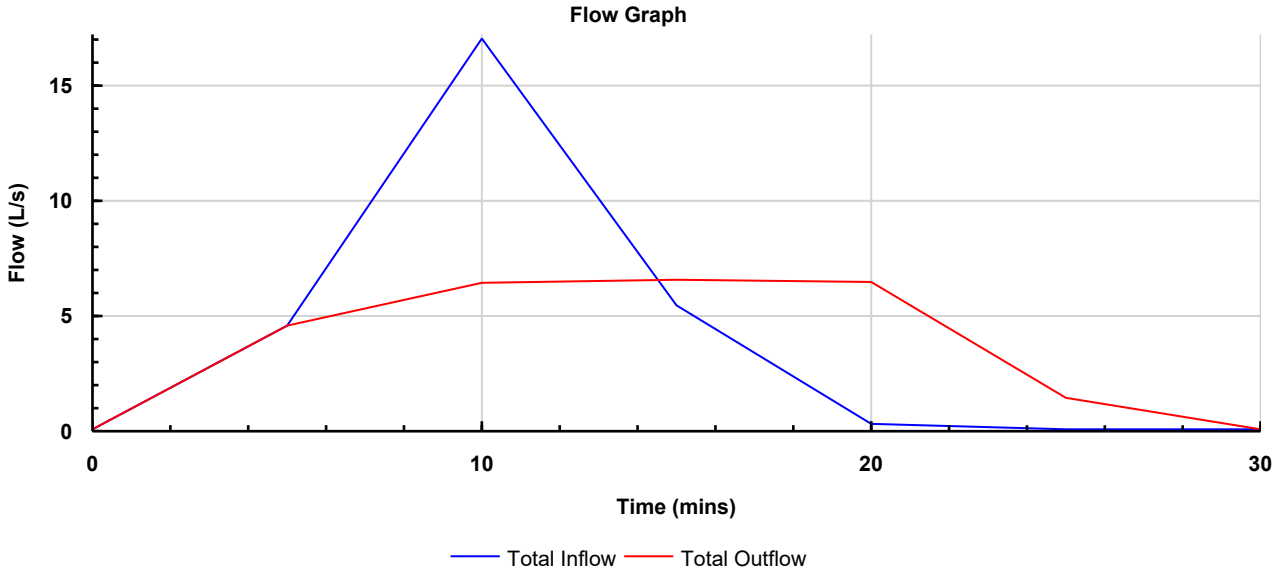
Tables

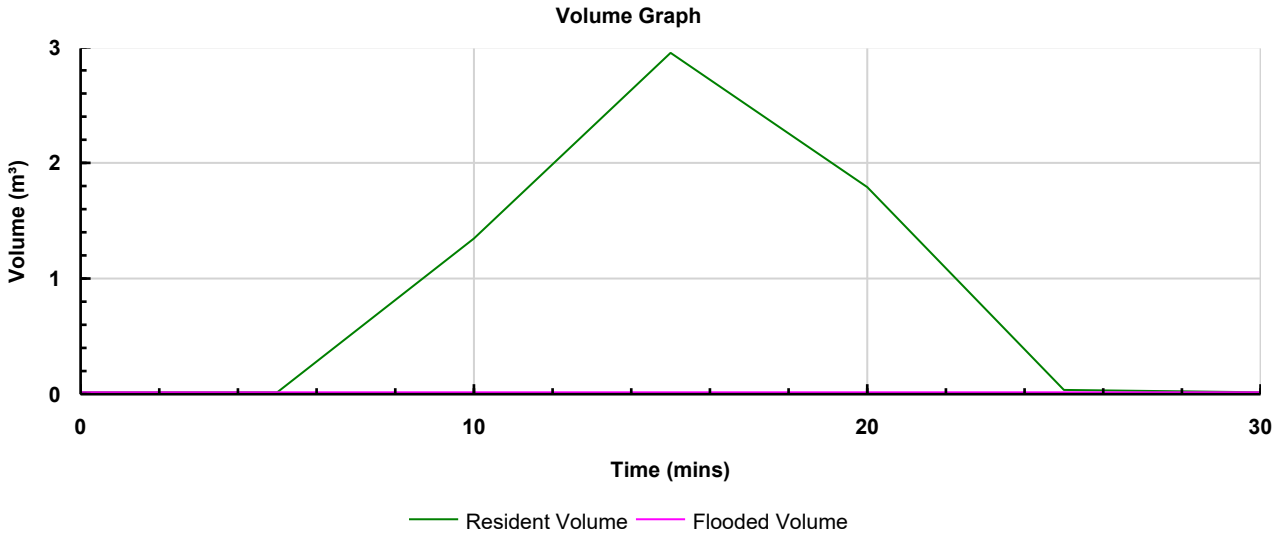
Time (mins)	Total Inflow (L/s)	US Depth (m)	DS Depth (m)	Resident Volume(m³)	Flooded Volume (m³)	Total Outflow (L/s)
0	0.0	0.000	0.000	0.000	0.000	0.0
5	1.9	0.000	0.000	0.000	0.000	1.9
10	7.0	0.020	0.020	0.397	0.000	3.3
15	2.2	0.044	0.044	0.875	0.000	3.3
20	0.1	0.010	0.010	0.197	0.000	3.3
25	0.0	0.000	0.000	0.000	0.000	0.0
30	0.0	0.000	0.000	0.000	0.000	0.0

Porous Paving (2)
Critical by Return Period: FEH: 100 years: Increase Rainfall (%): +40: 15 mins: Winter

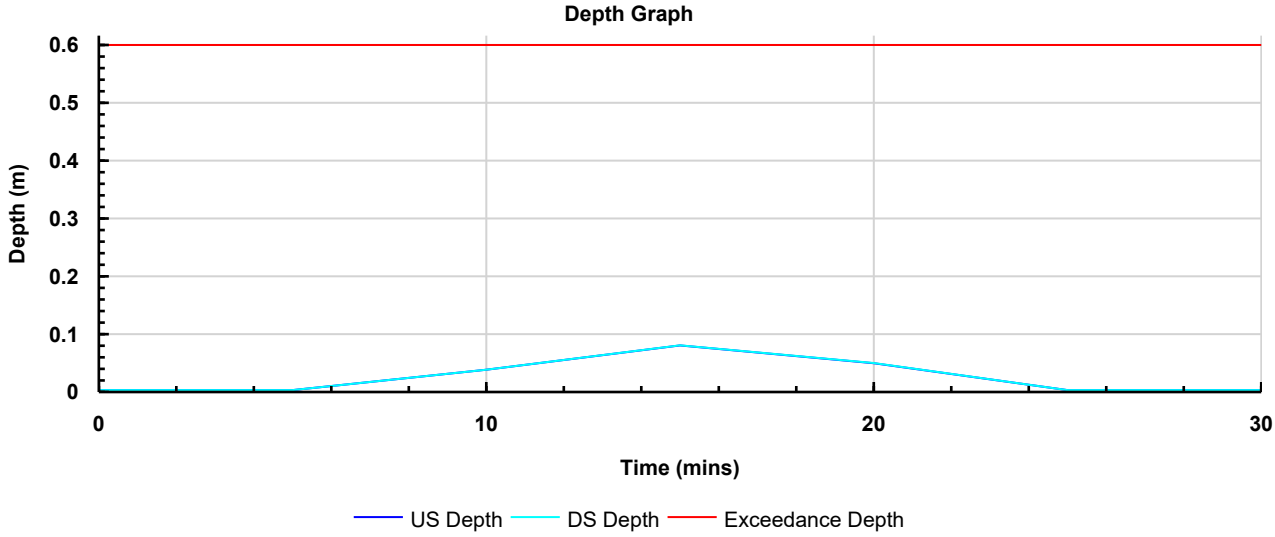
Type : Porous Paving

Graphs





Project:	Date: 20/01/2024		
	Designed by: GraemeBeaven	Checked by:	Approved By:
Report Details: Type: Stormwater Control Results Storm Phase: Phase	Company Address:		



Project:	Date: 20/01/2024		
	Designed by: GraemeBeaven	Checked by:	Approved By:
Report Details: Type: Stormwater Control Results Storm Phase: Phase	Company Address:		

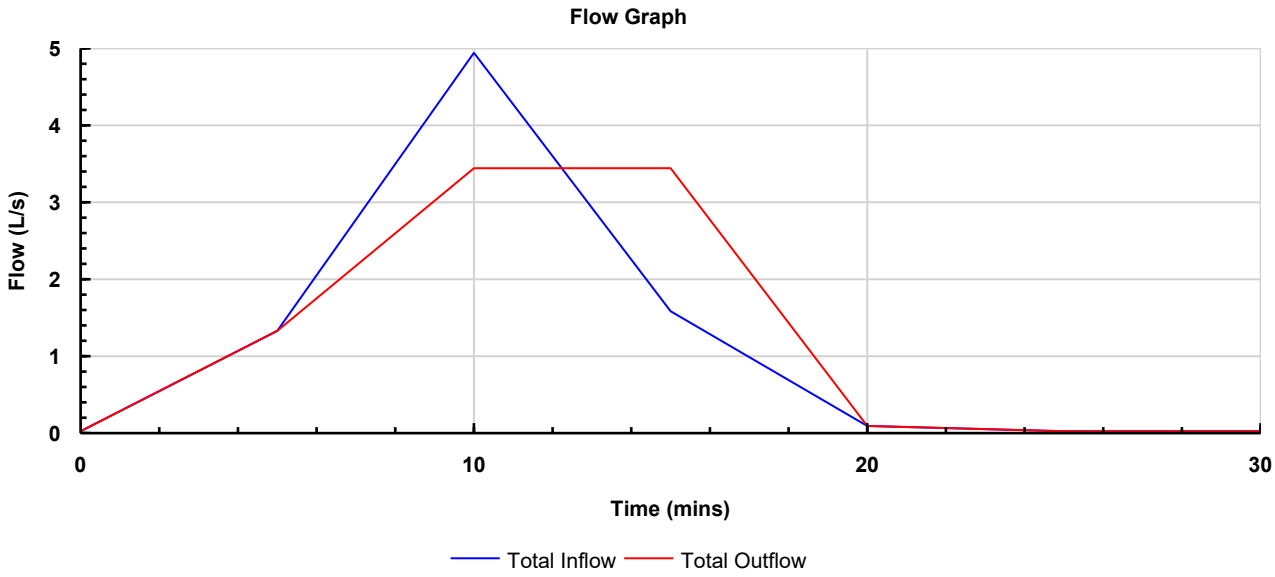
Tables

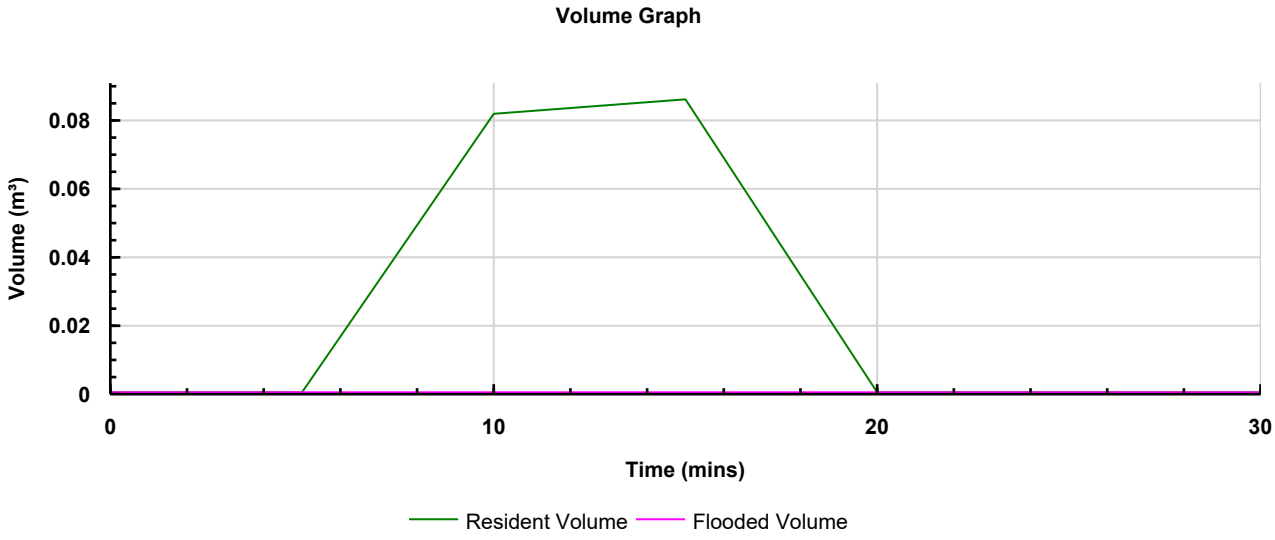
Time (mins)	Total Inflow (L/s)	US Depth (m)	DS Depth (m)	Resident Volume(m³)	Flooded Volume (m³)	Total Outflow (L/s)
0	0.0	0.000	0.000	0.000	0.000	0.0
5	4.5	0.000	0.000	0.000	0.000	4.5
10	17.0	0.035	0.035	1.337	0.000	6.4
15	5.4	0.078	0.078	2.951	0.000	6.5
20	0.2	0.047	0.047	1.784	0.000	6.4
25	0.0	0.000	0.000	0.021	0.000	1.4
30	0.0	0.000	0.000	0.000	0.000	0.0

Porous Paving (3)
Critical by Return Period: FEH: 100 years: Increase Rainfall (%): +40: 15 mins: Winter

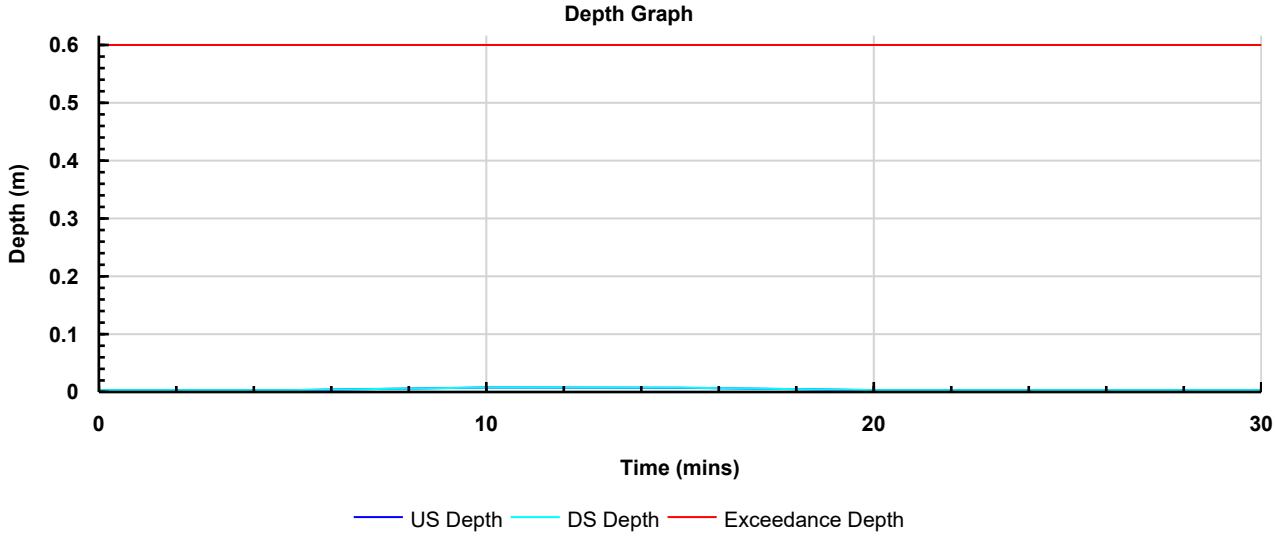
Type : Porous Paving

Graphs





Project:	Date: 20/01/2024		
	Designed by: GraemeBeaven	Checked by:	Approved By:
Report Details: Type: Stormwater Control Results Storm Phase: Phase	Company Address:		



Project:	Date: 20/01/2024		
	Designed by: GraemeBeaven	Checked by:	Approved By:
Report Details: Type: Stormwater Control Results Storm Phase: Phase	Company Address:		

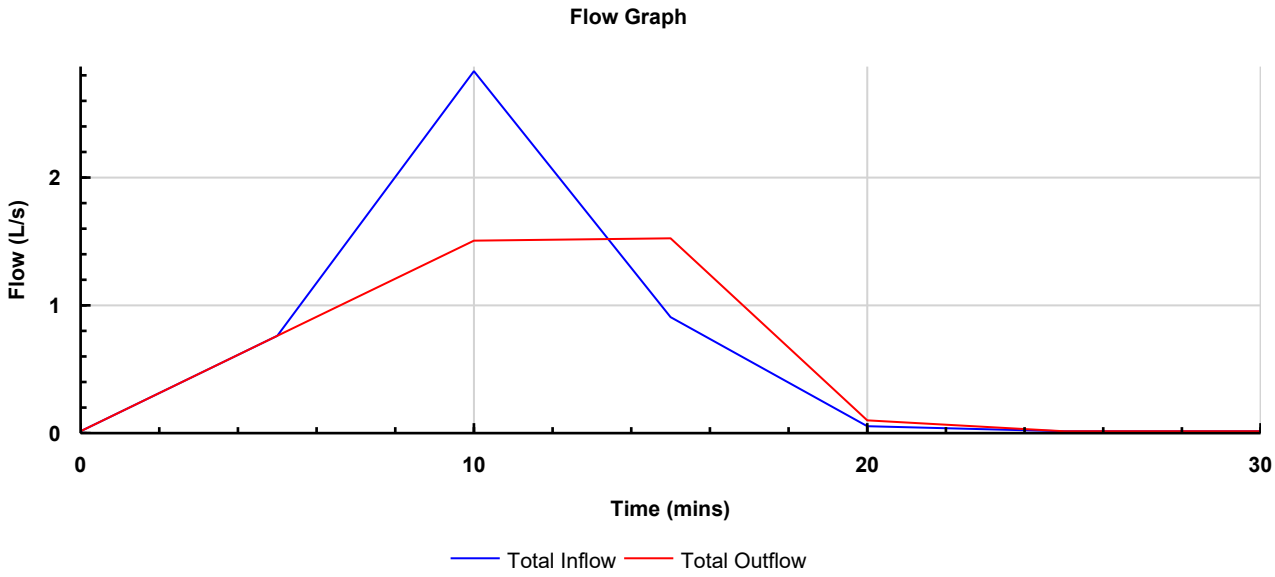
Tables

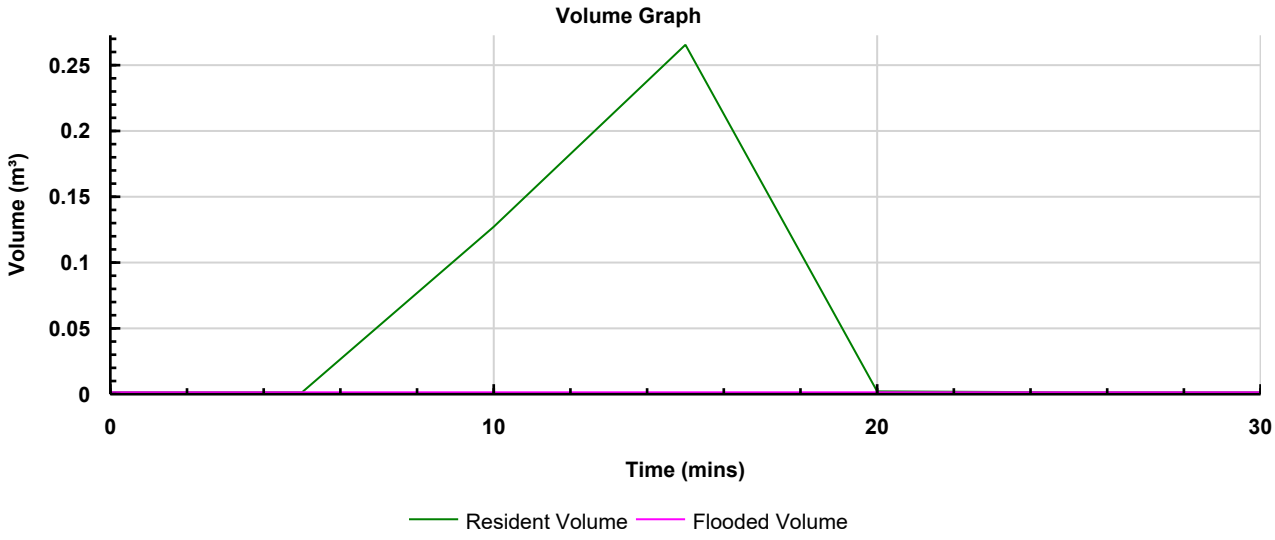
Time (mins)	Total Inflow (L/s)	US Depth (m)	DS Depth (m)	Resident Volume(m³)	Flooded Volume (m³)	Total Outflow (L/s)
0	0.0	0.000	0.000	0.000	0.000	0.0
5	1.3	0.000	0.000	0.000	0.000	1.3
10	4.9	0.005	0.005	0.082	0.000	3.4
15	1.6	0.004	0.004	0.086	0.000	3.4
20	0.1	0.000	0.000	0.000	0.000	0.1
25	0.0	0.000	0.000	0.000	0.000	0.0
30	0.0	0.000	0.000	0.000	0.000	0.0

Porous Paving (4)
Critical by Return Period: FEH: 100 years: Increase Rainfall (%): +40: 15 mins: Winter

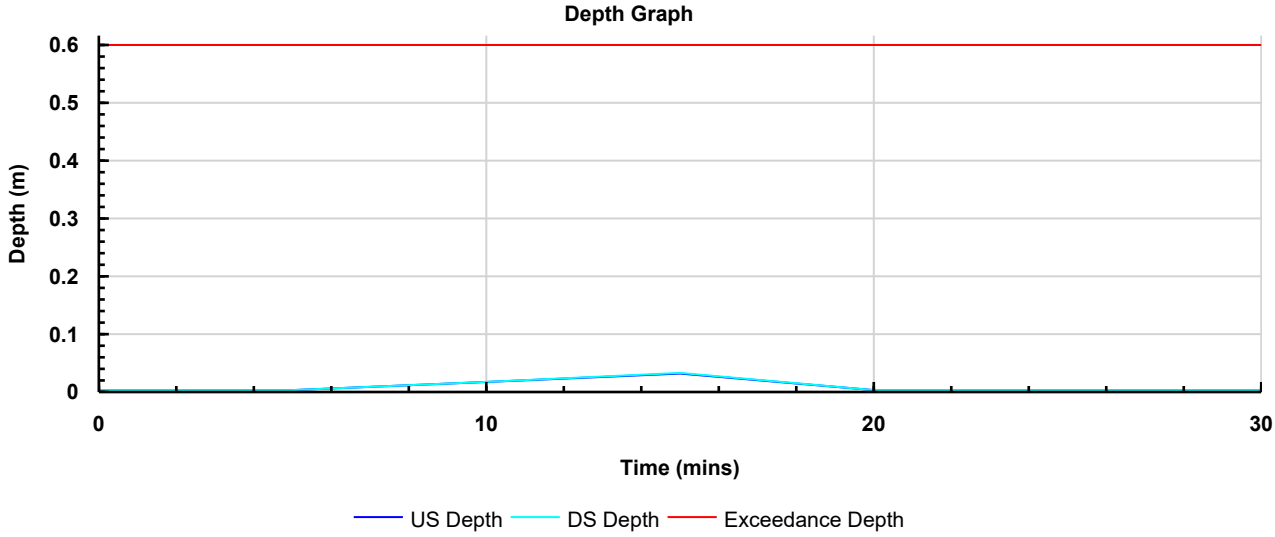
Type : Porous Paving

Graphs





Project:	Date: 20/01/2024		
	Designed by: GraemeBeaven	Checked by:	Approved By:
Report Details: Type: Stormwater Control Results Storm Phase: Phase	Company Address:		



Project:	Date: 20/01/2024		
	Designed by: GraemeBeaven	Checked by:	Approved By:
Report Details: Type: Stormwater Control Results Storm Phase: Phase	Company Address:		

Tables

Time (mins)	Total Inflow (L/s)	US Depth (m)	DS Depth (m)	Resident Volume(m³)	Flooded Volume (m³)	Total Outflow (L/s)
0	0.0	0.000	0.000	0.000	0.000	0.0
5	0.8	0.000	0.000	0.000	0.000	0.8
10	2.8	0.014	0.014	0.126	0.000	1.5
15	0.9	0.029	0.030	0.265	0.000	1.5
20	0.0	0.000	0.000	0.001	0.000	0.1
25	0.0	0.000	0.000	0.000	0.000	0.0
30	0.0	0.000	0.000	0.000	0.000	0.0

Project:	Date: 20/01/2024		
	Designed by: GraemeBeaven	Checked by:	Approved By:
Report Details: Type: Inflows Storm Phase: Phase	Company Address:		

Catchment Area

Type : Catchment Area

Area (ha)	0.012

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

Catchment Area (1)

Type : Catchment Area

Area (ha)	0.019

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

Catchment Area (2)

Type : Catchment Area

Area (ha)	0.013

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: 20/01/2024		
	Designed by: GraemeBeaven	Checked by:	Approved By:
Report Details: Type: Junctions Storm Phase: Phase	Company Address:		

Name	Junction Type	Easting (m)	Northing (m)	Cover Level (m)	Depth (m)	Invert Level (m)	Chamber Shape	Diameter (m)
SMH01	Manhole	490914.287	211640.692	156.720	0.520	156.200	Circular	1.000
SMH02	Manhole	490928.710	211619.566	156.710	0.770	155.940	Circular	1.000
SMH03	Manhole	490925.977	211615.727	156.690	0.800	155.890	Circular	1.000
SMH04	Manhole	490936.925	211599.294	156.710	1.020	155.690	Circular	1.000
SMH014	Manhole	490941.988	211593.853	156.600	1.500	155.100	Circular	1.000

Name	Lock
SMH01	None
SMH02	None
SMH03	None
SMH04	None
SMH014	None

Inlets

Junction	Inlet Name	Incoming Item(s)	Bypass Destination	Capacity Type
SMH01	Inlet	Catchment Area	(None)	No Restriction
SMH02	Inlet	Pipe Catchment Area (1)	(None)	No Restriction
SMH03	Inlet	Pipe (1)	(None)	No Restriction
	Inlet (1)	Catchment Area (2)	(None)	No Restriction
SMH04	Inlet	Pipe (2)	(None)	No Restriction
SMH014	Inlet	Pipe (3)	(None)	No Restriction

Outlets

Junction	Outlet Name	Outgoing Connection	Outlet Type
SMH01	Outlet	Pipe	Free Discharge
SMH02	Outlet	Pipe (1)	Free Discharge
SMH03	Outlet	Pipe (2)	Free Discharge
SMH04	Outlet	Pipe (3)	Free Discharge
SMH014	Outlet	Pipe (4)	Free Discharge

Project:	Date: 20/01/2024		
	Designed by: GraemeBeaven	Checked by:	Approved By:
Report Details: Type: Stormwater Controls Storm Phase: Phase	Company Address:		

Soakaway

Type : Soakaway

Dimensions

Exceedance Level (m)	155.800
Depth (m)	0.800
Base Level (m)	155.000
Freeboard (mm)	0
Soakaway Shape	Rectangular
Diameter / Width (m)	2.000
Length (m)	12.000
Porosity (%)	95
Ineffective Storage Depth (m)	0.000
Number of Soakaways	1
Side Infiltration Rate (m/hr)	0.36
Safety Factor	1.0
Total Volume (m³)	18.240

Inlets

Inlet

Incoming Item(s)	Pipe (4)
Bypass Destination	(None)
Capacity Type	No Restriction

Project:	Date: 20/01/2024		
	Designed by: GraemeBeaven	Checked by:	Approved By:
Report Details: Type: Connections Storm Phase: Phase	Company Address:		

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)
Pipe	25.580	Pipe	98.384		0.6	150	156.720	156.200
Pipe (1)	4.712	Pipe	94.249		0.6	150	156.710	155.940
Pipe (2)	19.745	Pipe	98.726		0.6	150	156.690	155.890
Pipe (3)	7.433	Pipe	12.597		0.6	150	156.710	155.690
Pipe (4)	7.086	Pipe	70.860		0.6	150	156.600	155.100

Name	Downstream Cover Level (m)	Downstream Invert Level (m)	Lock
Pipe	156.710	155.940	None
Pipe (1)	156.690	155.890	None
Pipe (2)	156.710	155.690	None
Pipe (3)	156.600	155.100	None
Pipe (4)	155.800	155.000	None

Project:	Date: 20/01/2024		
	Designed by: GraemeBeaven	Checked by:	Approved By:
Report Details: Type: Manhole Schedule Storm Phase: Phase	Company Address:		

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
SMH01	156.720 156.200	Diameter / Length: 1.000					Manhole
E:490914.287 N:211640.692	0.520		{a} Pipe	Pipe	156.200	Diam/Width:150	Not Applicable
SMH02	156.710 155.940	Diameter / Length: 1.000	{1} Pipe	Pipe	155.940	Diam/Width:150	Manhole
E:490928.710 N:211619.566	0.770		{a} Pipe (1)	Pipe	155.940	Diam/Width:150	Not Applicable
SMH03	156.690 155.890	Diameter / Length: 1.000	{1} Pipe (1)	Pipe	155.890	Diam/Width:150	Manhole
E:490925.977 N:211615.727	0.800		{a} Pipe (2)	Pipe	155.890	Diam/Width:150	Not Applicable
SMH04	156.710 155.690	Diameter / Length: 1.000	{1} Pipe (2)	Pipe	155.690	Diam/Width:150	Manhole
E:490936.925 N:211599.294	1.020		{a} Pipe (3)	Pipe	155.690	Diam/Width:150	Not Applicable
SMH014	156.600 155.100	Diameter / Length: 1.000	{1} Pipe (3)	Pipe	155.100	Diam/Width:150	Manhole
E:490941.988 N:211593.853	1.500		{a} Pipe (4)	Pipe	155.100	Diam/Width:150	Not Applicable

Project:	Date: 20/01/2024		
	Designed by: GraemeBeaven	Checked by:	Approved By:
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	SMH01		Time of Concentration	0.012	100	0	100	0.012
Catchment Area (1)	SMH02		Time of Concentration	0.019	100	0	100	0.019
Catchment Area (2)	SMH03		Time of Concentration	0.013	100	0	100	0.013
TOTAL		**0.0**		**0.044**				**0.044**

Project:	Date: 20/01/2024		
	Designed by: GraemeBeaven	Checked by:	Approved By:
Report Details: Type: Network Design Criteria Storm Phase: Phase	Company Address:		

Flow Options

Peak Flow Calculation	(UK) Modified Rational Method
Min. Time of Entry (mins)	5
Max. Travel Time (mins)	30

Pipe Options

Lock Slope Options	None
Design Options	Minimise Excavation
Design Level	Level Soffits
Min. Cover Depth (m)	1.200
Min. Slope (1:X)	500.00
Max. Slope (1:X)	40.00
Min. Velocity (m/s)	1.0
Max. Velocity (m/s)	3.0
Use Flow Restriction	☐
Reduce Channel Depths	☐

Pipe Size Library

Default

Add. Increment (mm)	75
Max. Diameter (mm)	0

Diameter (mm)	Min. Slope (1:X)	Max. Slope (1:X)
100	0.00	0.00
150	0.00	0.00

Project:	Date: 20/01/2024		
	Designed by: GraemeBeaven	Checked by:	Approved By:
Report Details: Type: Network Design Criteria Storm Phase: Phase	Company Address:		

Manhole Options

Apply Offset	☐

Manhole Size Library

Default

Diameter / Width

Connection (mm)	Diameter / Length (m)	Width (m)
0	1.200	0.000
375	1.350	0.000
500	1.500	0.000
750	1.800	0.000

Additional Sizing

Connection (mm)	900
Diameter / Length (m)	0.900
Width (m)	0.000

Depth

Depth (m)	Diameter / Length (m)	Width (m)
0.000	1.050	0.000
1.500	1.200	0.000

Access

Depth (m)	Ladder Protrusion (mm)
0.000	130
3.000	230

Benching Requirements

Landing Width (mm)	500
Benching Width (mm)	225

Project:	Date: 20/01/2024		
	Designed by: GraemeBeaven	Checked by:	Approved By:
Report Title: Rainfall Analysis Criteria	Company Address:		

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)	0
Perform No Discharge Analysis	☐

Project:	Date: 20/01/2024		
	Designed by: GraemeBeaven	Checked by:	Approved By:
Report Details: Type: Inflows Summary Storm Phase: Phase	Company Address:		

FEH: 2 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 (m^3)
Catchment Area	FEH: 2 years: +0 %: 15 mins: Winter	0.01	1.8	0.836
Catchment Area (1)	FEH: 2 years: +0 %: 15 mins: Winter	0.02	2.8	1.304
Catchment Area (2)	FEH: 2 years: +0 %: 15 mins: Winter	0.01	1.8	0.854

Project:	Date: 20/01/2024		
	Designed by: GraemeBeaven	Checked by:	Approved By:
Report Details: Type: Inflows Summary Storm Phase: Phase	Company Address:		

FEH: 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 (m^3)
Catchment Area	FEH: 100 years: +40 %: 15 mins: Winter	0.01	7.3	3.373
Catchment Area (1)	FEH: 100 years: +40 %: 15 mins: Winter	0.02	11.4	5.283
Catchment Area (2)	FEH: 100 years: +40 %: 15 mins: Winter	0.01	7.4	3.454

Project:	Date: 20/01/2024		
	Designed by: GraemeBeaven	Checked by:	Approved By:
Report Details: Type: Junctions Summary Storm Phase: Phase	Company Address:		

FEH: 2 years: Increase Rainfall (%): +0: 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)	Max. Outflow (L/s)	Total Discharge Volume (m³)	Status
SMH01	FEH: 2 years: +0 %: 15 mins: Winter	156.720	156.200	156.231	0.031	1.8	0.024	0.000	1.7	0.834	OK
SMH02	FEH: 2 years: +0 %: 15 mins: Winter	156.710	155.940	155.996	0.056	4.5	0.044	0.000	4.3	2.134	OK
SMH03	FEH: 2 years: +0 %: 15 mins: Winter	156.690	155.890	155.954	0.064	6.1	0.051	0.000	5.8	2.984	OK
SMH04	FEH: 2 years: +0 %: 15 mins: Winter	156.710	155.690	155.724	0.034	5.8	0.027	0.000	5.7	2.981	OK
SMH014	FEH: 2 years: +0 %: 240 mins: Winter	156.600	155.100	155.228	0.128	1.6	0.100	0.000	1.6	9.401	OK

Project:	Date: 20/01/2024		
	Designed by: GraemeBeaven	Checked by:	Approved By:
Report Details: Type: Junctions Summary Storm Phase: Phase	Company Address:		

FEH: 100 years: Increase Rainfall (%): +40: 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)	Max. Outflow (L/s)	Total Discharge Volume (m³)	Status
SMH01	FEH: 100 years: +40 %: 15 mins: Winter	156.720	156.200	156.265	0.065	7.3	0.051	0.000	7.0	3.360	OK
SMH02	FEH: 100 years: +40 %: 15 mins: Winter	156.710	155.940	156.168	0.228	18.3	0.179	0.000	16.1	8.667	Surcharged
SMH03	FEH: 100 years: +40 %: 15 mins: Winter	156.690	155.890	156.109	0.219	23.5	0.172	0.000	21.6	12.130	Surcharged
SMH04	FEH: 100 years: +40 %: 15 mins: Winter	156.710	155.690	155.759	0.069	21.6	0.054	0.000	21.6	12.112	OK
SMH014	FEH: 100 years: +40 %: 180 mins: Winter	156.600	155.100	155.744	0.644	6.5	0.506	0.000	6.2	27.935	Surcharged

Project:	Date: 20/01/2024		
	Designed by: GraemeBeaven	Checked by:	Approved By:
Report Details: Type: Stormwater Controls Summary Storm Phase: Phase	Company Address:		

FEH: 2 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. Resident Volume (m³)	Max. Flooded Volume (m³)	Total Lost Volume (m³)	Max. Outflow (L/s)	Total Discharge Volume (m³)	Percentage Available (%)	Status
Soakaway	FEH: 2 years: +0 %: 240 mins: Winter	155.228	155.228	0.228	0.228	1.6	5.193	0.000	8.645	0.0	0.000	71.527	OK

Project:	Date: 20/01/2024		
	Designed by: GraemeBeaven	Checked by:	Approved By:
Report Details: Type: Stormwater Controls Summary Storm Phase: Phase	Company Address:		

FEH: 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. Resident Volume (m³)	Max. Flooded Volume (m³)	Total Lost Volume (m³)	Max. Outflow (L/s)	Total Discharge Volume (m³)	Percentage Available (%)	Status
Soakaway	FEH: 100 years: +40 %: 180 mins: Winter	155.743	155.743	0.743	0.743	6.2	16.937	0.000	23.646	0.0	0.000	7.143	OK

Project:	Date: 20/01/2024		
	Designed by: GraemeBeaven	Checked by:	Approved By:
Report Details: Type: Connections Summary Storm Phase: Phase	Company Address:		

FEH: 2 years: Increase Rainfall (%): +0: 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
Pipe	FEH: 2 years: +0 %: 15 mins: Winter	Pipe	SMH01	SMH02	156.720	156.231	0.043	0.834	0.4	0.1	1.7	OK
Pipe (1)	FEH: 2 years: +0 %: 15 mins: Winter	Pipe	SMH02	SMH03	156.710	155.996	0.060	2.134	0.6	0.23	4.3	OK
Pipe (2)	FEH: 2 years: +0 %: 15 mins: Winter	Pipe	SMH03	SMH04	156.690	155.954	0.049	2.984	1.2	0.33	5.8	OK
Pipe (3)	FEH: 2 years: +0 %: 15 mins: Winter	Pipe	SMH04	SMH014	156.710	155.724	0.045	2.981	1.3	0.11	5.7	OK
Pipe (4)	FEH: 2 years: +0 %: 15 mins: Winter	Pipe	SMH014	Soakaway	156.600	155.157	0.070	2.966	1.2	0.26	5.6	OK

Project:	Date: 20/01/2024		
	Designed by: GraemeBeaven	Checked by:	Approved By:
Report Details: Type: Connections Summary Storm Phase: Phase	Company Address:		

FEH: 100 years: Increase Rainfall (%): +40: 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
Pipe	FEH: 100 years: +40 %: 15 mins: Winter	Pipe	SMH01	SMH02	156.720	156.265	0.146	3.360	0.4	0.39	7.0	OK
Pipe (1)	FEH: 100 years: +40 %: 15 mins: Winter	Pipe	SMH02	SMH03	156.710	156.168	0.150	8.667	0.9	0.88	16.1	Surcharged
Pipe (2)	FEH: 100 years: +40 %: 15 mins: Winter	Pipe	SMH03	SMH04	156.690	156.109	0.144	12.130	1.3	1.21	21.6	Surcharged
Pipe (3)	FEH: 100 years: +40 %: 15 mins: Winter	Pipe	SMH04	SMH014	156.710	155.759	0.150	12.112	1.3	0.43	21.6	OK
Pipe (4)	FEH: 100 years: +40 %: 15 mins: Winter	Pipe	SMH014	Soakaway	156.600	155.472	0.150	11.653	1.5	0.95	20.0	Surcharged

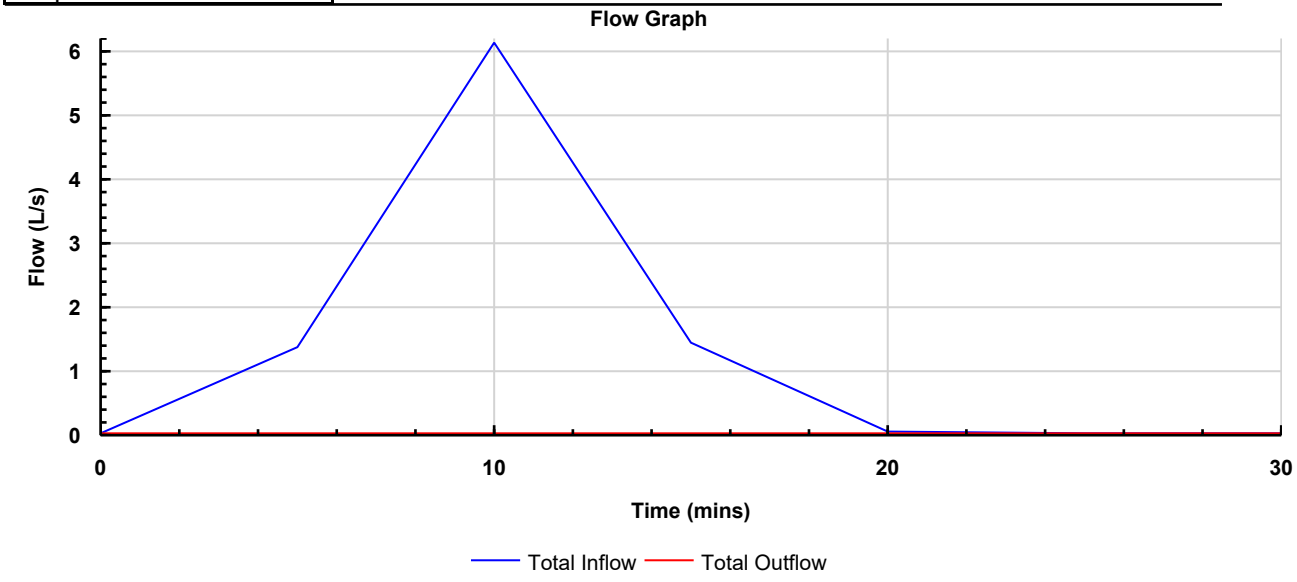
Project:	Date: 20/01/2024		
	Designed by: GraemeBeaven	Checked by:	Approved By:
Report Details: Type: Phase Management Storm Phase: Phase	Company Address:		

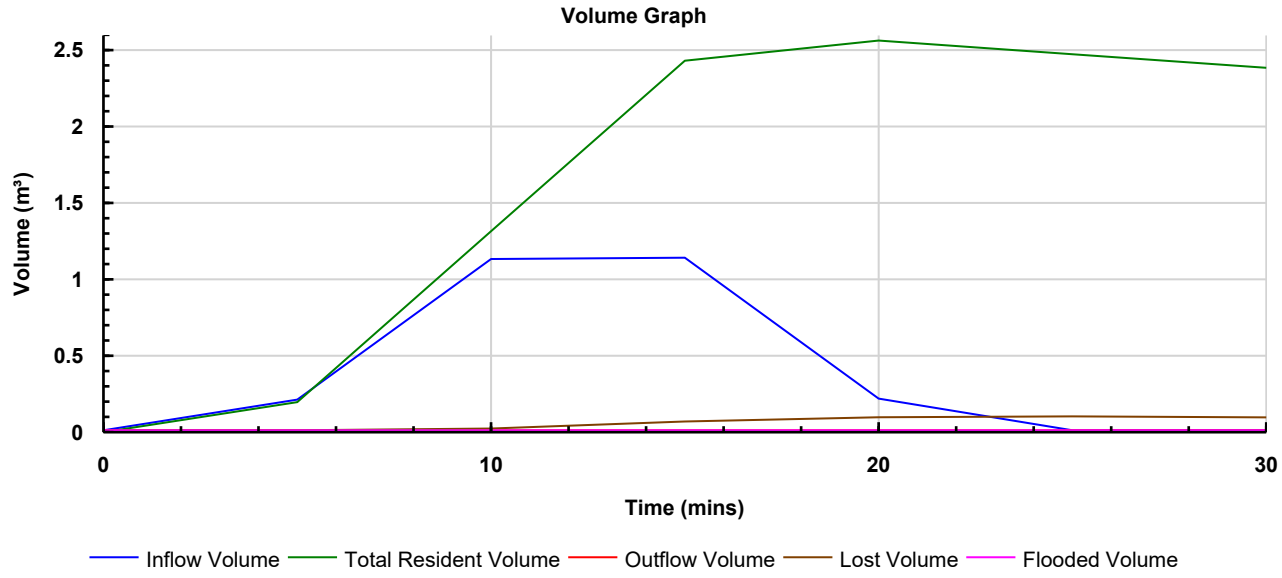
Phase
FEH: 2 years: Increase Rainfall (%): +0: 15 mins: Summer

Tables

Name	Max. Inflow (L/s)	Total Inflow Volume (m³)	Max. Outflow (L/s)	Total Outflow Volume (m³)
TOTAL	6.1	2.671	0.0	0.000

Graphs





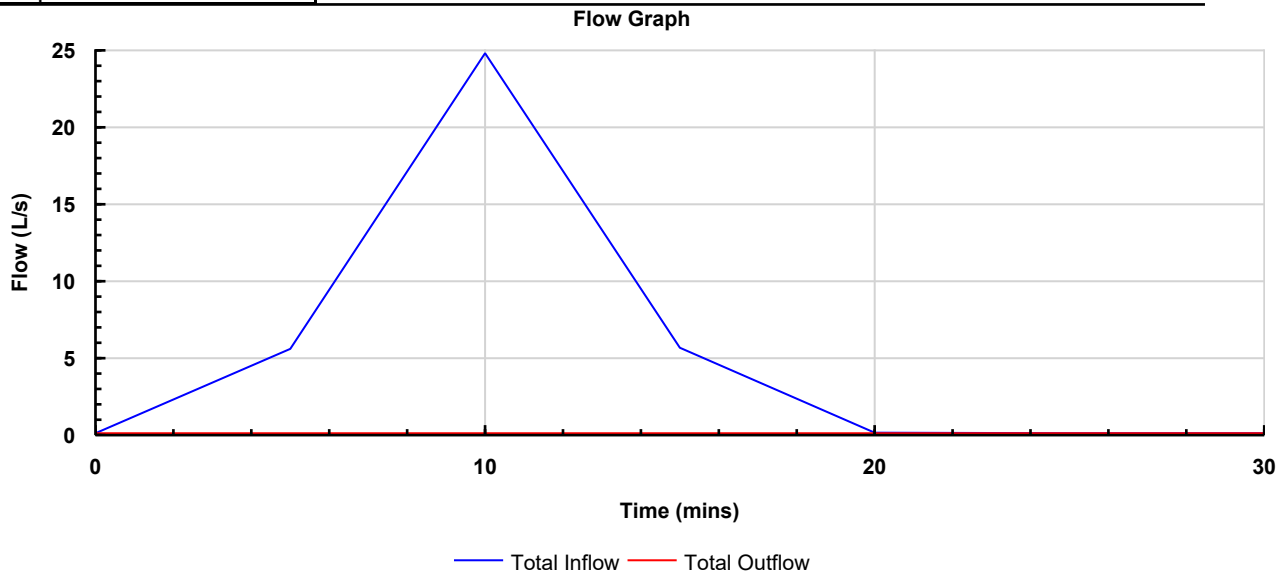
Project:	Date: 20/01/2024		
	Designed by: GraemeBeaven	Checked by:	Approved By:
Report Details: Type: Phase Management Storm Phase: Phase	Company Address:		

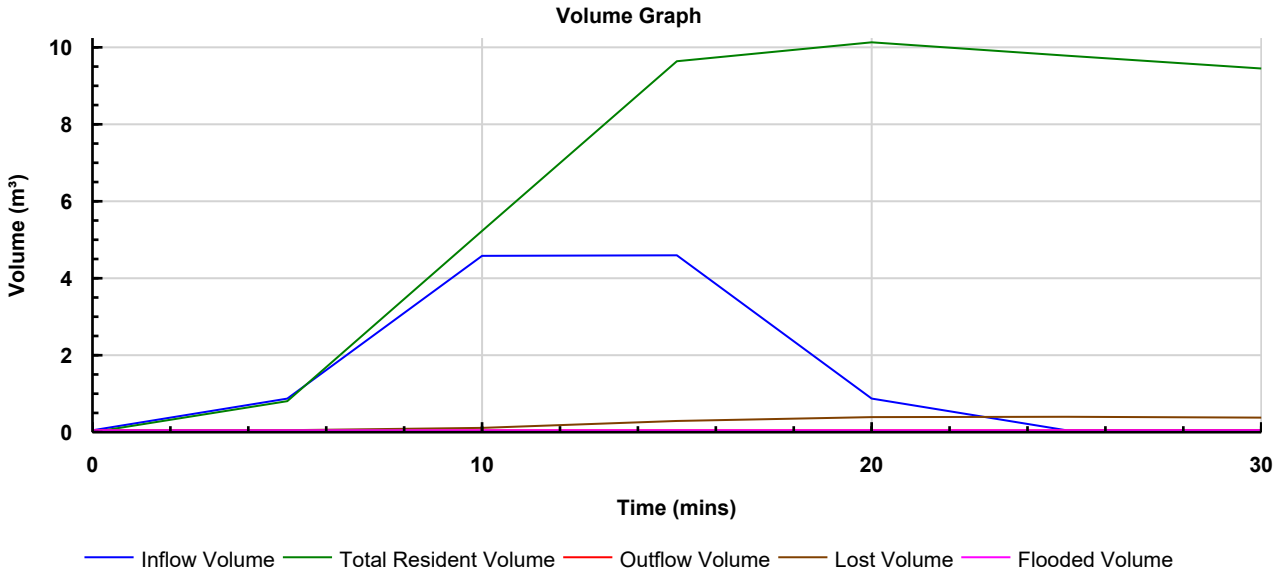
Phase
FEH: 100 years: Increase Rainfall (%): +40: 15 mins: Summer

Tables

Name	Max. Inflow (L/s)	Total Inflow Volume (m³)	Max. Outflow (L/s)	Total Outflow Volume (m³)
TOTAL	24.8	10.779	0.0	0.000

Graphs





Project:	Date: 20/01/2024		
	Designed by: GraemeBeaven	Checked by:	Approved By:
Report Details: Type: Inflow Results Storm Phase: Phase	Company Address:		

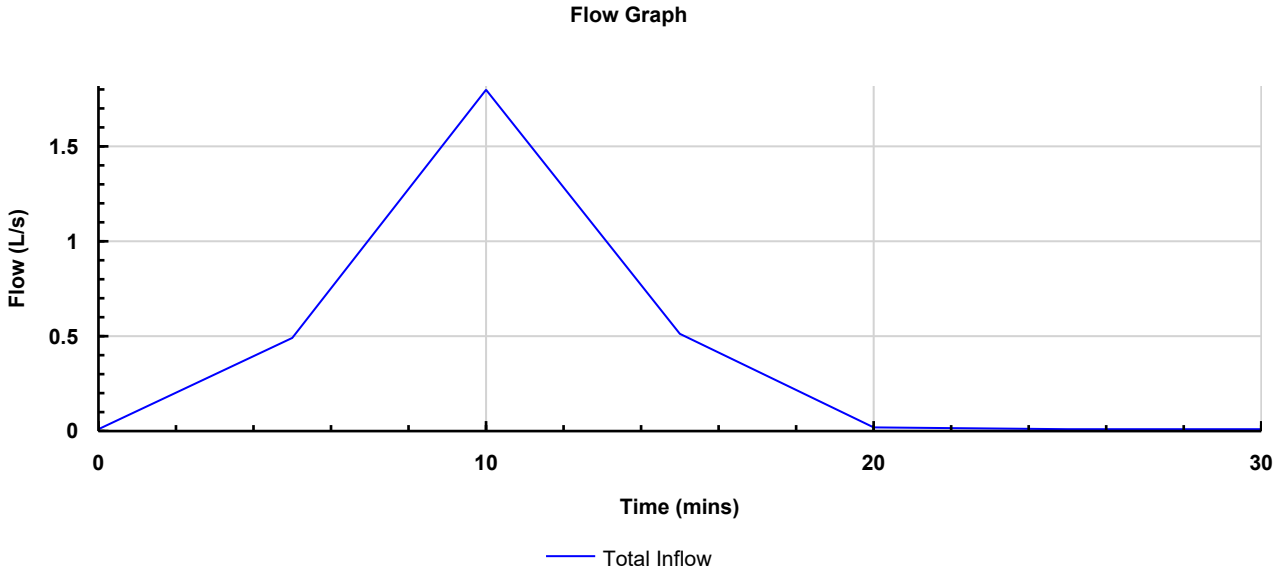
Catchment Area
Critical by Return Period: FEH: 2 years: Increase Rainfall (%): +0: 15 mins: Winter

Type : Catchment Area

Inflow

Max. Inflow (L/s)	1.8
Total Inflow Volume (m³)	0.836

Graphs



Tables

Time (mins)	Total Inflow (L/s)
0	0.0
5	0.5
10	1.8
15	0.5
20	0.0
25	0.0
30	0.0

Project:	Date: 20/01/2024		
	Designed by: GraemeBeaven	Checked by:	Approved By:
Report Details: Type: Inflow Results Storm Phase: Phase	Company Address:		

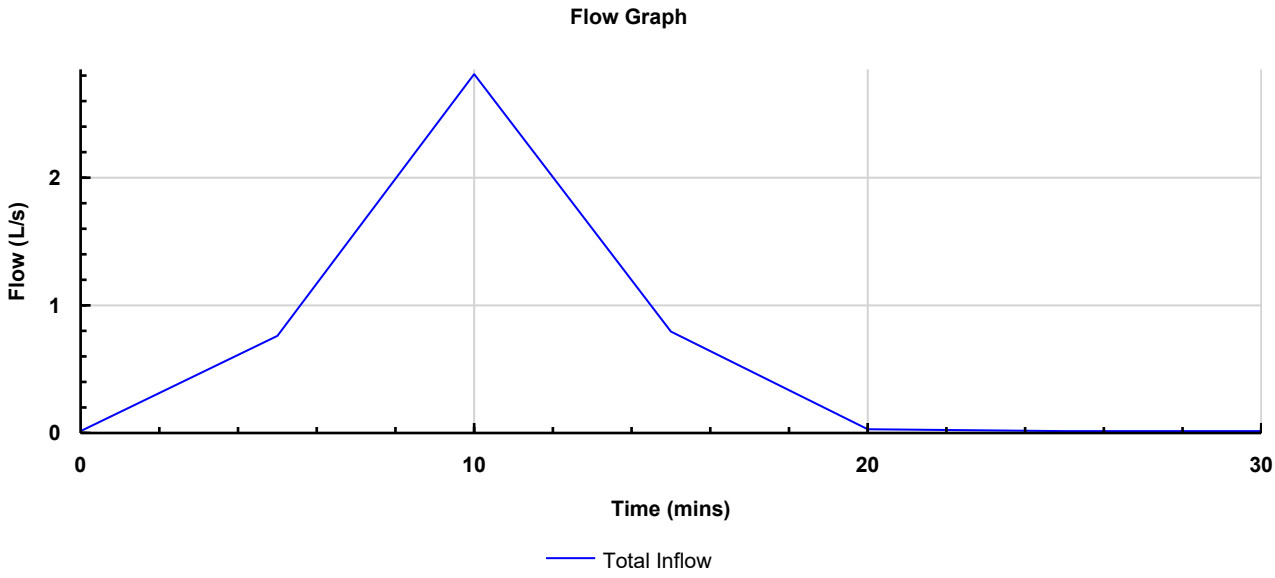
Catchment Area (1)
Critical by Return Period: FEH: 2 years: Increase Rainfall (%): +0: 15 mins: Winter

Type : Catchment Area

Inflow

Max. Inflow (L/s)	2.8
Total Inflow Volume (m³)	1.304

Graphs



Tables

Time (mins)	Total Inflow (L/s)
0	0.0
5	0.7
10	2.8
15	0.8
20	0.0
25	0.0
30	0.0

Project:	Date: 20/01/2024		
	Designed by: GraemeBeaven	Checked by:	Approved By:
Report Details: Type: Inflow Results Storm Phase: Phase	Company Address:		

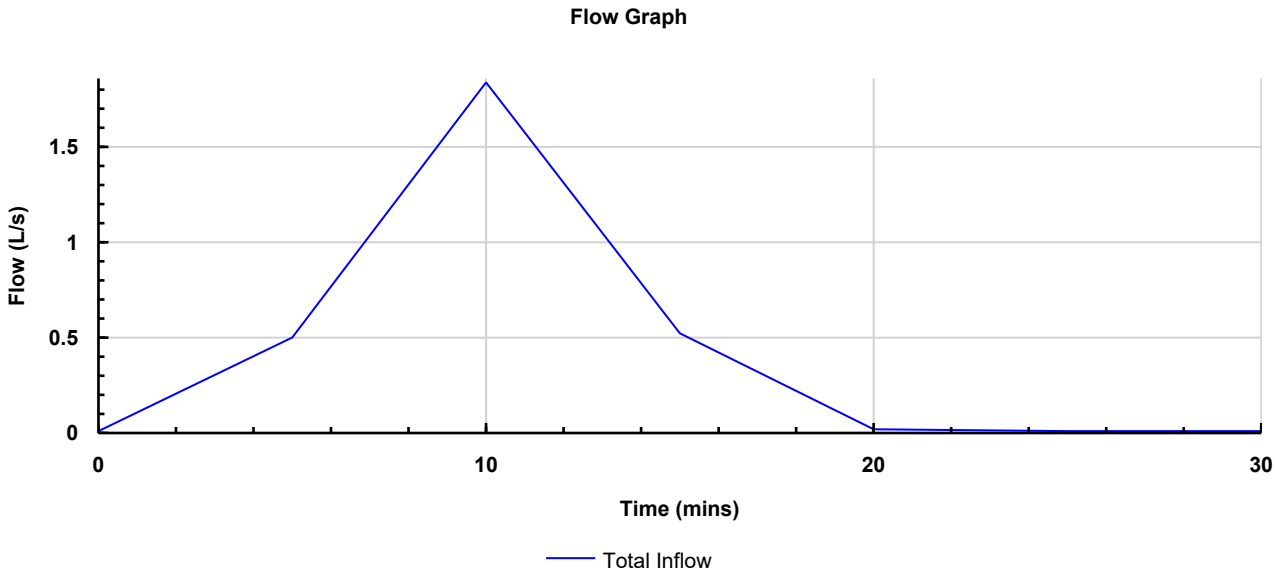
Catchment Area (2)
Critical by Return Period: FEH: 2 years: Increase Rainfall (%): +0: 15 mins: Winter

Type : Catchment Area

Inflow

Max. Inflow (L/s)	1.8
Total Inflow Volume (m³)	0.854

Graphs



Tables

Time (mins)	Total Inflow (L/s)
0	0.0
5	0.5
10	1.8
15	0.5
20	0.0
25	0.0
30	0.0

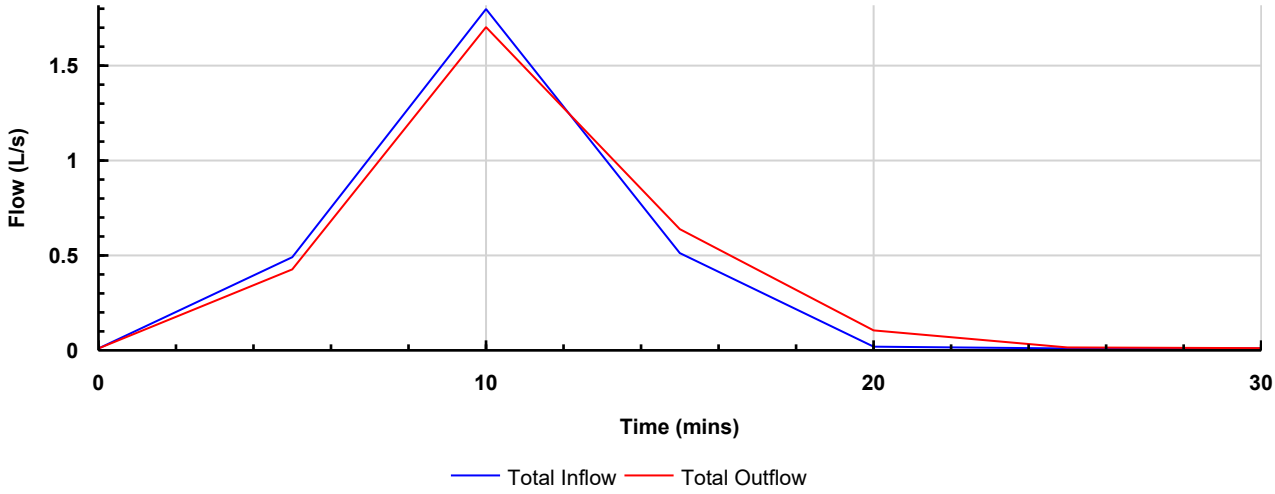
Project:	Date: 20/01/2024		
	Designed by: GraemeBeaven	Checked by:	Approved By:
Report Details: Type: Junction Results Storm Phase: Phase	Company Address:		

SMH01 Type : Manhole

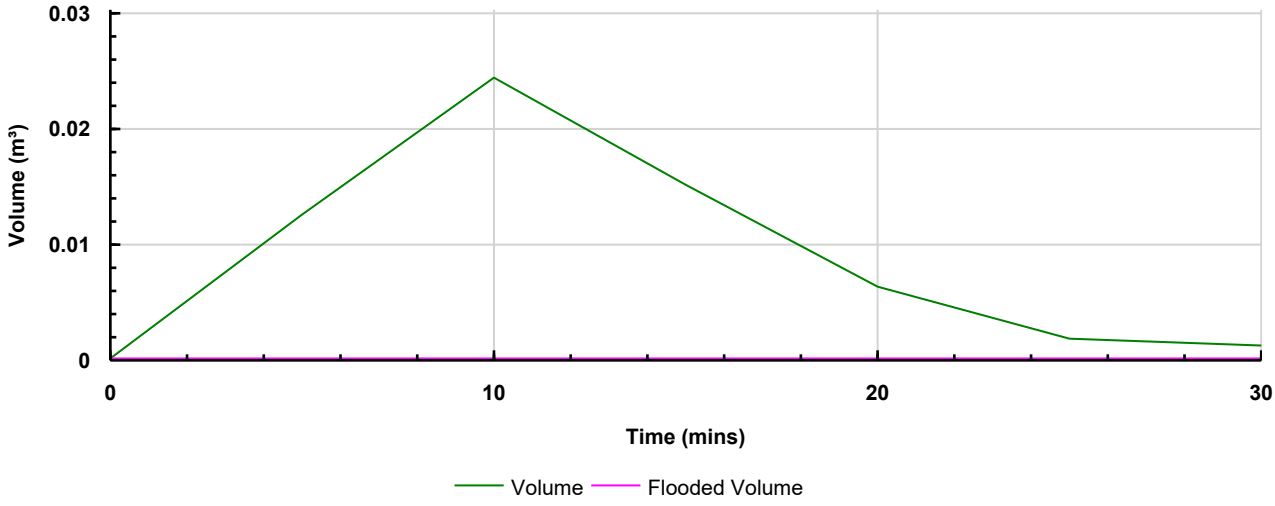
Critical by Return Period: FEH: 2 years: Increase Rainfall (%): +0: 15 mins: Winter

Graphs

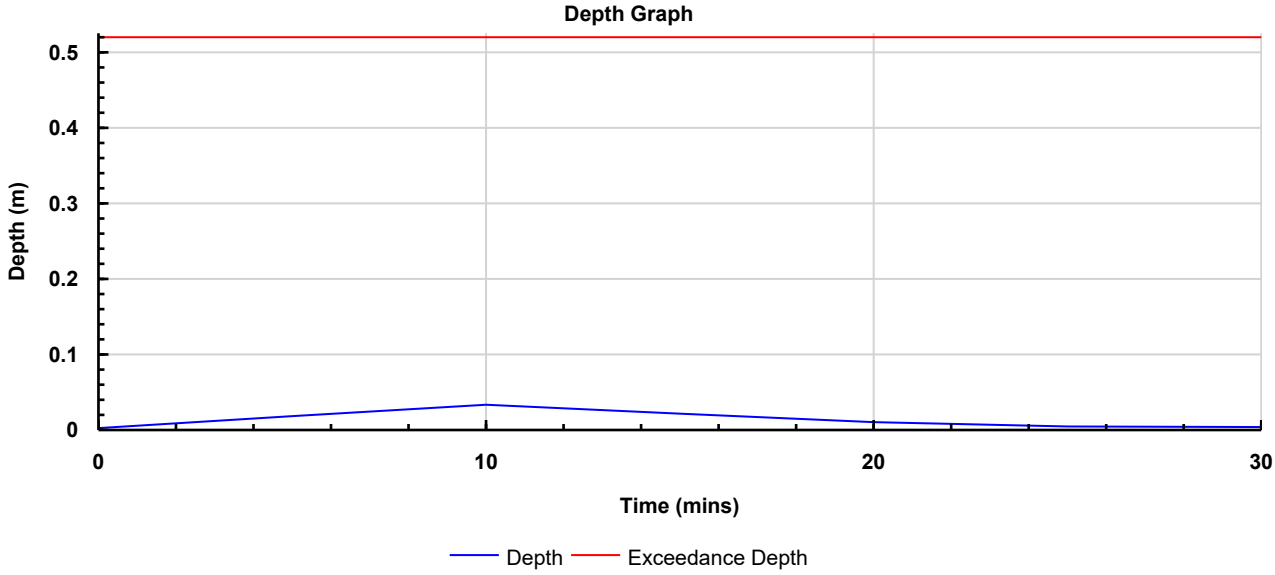
Flow Graph



Volume Graph



Project:	Date: 20/01/2024		
	Designed by: GraemeBeaven	Checked by:	Approved By:
Report Details: Type: Junction Results Storm Phase: Phase	Company Address:		



Project:	Date: 20/01/2024		
	Designed by: GraemeBeaven	Checked by:	Approved By:
Report Details: Type: Junction Results Storm Phase: Phase	Company Address:		

Tables

Time (mins)	Total Inflow (L/s)	Depth (m)	Volume (m³)	Flooded Volume (m³)	Total Outflow (L/s)
0	0.0	0.000	0.000	0.000	0.0
5	0.5	0.016	0.013	0.000	0.4
10	1.8	0.031	0.024	0.000	1.7
15	0.5	0.019	0.015	0.000	0.6
20	0.0	0.008	0.006	0.000	0.1
25	0.0	0.002	0.002	0.000	0.0
30	0.0	0.001	0.001	0.000	0.0

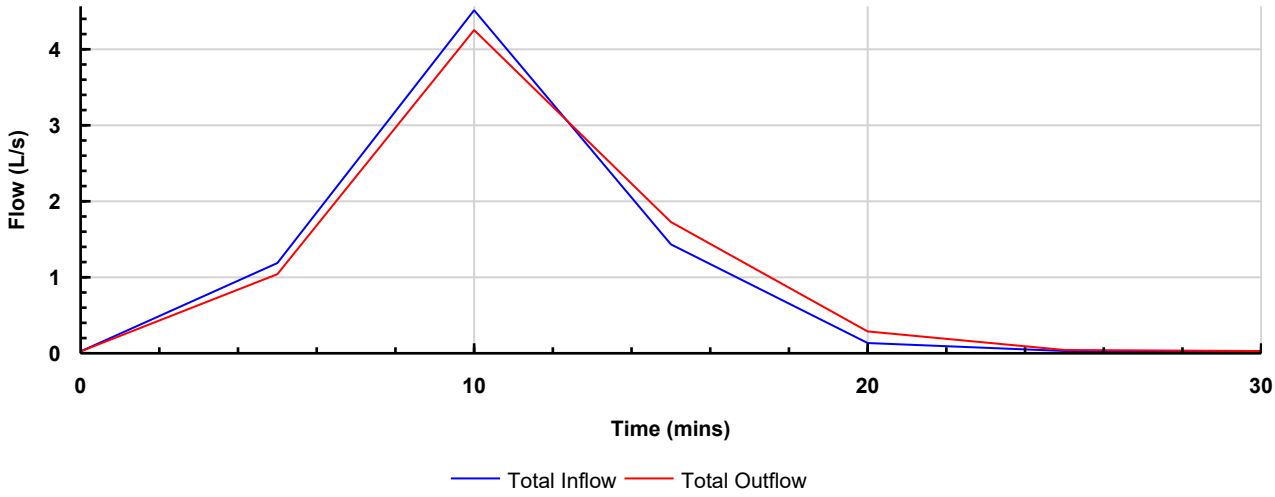
Project:	Date: 20/01/2024		
	Designed by: GraemeBeaven	Checked by:	Approved By:
Report Details: Type: Junction Results Storm Phase: Phase	Company Address:		

SMH02 Type : Manhole

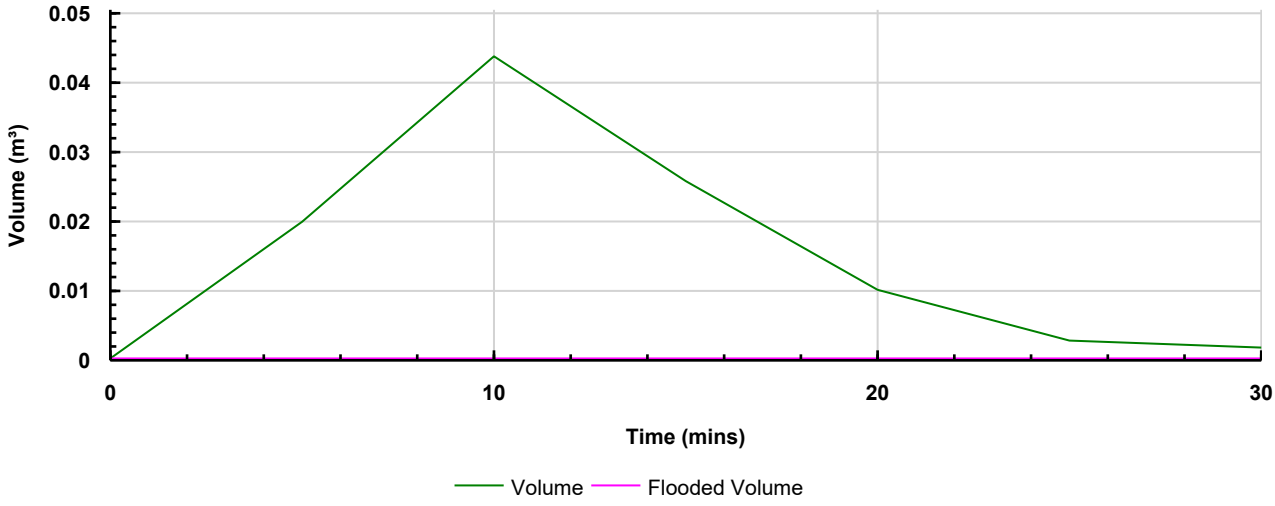
Critical by Return Period: FEH: 2 years: Increase Rainfall (%): +0: 15 mins: Winter

Graphs

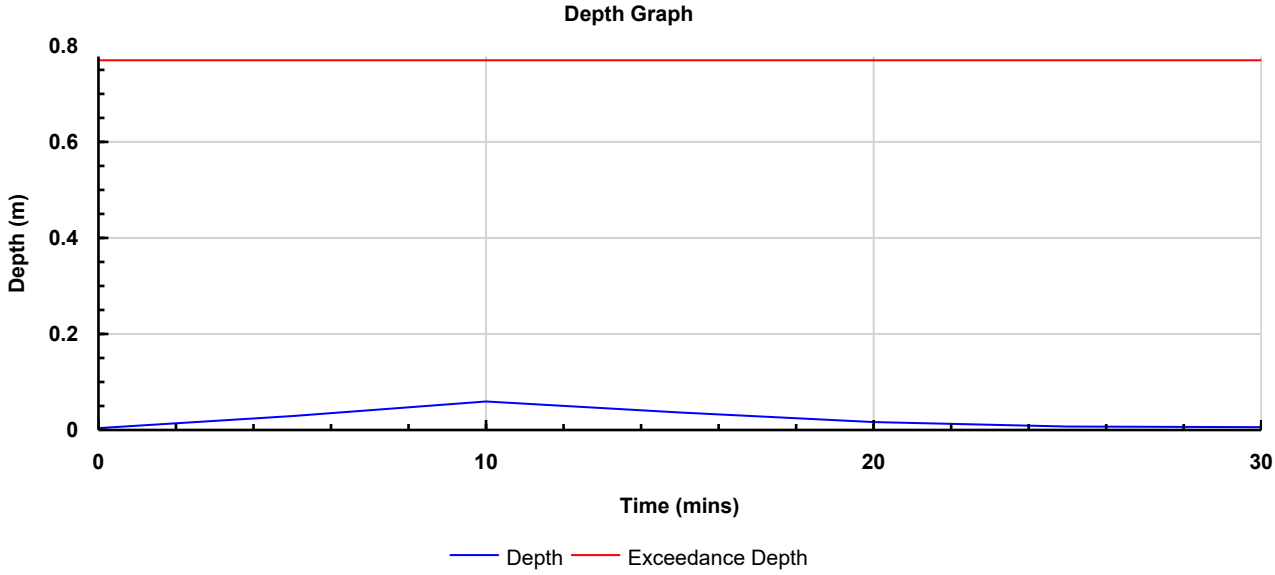
Flow Graph



Volume Graph



Project:	Date: 20/01/2024		
	Designed by: GraemeBeaven	Checked by:	Approved By:
Report Details: Type: Junction Results Storm Phase: Phase	Company Address:		



Project:	Date: 20/01/2024		
	Designed by: GraemeBeaven	Checked by:	Approved By:
Report Details: Type: Junction Results Storm Phase: Phase	Company Address:		

Tables

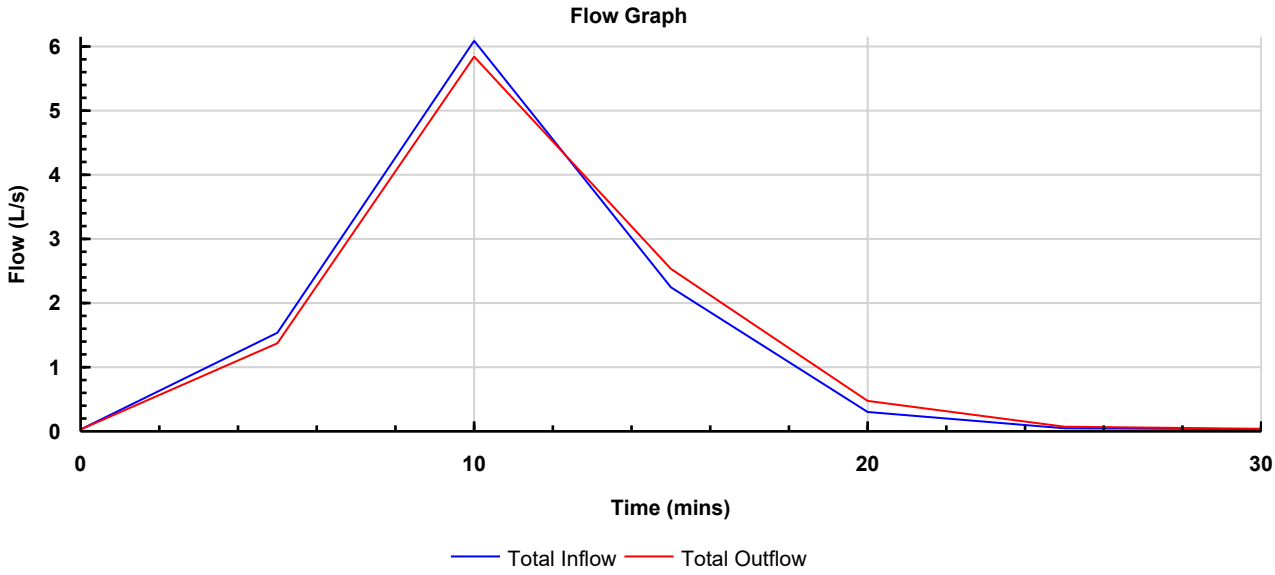
Time (mins)	Total Inflow (L/s)	Depth (m)	Volume (m³)	Flooded Volume (m³)	Total Outflow (L/s)
0	0.0	0.000	0.000	0.000	0.0
5	1.2	0.025	0.020	0.000	1.0
10	4.5	0.056	0.044	0.000	4.3
15	1.4	0.033	0.026	0.000	1.7
20	0.1	0.013	0.010	0.000	0.3
25	0.0	0.003	0.003	0.000	0.0
30	0.0	0.002	0.002	0.000	0.0

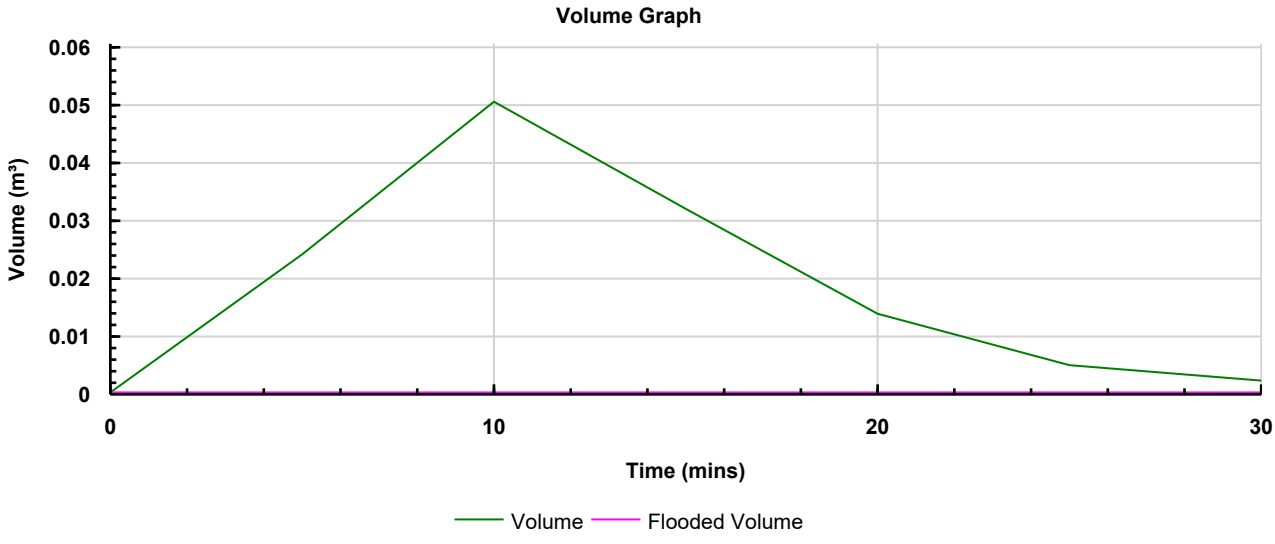
Project:	Date: 20/01/2024		
	Designed by: GraemeBeaven	Checked by:	Approved By:
Report Details: Type: Junction Results Storm Phase: Phase	Company Address:		

SMH03 Type : Manhole

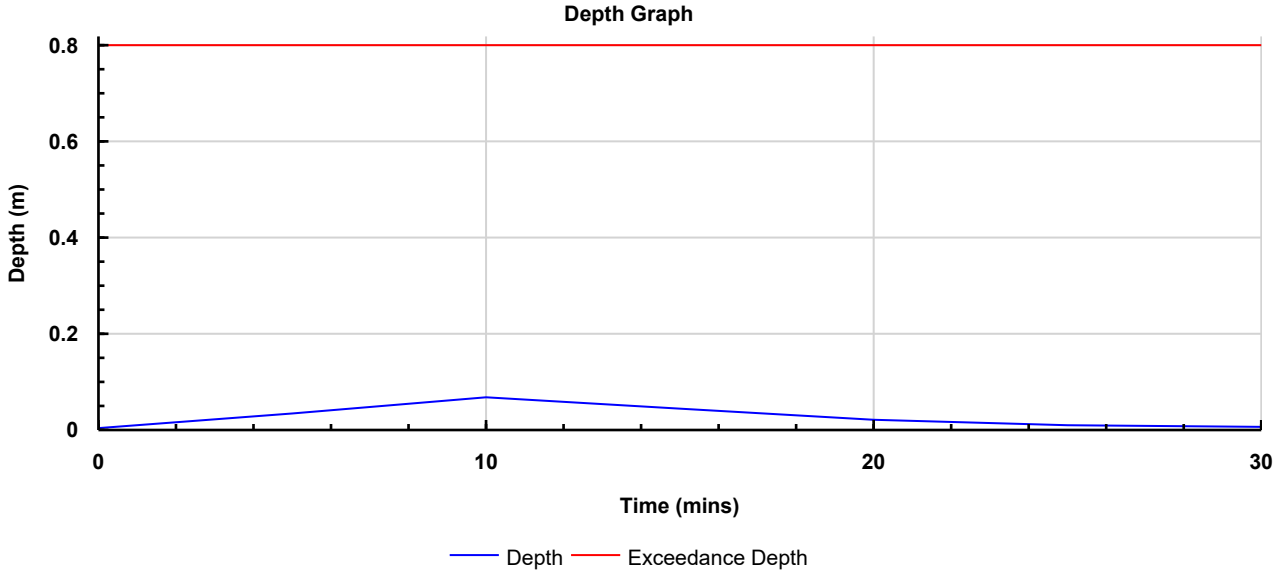
Critical by Return Period: FEH: 2 years: Increase Rainfall (%): +0: 15 mins: Winter

Graphs





Project:	Date: 20/01/2024		
	Designed by: GraemeBeaven	Checked by:	Approved By:
Report Details: Type: Junction Results Storm Phase: Phase	Company Address:		



Project:	Date: 20/01/2024		
	Designed by: GraemeBeaven	Checked by:	Approved By:
Report Details: Type: Junction Results Storm Phase: Phase	Company Address:		

Tables

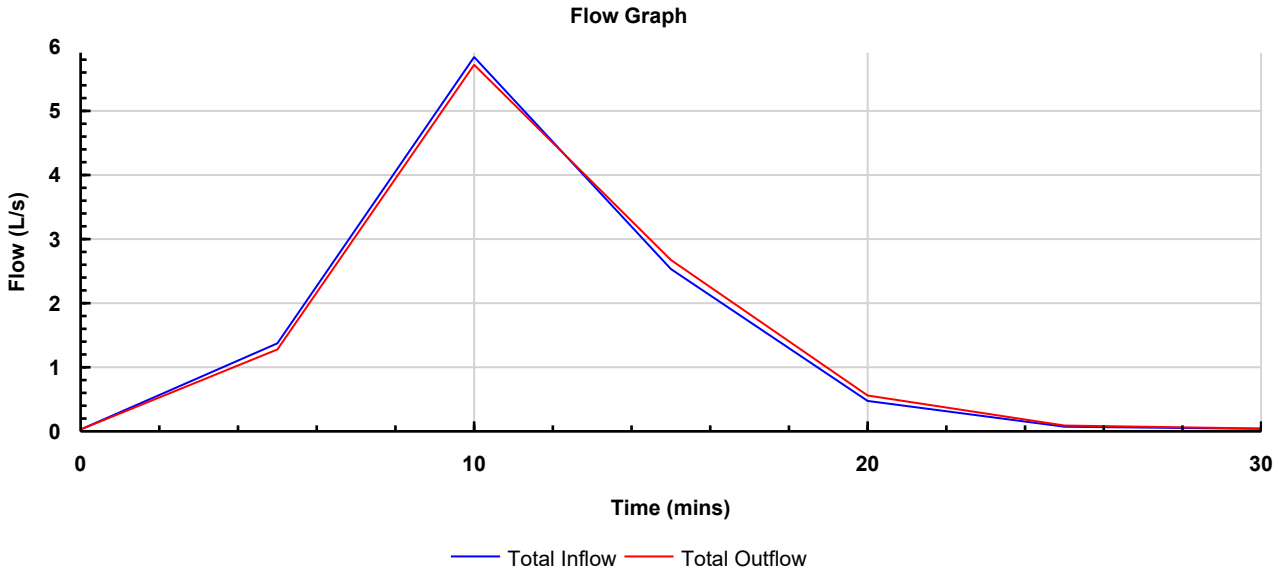
Time (mins)	Total Inflow (L/s)	Depth (m)	Volume (m³)	Flooded Volume (m³)	Total Outflow (L/s)
0	0.0	0.000	0.000	0.000	0.0
5	1.5	0.031	0.024	0.000	1.4
10	6.1	0.064	0.051	0.000	5.8
15	2.2	0.041	0.032	0.000	2.5
20	0.3	0.017	0.014	0.000	0.4
25	0.0	0.006	0.005	0.000	0.0
30	0.0	0.003	0.002	0.000	0.0

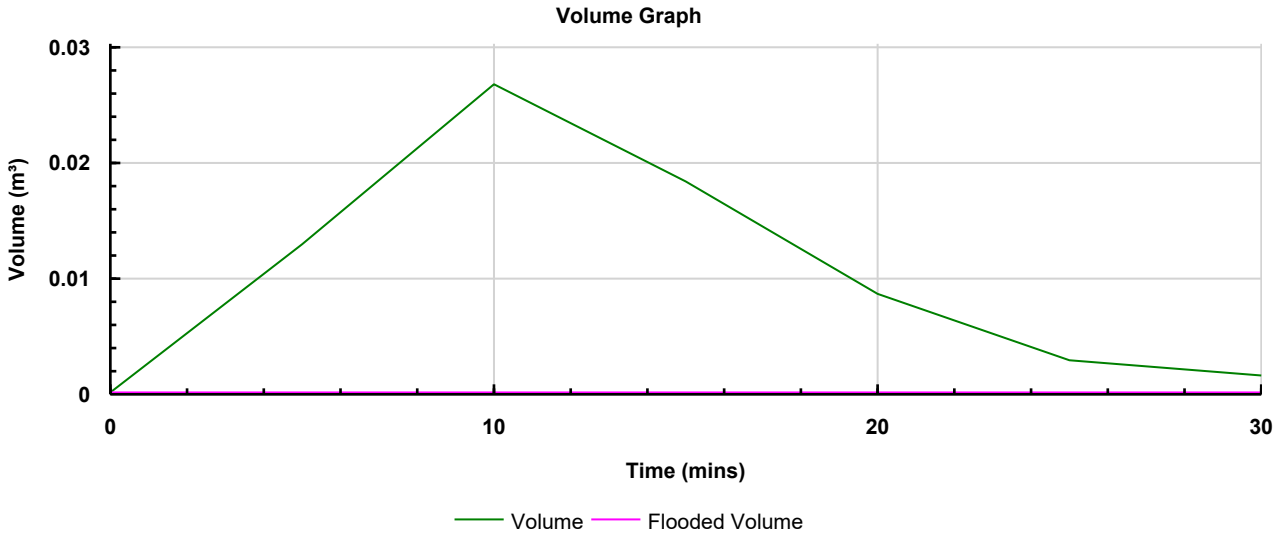
Project:	Date: 20/01/2024		
	Designed by: GraemeBeaven	Checked by:	Approved By:
Report Details: Type: Junction Results Storm Phase: Phase	Company Address:		

SMH04 Type : Manhole

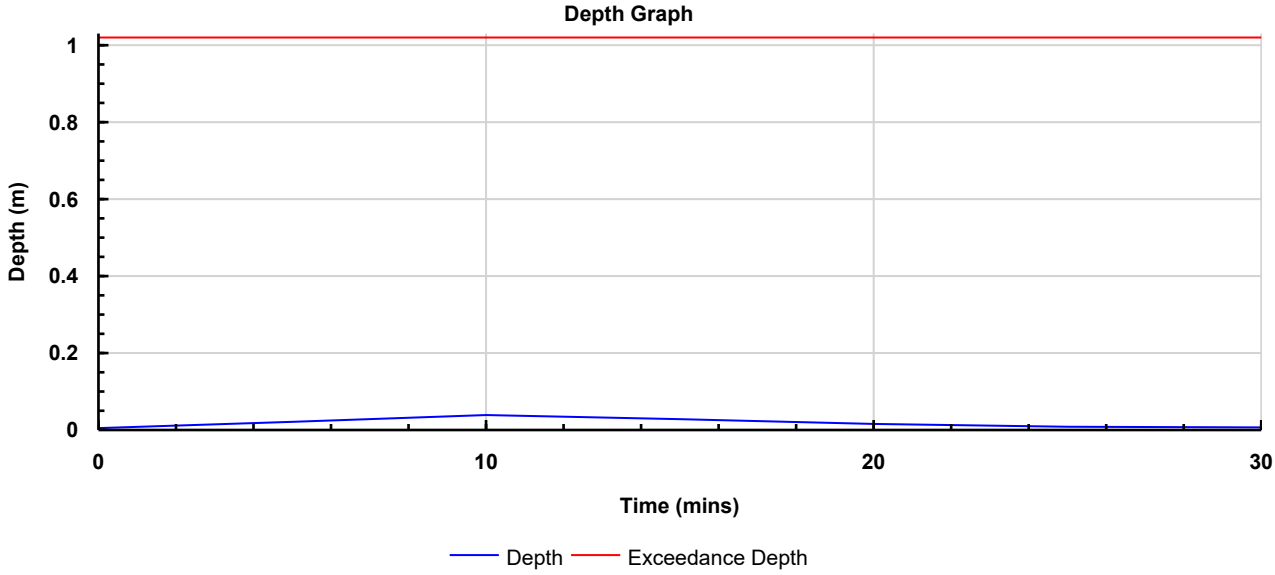
Critical by Return Period: FEH: 2 years: Increase Rainfall (%): +0: 15 mins: Winter

Graphs





Project:	Date: 20/01/2024		
	Designed by: GraemeBeaven	Checked by:	Approved By:
Report Details: Type: Junction Results Storm Phase: Phase	Company Address:		



Project:	Date: 20/01/2024		
	Designed by: GraemeBeaven	Checked by:	Approved By:
Report Details: Type: Junction Results Storm Phase: Phase	Company Address:		

Tables

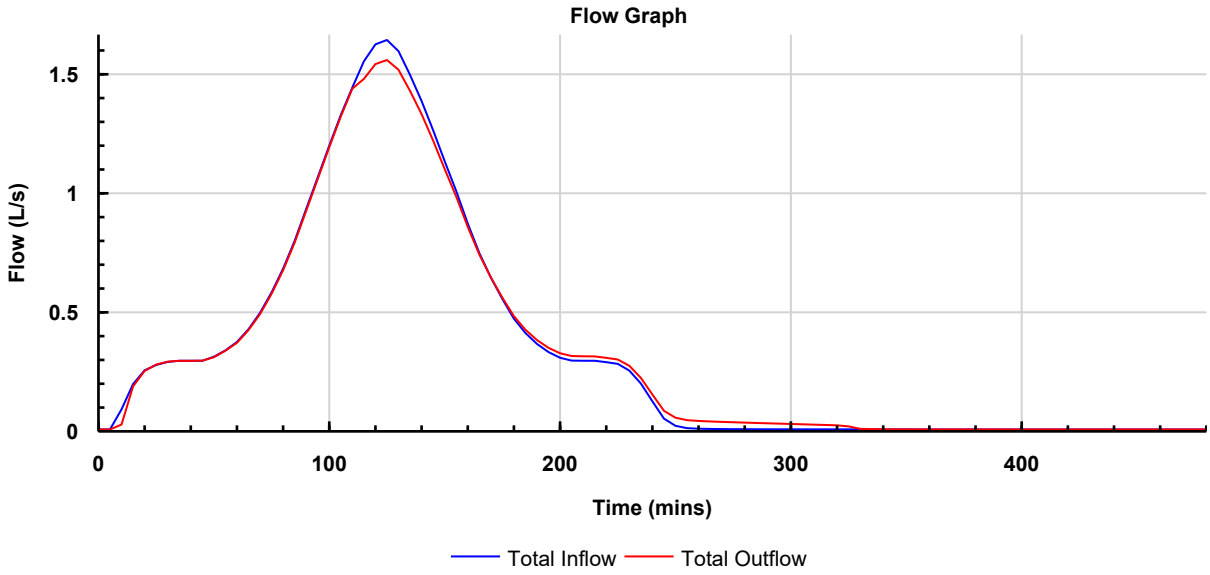
Time (mins)	Total Inflow (L/s)	Depth (m)	Volume (m³)	Flooded Volume (m³)	Total Outflow (L/s)
0	0.0	0.000	0.000	0.000	0.0
5	1.4	0.016	0.013	0.000	1.3
10	5.8	0.034	0.027	0.000	5.7
15	2.5	0.023	0.018	0.000	2.7
20	0.4	0.011	0.009	0.000	0.5
25	0.0	0.004	0.003	0.000	0.1
30	0.0	0.002	0.001	0.000	0.0

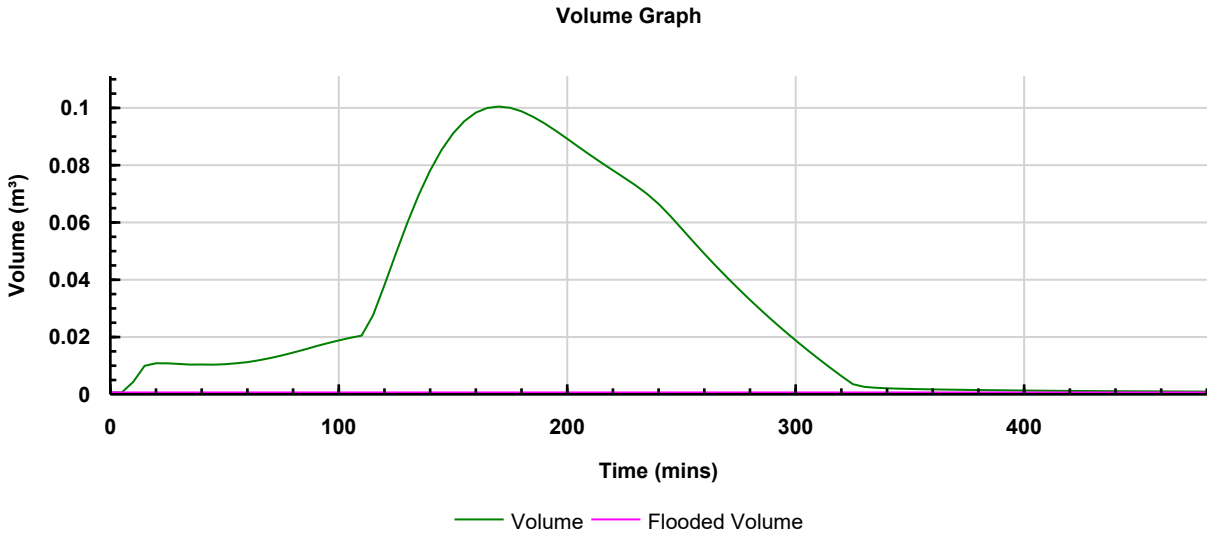
Project:	Date: 20/01/2024		
	Designed by: GraemeBeaven	Checked by:	Approved By:
Report Details: Type: Junction Results Storm Phase: Phase	Company Address:		

SMH014 Type : Manhole

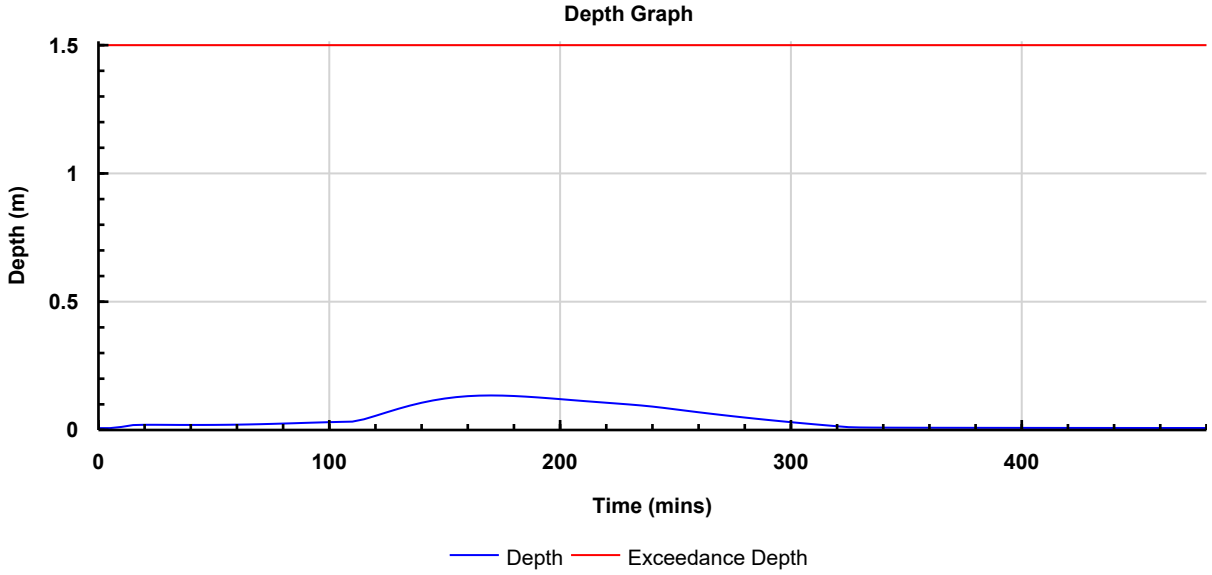
Critical by Return Period: FEH: 2 years: Increase Rainfall (%): +0: 240 mins: Winter

Graphs





Project:	Date: 20/01/2024		
	Designed by: GraemeBeaven	Checked by:	Approved By:
Report Details: Type: Junction Results Storm Phase: Phase	Company Address:		



Project:	Date: 20/01/2024		
	Designed by: GraemeBeaven	Checked by:	Approved By:
Report Details: Type: Junction Results Storm Phase: Phase	Company Address:		

Tables

Time (mins)	Total Inflow (L/s)	Depth (m)	Volume (m³)	Flooded Volume (m³)	Total Outflow (L/s)
0	0.0	0.000	0.000	0.000	0.0
5	0.0	0.000	0.000	0.000	0.0
10	0.1	0.005	0.004	0.000	0.0
15	0.2	0.012	0.009	0.000	0.2
20	0.2	0.013	0.010	0.000	0.2
25	0.3	0.013	0.010	0.000	0.3
30	0.3	0.013	0.010	0.000	0.3
35	0.3	0.012	0.010	0.000	0.3
40	0.3	0.013	0.010	0.000	0.3
45	0.3	0.012	0.010	0.000	0.3
50	0.3	0.013	0.010	0.000	0.3
55	0.3	0.013	0.010	0.000	0.3
60	0.4	0.014	0.011	0.000	0.4
65	0.4	0.014	0.011	0.000	0.4
70	0.5	0.015	0.012	0.000	0.5
75	0.6	0.017	0.013	0.000	0.6
80	0.7	0.018	0.014	0.000	0.7
85	0.8	0.019	0.015	0.000	0.8
90	0.9	0.021	0.016	0.000	0.9
95	1.1	0.022	0.017	0.000	1.1
100	1.2	0.023	0.018	0.000	1.2
105	1.3	0.024	0.019	0.000	1.3
110	1.4	0.025	0.020	0.000	1.4
115	1.6	0.035	0.027	0.000	1.5
120	1.6	0.048	0.038	0.000	1.5
125	1.6	0.062	0.049	0.000	1.6
130	1.6	0.076	0.060	0.000	1.5
135	1.5	0.088	0.069	0.000	1.4
140	1.4	0.099	0.078	0.000	1.3
145	1.3	0.109	0.085	0.000	1.2
150	1.1	0.116	0.091	0.000	1.1
155	1.0	0.121	0.095	0.000	1.0
160	0.9	0.125	0.098	0.000	0.9
165	0.7	0.127	0.100	0.000	0.7
170	0.6	0.128	0.100	0.000	0.6
175	0.6	0.127	0.100	0.000	0.6
180	0.5	0.126	0.099	0.000	0.5
185	0.4	0.123	0.097	0.000	0.4
190	0.4	0.120	0.095	0.000	0.4
195	0.3	0.117	0.092	0.000	0.3
200	0.3	0.114	0.089	0.000	0.3
205	0.3	0.110	0.086	0.000	0.3
210	0.3	0.106	0.083	0.000	0.3
215	0.3	0.103	0.081	0.000	0.3
220	0.3	0.099	0.078	0.000	0.3
225	0.3	0.096	0.075	0.000	0.3
230	0.2	0.093	0.073	0.000	0.3
235	0.2	0.089	0.070	0.000	0.2
240	0.1	0.084	0.066	0.000	0.1
245	0.0	0.079	0.062	0.000	0.1
250	0.0	0.073	0.058	0.000	0.0
255	0.0	0.068	0.053	0.000	0.0

Project:	Date: 20/01/2024		
	Designed by: GraemeBeaven	Checked by:	Approved By:
Report Details: Type: Junction Results Storm Phase: Phase	Company Address:		

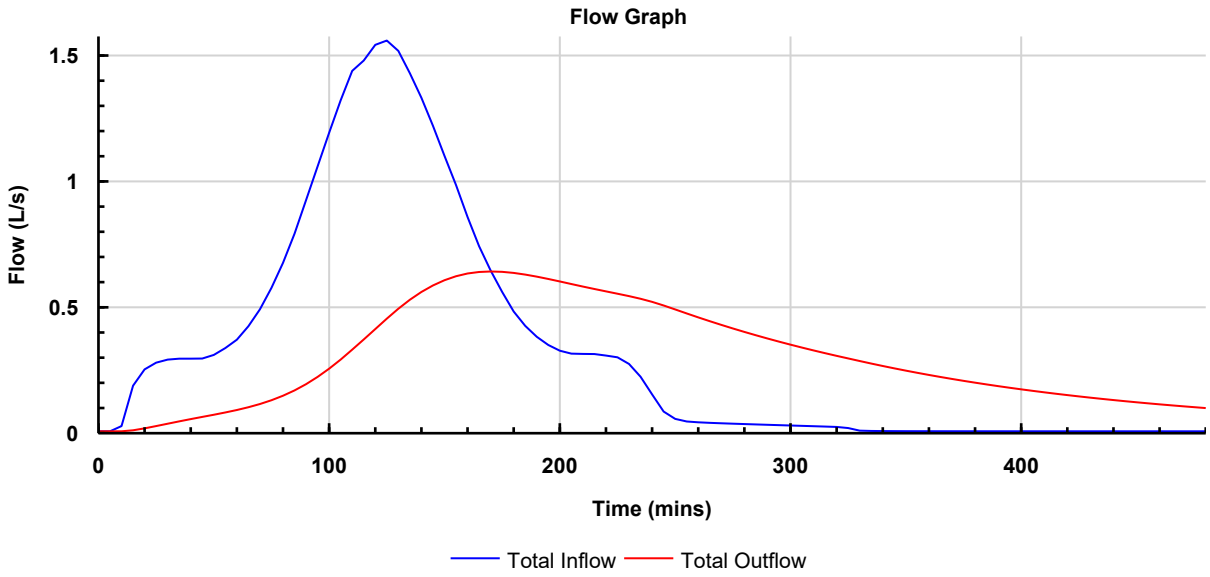
Time (mins)	Total Inflow (L/s)	Depth (m)	Volume (m³)	Flooded Volume (m³)	Total Outflow (L/s)
260	0.0	0.062	0.049	0.000	0.0
265	0.0	0.057	0.044	0.000	0.0
270	0.0	0.051	0.040	0.000	0.0
275	0.0	0.046	0.036	0.000	0.0
280	0.0	0.041	0.033	0.000	0.0
285	0.0	0.037	0.029	0.000	0.0
290	0.0	0.032	0.025	0.000	0.0
295	0.0	0.028	0.022	0.000	0.0
300	0.0	0.023	0.018	0.000	0.0
305	0.0	0.019	0.015	0.000	0.0
310	0.0	0.015	0.012	0.000	0.0
315	0.0	0.011	0.009	0.000	0.0
320	0.0	0.007	0.006	0.000	0.0
325	0.0	0.004	0.003	0.000	0.0
330	0.0	0.003	0.002	0.000	0.0
335	0.0	0.002	0.002	0.000	0.0
340	0.0	0.002	0.001	0.000	0.0
345	0.0	0.002	0.001	0.000	0.0
350	0.0	0.002	0.001	0.000	0.0
355	0.0	0.001	0.001	0.000	0.0
360	0.0	0.001	0.001	0.000	0.0
365	0.0	0.001	0.001	0.000	0.0
370	0.0	0.001	0.001	0.000	0.0
375	0.0	0.001	0.001	0.000	0.0
380	0.0	0.001	0.001	0.000	0.0
385	0.0	0.001	0.001	0.000	0.0
390	0.0	0.001	0.001	0.000	0.0
395	0.0	0.001	0.001	0.000	0.0
400	0.0	0.001	0.001	0.000	0.0
405	0.0	0.001	0.001	0.000	0.0
410	0.0	0.001	0.001	0.000	0.0
415	0.0	0.001	0.001	0.000	0.0
420	0.0	0.001	0.001	0.000	0.0
425	0.0	0.001	0.001	0.000	0.0
430	0.0	0.001	0.000	0.000	0.0
435	0.0	0.001	0.000	0.000	0.0
440	0.0	0.001	0.000	0.000	0.0
445	0.0	0.001	0.000	0.000	0.0
450	0.0	0.001	0.000	0.000	0.0
455	0.0	0.000	0.000	0.000	0.0
460	0.0	0.000	0.000	0.000	0.0
465	0.0	0.000	0.000	0.000	0.0
470	0.0	0.000	0.000	0.000	0.0
475	0.0	0.000	0.000	0.000	0.0
480	0.0	0.000	0.000	0.000	0.0

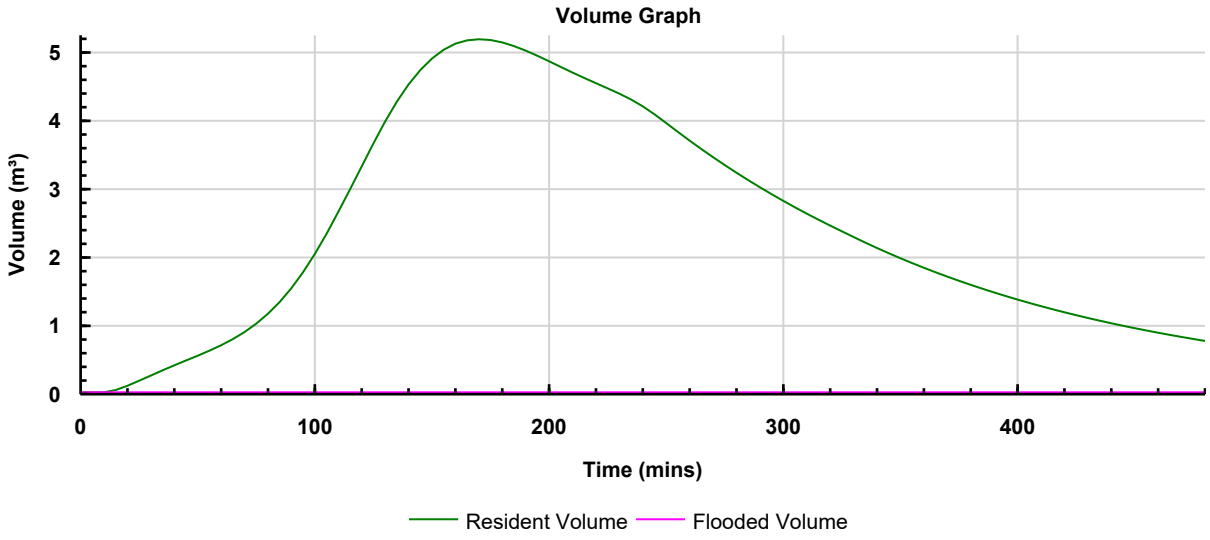
Project:	Date: 20/01/2024		
	Designed by: GraemeBeaven	Checked by:	Approved By:
Report Details: Type: Stormwater Control Results Storm Phase: Phase	Company Address:		

Soakaway
Critical by Return Period: FEH: 2 years: Increase Rainfall (%): +0: 240 mins: Winter

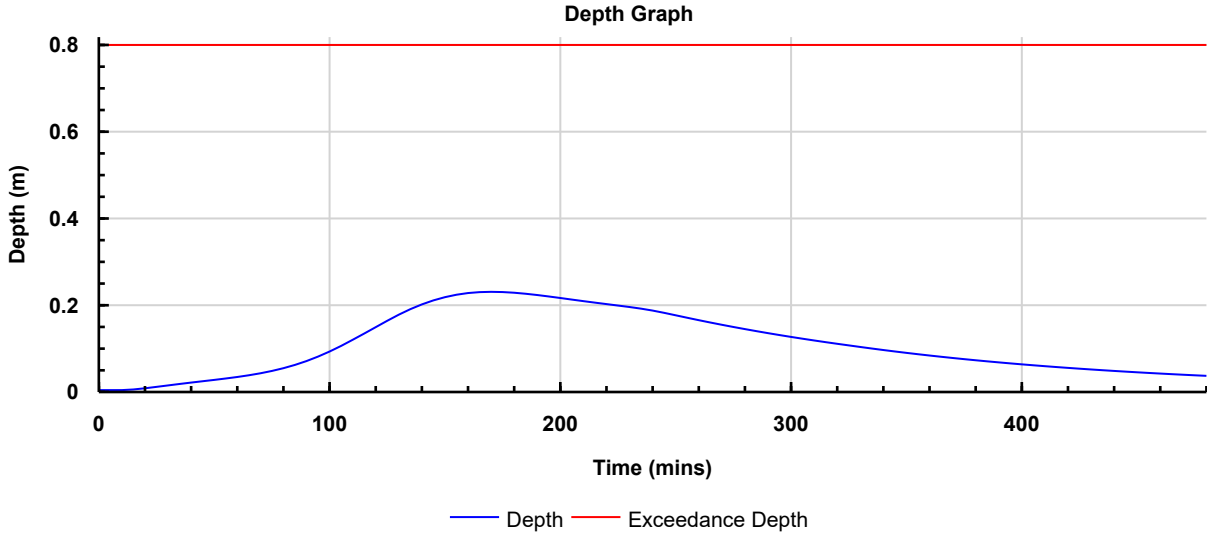
Type : Soakaway

Graphs





Project:	Date: 20/01/2024		
	Designed by: GraemeBeaven	Checked by:	Approved By:
Report Details: Type: Stormwater Control Results Storm Phase: Phase	Company Address:		



Project:	Date: 20/01/2024		
	Designed by: GraemeBeaven	Checked by:	Approved By:
Report Details: Type: Stormwater Control Results Storm Phase: Phase	Company Address:		

Tables

Time (mins)	Total Inflow (L/s)	Depth(m)	Resident Volume(m³)	Flooded Volume (m³)	Total Outflow (L/s)
0	0.0	0.000	0.000	0.000	0.0
5	0.0	0.000	0.000	0.000	0.0
10	0.0	0.000	0.001	0.000	0.0
15	0.2	0.002	0.033	0.000	0.0
20	0.2	0.004	0.096	0.000	0.0
25	0.3	0.008	0.170	0.000	0.0
30	0.3	0.011	0.247	0.000	0.0
35	0.3	0.014	0.323	0.000	0.0
40	0.3	0.017	0.397	0.000	0.0
45	0.3	0.021	0.468	0.000	0.1
50	0.3	0.024	0.538	0.000	0.1
55	0.3	0.027	0.613	0.000	0.1
60	0.4	0.030	0.692	0.000	0.1
65	0.4	0.034	0.783	0.000	0.1
70	0.5	0.039	0.887	0.000	0.1
75	0.6	0.044	1.010	0.000	0.1
80	0.7	0.051	1.156	0.000	0.1
85	0.8	0.058	1.329	0.000	0.2
90	0.9	0.067	1.532	0.000	0.2
95	1.1	0.078	1.768	0.000	0.2
100	1.2	0.089	2.035	0.000	0.2
105	1.3	0.102	2.332	0.000	0.3
110	1.4	0.117	2.654	0.000	0.3
115	1.5	0.131	2.985	0.000	0.4
120	1.5	0.146	3.323	0.000	0.4
125	1.6	0.161	3.661	0.000	0.4
130	1.5	0.175	3.984	0.000	0.5
135	1.4	0.188	4.275	0.000	0.5
140	1.3	0.199	4.529	0.000	0.6
145	1.2	0.208	4.739	0.000	0.6
150	1.1	0.215	4.910	0.000	0.6
155	1.0	0.221	5.039	0.000	0.6
160	0.9	0.225	5.128	0.000	0.6
165	0.7	0.227	5.177	0.000	0.6
170	0.6	0.228	5.193	0.000	0.6
175	0.6	0.227	5.182	0.000	0.6
180	0.5	0.226	5.147	0.000	0.6
185	0.4	0.223	5.093	0.000	0.6
190	0.4	0.220	5.026	0.000	0.6
195	0.3	0.217	4.950	0.000	0.6
200	0.3	0.213	4.870	0.000	0.6
205	0.3	0.210	4.786	0.000	0.6
210	0.3	0.206	4.704	0.000	0.6
215	0.3	0.203	4.624	0.000	0.6
220	0.3	0.199	4.547	0.000	0.6
225	0.3	0.196	4.471	0.000	0.5
230	0.3	0.193	4.393	0.000	0.5
235	0.2	0.189	4.307	0.000	0.5
240	0.1	0.184	4.207	0.000	0.5
245	0.1	0.179	4.089	0.000	0.5
250	0.0	0.173	3.961	0.000	0.5
255	0.0	0.168	3.830	0.000	0.5
260	0.0	0.162	3.702	0.000	0.5
265	0.0	0.157	3.578	0.000	0.4
270	0.0	0.151	3.458	0.000	0.4

Project:	Date: 20/01/2024		
	Designed by: GraemeBeaven	Checked by:	Approved By:
Report Details: Type: Stormwater Control Results Storm Phase: Phase	Company Address:		

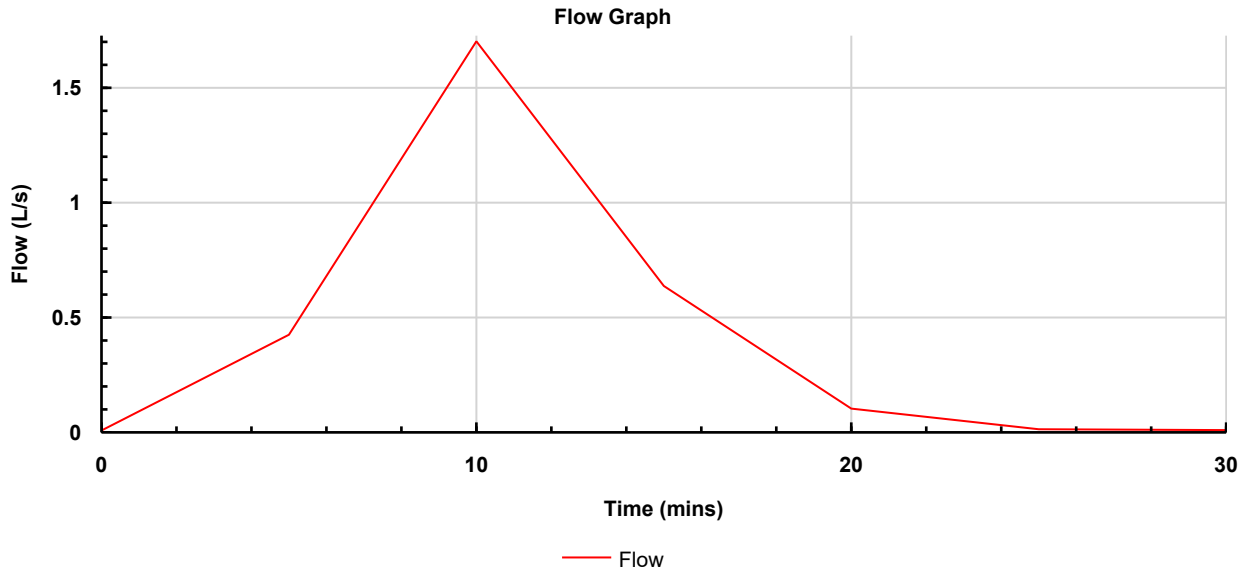
Time (mins)	Total Inflow (L/s)	Depth(m)	Resident Volume(m³)	Flooded Volume (m³)	Total Outflow (L/s)
275	0.0	0.146	3.342	0.000	0.4
280	0.0	0.141	3.230	0.000	0.4
285	0.0	0.137	3.121	0.000	0.4
290	0.0	0.132	3.016	0.000	0.4
295	0.0	0.128	2.914	0.000	0.4
300	0.0	0.123	2.816	0.000	0.3
305	0.0	0.119	2.720	0.000	0.3
310	0.0	0.115	2.628	0.000	0.3
315	0.0	0.111	2.539	0.000	0.3
320	0.0	0.107	2.452	0.000	0.3
325	0.0	0.104	2.368	0.000	0.3
330	0.0	0.100	2.284	0.000	0.3
335	0.0	0.096	2.202	0.000	0.3
340	0.0	0.093	2.122	0.000	0.3
345	0.0	0.090	2.046	0.000	0.3
350	0.0	0.086	1.972	0.000	0.2
355	0.0	0.083	1.901	0.000	0.2
360	0.0	0.080	1.832	0.000	0.2
365	0.0	0.077	1.765	0.000	0.2
370	0.0	0.074	1.702	0.000	0.2
375	0.0	0.072	1.640	0.000	0.2
380	0.0	0.069	1.581	0.000	0.2
385	0.0	0.067	1.524	0.000	0.2
390	0.0	0.064	1.468	0.000	0.2
395	0.0	0.062	1.415	0.000	0.2
400	0.0	0.060	1.364	0.000	0.2
405	0.0	0.058	1.315	0.000	0.2
410	0.0	0.055	1.267	0.000	0.2
415	0.0	0.053	1.221	0.000	0.1
420	0.0	0.052	1.177	0.000	0.1
425	0.0	0.050	1.134	0.000	0.1
430	0.0	0.048	1.093	0.000	0.1
435	0.0	0.046	1.054	0.000	0.1
440	0.0	0.044	1.016	0.000	0.1
445	0.0	0.043	0.979	0.000	0.1
450	0.0	0.041	0.943	0.000	0.1
455	0.0	0.040	0.909	0.000	0.1
460	0.0	0.038	0.876	0.000	0.1
465	0.0	0.037	0.845	0.000	0.1
470	0.0	0.036	0.814	0.000	0.1
475	0.0	0.034	0.784	0.000	0.1
480	0.0	0.033	0.755	0.000	0.1

Project:	Date: 20/01/2024		
	Designed by: GraemeBeaven	Checked by:	Approved By:
Report Details: Type: Connection Results Storm Phase: Phase	Company Address:		

Pipe
Critical by Return Period: FEH: 2 years: Increase Rainfall (%): +0: 15 mins: Winter

Type : Pipe

Graphs



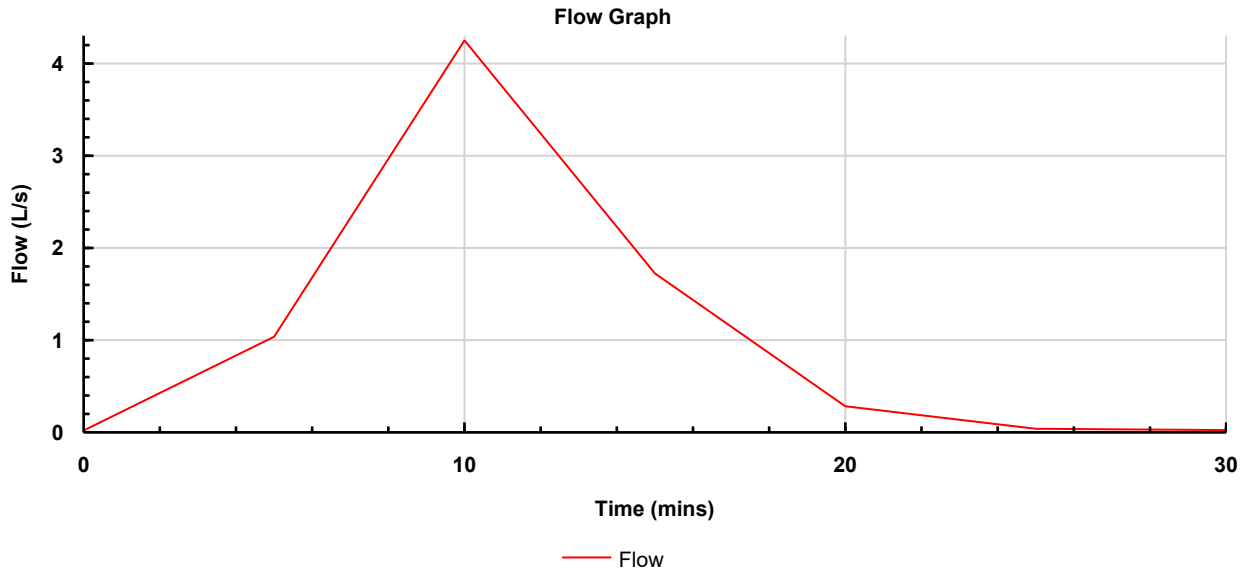
Tables

Time (mins)	Depth (m)	Flow (L/s)
0	0.000	0.0
5	0.021	0.4
10	0.043	1.7
15	0.026	0.6
20	0.010	0.1
25	0.003	0.0
30	0.002	0.0

Pipe (1)
Critical by Return Period: FEH: 2 years: Increase Rainfall (%): +0: 15 mins: Winter

Type : Pipe

Graphs



Tables

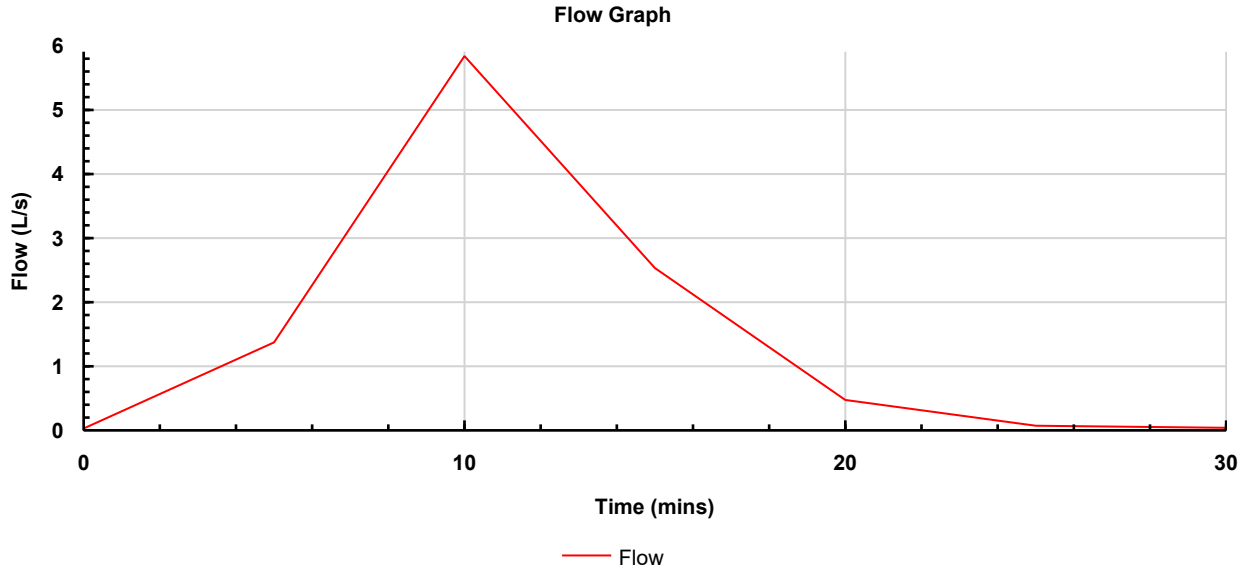
Time (mins)	Depth (m)	Flow (L/s)
0	0.000	0.0
5	0.028	1.0
10	0.060	4.3
15	0.037	1.7
20	0.015	0.3
25	0.005	0.0
30	0.002	0.0

Project:	Date: 20/01/2024		
	Designed by: GraemeBeaven	Checked by:	Approved By:
Report Details: Type: Connection Results Storm Phase: Phase	Company Address:		

Pipe (2)
Critical by Return Period: FEH: 2 years: Increase Rainfall (%): +0: 15 mins: Winter

Type : Pipe

Graphs



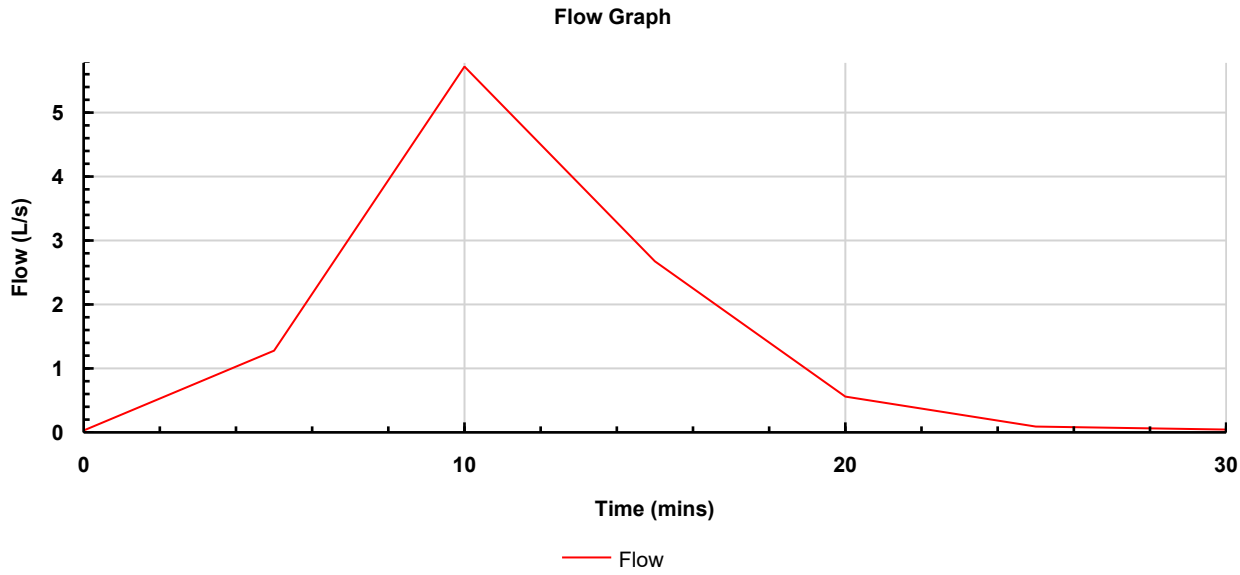
Tables

Time (mins)	Depth (m)	Flow (L/s)
0	0.000	0.0
5	0.023	1.4
10	0.049	5.8
15	0.032	2.5
20	0.014	0.4
25	0.005	0.0
30	0.002	0.0

Pipe (3)
Critical by Return Period: FEH: 2 years: Increase Rainfall (%): +0: 15 mins: Winter

Type : Pipe

Graphs



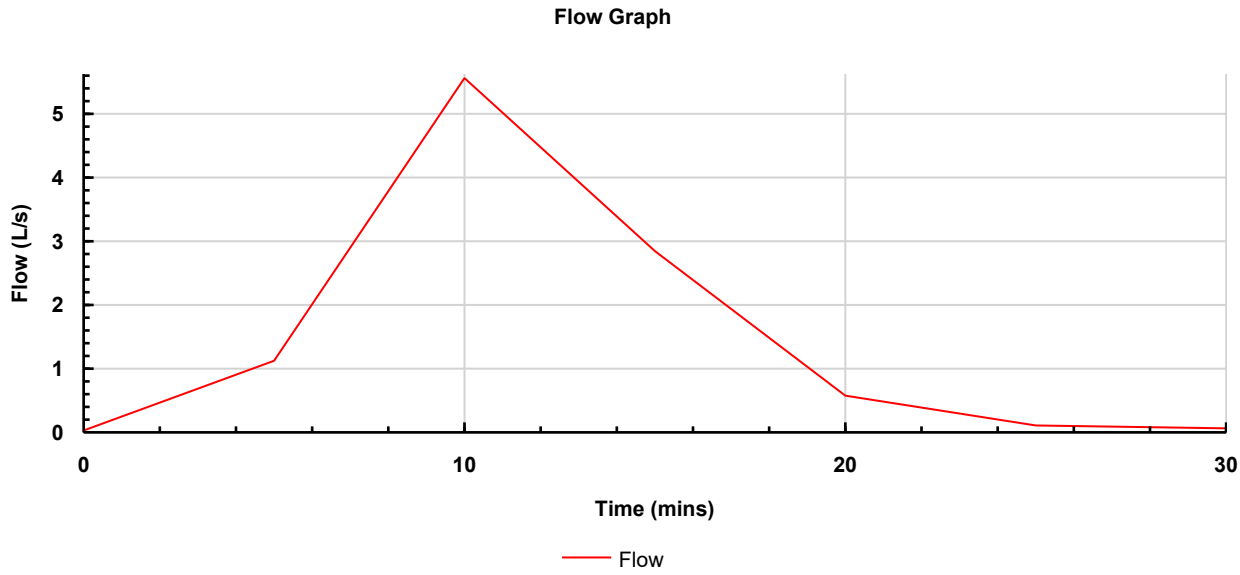
Tables

Time (mins)	Depth (m)	Flow (L/s)
0	0.000	0.0
5	0.022	1.3
10	0.045	5.7
15	0.030	2.7
20	0.015	0.5
25	0.011	0.1
30	0.008	0.0

Pipe (4)
Critical by Return Period: FEH: 2 years: Increase Rainfall (%): +0: 15 mins: Winter

Type : Pipe

Graphs



Tables

Time (mins)	Depth (m)	Flow (L/s)
0	0.000	0.0
5	0.015	1.1
10	0.050	5.6
15	0.070	2.8
20	0.070	0.5
25	0.067	0.1
30	0.064	0.0

Project:	Date: 20/01/2024		
	Designed by: GraemeBeaven	Checked by:	Approved By:
Report Details: Type: Inflow Results Storm Phase: Phase	Company Address:		

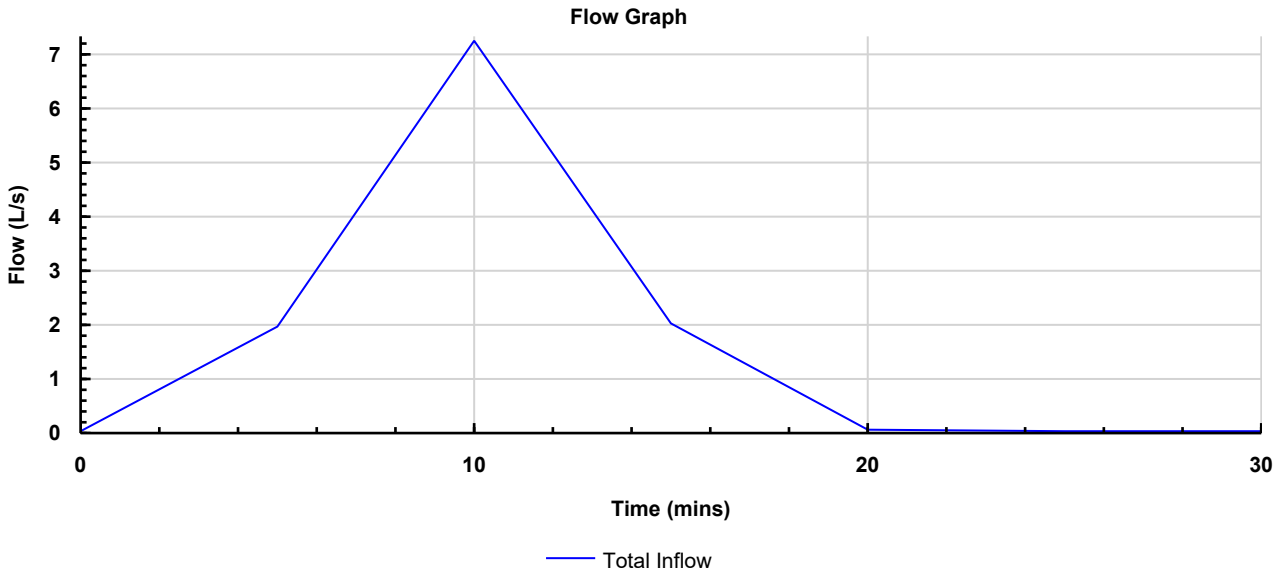
Catchment Area
Critical by Return Period: FEH: 100 years: Increase Rainfall (%): +40: 15 mins: Winter

Type : Catchment Area

Inflow

Max. Inflow (L/s)	7.3
Total Inflow Volume (m³)	3.373

Graphs



Tables

Time (mins)	Total Inflow (L/s)
0	0.0
5	1.9
10	7.3
15	2.0
20	0.0
25	0.0
30	0.0

Project:	Date: 20/01/2024		
	Designed by: GraemeBeaven	Checked by:	Approved By:
Report Details: Type: Inflow Results Storm Phase: Phase	Company Address:		

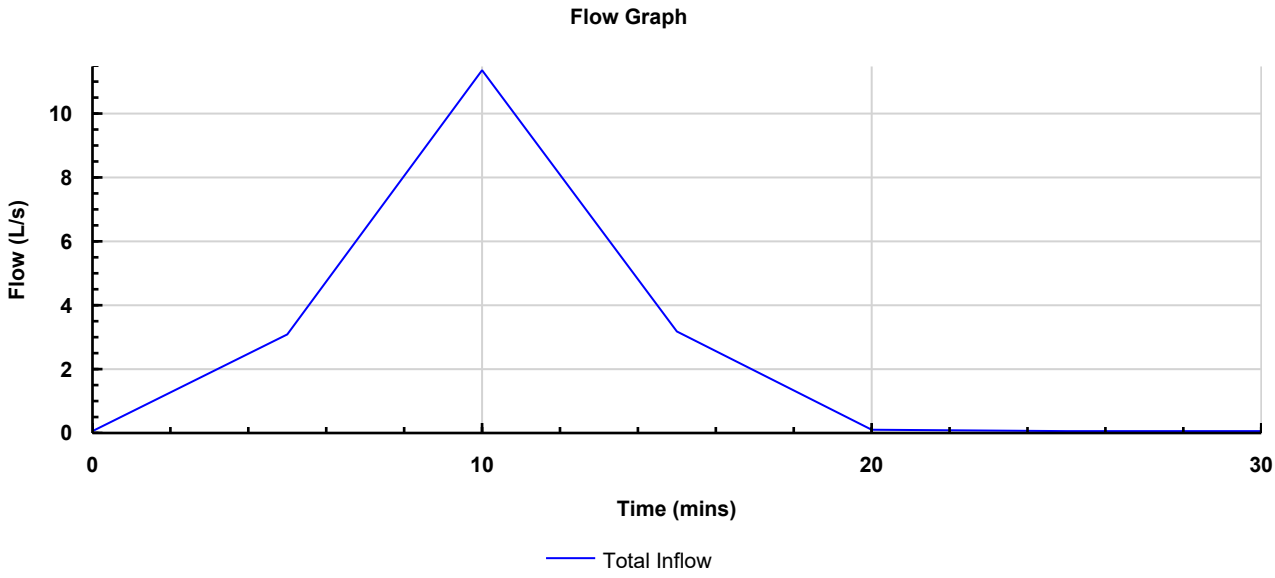
Catchment Area (1)
Critical by Return Period: FEH: 100 years: Increase Rainfall (%): +40: 15 mins: Winter

Type : Catchment Area

Inflow

Max. Inflow (L/s)	11.4
Total Inflow Volume (m³)	5.283

Graphs



Tables

Time (mins)	Total Inflow (L/s)
0	0.0
5	3.0
10	11.4
15	3.1
20	0.0
25	0.0
30	0.0

Project:	Date: 20/01/2024		
	Designed by: GraemeBeaven	Checked by:	Approved By:
Report Details: Type: Inflow Results Storm Phase: Phase	Company Address:		

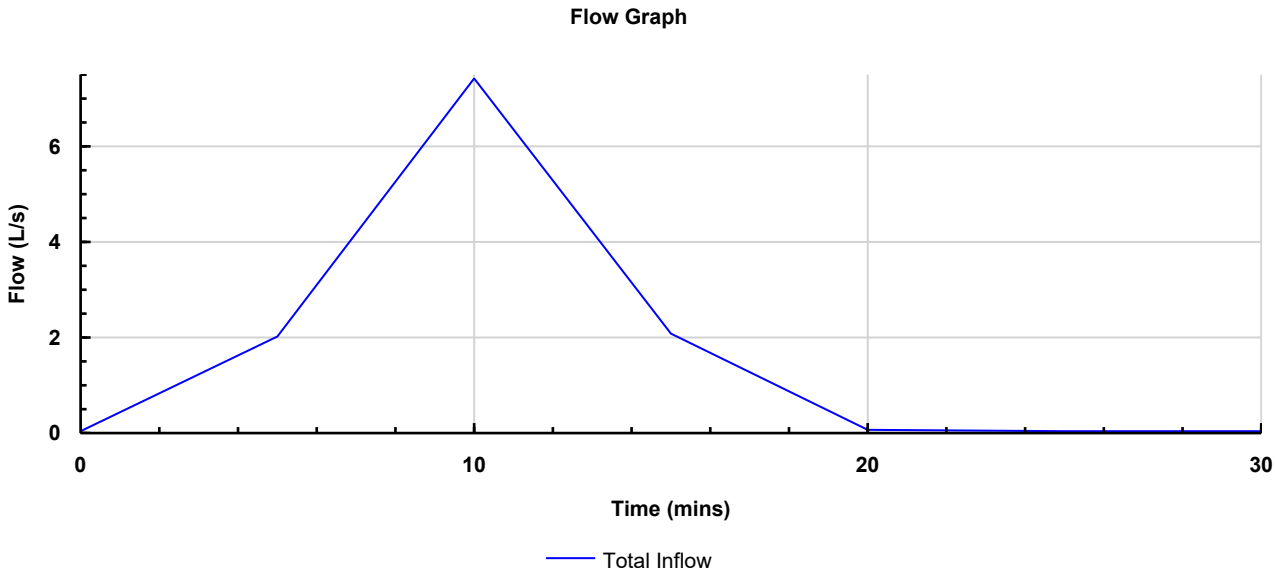
Catchment Area (2)
Critical by Return Period: FEH: 100 years: Increase Rainfall (%): +40: 15 mins: Winter

Type : Catchment Area

Inflow

Max. Inflow (L/s)	7.4
Total Inflow Volume (m³)	3.454

Graphs



Tables

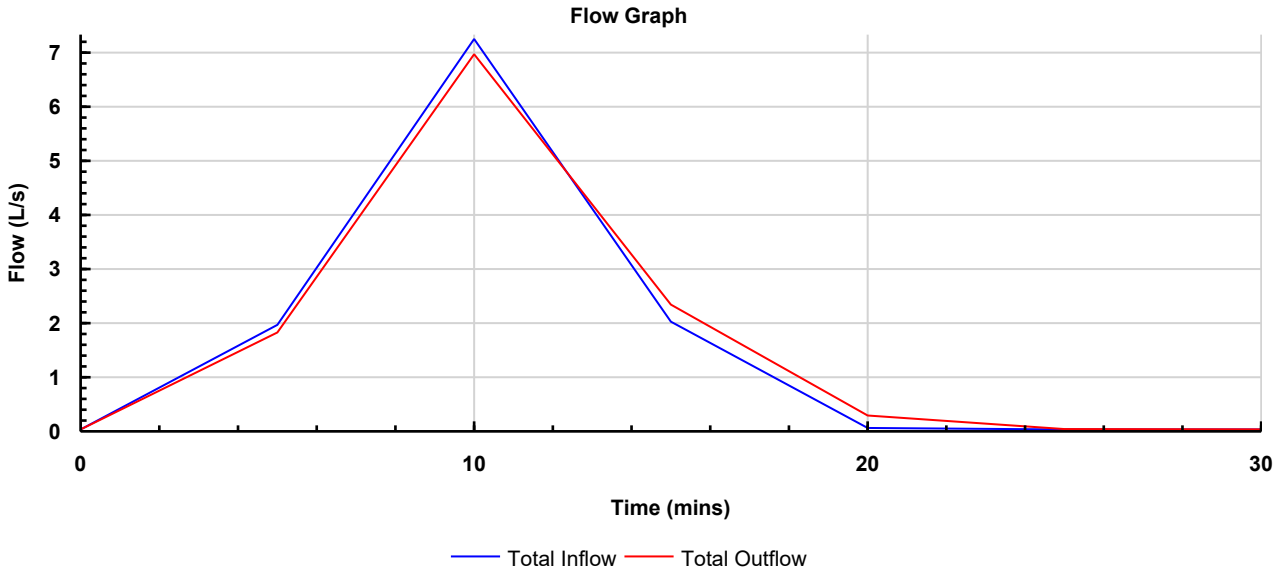
Time (mins)	Total Inflow (L/s)
0	0.0
5	2.0
10	7.4
15	2.1
20	0.0
25	0.0
30	0.0

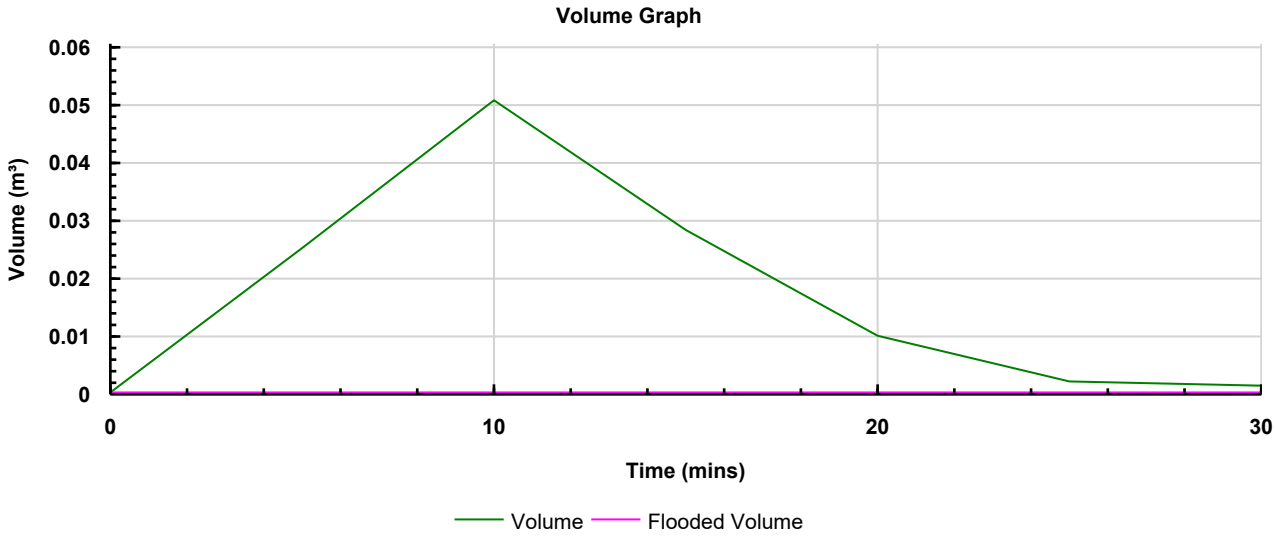
Project:	Date: 20/01/2024		
	Designed by: GraemeBeaven	Checked by:	Approved By:
Report Details: Type: Junction Results Storm Phase: Phase	Company Address:		

SMH01 Type : Manhole

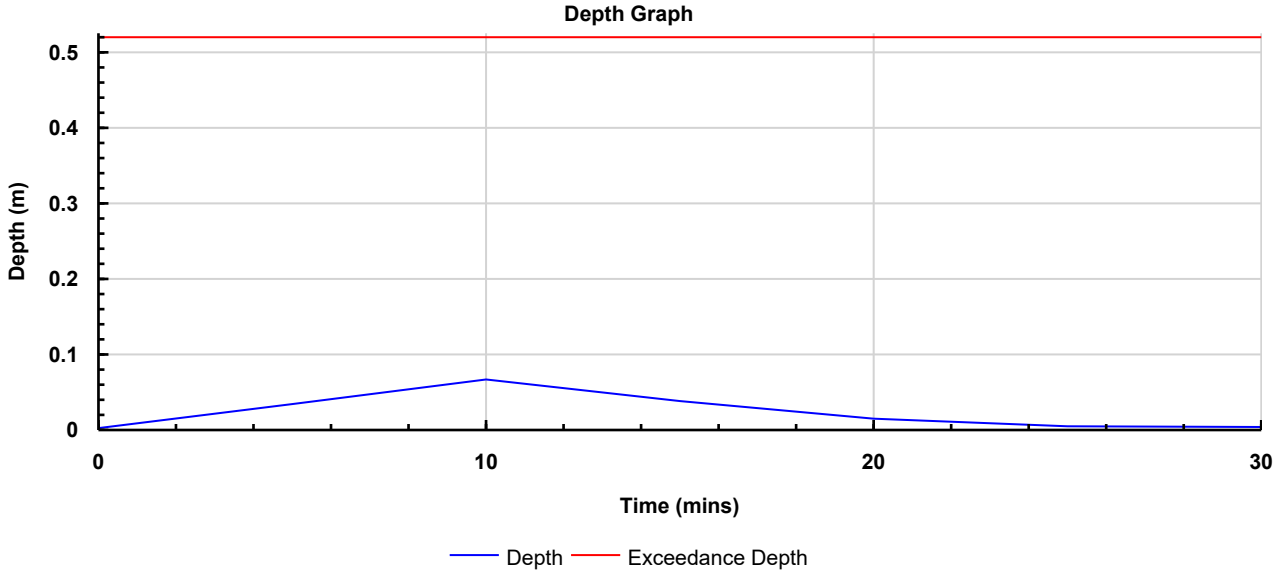
Critical by Return Period: FEH: 100 years: Increase Rainfall (%): +40: 15 mins: Winter

Graphs





Project:	Date: 20/01/2024		
	Designed by: GraemeBeaven	Checked by:	Approved By:
Report Details: Type: Junction Results Storm Phase: Phase	Company Address:		



Project:	Date: 20/01/2024		
	Designed by: GraemeBeaven	Checked by:	Approved By:
Report Details: Type: Junction Results Storm Phase: Phase	Company Address:		

Tables

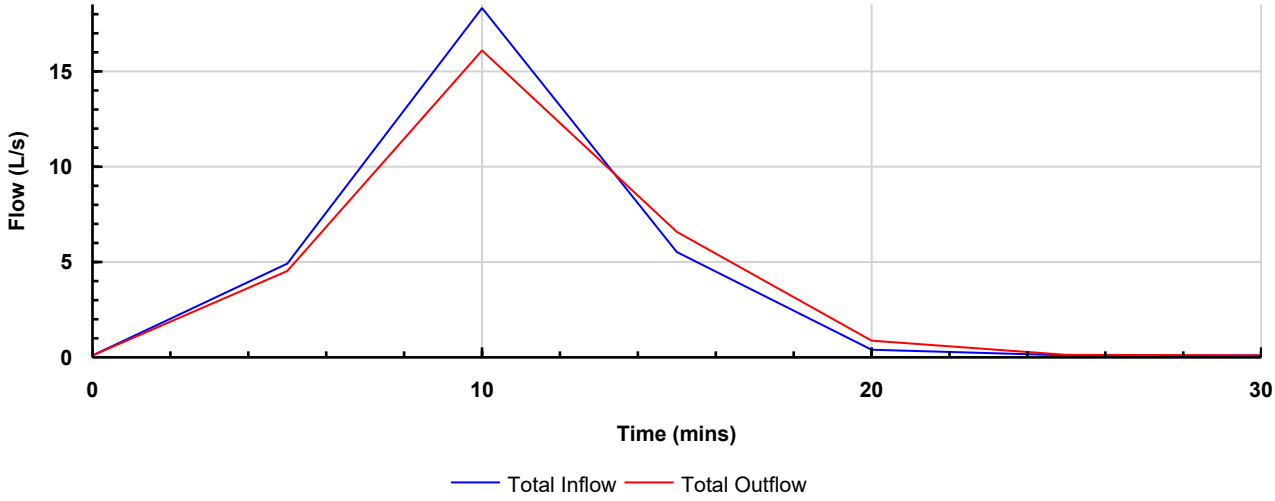
Time (mins)	Total Inflow (L/s)	Depth (m)	Volume (m³)	Flooded Volume (m³)	Total Outflow (L/s)
0	0.0	0.000	0.000	0.000	0.0
5	1.9	0.032	0.025	0.000	1.8
10	7.3	0.065	0.051	0.000	7.0
15	2.0	0.036	0.028	0.000	2.3
20	0.0	0.013	0.010	0.000	0.3
25	0.0	0.002	0.002	0.000	0.0
30	0.0	0.002	0.001	0.000	0.0

SMH02 Type : Manhole

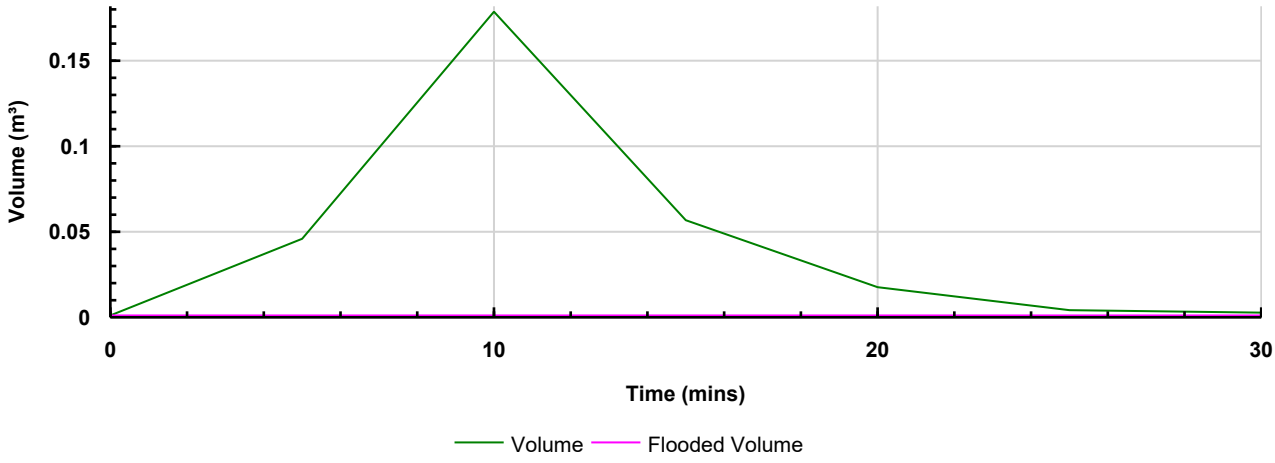
Critical by Return Period: FEH: 100 years: Increase Rainfall (%): +40: 15 mins: Winter

Graphs

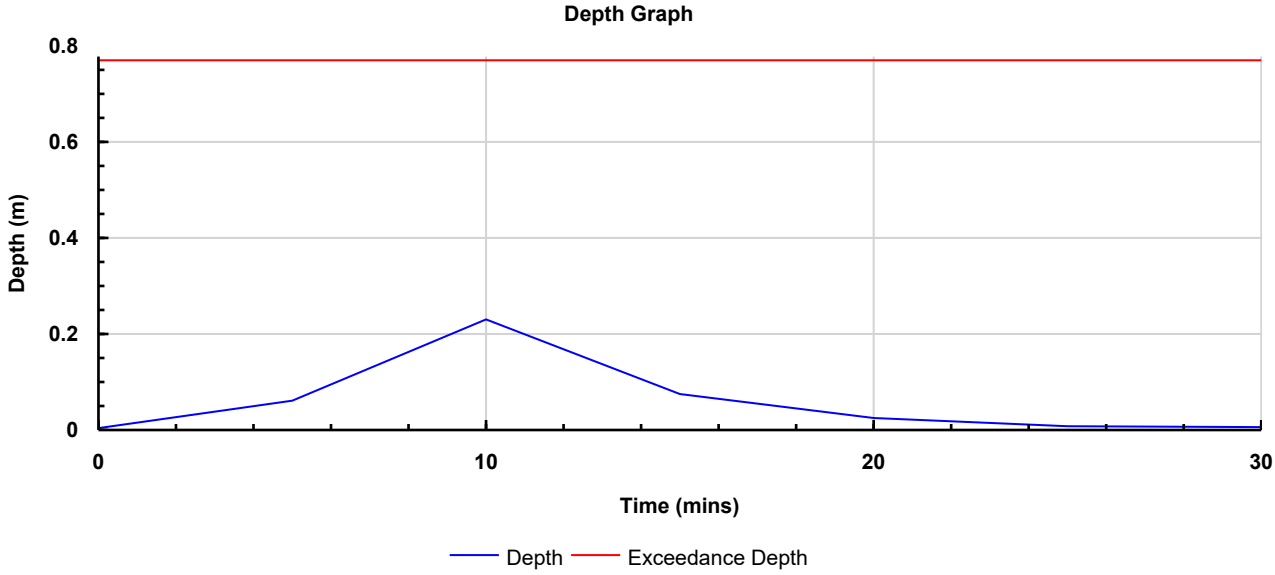
Flow Graph



Volume Graph



Project:	Date: 20/01/2024		
	Designed by: GraemeBeaven	Checked by:	Approved By:
Report Details: Type: Junction Results Storm Phase: Phase	Company Address:		



Project:	Date: 20/01/2024		
	Designed by: GraemeBeaven	Checked by:	Approved By:
Report Details: Type: Junction Results Storm Phase: Phase	Company Address:		

Tables

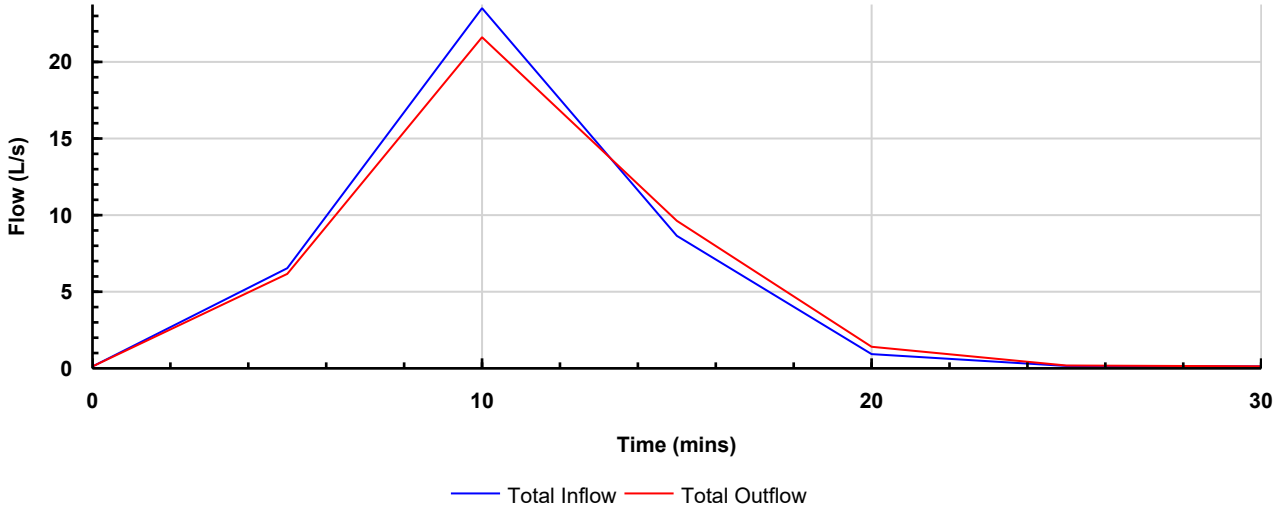
Time (mins)	Total Inflow (L/s)	Depth (m)	Volume (m³)	Flooded Volume (m³)	Total Outflow (L/s)
0	0.0	0.000	0.000	0.000	0.0
5	4.8	0.057	0.045	0.000	4.5
10	18.3	0.228	0.179	0.000	16.1
15	5.5	0.071	0.056	0.000	6.5
20	0.3	0.021	0.017	0.000	0.8
25	0.0	0.004	0.003	0.000	0.0
30	0.0	0.002	0.002	0.000	0.0

SMH03 Type : Manhole

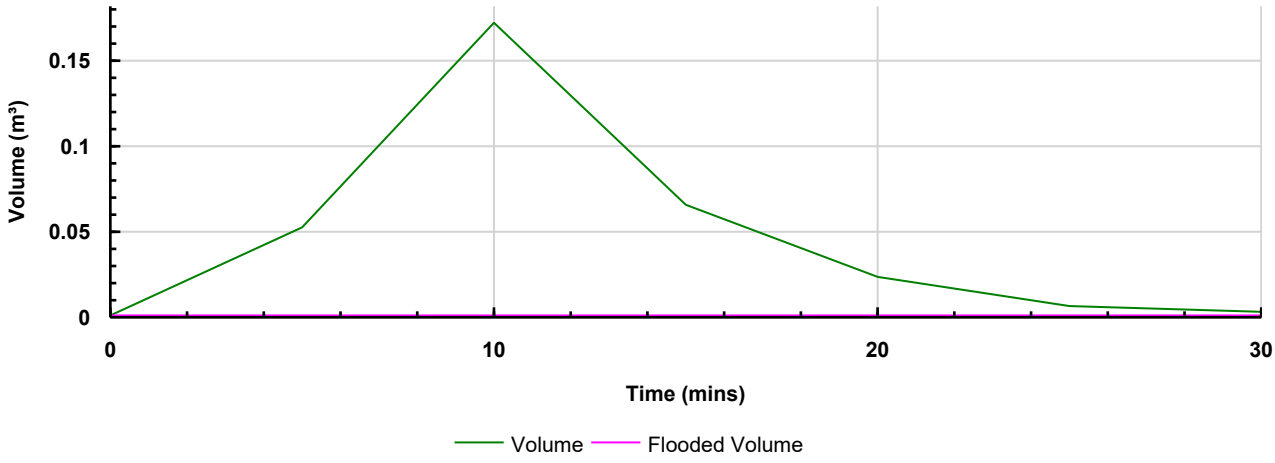
Critical by Return Period: FEH: 100 years: Increase Rainfall (%): +40: 15 mins: Winter

Graphs

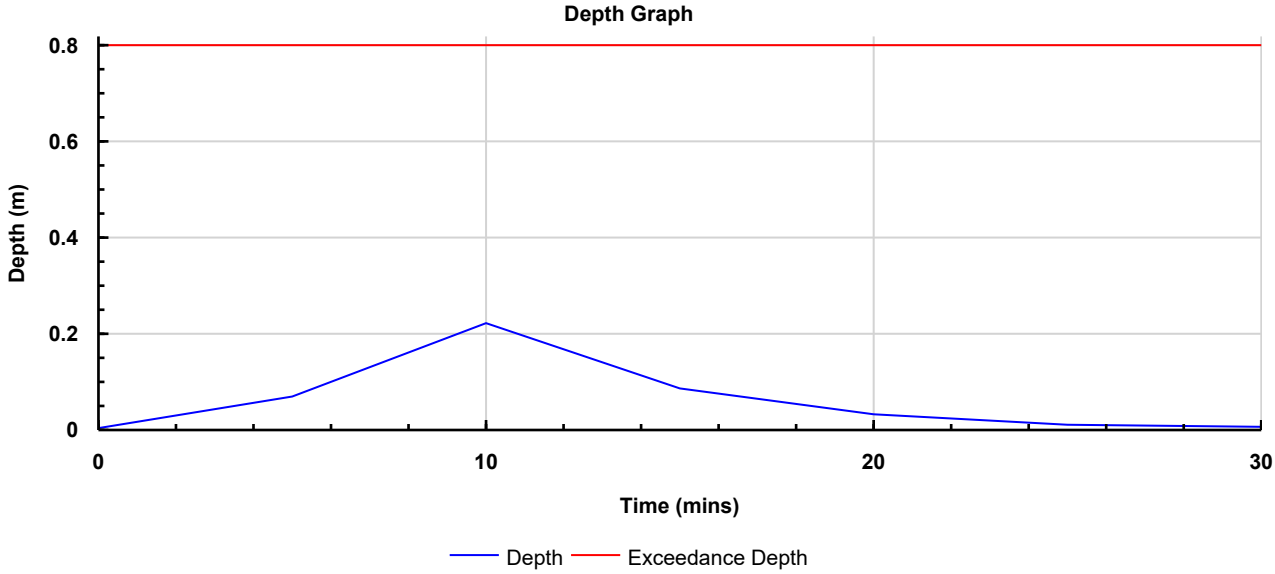
Flow Graph



Volume Graph



Project:	Date: 20/01/2024		
	Designed by: GraemeBeaven	Checked by:	Approved By:
Report Details: Type: Junction Results Storm Phase: Phase	Company Address:		



Project:	Date: 20/01/2024		
	Designed by: GraemeBeaven	Checked by:	Approved By:
Report Details: Type: Junction Results Storm Phase: Phase	Company Address:		

Tables

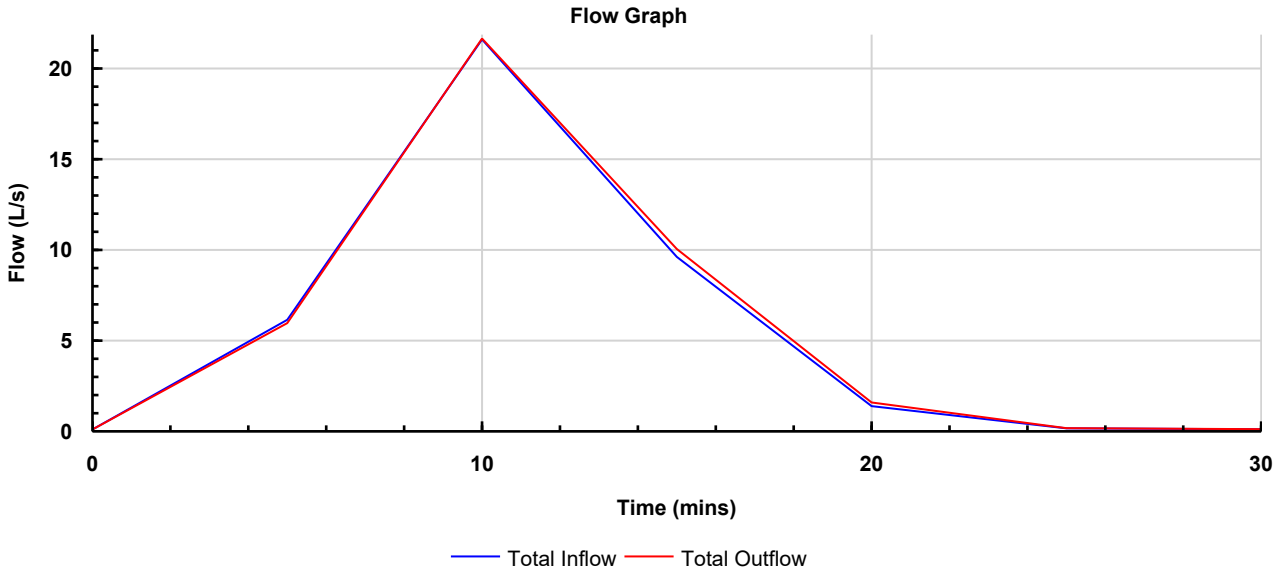
Time (mins)	Total Inflow (L/s)	Depth (m)	Volume (m³)	Flooded Volume (m³)	Total Outflow (L/s)
0	0.0	0.000	0.000	0.000	0.0
5	6.4	0.066	0.052	0.000	6.1
10	23.5	0.219	0.172	0.000	21.6
15	8.6	0.083	0.065	0.000	9.6
20	0.8	0.029	0.023	0.000	1.3
25	0.0	0.007	0.006	0.000	0.1
30	0.0	0.003	0.002	0.000	0.0

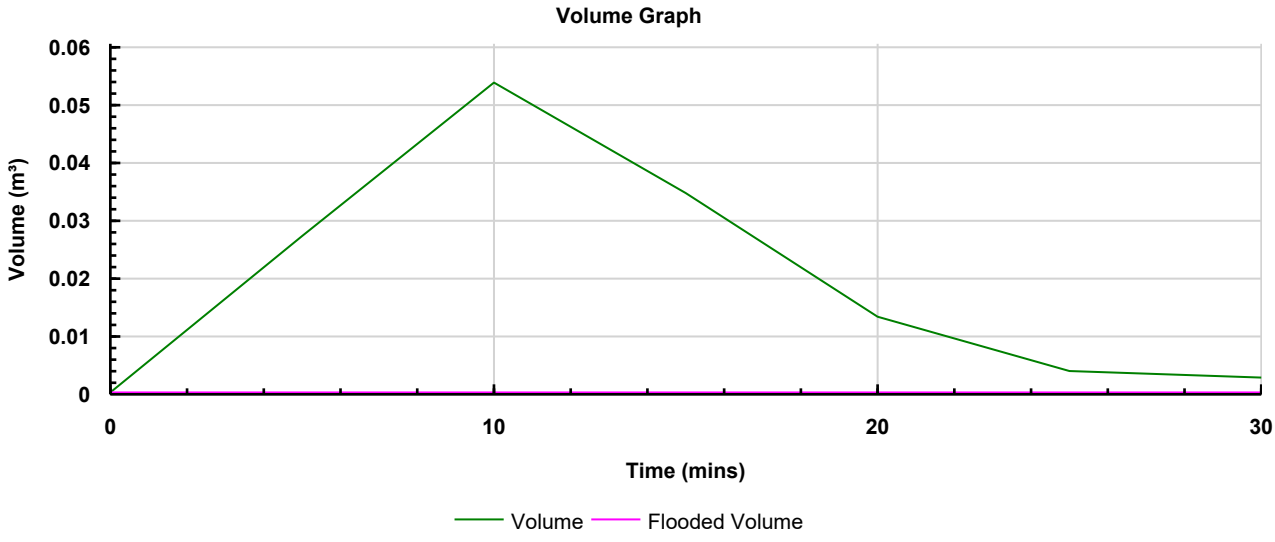
Project:	Date: 20/01/2024		
	Designed by: GraemeBeaven	Checked by:	Approved By:
Report Details: Type: Junction Results Storm Phase: Phase	Company Address:		

SMH04 Type : Manhole

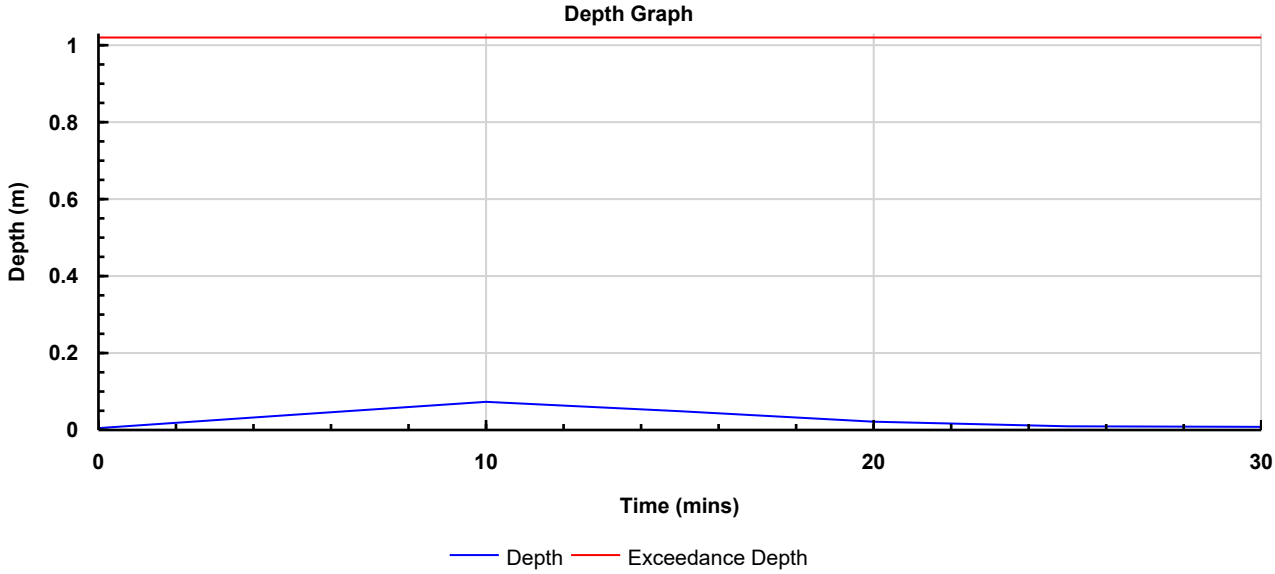
Critical by Return Period: FEH: 100 years: Increase Rainfall (%): +40: 15 mins: Winter

Graphs





Project:	Date: 20/01/2024		
	Designed by: GraemeBeaven	Checked by:	Approved By:
Report Details: Type: Junction Results Storm Phase: Phase	Company Address:		



Project:	Date: 20/01/2024		
	Designed by: GraemeBeaven	Checked by:	Approved By:
Report Details: Type: Junction Results Storm Phase: Phase	Company Address:		

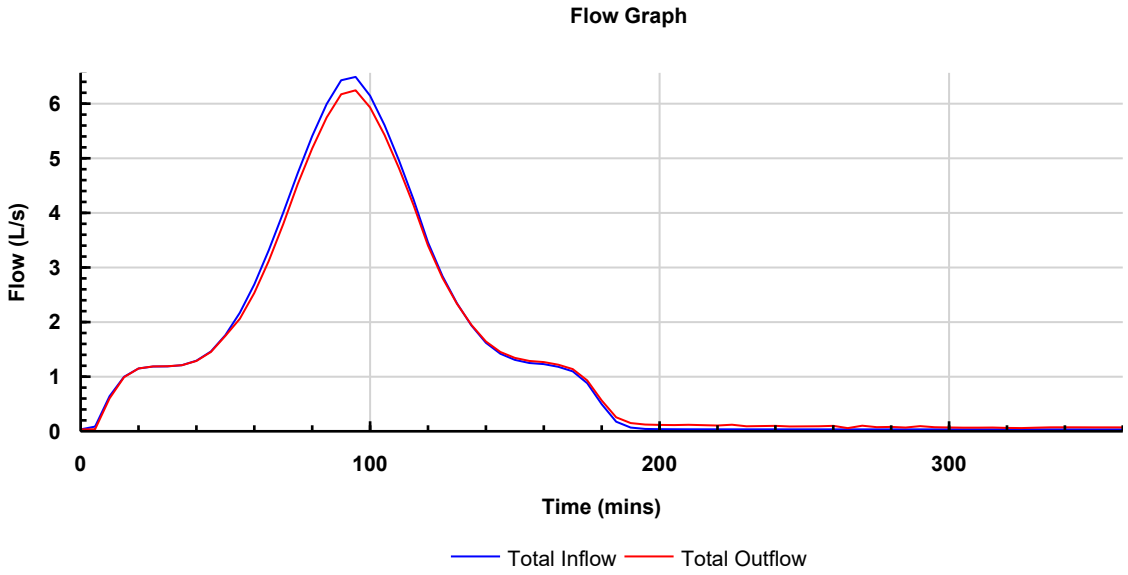
Tables

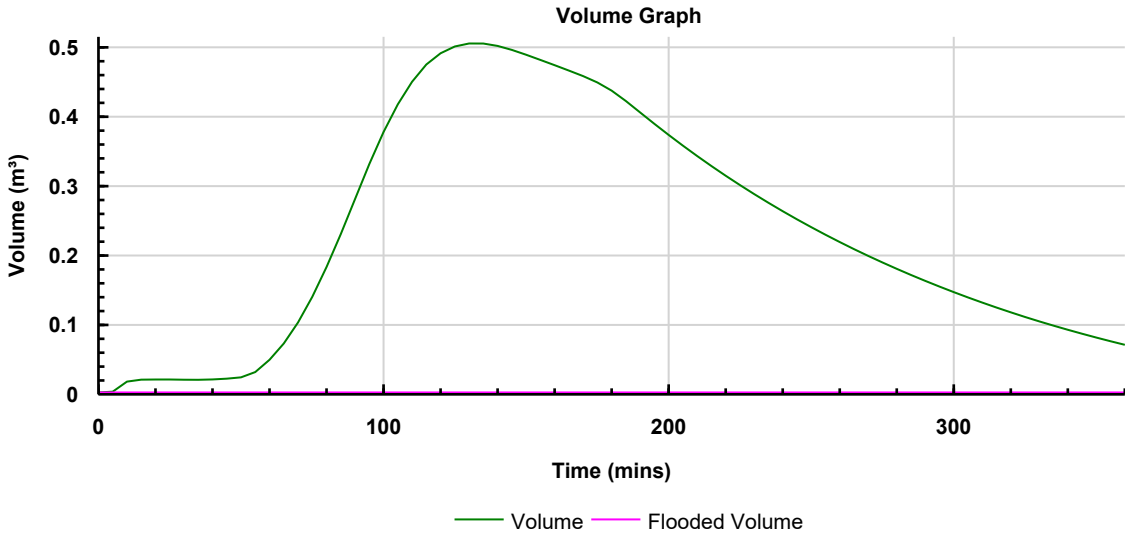
Time (mins)	Total Inflow (L/s)	Depth (m)	Volume (m³)	Flooded Volume (m³)	Total Outflow (L/s)
0	0.0	0.000	0.000	0.000	0.0
5	6.1	0.035	0.027	0.000	5.9
10	21.6	0.069	0.054	0.000	21.6
15	9.6	0.044	0.035	0.000	10.0
20	1.3	0.017	0.013	0.000	1.5
25	0.1	0.005	0.004	0.000	0.1
30	0.0	0.003	0.003	0.000	0.0

SMH014 Type : Manhole

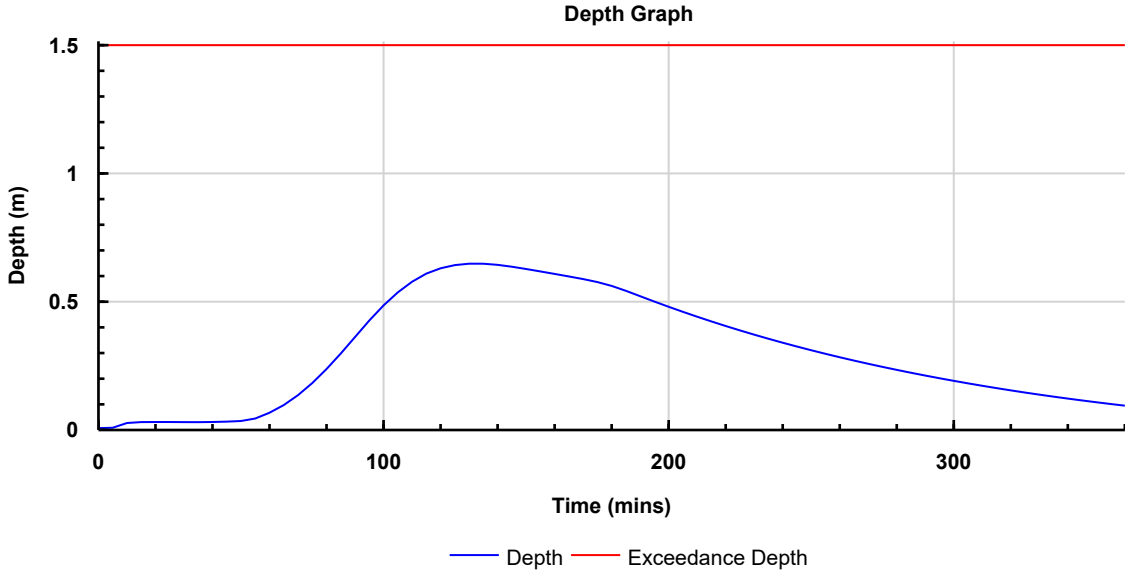
Critical by Return Period: FEH: 100 years: Increase Rainfall (%): +40: 180 mins: Winter

Graphs





Project:	Date: 20/01/2024		
	Designed by: GraemeBeaven	Checked by:	Approved By:
Report Details: Type: Junction Results Storm Phase: Phase	Company Address:		



Project:	Date: 20/01/2024		
	Designed by: GraemeBeaven	Checked by:	Approved By:
Report Details: Type: Junction Results Storm Phase: Phase	Company Address:		

Tables

Time (mins)	Total Inflow (L/s)	Depth (m)	Volume (m³)	Flooded Volume (m³)	Total Outflow (L/s)
0	0.0	0.000	0.000	0.000	0.0
5	0.1	0.001	0.001	0.000	0.0
10	0.6	0.020	0.016	0.000	0.6
15	1.0	0.024	0.019	0.000	1.0
20	1.1	0.024	0.019	0.000	1.1
25	1.2	0.024	0.019	0.000	1.2
30	1.2	0.023	0.018	0.000	1.2
35	1.2	0.023	0.018	0.000	1.2
40	1.3	0.024	0.019	0.000	1.3
45	1.4	0.025	0.020	0.000	1.4
50	1.7	0.028	0.022	0.000	1.7
55	2.1	0.038	0.030	0.000	2.0
60	2.7	0.060	0.047	0.000	2.5
65	3.3	0.090	0.071	0.000	3.1
70	4.0	0.129	0.101	0.000	3.8
75	4.7	0.176	0.139	0.000	4.5
80	5.4	0.231	0.182	0.000	5.2
85	6.0	0.292	0.229	0.000	5.7
90	6.4	0.357	0.280	0.000	6.2
95	6.5	0.421	0.331	0.000	6.2
100	6.1	0.481	0.377	0.000	5.9
105	5.6	0.532	0.417	0.000	5.4
110	4.9	0.573	0.450	0.000	4.8
115	4.2	0.605	0.475	0.000	4.1
120	3.4	0.626	0.491	0.000	3.4
125	2.8	0.638	0.501	0.000	2.8
130	2.3	0.644	0.506	0.000	2.3
135	1.9	0.644	0.505	0.000	1.9
140	1.6	0.639	0.502	0.000	1.6
145	1.4	0.632	0.496	0.000	1.4
150	1.3	0.623	0.489	0.000	1.3
155	1.2	0.614	0.482	0.000	1.3
160	1.2	0.604	0.474	0.000	1.2
165	1.2	0.594	0.466	0.000	1.2
170	1.1	0.584	0.458	0.000	1.1
175	0.9	0.572	0.449	0.000	0.9
180	0.5	0.557	0.437	0.000	0.5
185	0.1	0.538	0.422	0.000	0.2
190	0.0	0.517	0.406	0.000	0.1
195	0.0	0.496	0.389	0.000	0.1
200	0.0	0.475	0.373	0.000	0.1
205	0.0	0.455	0.357	0.000	0.1
210	0.0	0.436	0.342	0.000	0.1
215	0.0	0.418	0.328	0.000	0.1
220	0.0	0.400	0.314	0.000	0.1
225	0.0	0.383	0.300	0.000	0.1
230	0.0	0.366	0.287	0.000	0.1
235	0.0	0.350	0.275	0.000	0.1
240	0.0	0.334	0.263	0.000	0.1
245	0.0	0.319	0.251	0.000	0.1
250	0.0	0.305	0.239	0.000	0.1
255	0.0	0.291	0.228	0.000	0.1

Project:	Date: 20/01/2024		
	Designed by: GraemeBeaven	Checked by:	Approved By:
Report Details: Type: Junction Results Storm Phase: Phase	Company Address:		

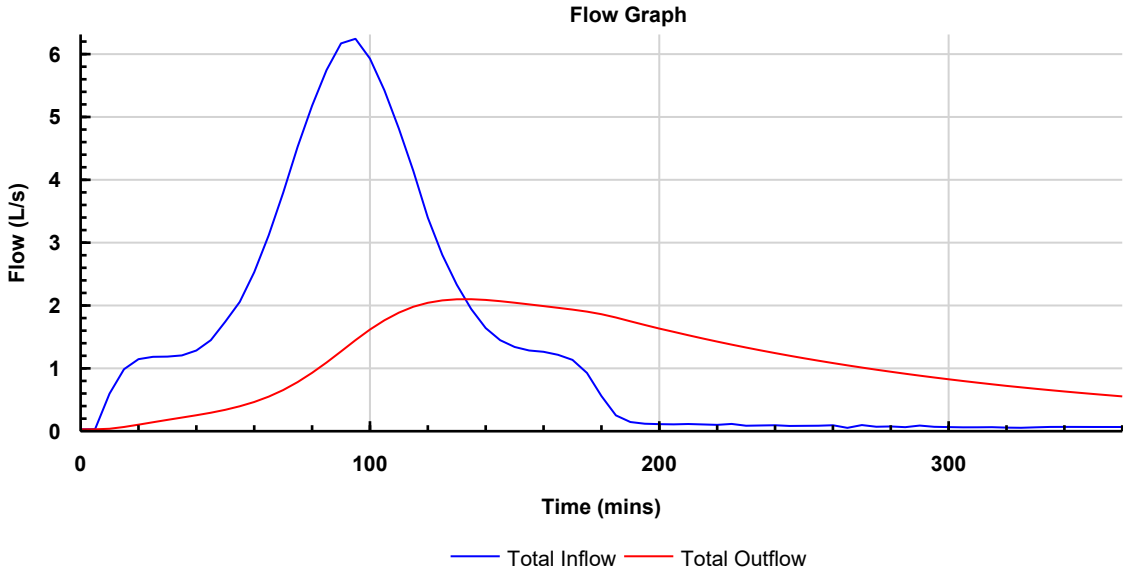
Time (mins)	Total Inflow (L/s)	Depth (m)	Volume (m³)	Flooded Volume (m³)	Total Outflow (L/s)
260	0.0	0.278	0.218	0.000	0.1
265	0.0	0.264	0.208	0.000	0.0
270	0.0	0.252	0.198	0.000	0.1
275	0.0	0.240	0.188	0.000	0.0
280	0.0	0.228	0.179	0.000	0.0
285	0.0	0.217	0.170	0.000	0.0
290	0.0	0.206	0.162	0.000	0.1
295	0.0	0.195	0.153	0.000	0.0
300	0.0	0.185	0.145	0.000	0.0
305	0.0	0.175	0.138	0.000	0.0
310	0.0	0.166	0.130	0.000	0.0
315	0.0	0.157	0.123	0.000	0.0
320	0.0	0.148	0.116	0.000	0.0
325	0.0	0.139	0.109	0.000	0.0
330	0.0	0.131	0.103	0.000	0.0
335	0.0	0.123	0.097	0.000	0.0
340	0.0	0.116	0.091	0.000	0.0
345	0.0	0.108	0.085	0.000	0.0
350	0.0	0.101	0.080	0.000	0.0
355	0.0	0.094	0.074	0.000	0.0
360	0.0	0.088	0.069	0.000	0.0

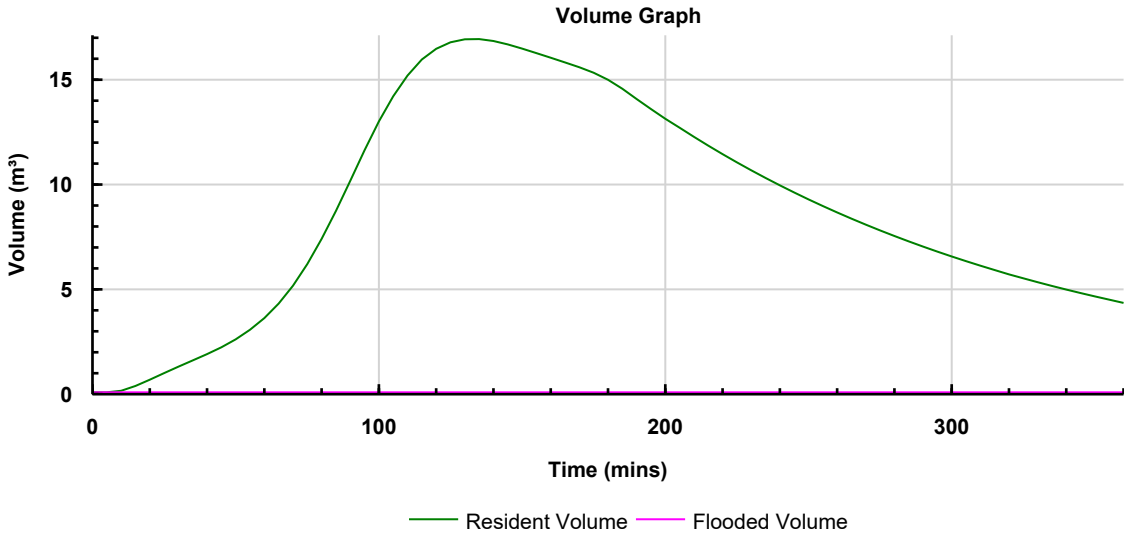
Project:	Date: 20/01/2024		
	Designed by: GraemeBeaven	Checked by:	Approved By:
Report Details: Type: Stormwater Control Results Storm Phase: Phase	Company Address:		

Soakaway
Critical by Return Period: FEH: 100 years: Increase Rainfall (%): +40: 180 mins: Winter

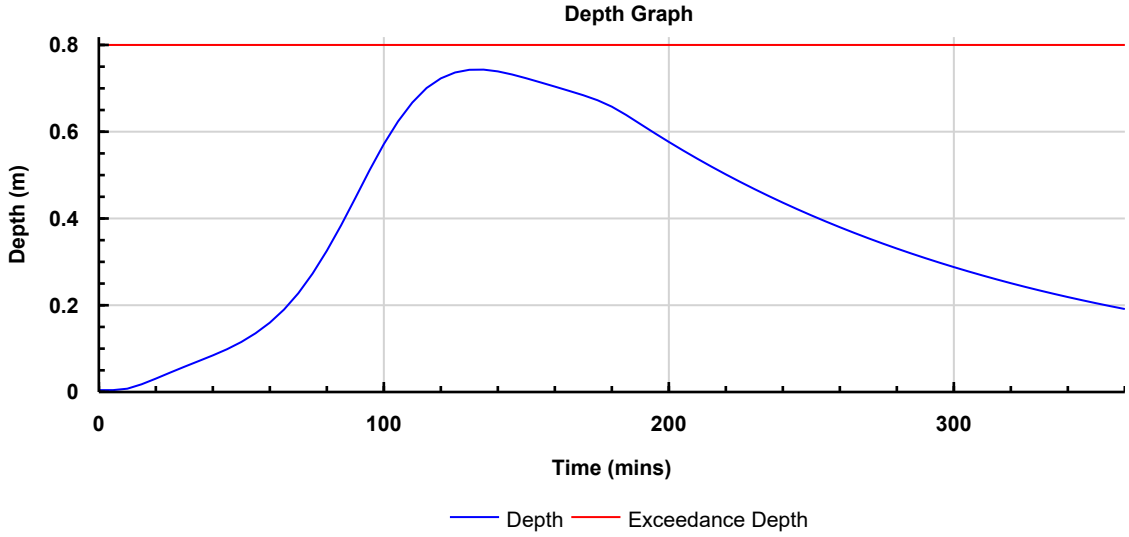
Type : Soakaway

Graphs





Project:	Date: 20/01/2024		
	Designed by: GraemeBeaven	Checked by:	Approved By:
Report Details: Type: Stormwater Control Results Storm Phase: Phase	Company Address:		



Project:	Date: 20/01/2024		
	Designed by: GraemeBeaven	Checked by:	Approved By:
Report Details: Type: Stormwater Control Results Storm Phase: Phase	Company Address:		

Tables

Time (mins)	Total Inflow (L/s)	Depth(m)	Resident Volume(m³)	Flooded Volume (m³)	Total Outflow (L/s)
0	0.0	0.000	0.000	0.000	0.0
5	0.0	0.000	0.000	0.000	0.0
10	0.6	0.003	0.072	0.000	0.0
15	1.0	0.013	0.304	0.000	0.0
20	1.1	0.027	0.604	0.000	0.1
25	1.2	0.041	0.920	0.000	0.1
30	1.2	0.054	1.229	0.000	0.2
35	1.2	0.067	1.529	0.000	0.2
40	1.3	0.080	1.831	0.000	0.2
45	1.4	0.095	2.158	0.000	0.3
50	1.7	0.112	2.539	0.000	0.3
55	2.0	0.132	2.999	0.000	0.4
60	2.5	0.156	3.558	0.000	0.4
65	3.1	0.187	4.254	0.000	0.5
70	3.8	0.224	5.110	0.000	0.6
75	4.5	0.270	6.148	0.000	0.8
80	5.2	0.323	7.355	0.000	0.9
85	5.7	0.382	8.696	0.000	1.1
90	6.2	0.445	10.139	0.000	1.2
95	6.2	0.510	11.608	0.000	1.4
100	5.9	0.570	12.989	0.000	1.6
105	5.4	0.623	14.194	0.000	1.7
110	4.8	0.667	15.190	0.000	1.9
115	4.1	0.700	15.959	0.000	2.0
120	3.4	0.723	16.471	0.000	2.0
125	2.8	0.736	16.783	0.000	2.1
130	2.3	0.742	16.927	0.000	2.1
135	1.9	0.743	16.937	0.000	2.1
140	1.6	0.739	16.845	0.000	2.1
145	1.4	0.731	16.682	0.000	2.0
150	1.3	0.723	16.481	0.000	2.0
155	1.3	0.713	16.264	0.000	2.0
160	1.2	0.703	16.043	0.000	2.0
165	1.2	0.693	15.816	0.000	1.9
170	1.1	0.683	15.586	0.000	1.9
175	0.9	0.672	15.322	0.000	1.9
180	0.5	0.657	14.986	0.000	1.8
185	0.2	0.638	14.556	0.000	1.8
190	0.1	0.617	14.061	0.000	1.7
195	0.1	0.596	13.582	0.000	1.7
200	0.1	0.575	13.116	0.000	1.6
205	0.1	0.555	12.687	0.000	1.6
210	0.1	0.536	12.250	0.000	1.5
215	0.1	0.518	11.827	0.000	1.5
220	0.1	0.500	11.420	0.000	1.4
225	0.1	0.483	11.026	0.000	1.4
230	0.1	0.466	10.646	0.000	1.3
235	0.1	0.450	10.278	0.000	1.3
240	0.1	0.434	9.924	0.000	1.2
245	0.1	0.419	9.582	0.000	1.2
250	0.1	0.405	9.250	0.000	1.1
255	0.1	0.391	8.932	0.000	1.1
260	0.1	0.378	8.624	0.000	1.1
265	0.0	0.365	8.327	0.000	1.0
270	0.1	0.352	8.039	0.000	1.0

Project:	Date: 20/01/2024		
	Designed by: GraemeBeaven	Checked by:	Approved By:
Report Details: Type: Stormwater Control Results Storm Phase: Phase	Company Address:		

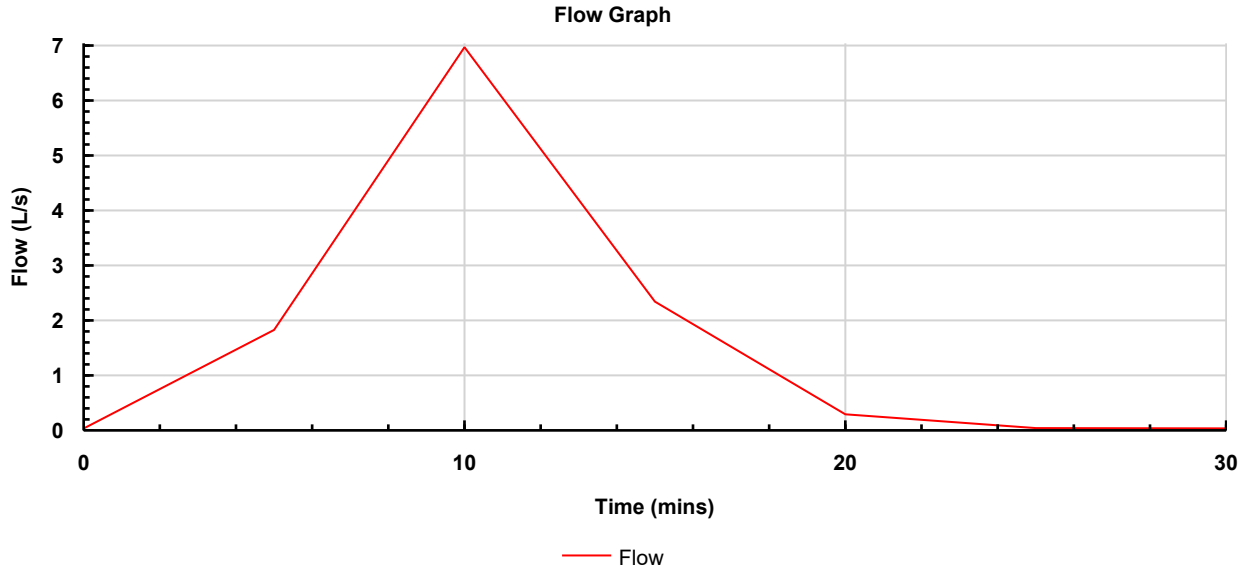
Time (mins)	Total Inflow (L/s)	Depth(m)	Resident Volume(m³)	Flooded Volume (m³)	Total Outflow (L/s)
275	0.0	0.340	7.762	0.000	1.0
280	0.0	0.328	7.495	0.000	0.9
285	0.0	0.317	7.236	0.000	0.9
290	0.1	0.306	6.987	0.000	0.9
295	0.0	0.295	6.746	0.000	0.8
300	0.0	0.285	6.513	0.000	0.8
305	0.0	0.275	6.289	0.000	0.8
310	0.0	0.266	6.072	0.000	0.7
315	0.0	0.257	5.862	0.000	0.7
320	0.0	0.248	5.654	0.000	0.7
325	0.0	0.239	5.466	0.000	0.7
330	0.0	0.231	5.279	0.000	0.6
335	0.0	0.223	5.100	0.000	0.6
340	0.0	0.216	4.926	0.000	0.6
345	0.0	0.208	4.759	0.000	0.6
350	0.0	0.201	4.598	0.000	0.6
355	0.0	0.194	4.442	0.000	0.5
360	0.0	0.188	4.286	0.000	0.5

Project:	Date: 20/01/2024		
	Designed by: GraemeBeaven	Checked by:	Approved By:
Report Details: Type: Connection Results Storm Phase: Phase	Company Address:		

Pipe
Critical by Return Period: FEH: 100 years: Increase Rainfall (%): +40: 15 mins: Winter

Type : Pipe

Graphs



Tables

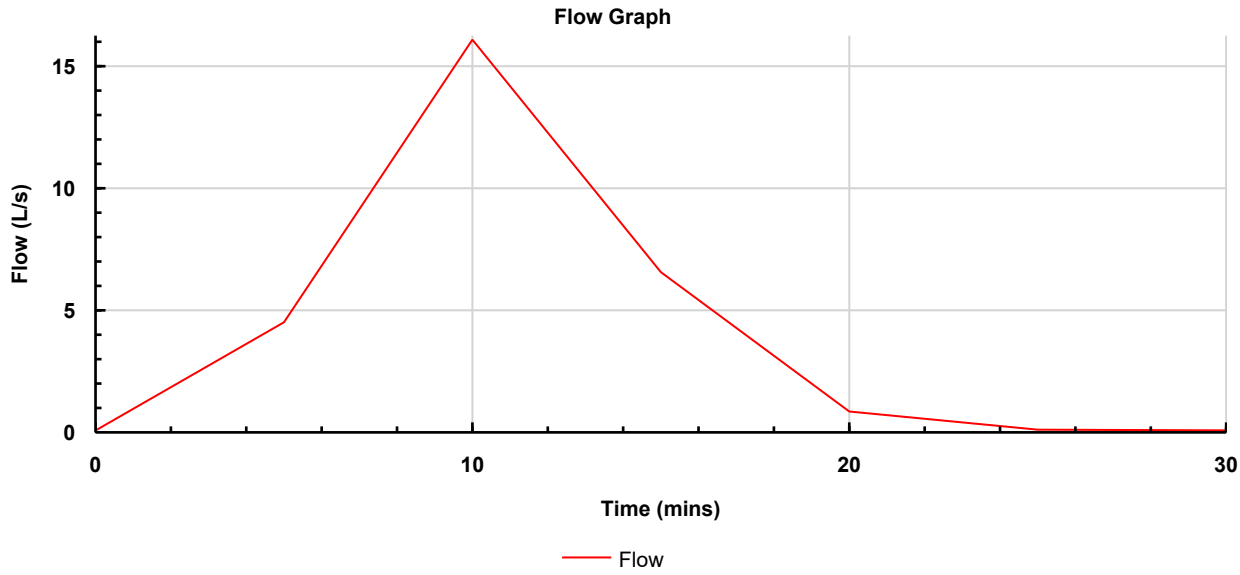
Time (mins)	Depth (m)	Flow (L/s)
0	0.000	0.0
5	0.045	1.8
10	0.146	7.0
15	0.054	2.3
20	0.017	0.3
25	0.003	0.0
30	0.002	0.0

Project:	Date: 20/01/2024		
	Designed by: GraemeBeaven	Checked by:	Approved By:
Report Details: Type: Connection Results Storm Phase: Phase	Company Address:		

Pipe (1) Type : Pipe

Critical by Return Period: FEH: 100 years: Increase Rainfall (%): +40: 15 mins: Winter

Graphs



Tables

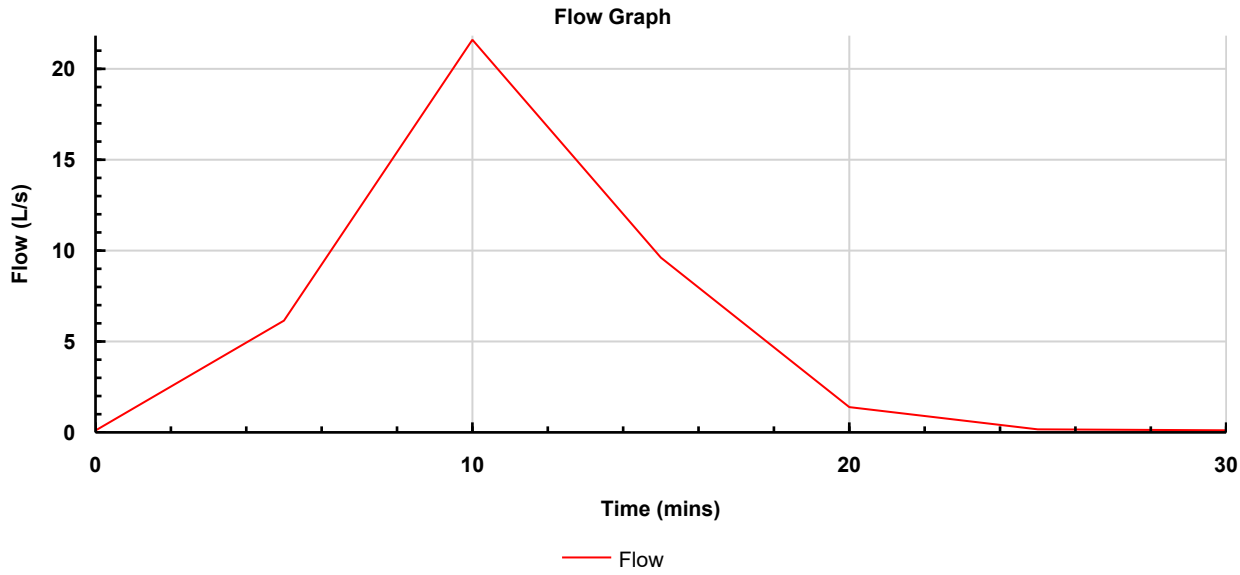
Time (mins)	Depth (m)	Flow (L/s)
0	0.000	0.0
5	0.062	4.5
10	0.150	16.1
15	0.077	6.5
20	0.025	0.8
25	0.005	0.0
30	0.002	0.0

Project:	Date: 20/01/2024		
	Designed by: GraemeBeaven	Checked by:	Approved By:
Report Details: Type: Connection Results Storm Phase: Phase	Company Address:		

Pipe (2)
Critical by Return Period: FEH: 100 years: Increase Rainfall (%): +40: 15 mins: Winter

Type : Pipe

Graphs



Tables

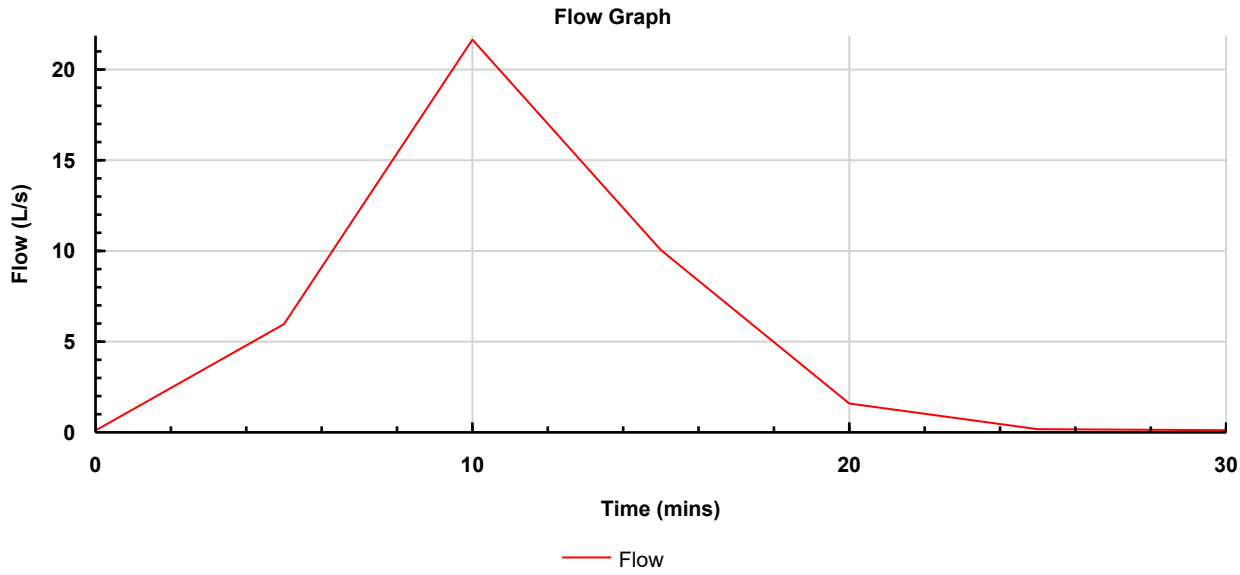
Time (mins)	Depth (m)	Flow (L/s)
0	0.000	0.0
5	0.050	6.1
10	0.144	21.6
15	0.064	9.6
20	0.023	1.3
25	0.006	0.1
30	0.003	0.0

Project:	Date: 20/01/2024		
	Designed by: GraemeBeaven	Checked by:	Approved By:
Report Details: Type: Connection Results Storm Phase: Phase	Company Address:		

Pipe (3)
Critical by Return Period: FEH: 100 years: Increase Rainfall (%): +40: 15 mins: Winter

Type : Pipe

Graphs



Tables

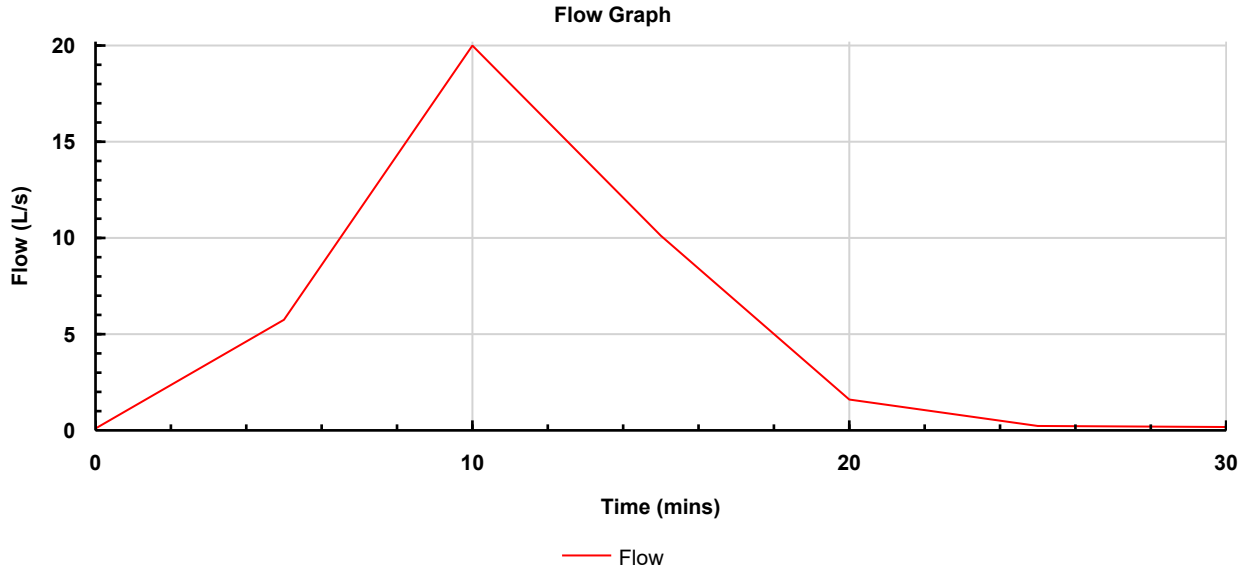
Time (mins)	Depth (m)	Flow (L/s)
0	0.000	0.0
5	0.047	5.9
10	0.138	21.6
15	0.150	10.0
20	0.150	1.5
25	0.150	0.1
30	0.150	0.0

Project:	Date: 20/01/2024		
	Designed by: GraemeBeaven	Checked by:	Approved By:
Report Details: Type: Connection Results Storm Phase: Phase	Company Address:		

Pipe (4) Type : Pipe

Critical by Return Period: FEH: 100 years: Increase Rainfall (%): +40: 15 mins: Winter

Graphs



Tables

Time (mins)	Depth (m)	Flow (L/s)
0	0.000	0.0
5	0.041	5.7
10	0.150	20.0
15	0.150	10.1
20	0.150	1.5
25	0.150	0.1
30	0.150	0.1

Project:	Date: 20/01/2024		
	Designed by: GraemeBeaven	Checked by:	Approved By:
Report Details: Type: Inflows Storm Phase: Phase	Company Address:		

Catchment Area (3)

Type : Catchment Area

Area (ha)	0.024

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

Catchment Area

Type : Catchment Area

Area (ha)	0.01

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: 20/01/2024		
	Designed by: GraemeBeaven	Checked by:	Approved By:
Report Details: Type: Junctions Storm Phase: Phase	Company Address:		

Name	Junction Type	Easting (m)	Northing (m)	Cover Level (m)	Depth (m)	Invert Level (m)	Chamber Shape	Diameter (m)
SMH03	Manhole	490971.164	211611.349	156.690	0.800	155.890	Circular	1.000
SIC02	Manhole	490949.734	211606.453	156.700	0.700	156.000	Circular	1.000
SMH06	Manhole	490960.401	211603.507	156.500	1.400	155.100	Circular	1.000

Name	Lock
SMH03	None
SIC02	None
SMH06	None

Inlets

Junction	Inlet Name	Incoming Item(s)	Bypass Destination	Capacity Type
SMH03	Inlet	Catchment Area	(None)	No Restriction
SIC02	Inlet (1)	Catchment Area (3)	(None)	No Restriction
SMH06	Inlet	Pipe (3)	(None)	No Restriction

Outlets

Junction	Outlet Name	Outgoing Connection	Outlet Type
SMH03	Outlet	Pipe (1)	Free Discharge
SIC02	Outlet	Pipe (3)	Free Discharge
SMH06	Outlet	Pipe	Free Discharge

Project:	Date: 20/01/2024		
	Designed by: GraemeBeaven	Checked by:	Approved By:
Report Details: Type: Stormwater Controls Storm Phase: Phase	Company Address:		

Soakaway

Type : Soakaway

Dimensions

Exceedance Level (m)	155.800
Depth (m)	0.800
Base Level (m)	155.000
Freeboard (mm)	0
Soakaway Shape	Rectangular
Diameter / Width (m)	1.500
Length (m)	11.000
Porosity (%)	95
Ineffective Storage Depth (m)	0.000
Number of Soakaways	1
Side Infiltration Rate (m/hr)	0.36
Safety Factor	1.0
Total Volume (m³)	12.540

Inlets

Inlet (1)

Incoming Item(s)	Pipe
Bypass Destination	(None)
Capacity Type	No Restriction

Inlet (2)

Incoming Item(s)	Pipe (1)
Bypass Destination	(None)
Capacity Type	No Restriction

Project:	Date: 20/01/2024		
	Designed by: GraemeBeaven	Checked by:	Approved By:
Report Details: Type: Connections Storm Phase: Phase	Company Address:		

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)
Pipe (3)	11.066	Pipe	12.296		0.6	150	156.700	156.000
Pipe	1.694	Pipe	16.936		0.6	150	156.500	155.100
Pipe (1)	2.234	Pipe	2.510		0.6	150	156.690	155.890

Name	Downstream Cover Level (m)	Downstream Invert Level (m)	Lock
Pipe (3)	156.500	155.100	None
Pipe	155.800	155.000	None
Pipe (1)	155.800	155.000	None

Project:	Date: 20/01/2024		
	Designed by: GraemeBeaven	Checked by:	Approved By:
Report Details: Type: Manhole Schedule Storm Phase: Phase	Company Address:		

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
SMH03	156.690 155.890	Diameter / Length: 1.000					Manhole
E:490971.164 N:211611.349	0.800		{a} Pipe (1)	Pipe	155.890	Diam/Width:150	Not Applicable
SIC02	156.700 156.000	Diameter / Length: 1.000					Manhole
E:490949.734 N:211606.453	0.700		{a} Pipe (3)	Pipe	156.000	Diam/Width:150	Not Applicable
SMH06	156.500 155.100	Diameter / Length: 1.000	{1} Pipe (3)	Pipe	155.100	Diam/Width:150	Manhole
E:490960.401 N:211603.507	1.400		{a} Pipe	Pipe	155.100	Diam/Width:150	Not Applicable

Project:	Date: 20/01/2024		
	Designed by: GraemeBeaven	Checked by:	Approved By:
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	SMH03		Time of Concentration	0.010	100	0	100	0.010
Catchment Area (3)	SIC02		Time of Concentration	0.024	100	0	100	0.024
TOTAL		**0.0**		**0.034**				**0.034**

Project:	Date: 20/01/2024		
	Designed by: GraemeBeaven	Checked by:	Approved By:
Report Details: Type: Network Design Criteria Storm Phase: Phase	Company Address:		

Flow Options

Peak Flow Calculation	(UK) Modified Rational Method
Min. Time of Entry (mins)	5
Max. Travel Time (mins)	30

Pipe Options

Lock Slope Options	None
Design Options	Minimise Excavation
Design Level	Level Soffits
Min. Cover Depth (m)	1.200
Min. Slope (1:X)	500.00
Max. Slope (1:X)	40.00
Min. Velocity (m/s)	1.0
Max. Velocity (m/s)	3.0
Use Flow Restriction	☐
Reduce Channel Depths	☐

Pipe Size Library

Default

Add. Increment (mm)	75
Max. Diameter (mm)	0

Diameter (mm)	Min. Slope (1:X)	Max. Slope (1:X)
100	0.00	0.00
150	0.00	0.00

Project:	Date: 20/01/2024		
	Designed by: GraemeBeaven	Checked by:	Approved By:
Report Details: Type: Network Design Criteria Storm Phase: Phase	Company Address:		

Manhole Options

Apply Offset	☐

Manhole Size Library

Default

Diameter / Width

Connection (mm)	Diameter / Length (m)	Width (m)
0	1.200	0.000
375	1.350	0.000
500	1.500	0.000
750	1.800	0.000

Additional Sizing

Connection (mm)	900
Diameter / Length (m)	0.900
Width (m)	0.000

Depth

Depth (m)	Diameter / Length (m)	Width (m)
0.000	1.050	0.000
1.500	1.200	0.000

Access

Depth (m)	Ladder Protrusion (mm)
0.000	130
3.000	230

Benching Requirements

Landing Width (mm)	500
Benching Width (mm)	225

Project:	Date: 20/01/2024		
	Designed by: GraemeBeaven	Checked by:	Approved By:
Report Title: Rainfall Analysis Criteria	Company Address:		

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)	0
Perform No Discharge Analysis	☐

Project:	Date: 20/01/2024		
	Designed by: GraemeBeaven	Checked by:	Approved By:
Report Details: Type: Inflows Summary Storm Phase: Phase	Company Address:		

FEH: 2 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 (m^3)
Catchment Area (3)	FEH: 2 years: +0 %: 15 mins: Winter	0.02	3.5	1.610
Catchment Area	FEH: 2 years: +0 %: 15 mins: Winter	0.01	1.5	0.672

Project:	Date: 20/01/2024		
	Designed by: GraemeBeaven	Checked by:	Approved By:
Report Details: Type: Inflows Summary Storm Phase: Phase	Company Address:		

FEH: 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 (m^3)
Catchment Area (3)	FEH: 100 years: +40 %: 15 mins: Winter	0.02	14.0	6.565
Catchment Area	FEH: 100 years: +40 %: 15 mins: Winter	0.01	5.9	2.742

Project:	Date: 20/01/2024		
	Designed by: GraemeBeaven	Checked by:	Approved By:
Report Details: Type: Junctions Summary Storm Phase: Phase	Company Address:		

FEH: 2 years: Increase Rainfall (%): +0: 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)	Max. Outflow (L/s)	Total Discharge Volume (m³)	Status
SMH03	FEH: 2 years: +0 %: 15 mins: Summer	156.690	155.890	155.901	0.011	1.4	0.009	0.000	1.4	0.600	OK
SIC02	FEH: 2 years: +0 %: 15 mins: Winter	156.700	156.000	156.026	0.026	3.5	0.021	0.000	3.4	1.610	OK
SMH06	FEH: 2 years: +0 %: 240 mins: Winter	156.500	155.100	155.227	0.127	0.9	0.100	0.000	0.8	4.986	OK

Project:	Date: 20/01/2024		
	Designed by: GraemeBeaven	Checked by:	Approved By:
Report Details: Type: Junctions Summary Storm Phase: Phase	Company Address:		

FEH: 100 years: Increase Rainfall (%): +40: 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)	Max. Outflow (L/s)	Total Discharge Volume (m³)	Status
SMH03	FEH: 100 years: +40 %: 15 mins: Winter	156.690	155.890	155.911	0.021	5.9	0.016	0.000	5.8	2.737	OK
SIC02	FEH: 100 years: +40 %: 15 mins: Winter	156.700	156.000	156.053	0.053	14.0	0.042	0.000	14.0	6.549	OK
SMH06	FEH: 100 years: +40 %: 120 mins: Winter	156.500	155.100	155.760	0.660	4.6	0.518	0.000	4.3	13.248	Surcharged

Project:	Date: 20/01/2024		
	Designed by: GraemeBeaven	Checked by:	Approved By:
Report Details: Type: Stormwater Controls Summary Storm Phase: Phase	Company Address:		

FEH: 2 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. Resident Volume (m³)	Max. Flooded Volume (m³)	Total Lost Volume (m³)	Max. Outflow (L/s)	Total Discharge Volume (m³)	Percentage Available (%)	Status
Soakaway	FEH: 2 years: +0 %: 240 mins: Winter	155.227	155.227	0.227	0.227	1.2	3.555	0.000	6.873	0.0	0.019	71.651	OK

Project:	Date: 20/01/2024		
	Designed by: GraemeBeaven	Checked by:	Approved By:
Report Details: Type: Stormwater Controls Summary Storm Phase: Phase	Company Address:		

FEH: 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. Resident Volume (m³)	Max. Flooded Volume (m³)	Total Lost Volume (m³)	Max. Outflow (L/s)	Total Discharge Volume (m³)	Percentage Available (%)	Status
Soakaway	FEH: 100 years: +40 %: 120 mins: Winter	155.761	155.761	0.761	0.761	6.2	11.923	0.000	14.961	0.0	0.260	4.918	OK

Project:	Date: 20/01/2024		
	Designed by: GraemeBeaven	Checked by:	Approved By:
Report Details: Type: Connections Summary Storm Phase: Phase	Company Address:		

FEH: 2 years: Increase Rainfall (%): +0: 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
Pipe (3)	FEH: 2 years: +0 %: 15 mins: Winter	Pipe	SIC02	SMH06	156.700	156.026	0.029	1.610	1.4	0.07	3.4	OK
Pipe	FEH: 2 years: +0 %: 15 mins: Winter	Pipe	SMH06	Soakaway	156.500	155.133	0.080	1.584	1.2	0.08	3.3	OK
Pipe (1)	FEH: 2 years: +0 %: 15 mins: Winter	Pipe	SMH03	Soakaway	156.690	155.901	0.066	0.670	1.1	0.01	1.5	OK

Project:	Date: 20/01/2024		
	Designed by: GraemeBeaven	Checked by:	Approved By:
Report Details: Type: Connections Summary Storm Phase: Phase	Company Address:		

FEH: 100 years: Increase Rainfall (%): +40: 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
Pipe (3)	FEH: 100 years: +40 %: 15 mins: Winter	Pipe	SIC02	SMH06	156.700	156.053	0.150	6.549	1.5	0.27	14.0	OK
Pipe	FEH: 100 years: +40 %: 15 mins: Winter	Pipe	SMH06	Soakaway	156.500	155.514	0.150	5.985	1.0	0.29	12.5	Surcharged
Pipe (1)	FEH: 100 years: +40 %: 15 mins: Winter	Pipe	SMH03	Soakaway	156.690	155.911	0.150	2.737	0.7	0.05	5.8	OK

Project:	Date: 20/01/2024		
	Designed by: GraemeBeaven	Checked by:	Approved By:
Report Details: Type: Phase Management Storm Phase: Phase	Company Address:		

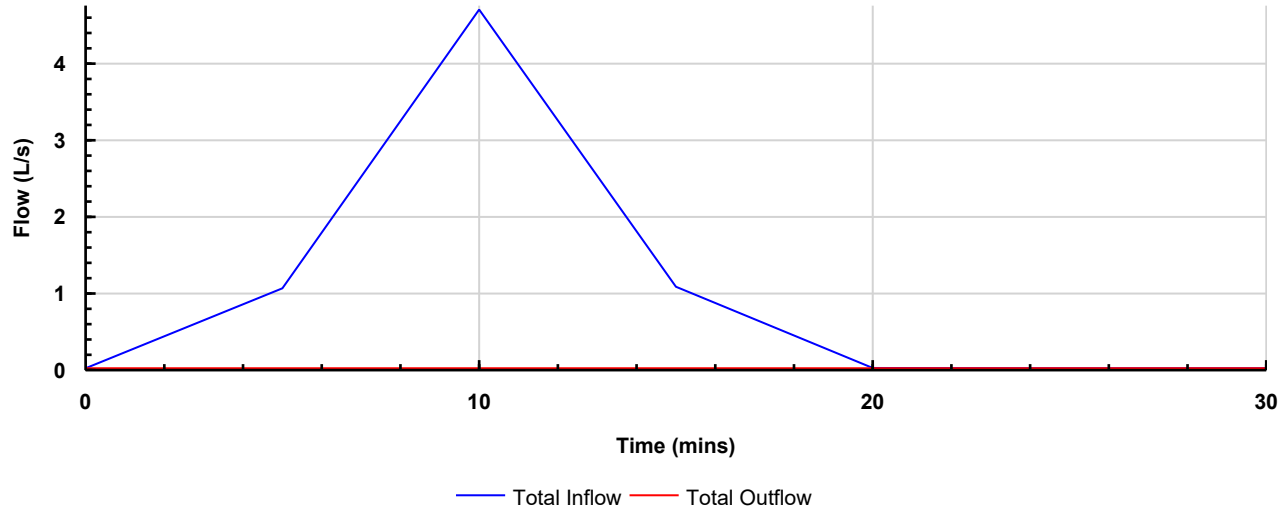
Phase
FEH: 2 years: Increase Rainfall (%): +0: 15 mins: Summer

Tables

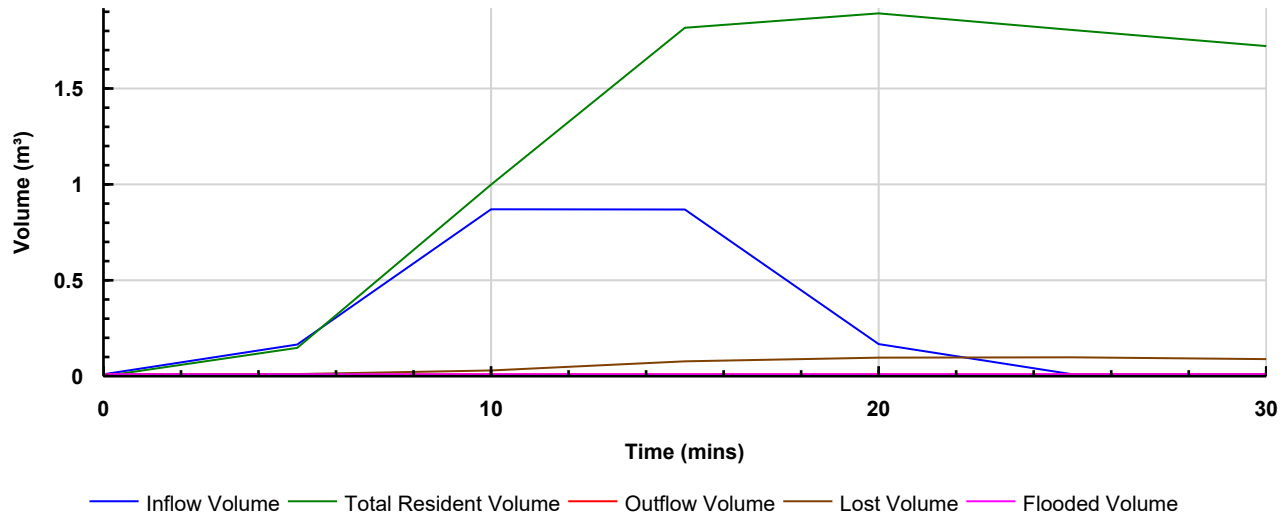
Name	Max. Inflow (L/s)	Total Inflow Volume (m³)	Max. Outflow (L/s)	Total Outflow Volume (m³)
TOTAL	4.7	2.043	0.0	0.000

Graphs

Flow Graph



Volume Graph



Project:	Date: 20/01/2024		
	Designed by: GraemeBeaven	Checked by:	Approved By:
Report Details: Type: Phase Management Storm Phase: Phase	Company Address:		

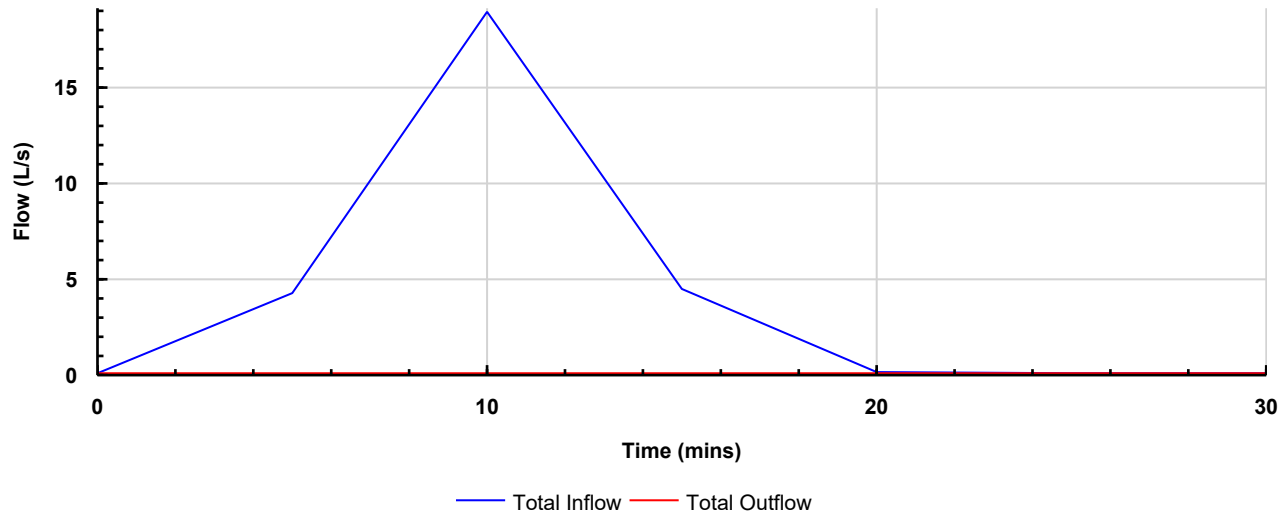
Phase
FEH: 100 years: Increase Rainfall (%): +40: 15 mins: Summer

Tables

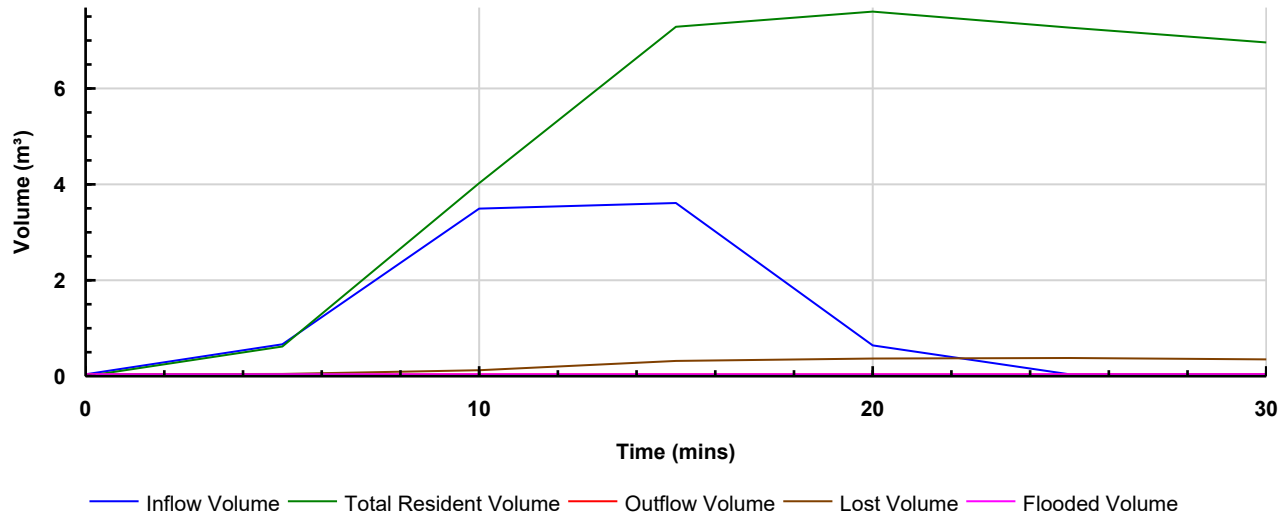
Name	Max. Inflow (L/s)	Total Inflow Volume (m³)	Max. Outflow (L/s)	Total Outflow Volume (m³)
TOTAL	18.9	8.298	0.0	0.000

Graphs

Flow Graph



Volume Graph



Project:	Date: 20/01/2024		
	Designed by: GraemeBeaven	Checked by:	Approved By:
Report Details: Type: Inflow Results Storm Phase: Phase	Company Address:		

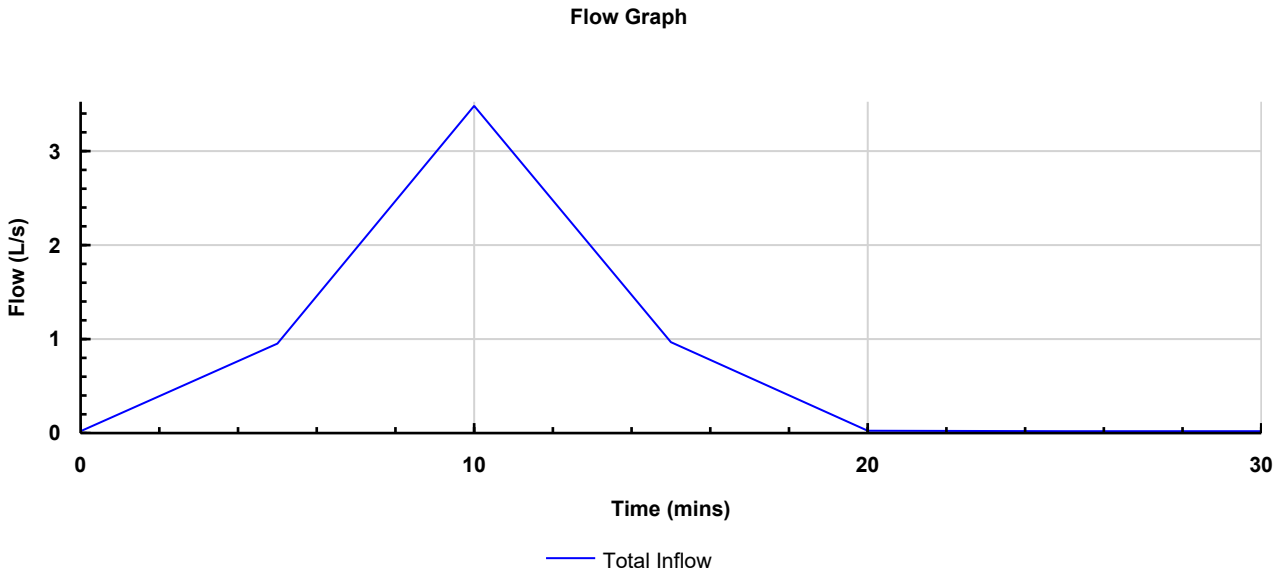
Catchment Area (3)
Critical by Return Period: FEH: 2 years: Increase Rainfall (%): +0: 15 mins: Winter

Type : Catchment Area

Inflow

Max. Inflow (L/s)	3.5
Total Inflow Volume (m³)	1.610

Graphs



Tables

Time (mins)	Total Inflow (L/s)
0	0.0
5	0.9
10	3.5
15	1.0
20	0.0
25	0.0
30	0.0

Project:	Date: 20/01/2024		
	Designed by: GraemeBeaven	Checked by:	Approved By:
Report Details: Type: Inflow Results Storm Phase: Phase	Company Address:		

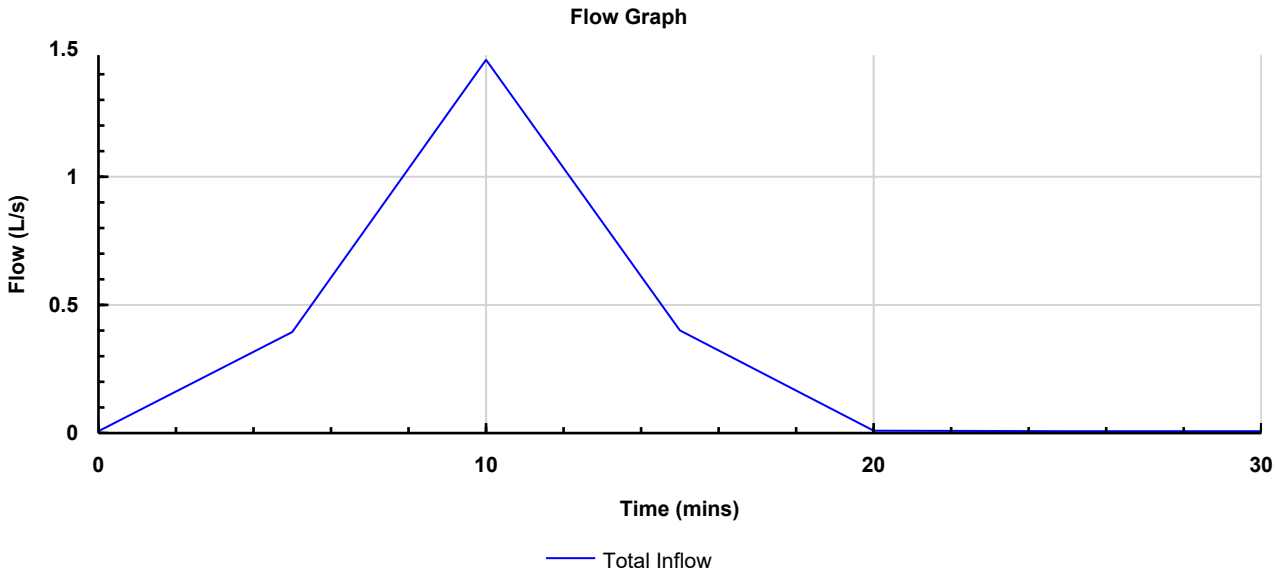
Catchment Area
Critical by Return Period: FEH: 2 years: Increase Rainfall (%): +0: 15 mins: Winter

Type : Catchment Area

Inflow

Max. Inflow (L/s)	1.5
Total Inflow Volume (m³)	0.672

Graphs



Tables

Time (mins)	Total Inflow (L/s)
0	0.0
5	0.4
10	1.5
15	0.4
20	0.0
25	0.0
30	0.0

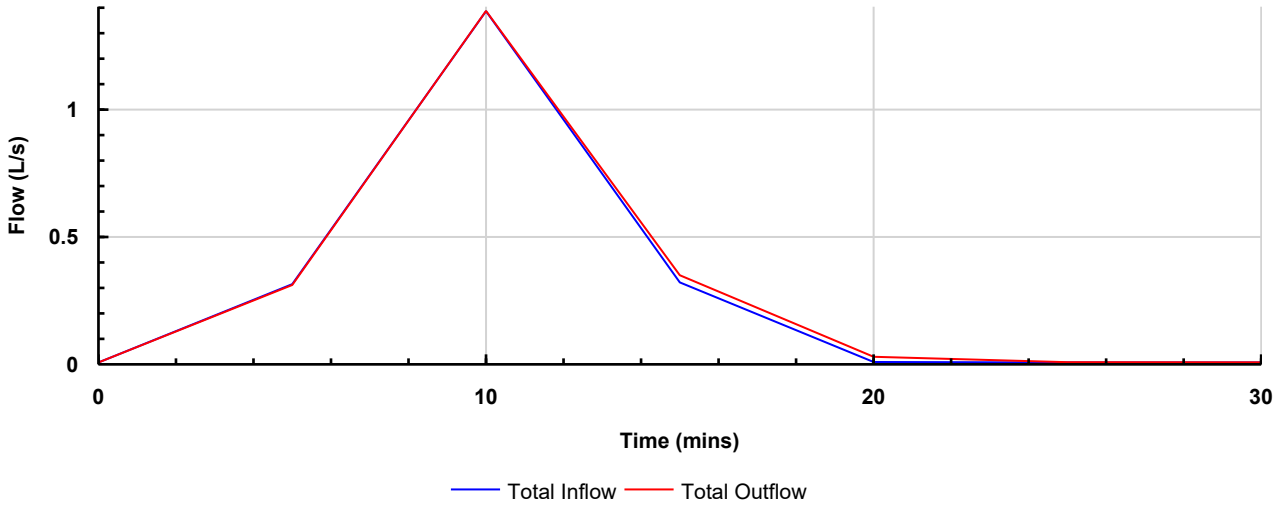
Project:	Date: 20/01/2024		
	Designed by: GraemeBeaven	Checked by:	Approved By:
Report Details: Type: Junction Results Storm Phase: Phase	Company Address:		

SMH03 Type : Manhole

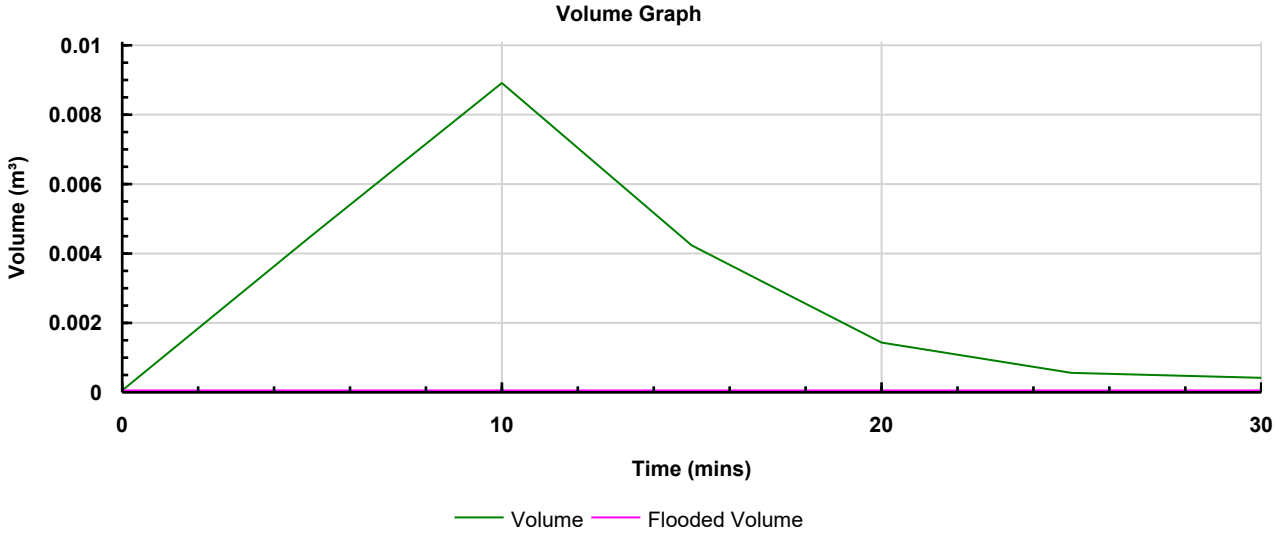
Critical by Return Period: FEH: 2 years: Increase Rainfall (%): +0: 15 mins: Summer

Graphs

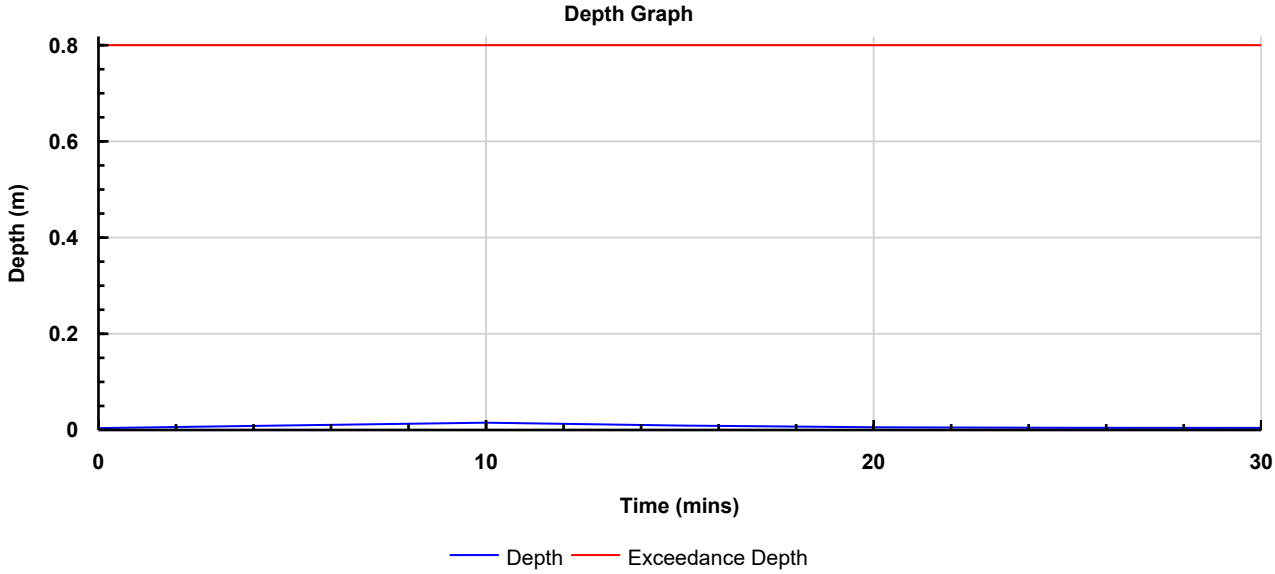
Flow Graph



Volume Graph



Project:	Date: 20/01/2024		
	Designed by: GraemeBeaven	Checked by:	Approved By:
Report Details: Type: Junction Results Storm Phase: Phase	Company Address:		



Project:	Date: 20/01/2024		
	Designed by: GraemeBeaven	Checked by:	Approved By:
Report Details: Type: Junction Results Storm Phase: Phase	Company Address:		

Tables

Time (mins)	Total Inflow (L/s)	Depth (m)	Volume (m³)	Flooded Volume (m³)	Total Outflow (L/s)
0	0.0	0.000	0.000	0.000	0.0
5	0.3	0.006	0.004	0.000	0.3
10	1.4	0.011	0.009	0.000	1.4
15	0.3	0.005	0.004	0.000	0.3
20	0.0	0.002	0.001	0.000	0.0
25	0.0	0.001	0.001	0.000	0.0
30	0.0	0.000	0.000	0.000	0.0

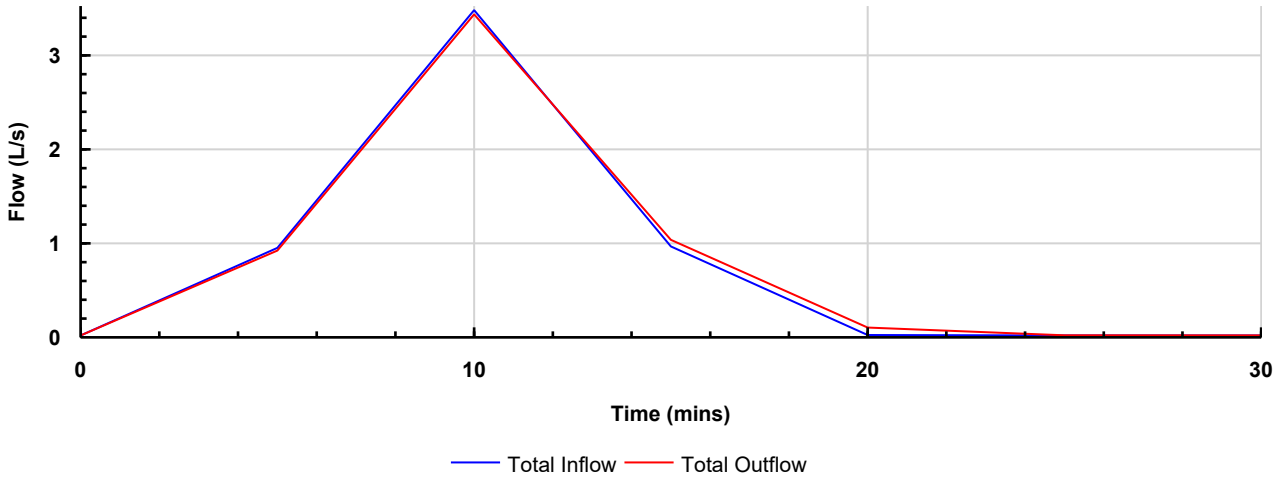
Project:	Date: 20/01/2024		
	Designed by: GraemeBeaven	Checked by:	Approved By:
Report Details: Type: Junction Results Storm Phase: Phase	Company Address:		

SIC02 Type : Manhole

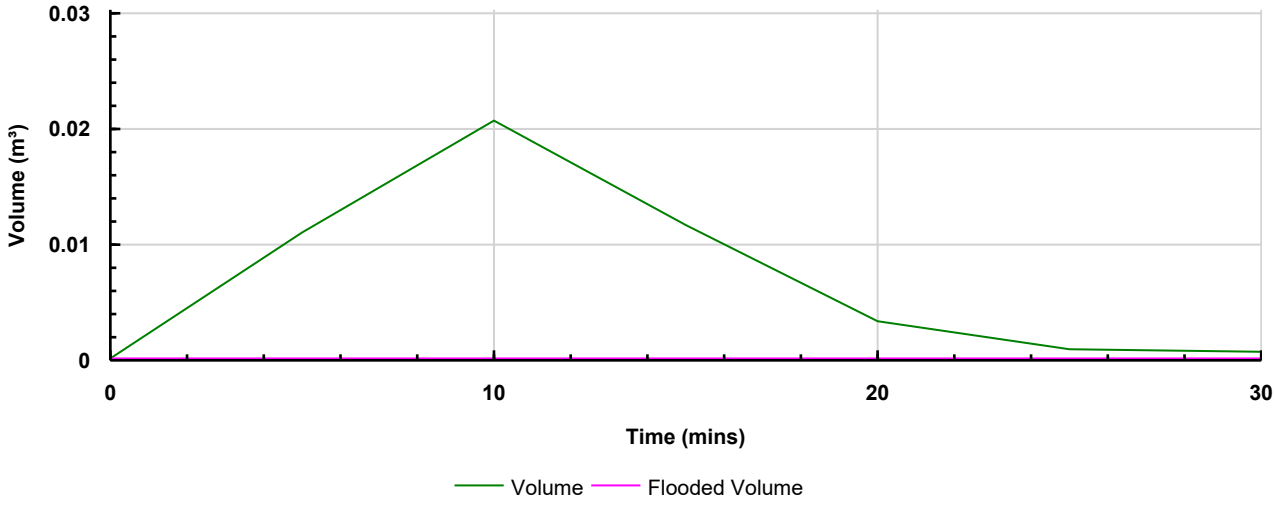
Critical by Return Period: FEH: 2 years: Increase Rainfall (%): +0: 15 mins: Winter

Graphs

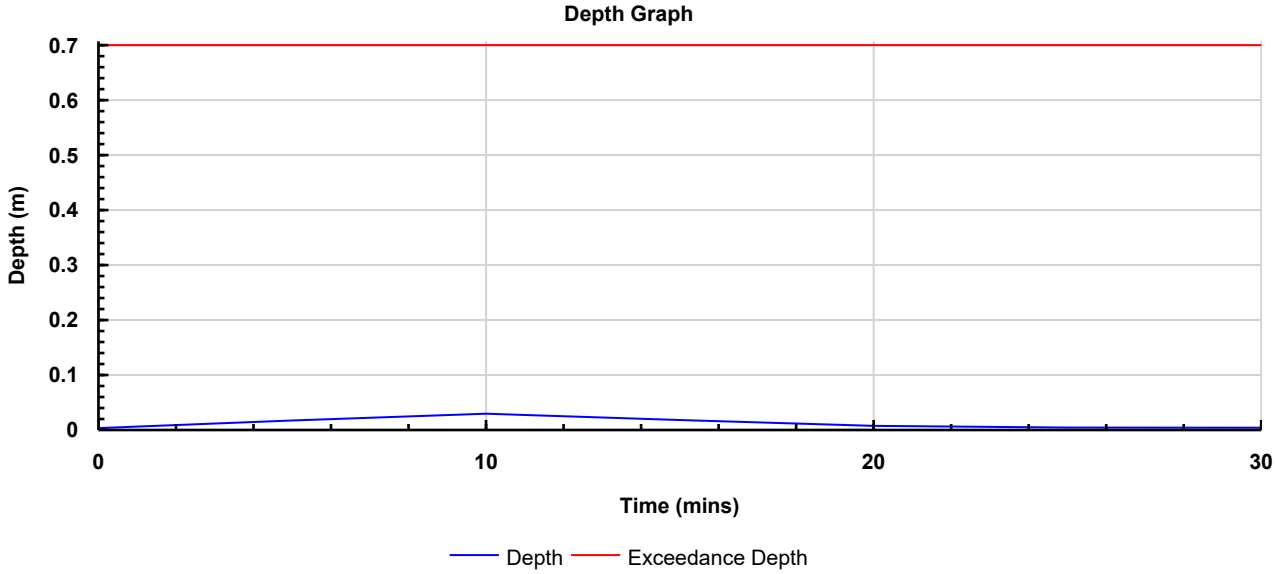
Flow Graph



Volume Graph



Project:	Date: 20/01/2024		
	Designed by: GraemeBeaven	Checked by:	Approved By:
Report Details: Type: Junction Results Storm Phase: Phase	Company Address:		



Project:	Date: 20/01/2024		
	Designed by: GraemeBeaven	Checked by:	Approved By:
Report Details: Type: Junction Results Storm Phase: Phase	Company Address:		

Tables

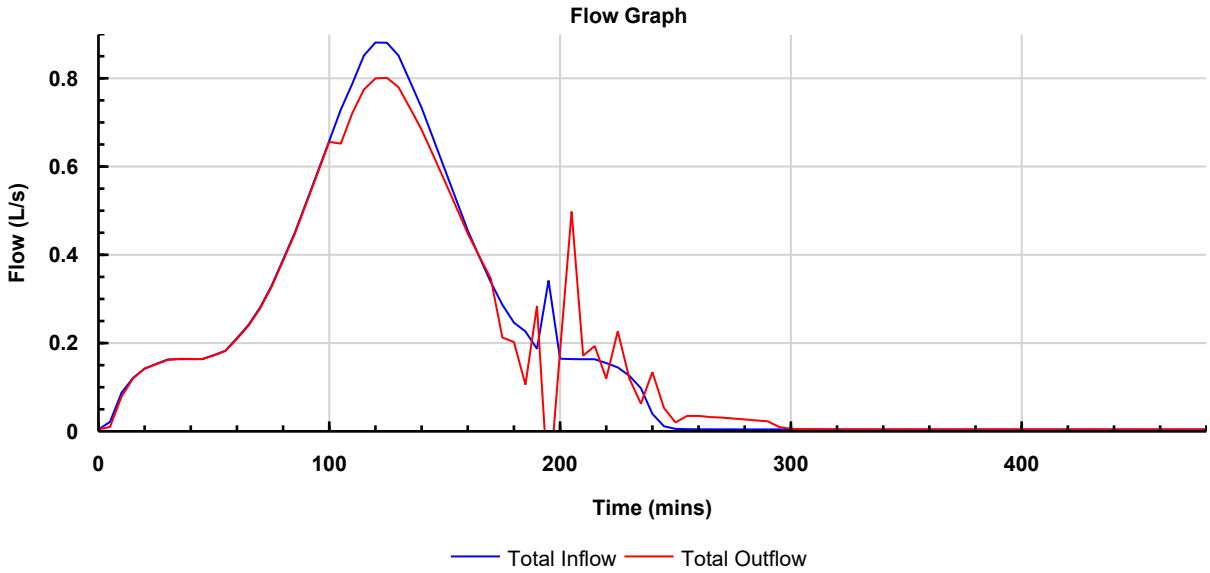
Time (mins)	Total Inflow (L/s)	Depth (m)	Volume (m³)	Flooded Volume (m³)	Total Outflow (L/s)
0	0.0	0.000	0.000	0.000	0.0
5	0.9	0.014	0.011	0.000	0.9
10	3.5	0.026	0.021	0.000	3.4
15	1.0	0.015	0.012	0.000	1.0
20	0.0	0.004	0.003	0.000	0.1
25	0.0	0.001	0.001	0.000	0.0
30	0.0	0.001	0.001	0.000	0.0

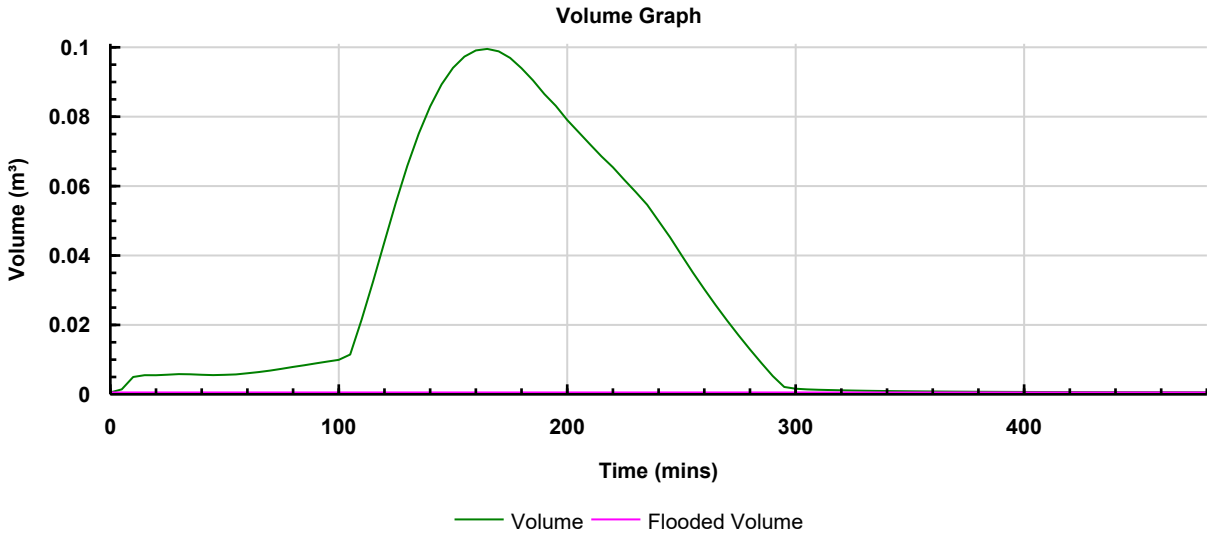
Project:	Date: 20/01/2024		
	Designed by: GraemeBeaven	Checked by:	Approved By:
Report Details: Type: Junction Results Storm Phase: Phase	Company Address:		

SMH06 Type : Manhole

Critical by Return Period: FEH: 2 years: Increase Rainfall (%): +0: 240 mins: Winter

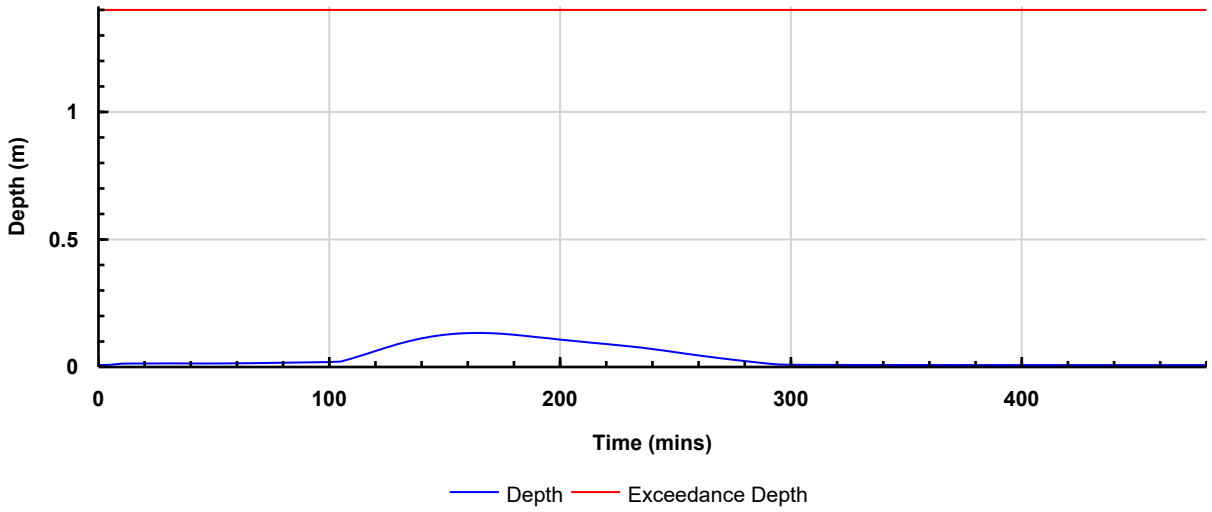
Graphs





Project:	Date: 20/01/2024		
	Designed by: GraemeBeaven	Checked by:	Approved By:
Report Details: Type: Junction Results Storm Phase: Phase	Company Address:		

Depth Graph



Project:	Date: 20/01/2024		
	Designed by: GraemeBeaven	Checked by:	Approved By:
Report Details: Type: Junction Results Storm Phase: Phase	Company Address:		

Tables

Time (mins)	Total Inflow (L/s)	Depth (m)	Volume (m³)	Flooded Volume (m³)	Total Outflow (L/s)
0	0.0	0.000	0.000	0.000	0.0
5	0.0	0.001	0.001	0.000	0.0
10	0.1	0.006	0.004	0.000	0.1
15	0.1	0.006	0.005	0.000	0.1
20	0.1	0.006	0.005	0.000	0.1
25	0.1	0.007	0.005	0.000	0.1
30	0.2	0.007	0.005	0.000	0.2
35	0.2	0.007	0.005	0.000	0.2
40	0.2	0.007	0.005	0.000	0.2
45	0.2	0.006	0.005	0.000	0.2
50	0.2	0.007	0.005	0.000	0.2
55	0.2	0.007	0.005	0.000	0.2
60	0.2	0.007	0.006	0.000	0.2
65	0.2	0.008	0.006	0.000	0.2
70	0.3	0.008	0.006	0.000	0.3
75	0.3	0.009	0.007	0.000	0.3
80	0.4	0.009	0.007	0.000	0.4
85	0.4	0.010	0.008	0.000	0.4
90	0.5	0.011	0.008	0.000	0.5
95	0.6	0.011	0.009	0.000	0.6
100	0.7	0.012	0.009	0.000	0.7
105	0.7	0.014	0.011	0.000	0.7
110	0.8	0.027	0.021	0.000	0.7
115	0.9	0.041	0.032	0.000	0.8
120	0.9	0.056	0.044	0.000	0.8
125	0.9	0.070	0.055	0.000	0.8
130	0.9	0.084	0.066	0.000	0.8
135	0.8	0.095	0.075	0.000	0.7
140	0.7	0.106	0.083	0.000	0.7
145	0.7	0.114	0.089	0.000	0.6
150	0.6	0.120	0.094	0.000	0.6
155	0.5	0.124	0.097	0.000	0.5
160	0.5	0.126	0.099	0.000	0.4
165	0.4	0.127	0.100	0.000	0.4
170	0.3	0.126	0.099	0.000	0.3
175	0.3	0.123	0.097	0.000	0.2
180	0.2	0.120	0.094	0.000	0.2
185	0.2	0.115	0.090	0.000	0.1
190	0.2	0.110	0.086	0.000	0.3
195	0.3	0.106	0.083	0.000	-0.1
200	0.2	0.101	0.079	0.000	0.2
205	0.2	0.096	0.075	0.000	0.5
210	0.2	0.092	0.072	0.000	0.2
215	0.2	0.087	0.068	0.000	0.2
220	0.2	0.083	0.065	0.000	0.1
225	0.1	0.078	0.062	0.000	0.2
230	0.1	0.074	0.058	0.000	0.1
235	0.1	0.069	0.054	0.000	0.1
240	0.0	0.063	0.050	0.000	0.1
245	0.0	0.057	0.045	0.000	0.0
250	0.0	0.051	0.040	0.000	0.0
255	0.0	0.044	0.035	0.000	0.0

Project:	Date: 20/01/2024		
	Designed by: GraemeBeaven	Checked by:	Approved By:
Report Details: Type: Junction Results Storm Phase: Phase	Company Address:		

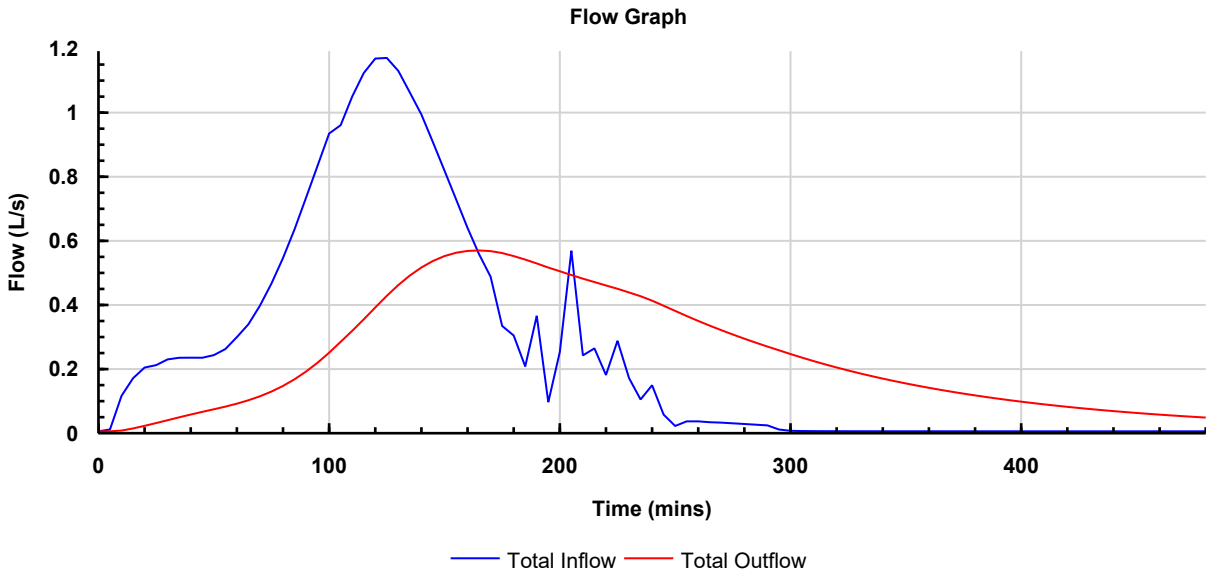
Time (mins)	Total Inflow (L/s)	Depth (m)	Volume (m³)	Flooded Volume (m³)	Total Outflow (L/s)
260	0.0	0.038	0.030	0.000	0.0
265	0.0	0.032	0.025	0.000	0.0
270	0.0	0.027	0.021	0.000	0.0
275	0.0	0.021	0.017	0.000	0.0
280	0.0	0.016	0.012	0.000	0.0
285	0.0	0.011	0.009	0.000	0.0
290	0.0	0.006	0.005	0.000	0.0
295	0.0	0.002	0.002	0.000	0.0
300	0.0	0.001	0.001	0.000	0.0
305	0.0	0.001	0.001	0.000	0.0
310	0.0	0.001	0.001	0.000	0.0
315	0.0	0.001	0.001	0.000	0.0
320	0.0	0.001	0.001	0.000	0.0
325	0.0	0.001	0.001	0.000	0.0
330	0.0	0.001	0.000	0.000	0.0
335	0.0	0.001	0.000	0.000	0.0
340	0.0	0.001	0.000	0.000	0.0
345	0.0	0.000	0.000	0.000	0.0
350	0.0	0.000	0.000	0.000	0.0
355	0.0	0.000	0.000	0.000	0.0
360	0.0	0.000	0.000	0.000	0.0
365	0.0	0.000	0.000	0.000	0.0
370	0.0	0.000	0.000	0.000	0.0
375	0.0	0.000	0.000	0.000	0.0
380	0.0	0.000	0.000	0.000	0.0
385	0.0	0.000	0.000	0.000	0.0
390	0.0	0.000	0.000	0.000	0.0
395	0.0	0.000	0.000	0.000	0.0
400	0.0	0.000	0.000	0.000	0.0
405	0.0	0.000	0.000	0.000	0.0
410	0.0	0.000	0.000	0.000	0.0
415	0.0	0.000	0.000	0.000	0.0
420	0.0	0.000	0.000	0.000	0.0
425	0.0	0.000	0.000	0.000	0.0
430	0.0	0.000	0.000	0.000	0.0
435	0.0	0.000	0.000	0.000	0.0
440	0.0	0.000	0.000	0.000	0.0
445	0.0	0.000	0.000	0.000	0.0
450	0.0	0.000	0.000	0.000	0.0
455	0.0	0.000	0.000	0.000	0.0
460	0.0	0.000	0.000	0.000	0.0
465	0.0	0.000	0.000	0.000	0.0
470	0.0	0.000	0.000	0.000	0.0
475	0.0	0.000	0.000	0.000	0.0
480	0.0	0.000	0.000	0.000	0.0

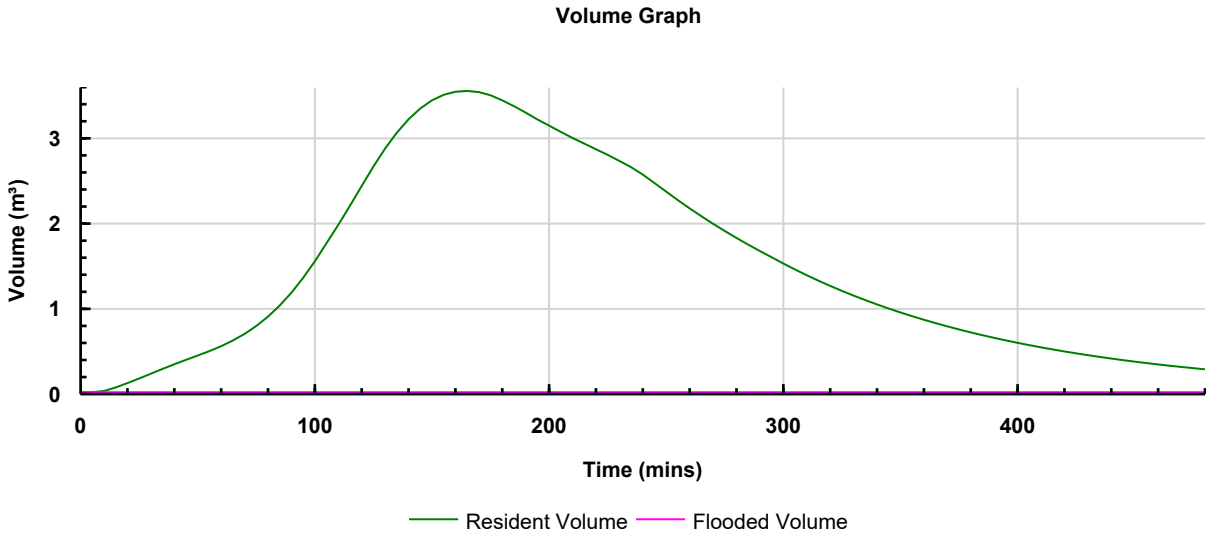
Project:	Date: 20/01/2024		
	Designed by: GraemeBeaven	Checked by:	Approved By:
Report Details: Type: Stormwater Control Results Storm Phase: Phase	Company Address:		

Soakaway
Critical by Return Period: FEH: 2 years: Increase Rainfall (%): +0: 240 mins: Winter

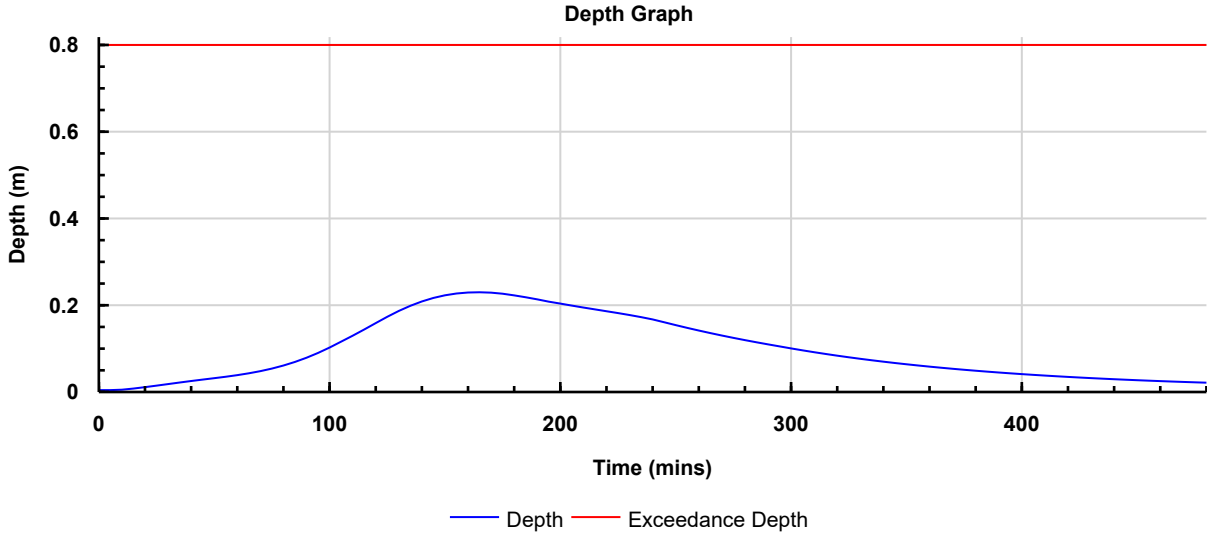
Type : Soakaway

Graphs





Project:	Date: 20/01/2024		
	Designed by: GraemeBeaven	Checked by:	Approved By:
Report Details: Type: Stormwater Control Results Storm Phase: Phase	Company Address:		



Project:	Date: 20/01/2024		
	Designed by: GraemeBeaven	Checked by:	Approved By:
Report Details: Type: Stormwater Control Results Storm Phase: Phase	Company Address:		

Tables

Time (mins)	Total Inflow (L/s)	Depth(m)	Resident Volume(m³)	Flooded Volume (m³)	Total Outflow (L/s)
0	0.0	0.000	0.000	0.000	0.0
5	0.0	0.000	0.000	0.000	0.0
10	0.1	0.001	0.015	0.000	0.0
15	0.2	0.004	0.056	0.000	0.0
20	0.2	0.007	0.108	0.000	0.0
25	0.2	0.010	0.162	0.000	0.0
30	0.2	0.014	0.218	0.000	0.0
35	0.2	0.018	0.275	0.000	0.0
40	0.2	0.021	0.330	0.000	0.1
45	0.2	0.024	0.382	0.000	0.1
50	0.2	0.028	0.433	0.000	0.1
55	0.3	0.031	0.485	0.000	0.1
60	0.3	0.035	0.543	0.000	0.1
65	0.3	0.039	0.610	0.000	0.1
70	0.4	0.044	0.688	0.000	0.1
75	0.5	0.050	0.782	0.000	0.1
80	0.5	0.057	0.892	0.000	0.1
85	0.6	0.065	1.023	0.000	0.2
90	0.7	0.075	1.175	0.000	0.2
95	0.8	0.086	1.350	0.000	0.2
100	0.9	0.099	1.545	0.000	0.2
105	1.0	0.112	1.760	0.000	0.3
110	1.0	0.126	1.975	0.000	0.3
115	1.1	0.140	2.201	0.000	0.4
120	1.2	0.155	2.434	0.000	0.4
125	1.2	0.170	2.663	0.000	0.4
130	1.1	0.183	2.876	0.000	0.5
135	1.1	0.195	3.063	0.000	0.5
140	1.0	0.205	3.221	0.000	0.5
145	0.9	0.214	3.348	0.000	0.5
150	0.8	0.220	3.444	0.000	0.5
155	0.7	0.224	3.510	0.000	0.6
160	0.6	0.226	3.546	0.000	0.6
165	0.6	0.227	3.555	0.000	0.6
170	0.5	0.226	3.542	0.000	0.6
175	0.3	0.223	3.504	0.000	0.6
180	0.3	0.220	3.444	0.000	0.5
185	0.2	0.215	3.376	0.000	0.5
190	0.4	0.210	3.300	0.000	0.5
195	0.1	0.205	3.219	0.000	0.5
200	0.2	0.201	3.146	0.000	0.5
205	0.6	0.196	3.072	0.000	0.5
210	0.2	0.191	3.000	0.000	0.5
215	0.3	0.187	2.934	0.000	0.5
220	0.2	0.183	2.867	0.000	0.5
225	0.3	0.179	2.802	0.000	0.4
230	0.2	0.174	2.729	0.000	0.4
235	0.1	0.169	2.656	0.000	0.4
240	0.1	0.164	2.569	0.000	0.4
245	0.1	0.157	2.468	0.000	0.4
250	0.0	0.151	2.367	0.000	0.4
255	0.0	0.144	2.266	0.000	0.4
260	0.0	0.138	2.169	0.000	0.3
265	0.0	0.132	2.077	0.000	0.3
270	0.0	0.127	1.988	0.000	0.3

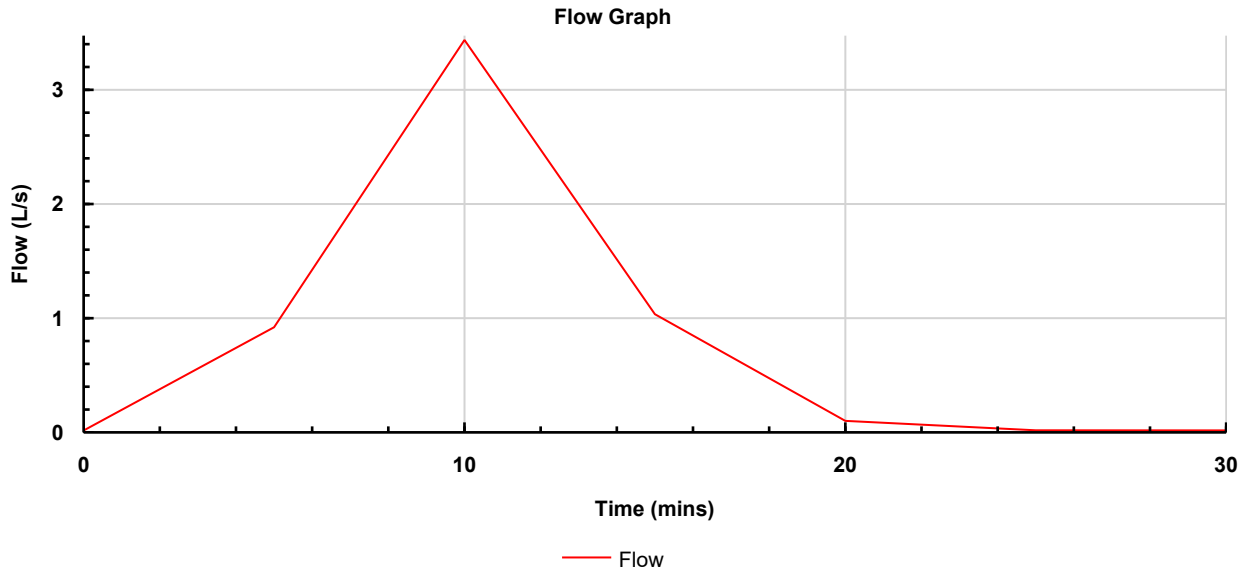
Project:	Date: 20/01/2024		
	Designed by: GraemeBeaven	Checked by:	Approved By:
Report Details: Type: Stormwater Control Results Storm Phase: Phase	Company Address:		

Time (mins)	Total Inflow (L/s)	Depth(m)	Resident Volume(m³)	Flooded Volume (m³)	Total Outflow (L/s)
275	0.0	0.121	1.902	0.000	0.3
280	0.0	0.116	1.820	0.000	0.3
285	0.0	0.111	1.742	0.000	0.3
290	0.0	0.106	1.666	0.000	0.3
295	0.0	0.101	1.593	0.000	0.3
300	0.0	0.097	1.519	0.000	0.2
305	0.0	0.092	1.448	0.000	0.2
310	0.0	0.088	1.381	0.000	0.2
315	0.0	0.084	1.316	0.000	0.2
320	0.0	0.080	1.255	0.000	0.2
325	0.0	0.076	1.196	0.000	0.2
330	0.0	0.073	1.140	0.000	0.2
335	0.0	0.069	1.087	0.000	0.2
340	0.0	0.066	1.036	0.000	0.2
345	0.0	0.063	0.987	0.000	0.2
350	0.0	0.060	0.941	0.000	0.2
355	0.0	0.057	0.897	0.000	0.1
360	0.0	0.054	0.855	0.000	0.1
365	0.0	0.052	0.815	0.000	0.1
370	0.0	0.049	0.777	0.000	0.1
375	0.0	0.047	0.741	0.000	0.1
380	0.0	0.045	0.706	0.000	0.1
385	0.0	0.043	0.673	0.000	0.1
390	0.0	0.041	0.641	0.000	0.1
395	0.0	0.039	0.611	0.000	0.1
400	0.0	0.037	0.583	0.000	0.1
405	0.0	0.035	0.556	0.000	0.1
410	0.0	0.034	0.530	0.000	0.1
415	0.0	0.032	0.505	0.000	0.1
420	0.0	0.031	0.481	0.000	0.1
425	0.0	0.029	0.459	0.000	0.1
430	0.0	0.028	0.437	0.000	0.1
435	0.0	0.027	0.417	0.000	0.1
440	0.0	0.025	0.397	0.000	0.1
445	0.0	0.024	0.379	0.000	0.1
450	0.0	0.023	0.361	0.000	0.1
455	0.0	0.022	0.344	0.000	0.1
460	0.0	0.021	0.328	0.000	0.1
465	0.0	0.020	0.313	0.000	0.0
470	0.0	0.019	0.298	0.000	0.0
475	0.0	0.018	0.284	0.000	0.0
480	0.0	0.017	0.270	0.000	0.0

Pipe (3)
Critical by Return Period: FEH: 2 years: Increase Rainfall (%): +0: 15 mins: Winter

Type : Pipe

Graphs



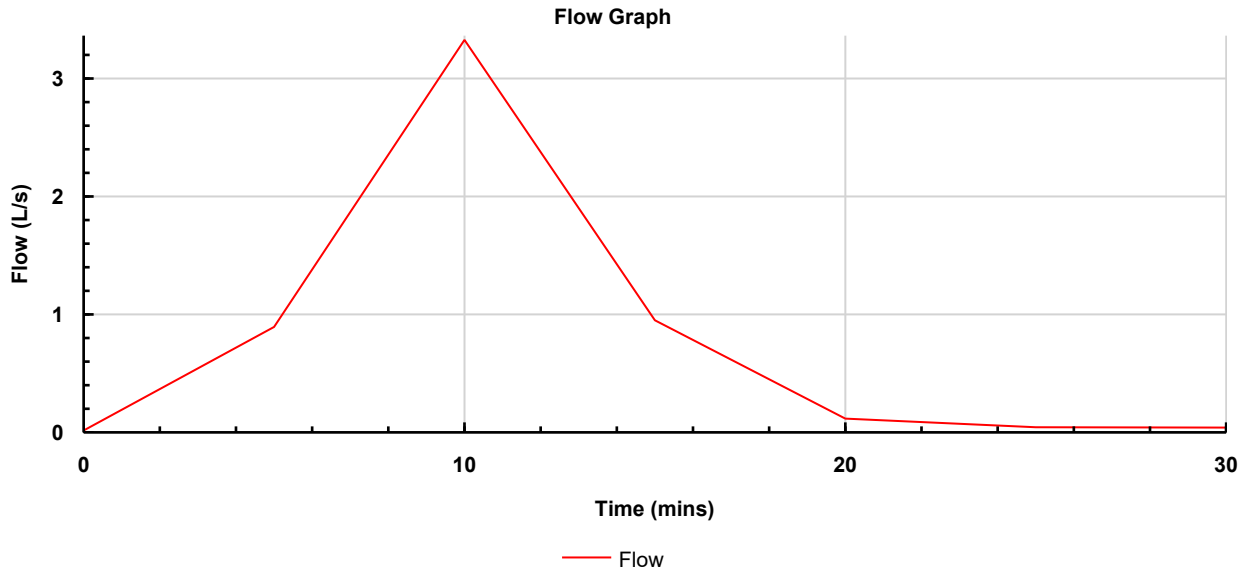
Tables

Time (mins)	Depth (m)	Flow (L/s)
0	0.000	0.0
5	0.015	0.9
10	0.029	3.4
15	0.019	1.0
20	0.017	0.1
25	0.013	0.0
30	0.010	0.0

Pipe
Critical by Return Period: FEH: 2 years: Increase Rainfall (%): +0: 15 mins: Winter

Type : Pipe

Graphs



Tables

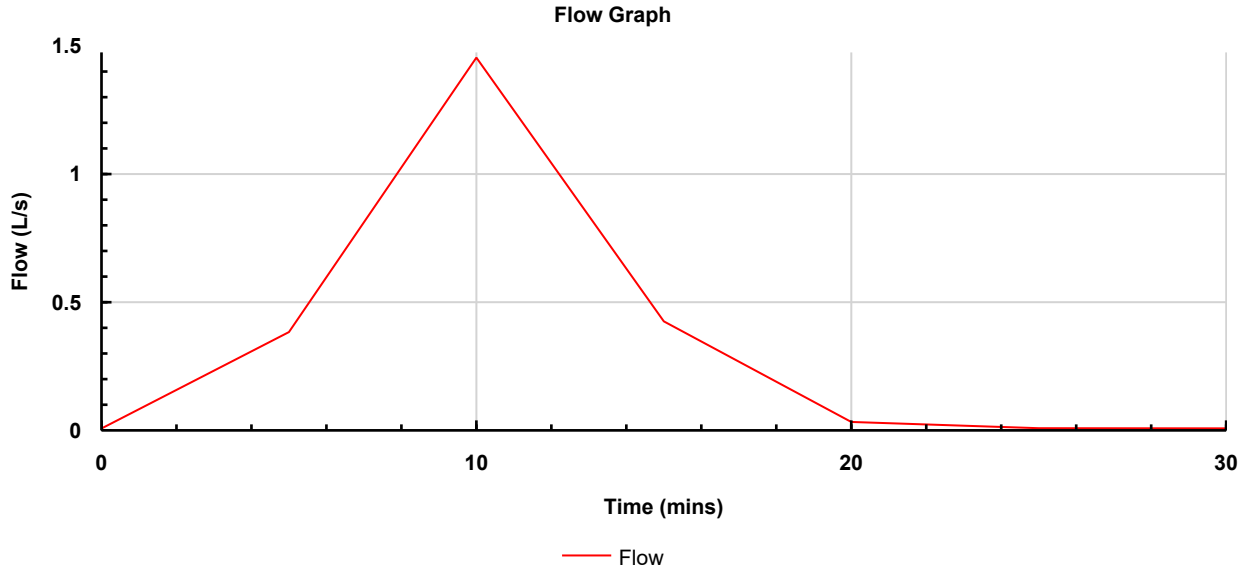
Time (mins)	Depth (m)	Flow (L/s)
0	0.000	0.0
5	0.013	0.9
10	0.049	3.3
15	0.073	0.9
20	0.080	0.1
25	0.075	0.0
30	0.069	0.0

Project:	Date: 20/01/2024		
	Designed by: GraemeBeaven	Checked by:	Approved By:
Report Details: Type: Connection Results Storm Phase: Phase	Company Address:		

Pipe (1)
Critical by Return Period: FEH: 2 years: Increase Rainfall (%): +0: 15 mins: Winter

Type : Pipe

Graphs



Tables

Time (mins)	Depth (m)	Flow (L/s)
0	0.000	0.0
5	0.008	0.4
10	0.038	1.5
15	0.064	0.4
20	0.066	0.0
25	0.063	0.0
30	0.060	0.0

Project:	Date: 20/01/2024		
	Designed by: GraemeBeaven	Checked by:	Approved By:
Report Details: Type: Inflow Results Storm Phase: Phase	Company Address:		

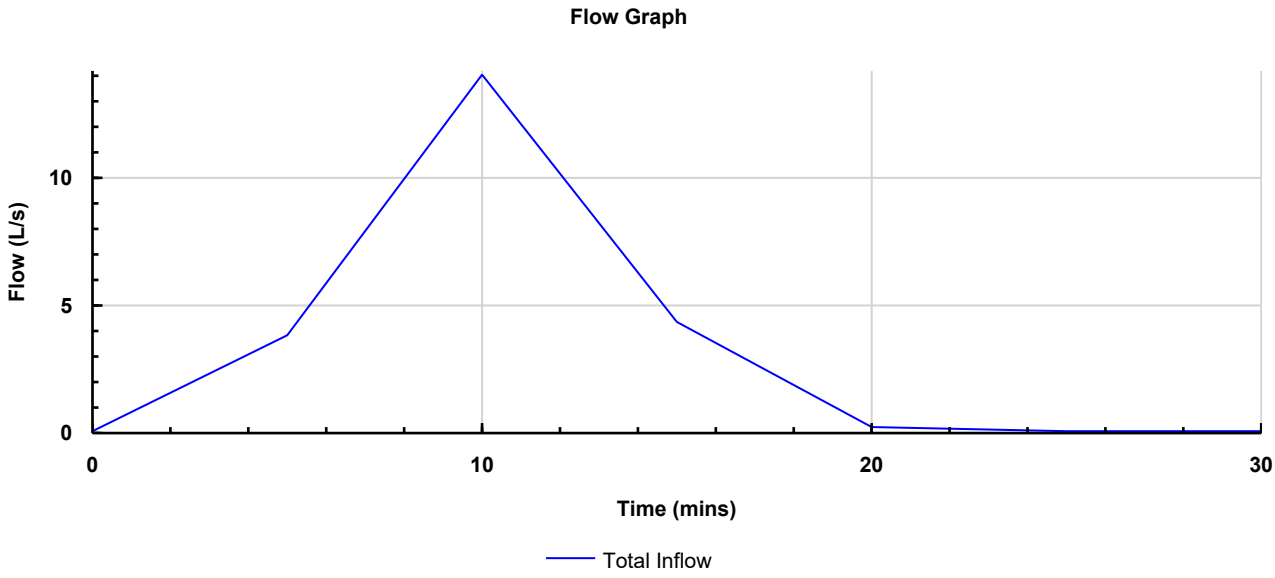
Catchment Area (3)
Critical by Return Period: FEH: 100 years: Increase Rainfall (%): +40: 15 mins: Winter

Type : Catchment Area

Inflow

Max. Inflow (L/s)	14.0
Total Inflow Volume (m³)	6.565

Graphs



Tables

Time (mins)	Total Inflow (L/s)
0	0.0
5	3.8
10	14.0
15	4.3
20	0.2
25	0.0
30	0.0

Project:	Date: 20/01/2024		
	Designed by: GraemeBeaven	Checked by:	Approved By:
Report Details: Type: Inflow Results Storm Phase: Phase	Company Address:		

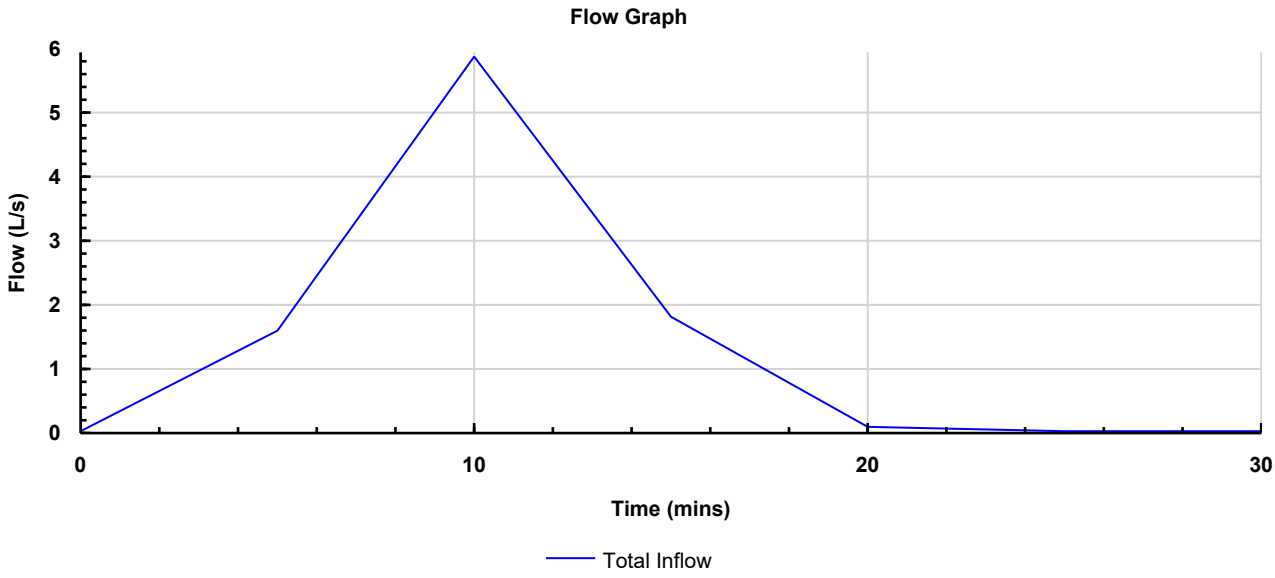
Catchment Area
Critical by Return Period: FEH: 100 years: Increase Rainfall (%): +40: 15 mins: Winter

Type : Catchment Area

Inflow

Max. Inflow (L/s)	5.9
Total Inflow Volume (m³)	2.742

Graphs



Tables

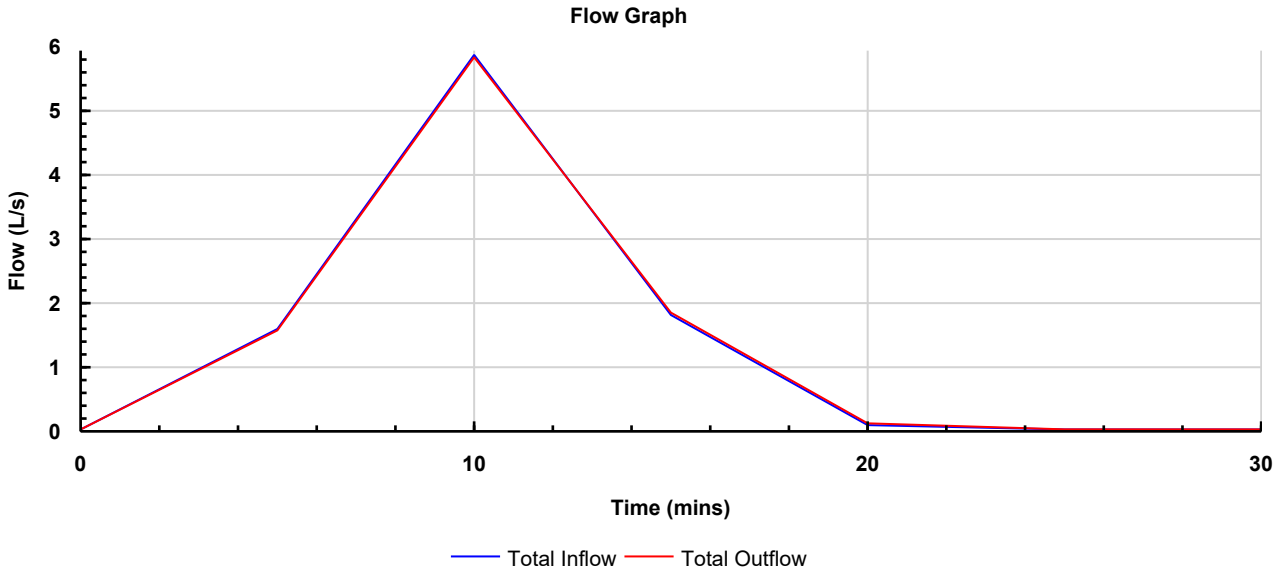
Time (mins)	Total Inflow (L/s)
0	0.0
5	1.6
10	5.9
15	1.8
20	0.1
25	0.0
30	0.0

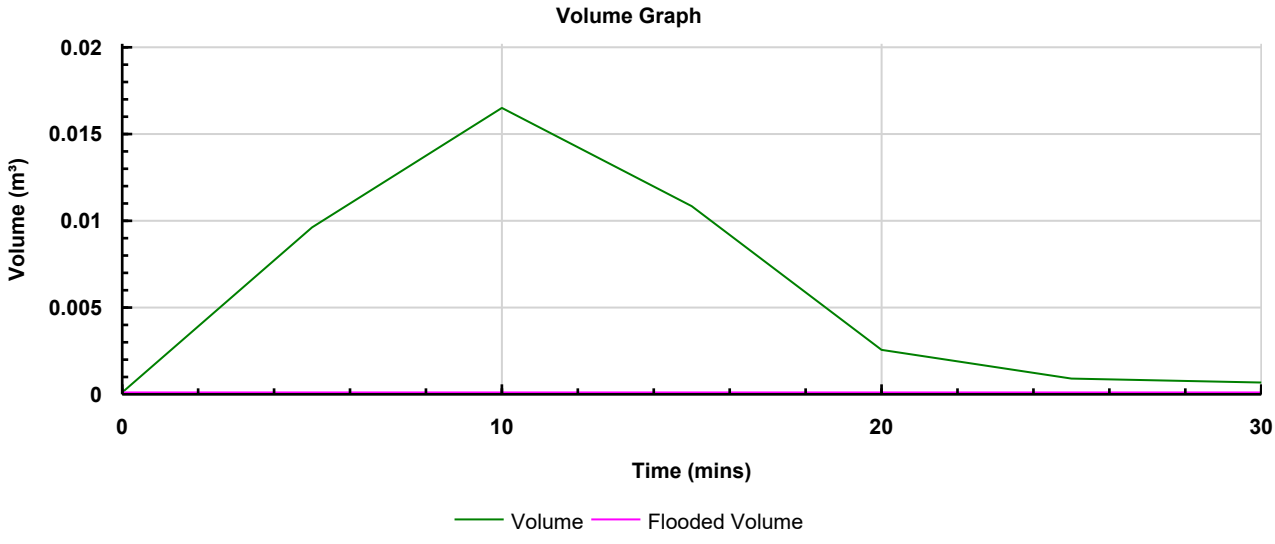
Project:	Date: 20/01/2024		
	Designed by: GraemeBeaven	Checked by:	Approved By:
Report Details: Type: Junction Results Storm Phase: Phase	Company Address:		

SMH03 Type : Manhole

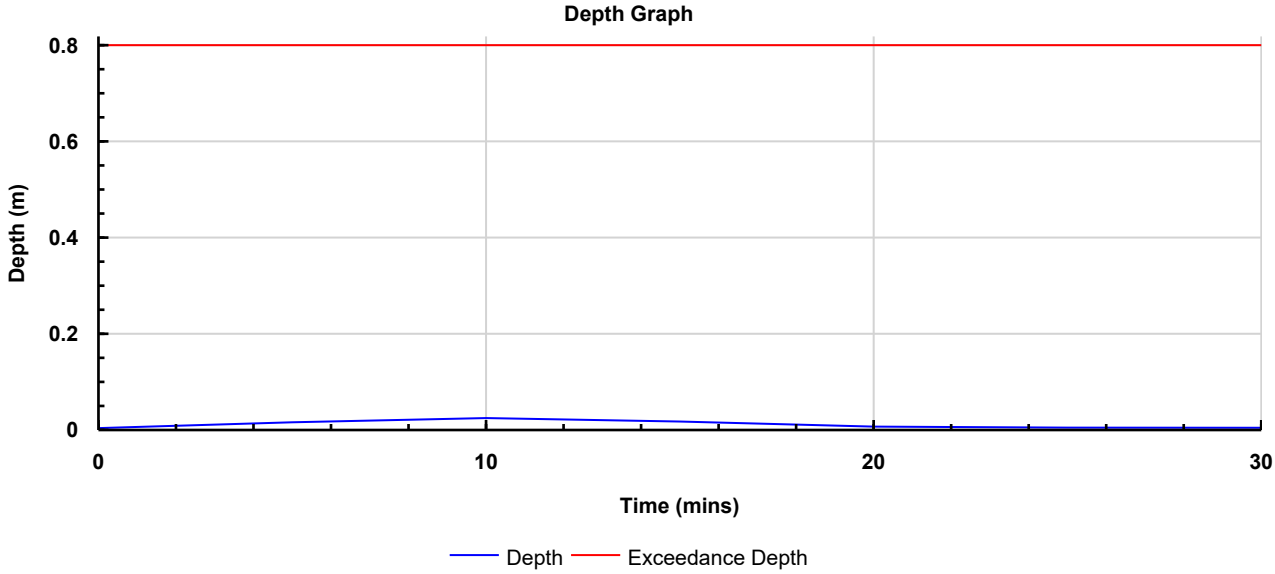
Critical by Return Period: FEH: 100 years: Increase Rainfall (%): +40: 15 mins: Winter

Graphs





Project:	Date: 20/01/2024		
	Designed by: GraemeBeaven	Checked by:	Approved By:
Report Details: Type: Junction Results Storm Phase: Phase	Company Address:		



Project:	Date: 20/01/2024		
	Designed by: GraemeBeaven	Checked by:	Approved By:
Report Details: Type: Junction Results Storm Phase: Phase	Company Address:		

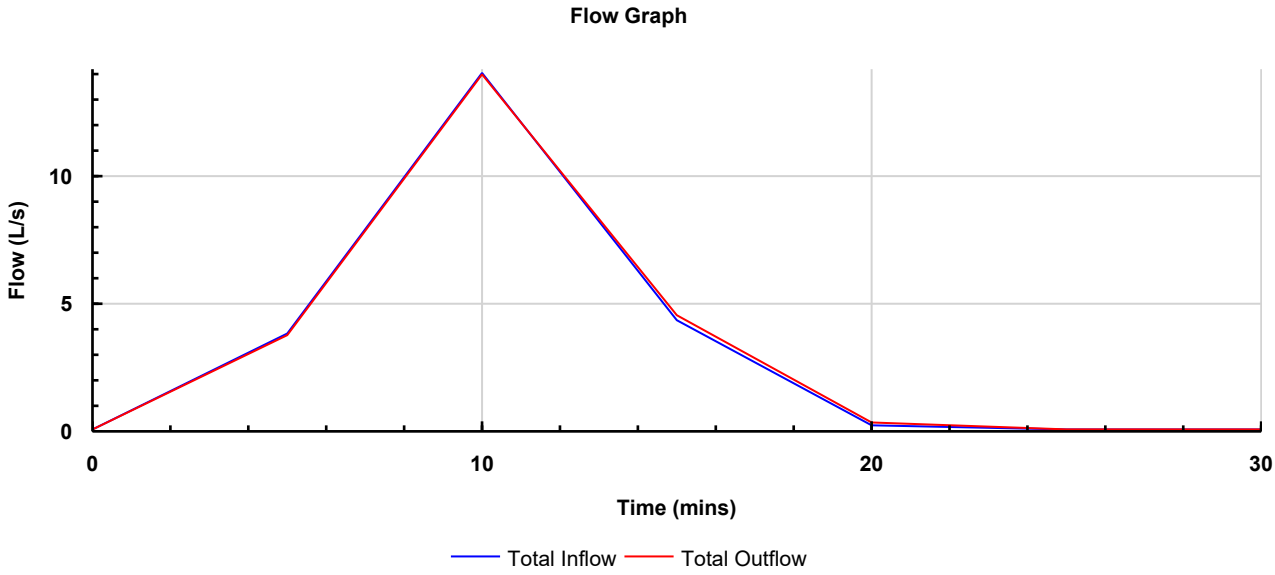
Tables

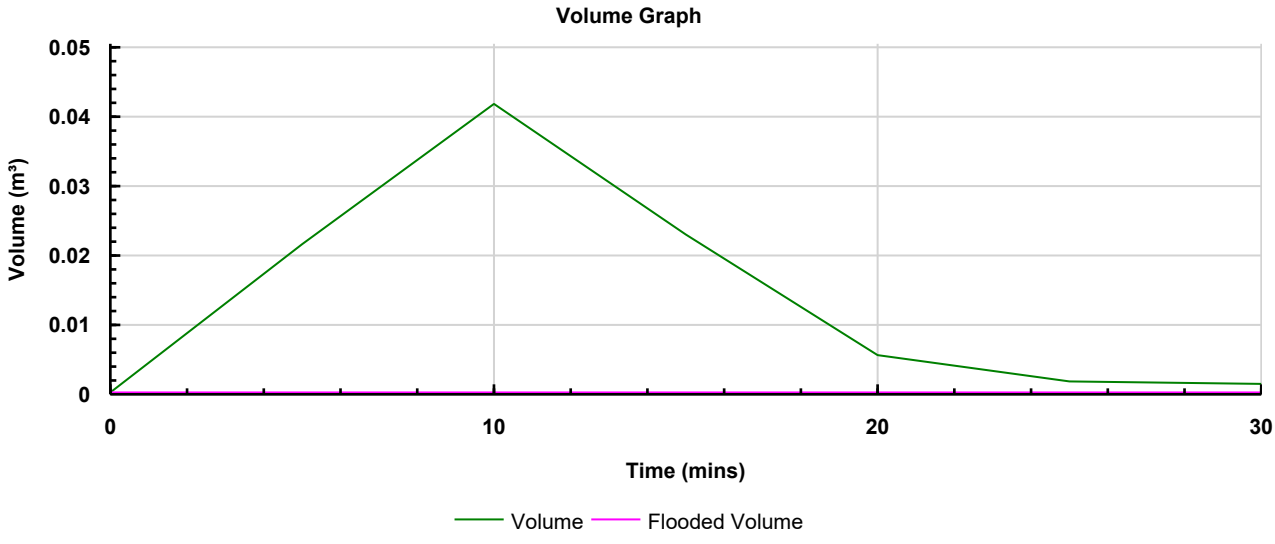
Time (mins)	Total Inflow (L/s)	Depth (m)	Volume (m³)	Flooded Volume (m³)	Total Outflow (L/s)
0	0.0	0.000	0.000	0.000	0.0
5	1.6	0.012	0.010	0.000	1.6
10	5.9	0.021	0.016	0.000	5.8
15	1.8	0.014	0.011	0.000	1.8
20	0.1	0.003	0.002	0.000	0.1
25	0.0	0.001	0.001	0.000	0.0
30	0.0	0.001	0.001	0.000	0.0

SIC02 Type : Manhole

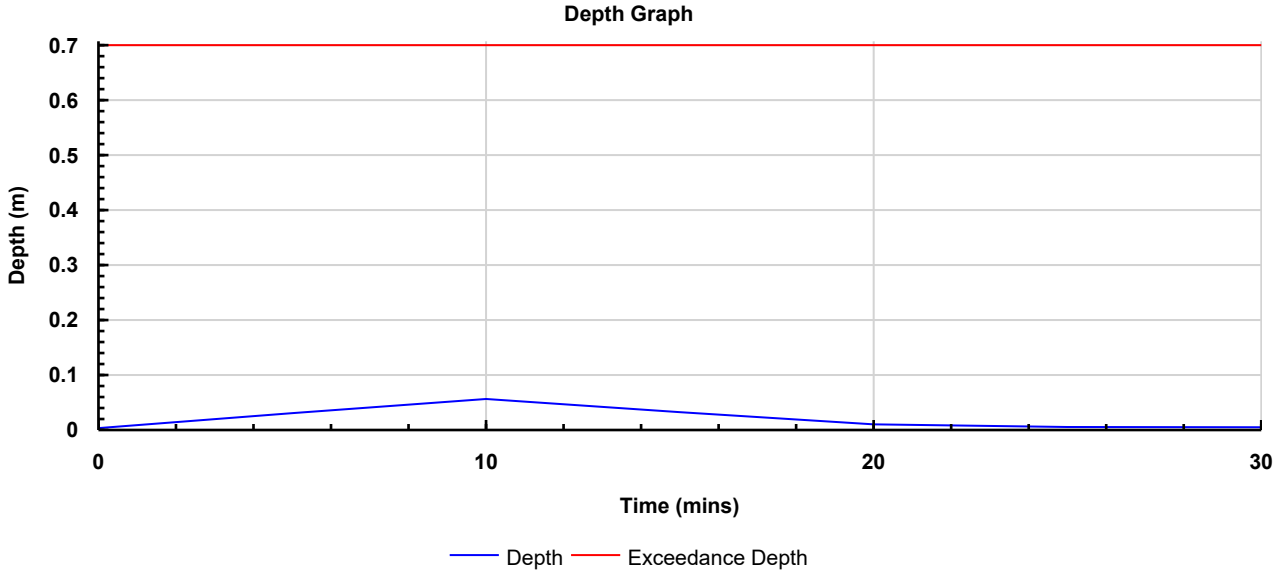
Critical by Return Period: FEH: 100 years: Increase Rainfall (%): +40: 15 mins: Winter

Graphs





Project:	Date: 20/01/2024		
	Designed by: GraemeBeaven	Checked by:	Approved By:
Report Details: Type: Junction Results Storm Phase: Phase	Company Address:		



Project:	Date: 20/01/2024		
	Designed by: GraemeBeaven	Checked by:	Approved By:
Report Details: Type: Junction Results Storm Phase: Phase	Company Address:		

Tables

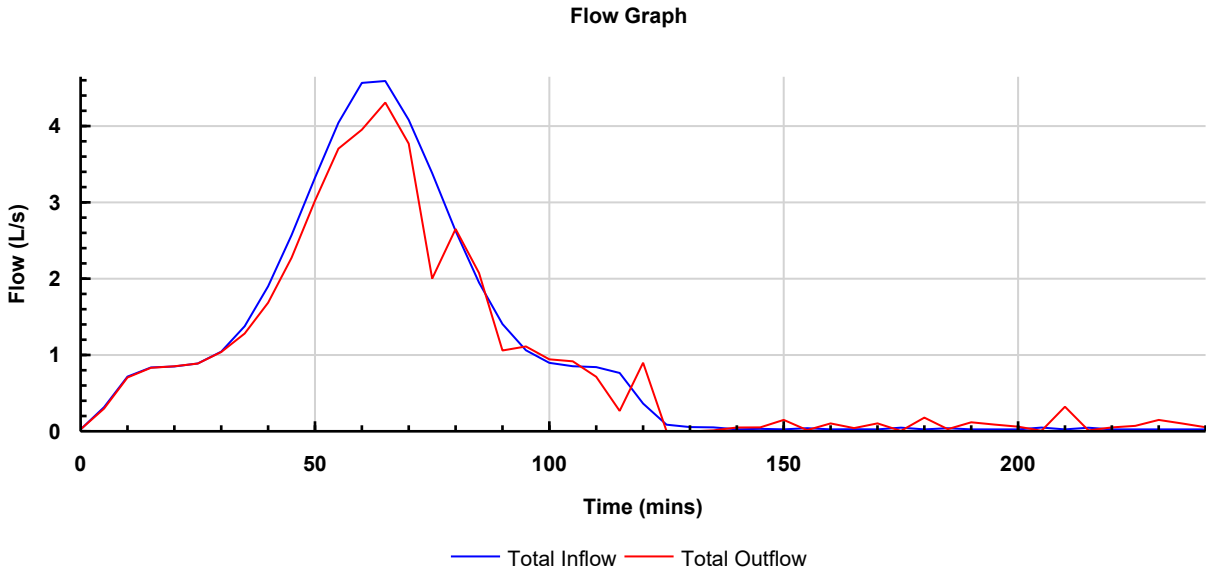
Time (mins)	Total Inflow (L/s)	Depth (m)	Volume (m³)	Flooded Volume (m³)	Total Outflow (L/s)
0	0.0	0.000	0.000	0.000	0.0
5	3.8	0.027	0.021	0.000	3.7
10	14.0	0.053	0.042	0.000	14.0
15	4.3	0.029	0.023	0.000	4.5
20	0.2	0.007	0.005	0.000	0.3
25	0.0	0.002	0.002	0.000	0.0
30	0.0	0.002	0.001	0.000	0.0

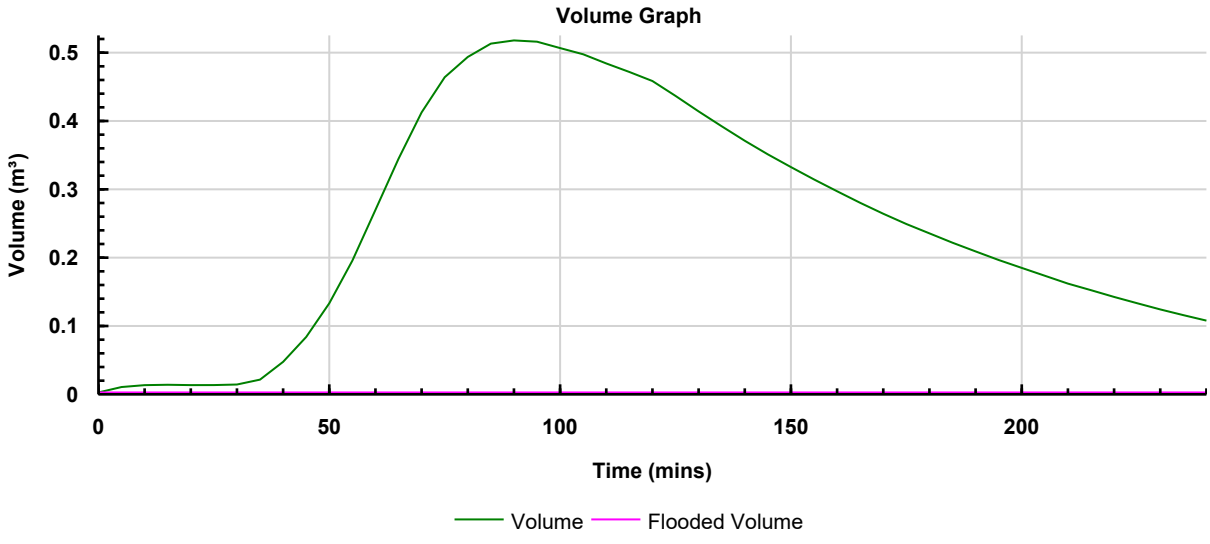
Project:	Date: 20/01/2024		
	Designed by: GraemeBeaven	Checked by:	Approved By:
Report Details: Type: Junction Results Storm Phase: Phase	Company Address:		

SMH06 Type : Manhole

Critical by Return Period: FEH: 100 years: Increase Rainfall (%): +40: 120 mins: Winter

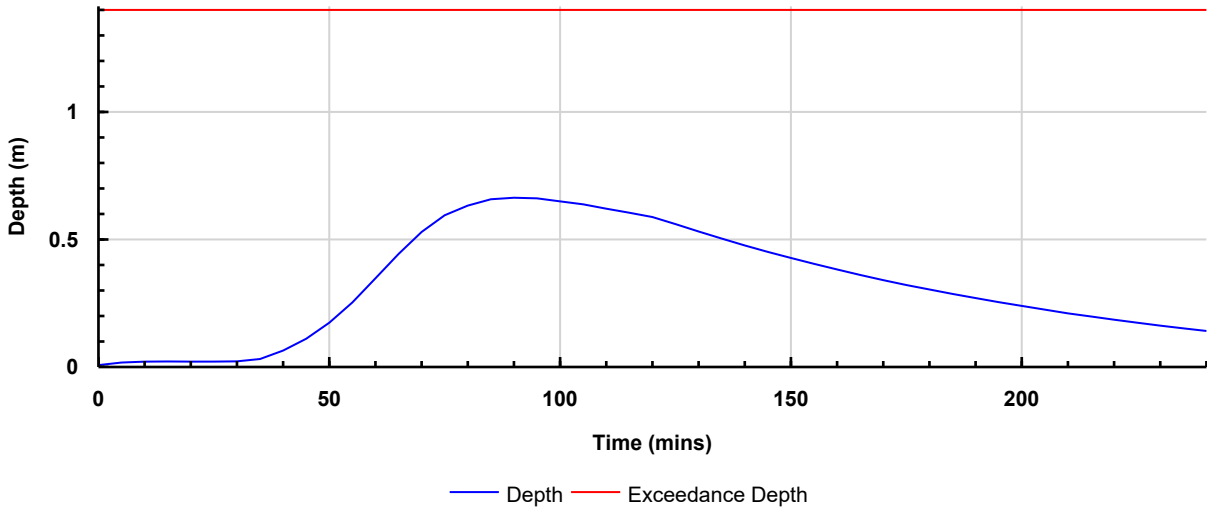
Graphs





Project:	Date: 20/01/2024		
	Designed by: GraemeBeaven	Checked by:	Approved By:
Report Details: Type: Junction Results Storm Phase: Phase	Company Address:		

Depth Graph



Project:	Date: 20/01/2024		
	Designed by: GraemeBeaven	Checked by:	Approved By:
Report Details: Type: Junction Results Storm Phase: Phase	Company Address:		

Tables

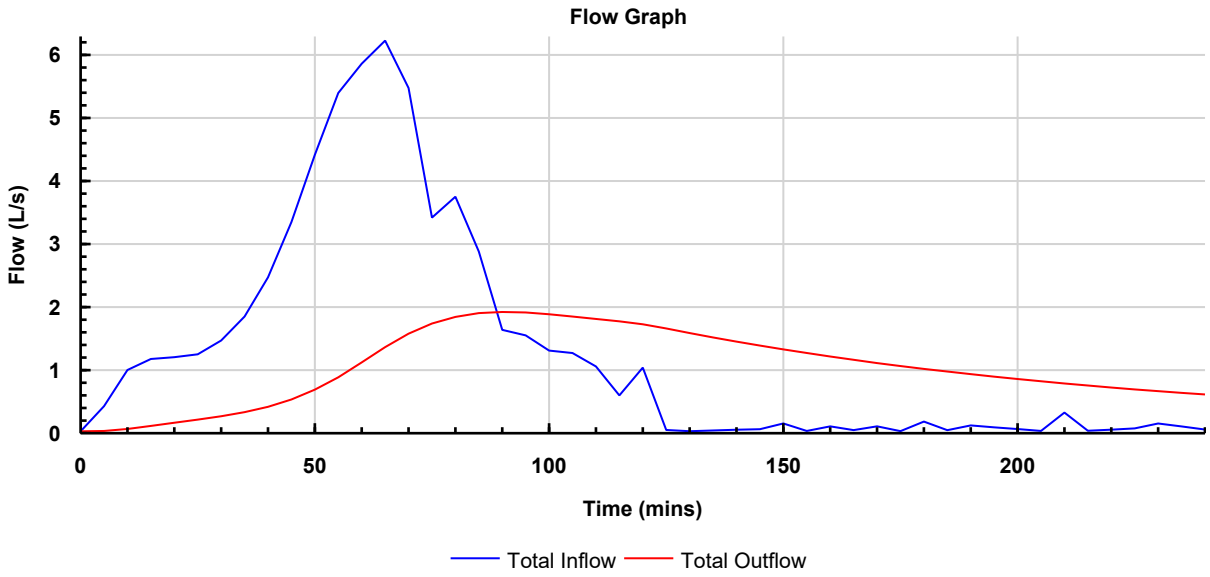
Time (mins)	Total Inflow (L/s)	Depth (m)	Volume (m³)	Flooded Volume (m³)	Total Outflow (L/s)
0	0.0	0.000	0.000	0.000	0.0
5	0.3	0.010	0.008	0.000	0.3
10	0.7	0.014	0.011	0.000	0.7
15	0.8	0.014	0.011	0.000	0.8
20	0.8	0.014	0.011	0.000	0.8
25	0.9	0.014	0.011	0.000	0.9
30	1.0	0.015	0.012	0.000	1.0
35	1.4	0.024	0.019	0.000	1.3
40	1.9	0.057	0.045	0.000	1.7
45	2.6	0.104	0.082	0.000	2.3
50	3.3	0.167	0.131	0.000	3.0
55	4.0	0.247	0.194	0.000	3.7
60	4.6	0.342	0.269	0.000	3.9
65	4.6	0.438	0.344	0.000	4.3
70	4.1	0.525	0.412	0.000	3.8
75	3.4	0.591	0.464	0.000	2.0
80	2.6	0.629	0.494	0.000	2.6
85	1.9	0.654	0.513	0.000	2.1
90	1.4	0.660	0.518	0.000	1.0
95	1.0	0.657	0.516	0.000	1.1
100	0.9	0.645	0.507	0.000	0.9
105	0.8	0.634	0.497	0.000	0.9
110	0.8	0.617	0.484	0.000	0.7
115	0.7	0.601	0.471	0.000	0.2
120	0.3	0.584	0.458	0.000	0.9
125	0.1	0.556	0.436	0.000	0.0
130	0.0	0.527	0.413	0.000	0.0
135	0.0	0.499	0.392	0.000	0.0
140	0.0	0.472	0.370	0.000	0.0
145	0.0	0.446	0.350	0.000	0.0
150	0.0	0.422	0.332	0.000	0.1
155	0.0	0.399	0.313	0.000	0.0
160	0.0	0.377	0.296	0.000	0.1
165	0.0	0.355	0.279	0.000	0.0
170	0.0	0.335	0.263	0.000	0.1
175	0.0	0.316	0.248	0.000	0.0
180	0.0	0.298	0.234	0.000	0.2
185	0.0	0.281	0.220	0.000	0.0
190	0.0	0.264	0.207	0.000	0.1
195	0.0	0.248	0.195	0.000	0.1
200	0.0	0.233	0.183	0.000	0.0
205	0.0	0.219	0.172	0.000	0.0
210	0.0	0.204	0.160	0.000	0.3
215	0.0	0.192	0.150	0.000	0.0
220	0.0	0.179	0.141	0.000	0.0
225	0.0	0.167	0.131	0.000	0.0
230	0.0	0.156	0.122	0.000	0.1
235	0.0	0.145	0.114	0.000	0.1
240	0.0	0.135	0.106	0.000	0.0

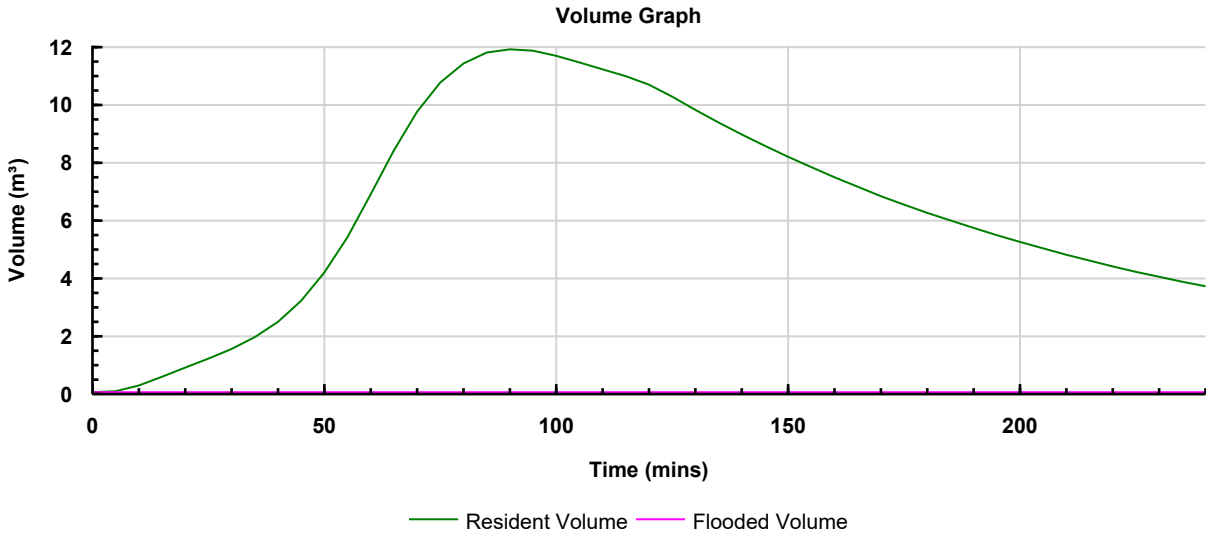
Project:	Date: 20/01/2024		
	Designed by: GraemeBeaven	Checked by:	Approved By:
Report Details: Type: Stormwater Control Results Storm Phase: Phase	Company Address:		

Soakaway
Critical by Return Period: FEH: 100 years: Increase Rainfall (%): +40: 120 mins: Winter

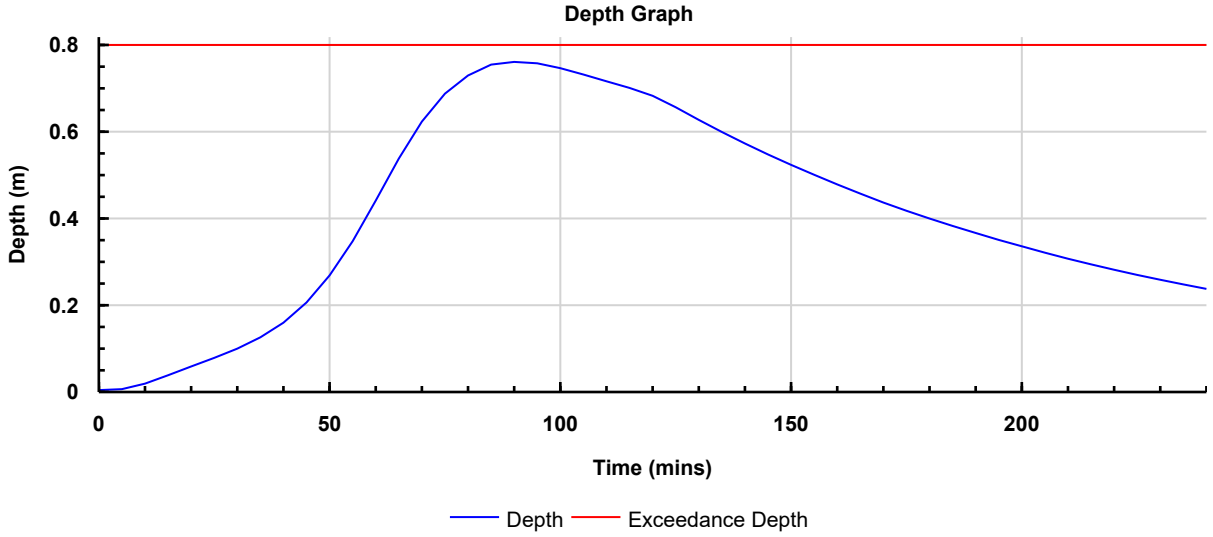
Type : Soakaway

Graphs





Project:	Date: 20/01/2024		
	Designed by: GraemeBeaven	Checked by:	Approved By:
Report Details: Type: Stormwater Control Results Storm Phase: Phase	Company Address:		



Project:	Date: 20/01/2024		
	Designed by: GraemeBeaven	Checked by:	Approved By:
Report Details: Type: Stormwater Control Results Storm Phase: Phase	Company Address:		

Tables

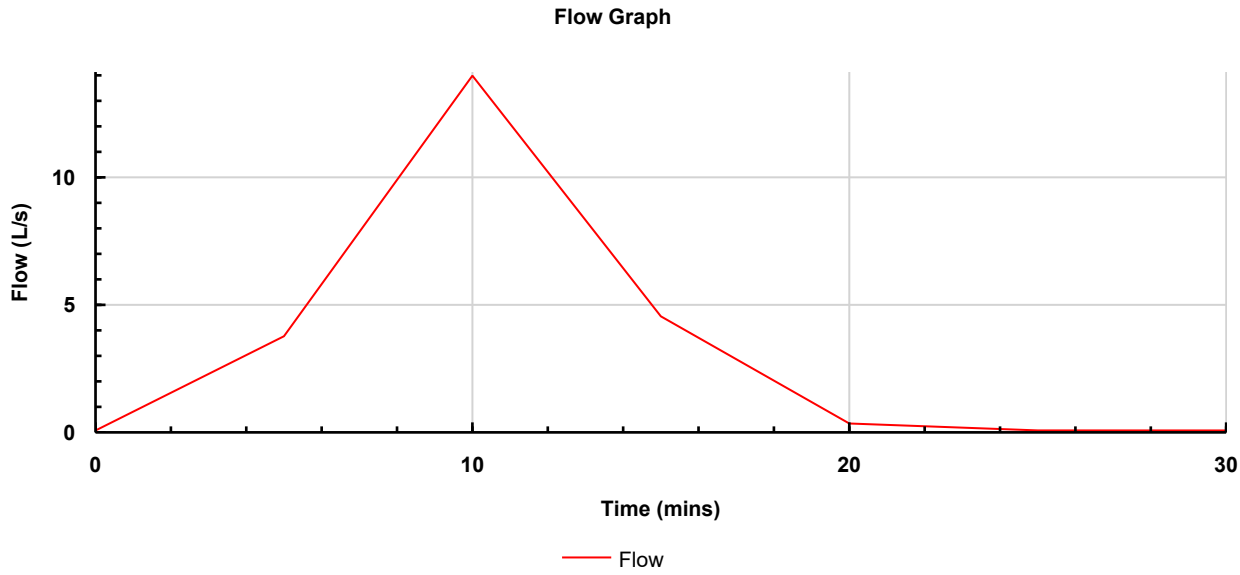
Time (mins)	Total Inflow (L/s)	Depth(m)	Resident Volume(m³)	Flooded Volume (m³)	Total Outflow (L/s)
0	0.0	0.000	0.000	0.000	0.0
5	0.4	0.002	0.035	0.000	0.0
10	1.0	0.015	0.234	0.000	0.0
15	1.2	0.034	0.539	0.000	0.1
20	1.2	0.055	0.857	0.000	0.1
25	1.2	0.075	1.169	0.000	0.2
30	1.4	0.096	1.505	0.000	0.2
35	1.8	0.122	1.916	0.000	0.3
40	2.5	0.156	2.448	0.000	0.4
45	3.3	0.203	3.180	0.000	0.5
50	4.4	0.266	4.165	0.000	0.7
55	5.4	0.345	5.396	0.000	0.9
60	5.9	0.439	6.885	0.000	1.1
65	6.2	0.537	8.411	0.000	1.3
70	5.5	0.622	9.756	0.000	1.6
75	3.4	0.687	10.771	0.000	1.7
80	3.7	0.729	11.431	0.000	1.8
85	2.9	0.754	11.812	0.000	1.9
90	1.6	0.761	11.923	0.000	1.9
95	1.5	0.757	11.876	0.000	1.9
100	1.3	0.746	11.697	0.000	1.9
105	1.2	0.731	11.468	0.000	1.8
110	1.0	0.716	11.227	0.000	1.8
115	0.6	0.700	10.990	0.000	1.8
120	1.0	0.682	10.694	0.000	1.7
125	0.0	0.656	10.277	0.000	1.6
130	0.0	0.626	9.818	0.000	1.6
135	0.0	0.598	9.379	0.000	1.5
140	0.0	0.572	8.963	0.000	1.4
145	0.0	0.546	8.568	0.000	1.4
150	0.1	0.522	8.186	0.000	1.3
155	0.0	0.499	7.827	0.000	1.2
160	0.1	0.477	7.475	0.000	1.2
165	0.0	0.455	7.147	0.000	1.1
170	0.1	0.435	6.817	0.000	1.1
175	0.0	0.416	6.522	0.000	1.0
180	0.2	0.398	6.236	0.000	1.0
185	0.0	0.380	5.974	0.000	1.0
190	0.1	0.364	5.714	0.000	0.9
195	0.1	0.348	5.461	0.000	0.9
200	0.0	0.333	5.226	0.000	0.8
205	0.0	0.319	5.002	0.000	0.8
210	0.3	0.304	4.780	0.000	0.8
215	0.0	0.291	4.578	0.000	0.7
220	0.0	0.279	4.374	0.000	0.7
225	0.0	0.267	4.185	0.000	0.7
230	0.1	0.256	4.014	0.000	0.6
235	0.1	0.245	3.842	0.000	0.6
240	0.0	0.235	3.684	0.000	0.6

Project:	Date: 20/01/2024		
	Designed by: GraemeBeaven	Checked by:	Approved By:
Report Details: Type: Connection Results Storm Phase: Phase	Company Address:		

Pipe (3)
Critical by Return Period: FEH: 100 years: Increase Rainfall (%): +40: 15 mins: Winter

Type : Pipe

Graphs



Tables

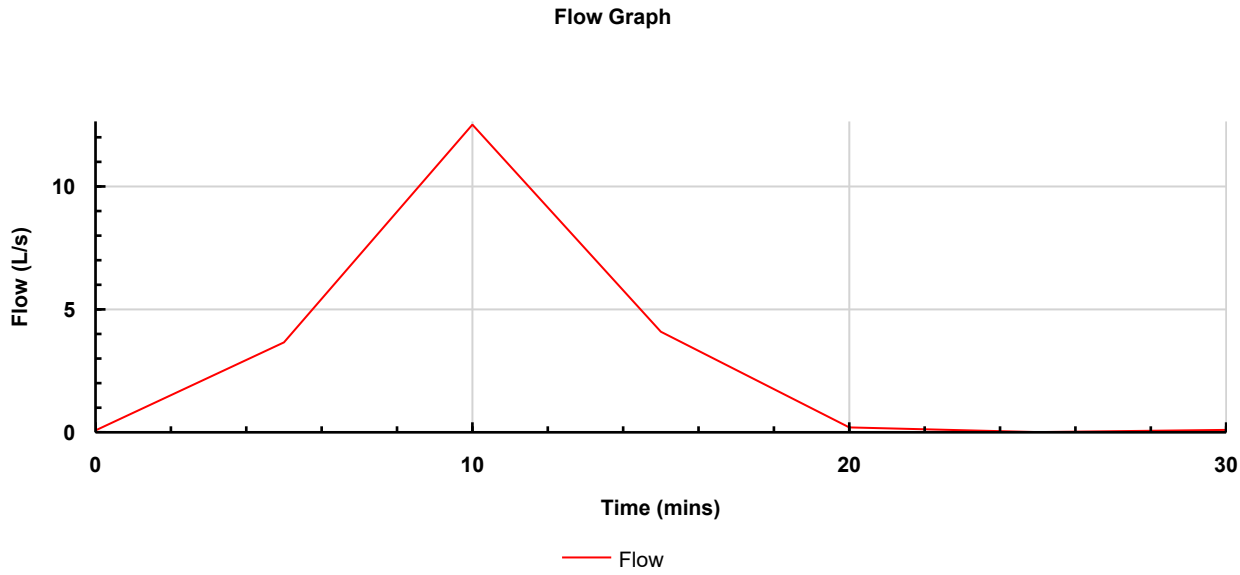
Time (mins)	Depth (m)	Flow (L/s)
0	0.000	0.0
5	0.030	3.7
10	0.118	14.0
15	0.150	4.5
20	0.150	0.3
25	0.150	0.0
30	0.150	0.0

Project:	Date: 20/01/2024		
	Designed by: GraemeBeaven	Checked by:	Approved By:
Report Details: Type: Connection Results Storm Phase: Phase	Company Address:		

Pipe Type : Pipe

Critical by Return Period: FEH: 100 years: Increase Rainfall (%): +40: 15 mins: Winter

Graphs



Tables

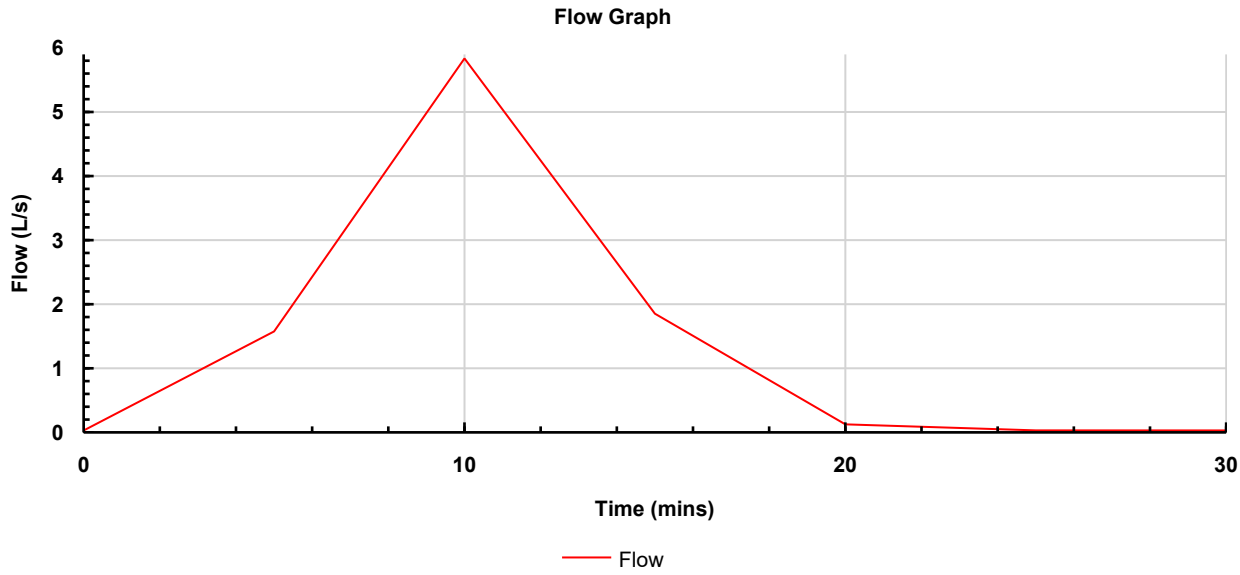
Time (mins)	Depth (m)	Flow (L/s)
0	0.000	0.0
5	0.039	3.6
10	0.150	12.5
15	0.150	4.0
20	0.150	0.1
25	0.150	-0.1
30	0.150	0.0

Project:	Date: 20/01/2024		
	Designed by: GraemeBeaven	Checked by:	Approved By:
Report Details: Type: Connection Results Storm Phase: Phase	Company Address:		

Pipe (1)
Critical by Return Period: FEH: 100 years: Increase Rainfall (%): +40: 15 mins: Winter

Type : Pipe

Graphs



Tables

Time (mins)	Depth (m)	Flow (L/s)
0	0.000	0.0
5	0.028	1.6
10	0.141	5.8
15	0.150	1.8
20	0.150	0.1
25	0.150	0.0
30	0.150	0.0

Project:	Date: 20/01/2024		
	Designed by: GraemeBeaven	Checked by:	Approved By:
Report Details: Type: Inflows Storm Phase: Phase	Company Address:		

Catchment Area

Type : Catchment Area

Area (ha)	0.019

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

Catchment Area (1)

Type : Catchment Area

Area (ha)	0.018

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: 20/01/2024		
	Designed by: GraemeBeaven	Checked by:	Approved By:
Report Details: Type: Junctions Storm Phase: Phase	Company Address:		

Name	Junction Type	Easting (m)	Northing (m)	Cover Level (m)	Depth (m)	Invert Level (m)	Chamber Shape	Diameter (m)
SMH11	Manhole	490918.272	211672.269	156.700	0.750	155.950	Circular	1.000
SMH12	Manhole	490902.746	211661.828	156.700	0.750	155.950	Circular	1.000
SMH13	Manhole	490904.716	211657.850	156.720	0.720	156.000	Circular	1.000
SIC05	Manhole	490932.535	211676.270	156.720	0.520	156.200	Circular	0.600

Name	Lock
SMH11	None
SMH12	None
SMH13	None
SIC05	None

Inlets

Junction	Inlet Name	Incoming Item(s)	Bypass Destination	Capacity Type
SMH11	Inlet	Pipe (2)	(None)	No Restriction
SMH12	Inlet (1)	Pipe (3)	(None)	No Restriction
SMH13	Inlet	Catchment Area	(None)	No Restriction
SIC05	Inlet	Catchment Area (1)	(None)	No Restriction

Outlets

Junction	Outlet Name	Outgoing Connection	Outlet Type
SMH11	Outlet	Pipe (1)	Free Discharge
SMH12	Outlet	Pipe	Free Discharge
SMH13	Outlet	Pipe (3)	Free Discharge
SIC05	Outlet	Pipe (2)	Free Discharge

Project:	Date: 20/01/2024		
	Designed by: GraemeBeaven	Checked by:	Approved By:
Report Details: Type: Stormwater Controls Storm Phase: Phase	Company Address:		

Soakaway

Type : Soakaway

Dimensions

Exceedance Level (m)	155.800
Depth (m)	0.800
Base Level (m)	155.000
Freeboard (mm)	0
Soakaway Shape	Rectangular
Diameter / Width (m)	1.000
Length (m)	17.000
Porosity (%)	95
Ineffective Storage Depth (m)	0.000
Number of Soakaways	1
Side Infiltration Rate (m/hr)	0.36
Safety Factor	1.0
Total Volume (m³)	12.920

Inlets

Inlet (1)

Incoming Item(s)	Pipe
Bypass Destination	(None)
Capacity Type	No Restriction

Inlet (2)

Incoming Item(s)	Pipe (1)
Bypass Destination	(None)
Capacity Type	No Restriction

Project:	Date: 20/01/2024		
	Designed by: GraemeBeaven	Checked by:	Approved By:
Report Details: Type: Connections Storm Phase: Phase	Company Address:		

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)
Pipe	1.879	Pipe	1.978		0.6	150	156.700	155.950
Pipe (1)	2.092	Pipe	2.203		0.6	150	156.700	155.950
Pipe (2)	14.814	Pipe	59.255		0.6	150	156.720	156.200
Pipe (3)	4.439	Pipe	88.783		0.6	150	156.720	156.000

Name	Downstream Cover Level (m)	Downstream Invert Level (m)	Lock
Pipe	155.800	155.000	None
Pipe (1)	155.800	155.000	None
Pipe (2)	156.700	155.950	None
Pipe (3)	156.700	155.950	None

Project:	Date: 20/01/2024		
	Designed by: GraemeBeaven	Checked by:	Approved By:
Report Details: Type: Manhole Schedule Storm Phase: Phase	Company Address:		

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
SMH11	156.700 155.950	Diameter / Length: 1.000	{1} Pipe (2)	Pipe	155.950	Diam/Width:150	Manhole
E:490918.272 N:211672.269	0.750		{a} Pipe (1)	Pipe	155.950	Diam/Width:150	Not Applicable
SMH12	156.700 155.950	Diameter / Length: 1.000	{1} Pipe (3)	Pipe	155.950	Diam/Width:150	Manhole
E:490902.746 N:211661.828	0.750		{a} Pipe	Pipe	155.950	Diam/Width:150	Not Applicable
SMH13	156.720 156.000	Diameter / Length: 1.000					Manhole
E:490904.716 N:211657.850	0.720		{a} Pipe (3)	Pipe	156.000	Diam/Width:150	Not Applicable
SIC05	156.720 156.200	Diameter / Length: 0.600					Manhole
E:490932.535 N:211676.270	0.520		{a} Pipe (2)	Pipe	156.200	Diam/Width:150	Not Applicable

Project:	Date: 20/01/2024		
	Designed by: GraemeBeaven	Checked by:	Approved By:
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	SMH13		Time of Concentration	0.019	100	0	100	0.019
Catchment Area (1)	SIC05		Time of Concentration	0.018	100	0	100	0.018
TOTAL		**0.0**		**0.038**				**0.038**

Project:	Date: 20/01/2024		
	Designed by: GraemeBeaven	Checked by:	Approved By:
Report Details: Type: Network Design Criteria Storm Phase: Phase	Company Address:		

Flow Options

Peak Flow Calculation	(UK) Modified Rational Method
Min. Time of Entry (mins)	5
Max. Travel Time (mins)	30

Pipe Options

Lock Slope Options	None
Design Options	Minimise Excavation
Design Level	Level Soffits
Min. Cover Depth (m)	1.200
Min. Slope (1:X)	500.00
Max. Slope (1:X)	40.00
Min. Velocity (m/s)	1.0
Max. Velocity (m/s)	3.0
Use Flow Restriction	☐
Reduce Channel Depths	☐

Pipe Size Library

Default

Add. Increment (mm)	75
Max. Diameter (mm)	0

Diameter (mm)	Min. Slope (1:X)	Max. Slope (1:X)
100	0.00	0.00
150	0.00	0.00

Project:	Date: 20/01/2024		
	Designed by: GraemeBeaven	Checked by:	Approved By:
Report Details: Type: Network Design Criteria Storm Phase: Phase	Company Address:		

Manhole Options

Apply Offset	☐

Manhole Size Library

Default

Diameter / Width

Connection (mm)	Diameter / Length (m)	Width (m)
0	1.200	0.000
375	1.350	0.000
500	1.500	0.000
750	1.800	0.000

Additional Sizing

Connection (mm)	900
Diameter / Length (m)	0.900
Width (m)	0.000

Depth

Depth (m)	Diameter / Length (m)	Width (m)
0.000	1.050	0.000
1.500	1.200	0.000

Access

Depth (m)	Ladder Protrusion (mm)
0.000	130
3.000	230

Benching Requirements

Landing Width (mm)	500
Benching Width (mm)	225

Project:	Date: 20/01/2024		
	Designed by: GraemeBeaven	Checked by:	Approved By:
Report Title: Rainfall Analysis Criteria	Company Address:		

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)	0
Perform No Discharge Analysis	☐

Project:	Date: 20/01/2024		
	Designed by: GraemeBeaven	Checked by:	Approved By:
Report Details: Type: Inflows Summary Storm Phase: Phase	Company Address:		

FEH: 2 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 (m^3)
Catchment Area	FEH: 2 years: +0 %: 15 mins: Winter	0.02	2.9	1.326
Catchment Area (1)	FEH: 2 years: +0 %: 15 mins: Winter	0.02	2.7	1.254

Project:	Date: 20/01/2024		
	Designed by: GraemeBeaven	Checked by:	Approved By:
Report Details: Type: Inflows Summary Storm Phase: Phase	Company Address:		

FEH: 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 (m^3)
Catchment Area	FEH: 100 years: +40 %: 15 mins: Winter	0.02	11.6	5.353
Catchment Area (1)	FEH: 100 years: +40 %: 15 mins: Winter	0.02	10.9	5.074

Project:	Date: 20/01/2024		
	Designed by: GraemeBeaven	Checked by:	Approved By:
Report Details: Type: Junctions Summary Storm Phase: Phase	Company Address:		

FEH: 2 years: Increase Rainfall (%): +0: 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)	Max. Outflow (L/s)	Total Discharge Volume (m³)	Status
SMH11	FEH: 2 years: +0 %: 15 mins: Winter	156.700	155.950	155.965	0.015	2.7	0.012	0.000	2.6	1.251	OK
SMH12	FEH: 2 years: +0 %: 15 mins: Winter	156.700	155.950	155.965	0.015	2.8	0.012	0.000	2.8	1.322	OK
SMH13	FEH: 2 years: +0 %: 15 mins: Winter	156.720	156.000	156.042	0.042	2.9	0.033	0.000	2.8	1.323	OK
SIC05	FEH: 2 years: +0 %: 15 mins: Winter	156.720	156.200	156.239	0.039	2.7	0.011	0.000	2.7	1.252	OK

Project:	Date: 20/01/2024		
	Designed by: GraemeBeaven	Checked by:	Approved By:
Report Details: Type: Junctions Summary Storm Phase: Phase	Company Address:		

FEH: 100 years: Increase Rainfall (%): +40: 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)	Max. Outflow (L/s)	Total Discharge Volume (m³)	Status
SMH11	FEH: 100 years: +40 %: 15 mins: Winter	156.700	155.950	155.978	0.028	10.8	0.022	0.000	10.7	5.066	OK
SMH12	FEH: 100 years: +40 %: 15 mins: Winter	156.700	155.950	155.978	0.028	11.4	0.022	0.000	11.4	5.346	OK
SMH13	FEH: 100 years: +40 %: 15 mins: Winter	156.720	156.000	156.087	0.087	11.6	0.068	0.000	11.4	5.349	OK
SIC05	FEH: 100 years: +40 %: 15 mins: Winter	156.720	156.200	156.282	0.082	10.9	0.023	0.000	10.8	5.070	OK

Project:	Date: 20/01/2024		
	Designed by: GraemeBeaven	Checked by:	Approved By:
Report Details: Type: Stormwater Controls Summary Storm Phase: Phase	Company Address:		

FEH: 2 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. Resident Volume (m³)	Max. Flooded Volume (m³)	Total Lost Volume (m³)	Max. Outflow (L/s)	Total Discharge Volume (m³)	Percentage Available (%)	Status
Soakaway	FEH: 2 years: +0 %: 180 mins: Winter	155.226	155.226	0.226	0.226	1.7	3.646	0.000	7.031	0.0	0.000	71.782	OK

Project:	Date: 20/01/2024		
	Designed by: GraemeBeaven	Checked by:	Approved By:
Report Details: Type: Stormwater Controls Summary Storm Phase: Phase	Company Address:		

FEH: 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. Resident Volume (m³)	Max. Flooded Volume (m³)	Total Lost Volume (m³)	Max. Outflow (L/s)	Total Discharge Volume (m³)	Percentage Available (%)	Status
Soakaway	FEH: 100 years: +40 %: 120 mins: Winter	155.784	155.784	0.784	0.784	7.4	12.666	0.000	19.436	0.0	0.000	1.964	OK

Project:	Date: 20/01/2024		
	Designed by: GraemeBeaven	Checked by:	Approved By:
Report Details: Type: Connections Summary Storm Phase: Phase	Company Address:		

FEH: 2 years: Increase Rainfall (%): +0: 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
Pipe	FEH: 2 years: +0 %: 15 mins: Winter	Pipe	SMH12	Soakaway	156.700	155.965	0.071	1.322	1.7	0.02	2.8	OK
Pipe (1)	FEH: 2 years: +0 %: 15 mins: Winter	Pipe	SMH11	Soakaway	156.700	155.965	0.071	1.251	1.7	0.02	2.6	OK
Pipe (2)	FEH: 2 years: +0 %: 15 mins: Winter	Pipe	SIC05	SMH11	156.720	156.239	0.027	1.252	1.2	0.11	2.7	OK
Pipe (3)	FEH: 2 years: +0 %: 15 mins: Winter	Pipe	SMH13	SMH12	156.720	156.042	0.029	1.323	1.2	0.15	2.8	OK

Project:	Date: 20/01/2024		
	Designed by: GraemeBeaven	Checked by:	Approved By:
Report Details: Type: Connections Summary Storm Phase: Phase	Company Address:		

FEH: 100 years: Increase Rainfall (%): +40: 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
Pipe	FEH: 100 years: +40 %: 15 mins: Winter	Pipe	SMH12	Soakaway	156.700	155.978	0.150	5.346	1.1	0.09	11.4	OK
Pipe (1)	FEH: 100 years: +40 %: 15 mins: Winter	Pipe	SMH11	Soakaway	156.700	155.978	0.150	5.066	1.1	0.09	10.7	OK
Pipe (2)	FEH: 100 years: +40 %: 15 mins: Winter	Pipe	SIC05	SMH11	156.720	156.282	0.055	5.070	1.8	0.47	10.8	OK
Pipe (3)	FEH: 100 years: +40 %: 15 mins: Winter	Pipe	SMH13	SMH12	156.720	156.087	0.057	5.349	1.8	0.61	11.4	OK

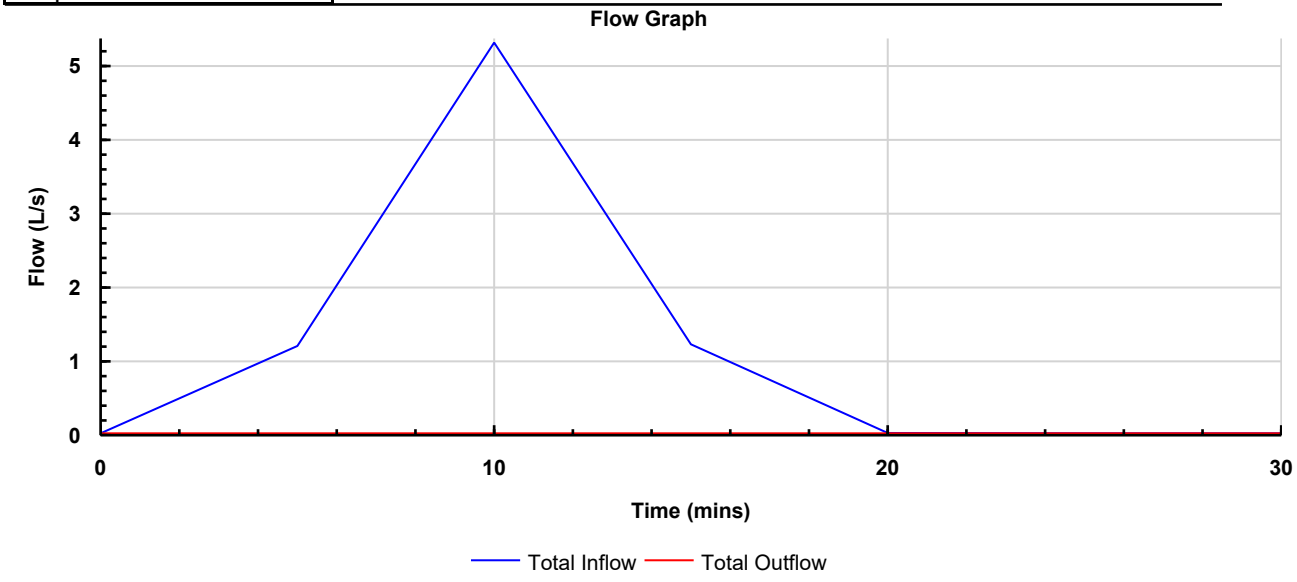
Project:	Date: 20/01/2024		
	Designed by: GraemeBeaven	Checked by:	Approved By:
Report Details: Type: Phase Management Storm Phase: Phase	Company Address:		

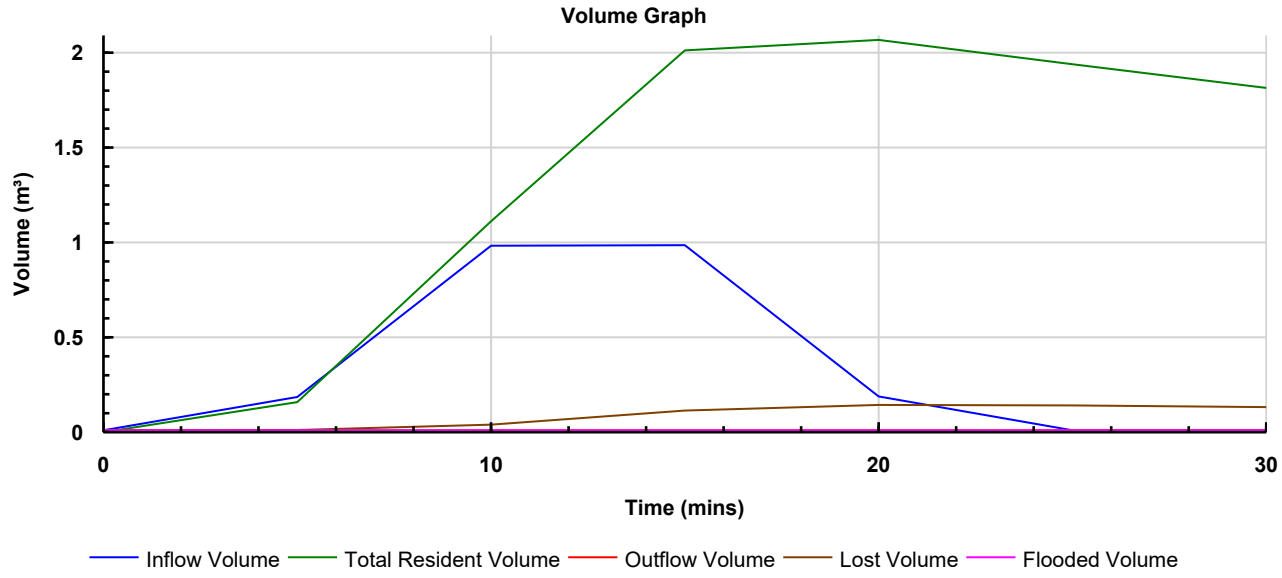
Phase
FEH: 2 years: Increase Rainfall (%): +0: 15 mins: Summer

Tables

Name	Max. Inflow (L/s)	Total Inflow Volume (m³)	Max. Outflow (L/s)	Total Outflow Volume (m³)
TOTAL	5.3	2.313	0.0	0.000

Graphs





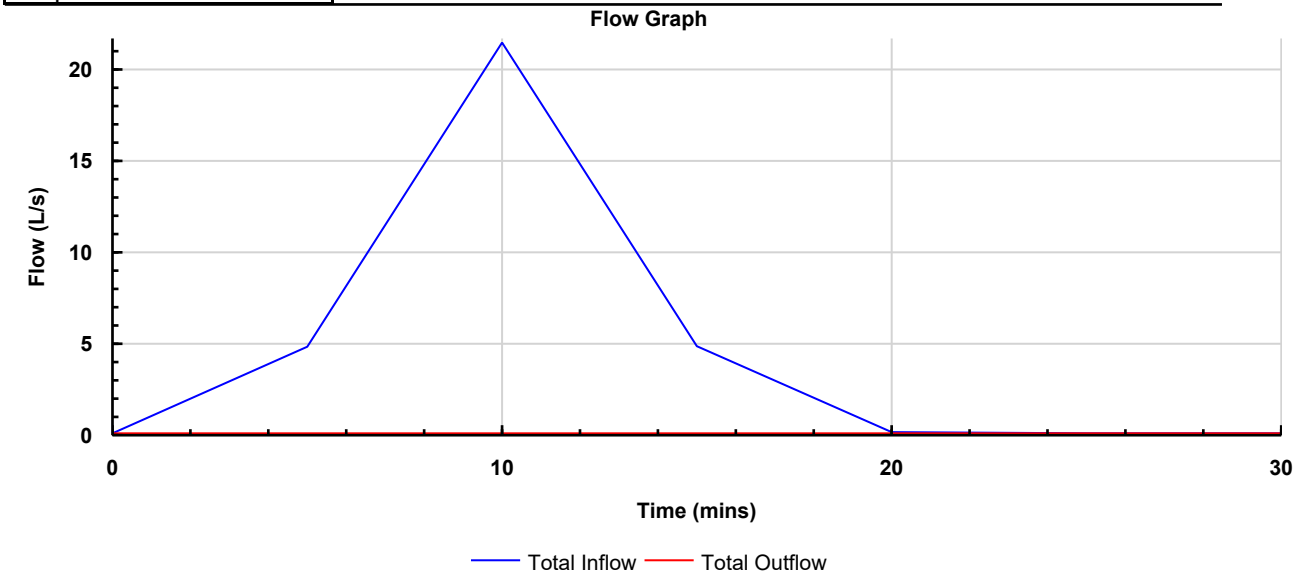
Project:	Date: 20/01/2024		
	Designed by: GraemeBeaven	Checked by:	Approved By:
Report Details: Type: Phase Management Storm Phase: Phase	Company Address:		

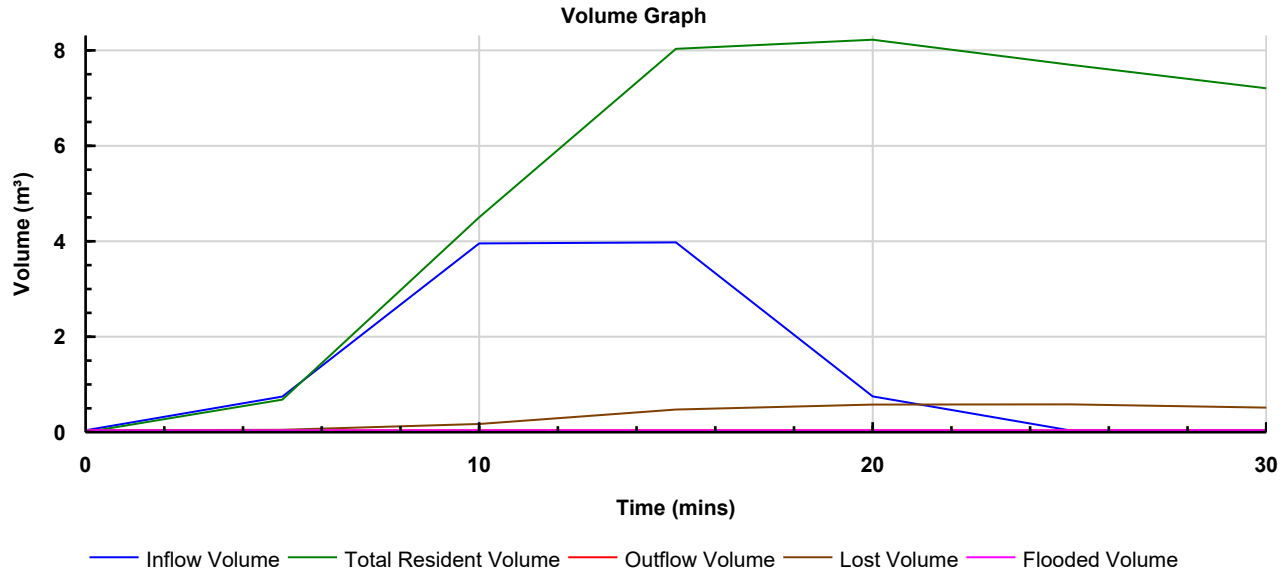
Phase
FEH: 100 years: Increase Rainfall (%): +40: 15 mins: Summer

Tables

Name	Max. Inflow (L/s)	Total Inflow Volume (m³)	Max. Outflow (L/s)	Total Outflow Volume (m³)
TOTAL	21.5	9.314	0.0	0.000

Graphs





Project:	Date: 20/01/2024		
	Designed by: GraemeBeaven	Checked by:	Approved By:
Report Details: Type: Inflow Results Storm Phase: Phase	Company Address:		

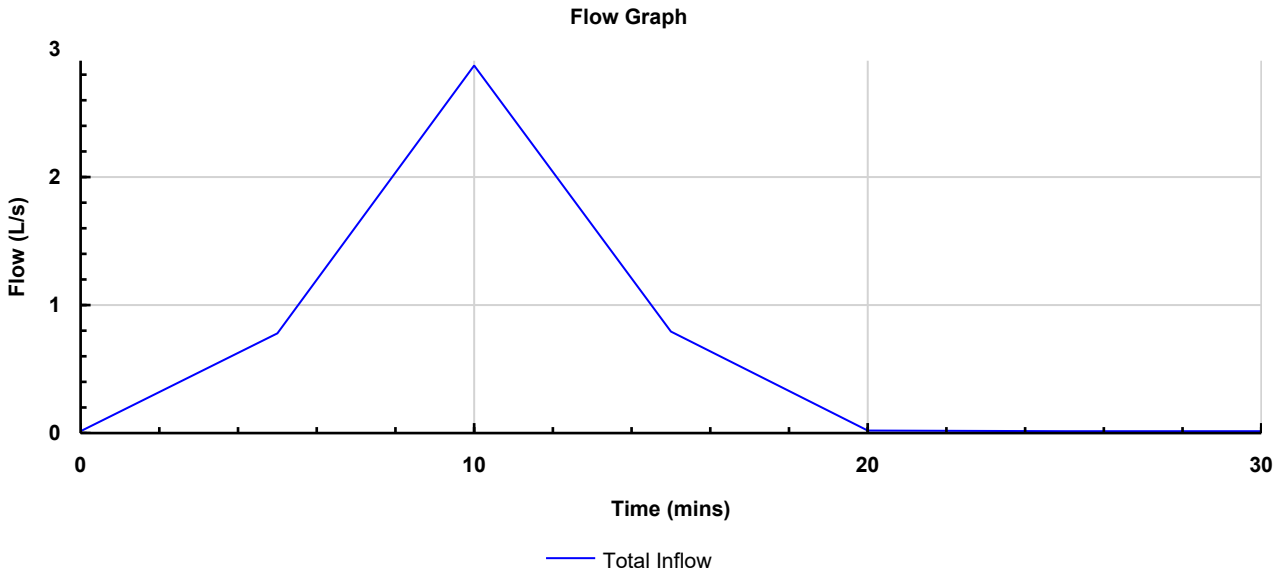
Catchment Area
Critical by Return Period: FEH: 2 years: Increase Rainfall (%): +0: 15 mins: Winter

Type : Catchment Area

Inflow

Max. Inflow (L/s)	2.9
Total Inflow Volume (m³)	1.326

Graphs



Tables

Time (mins)	Total Inflow (L/s)
0	0.0
5	0.8
10	2.9
15	0.8
20	0.0
25	0.0
30	0.0

Project:	Date: 20/01/2024		
	Designed by: GraemeBeaven	Checked by:	Approved By:
Report Details: Type: Inflow Results Storm Phase: Phase	Company Address:		

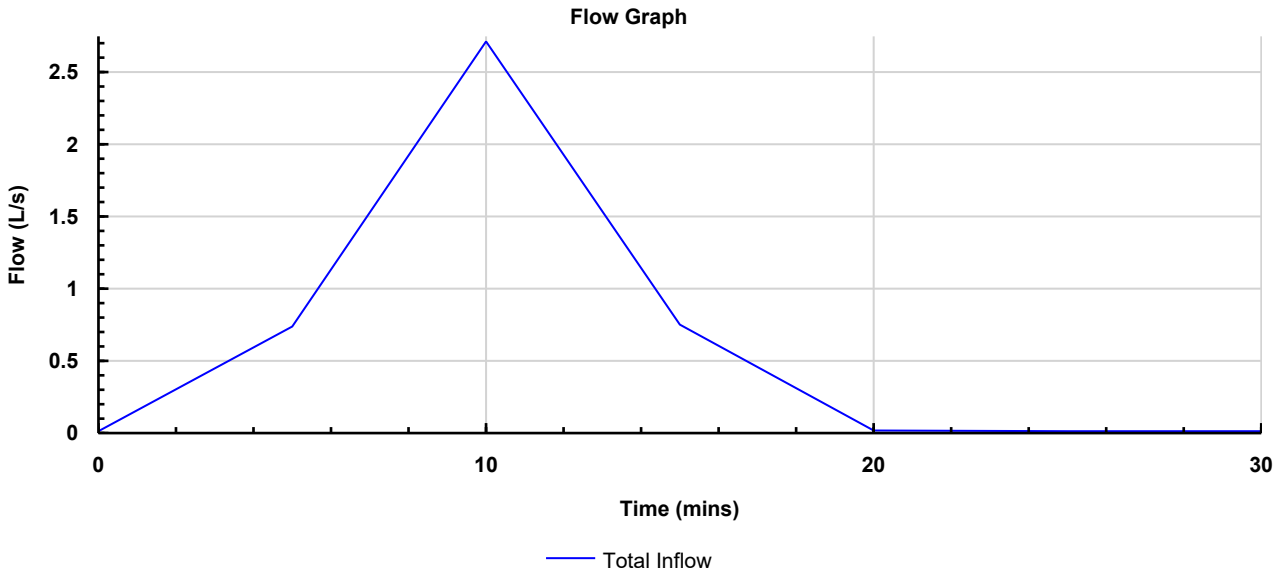
Catchment Area (1)
Critical by Return Period: FEH: 2 years: Increase Rainfall (%): +0: 15 mins: Winter

Type : Catchment Area

Inflow

Max. Inflow (L/s)	2.7
Total Inflow Volume (m³)	1.254

Graphs



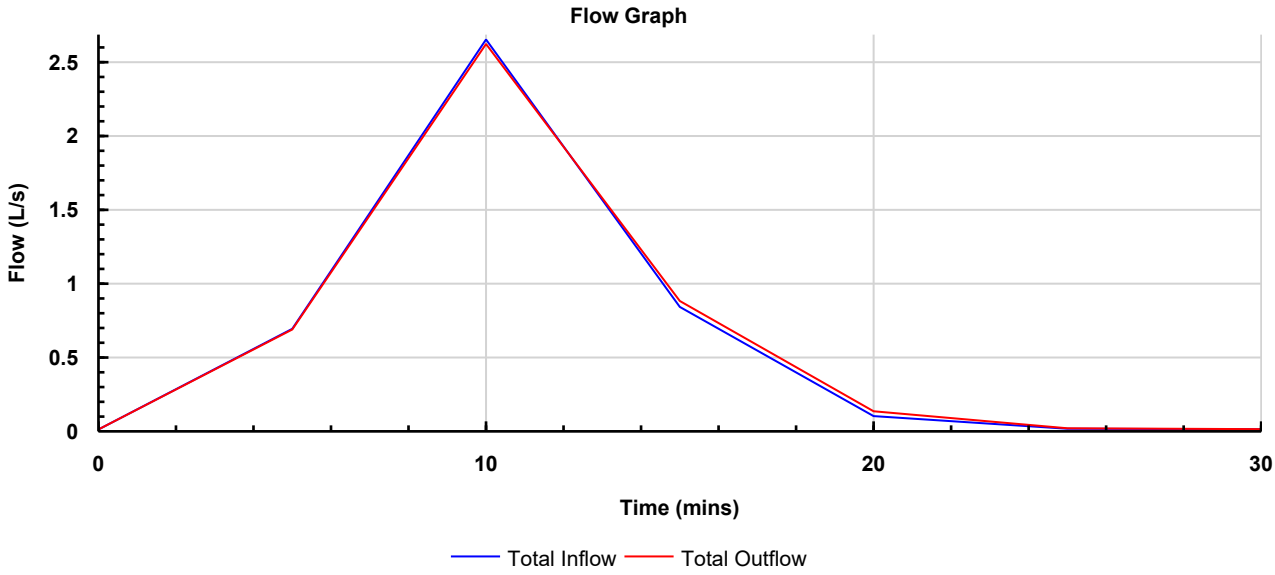
Tables

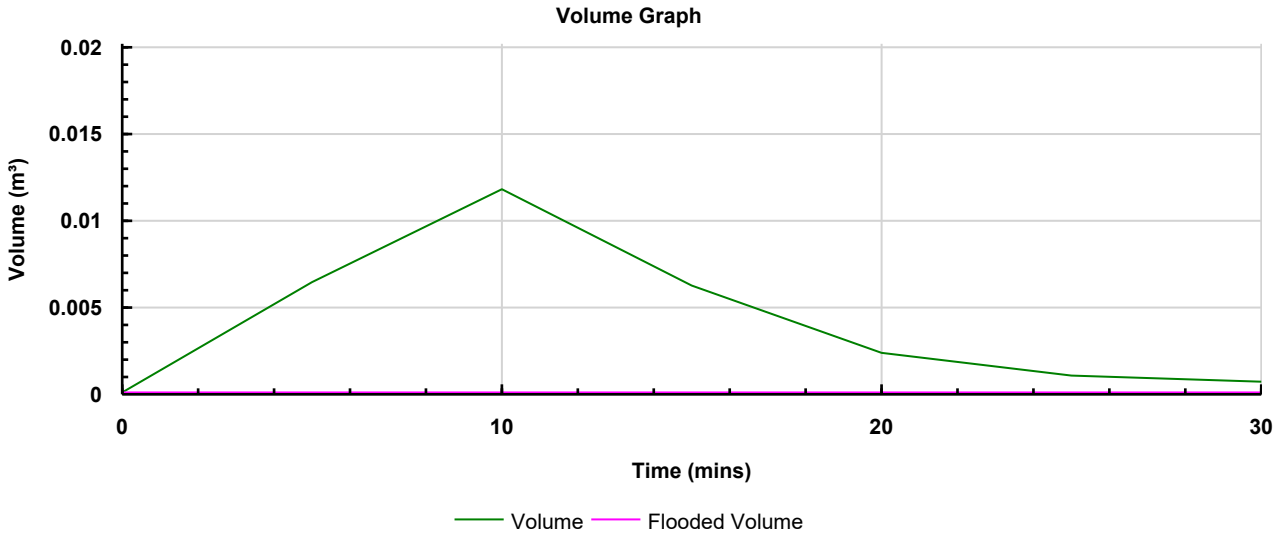
Time (mins)	Total Inflow (L/s)
0	0.0
5	0.7
10	2.7
15	0.7
20	0.0
25	0.0
30	0.0

SMH11 Type : Manhole

Critical by Return Period: FEH: 2 years: Increase Rainfall (%): +0: 15 mins: Winter

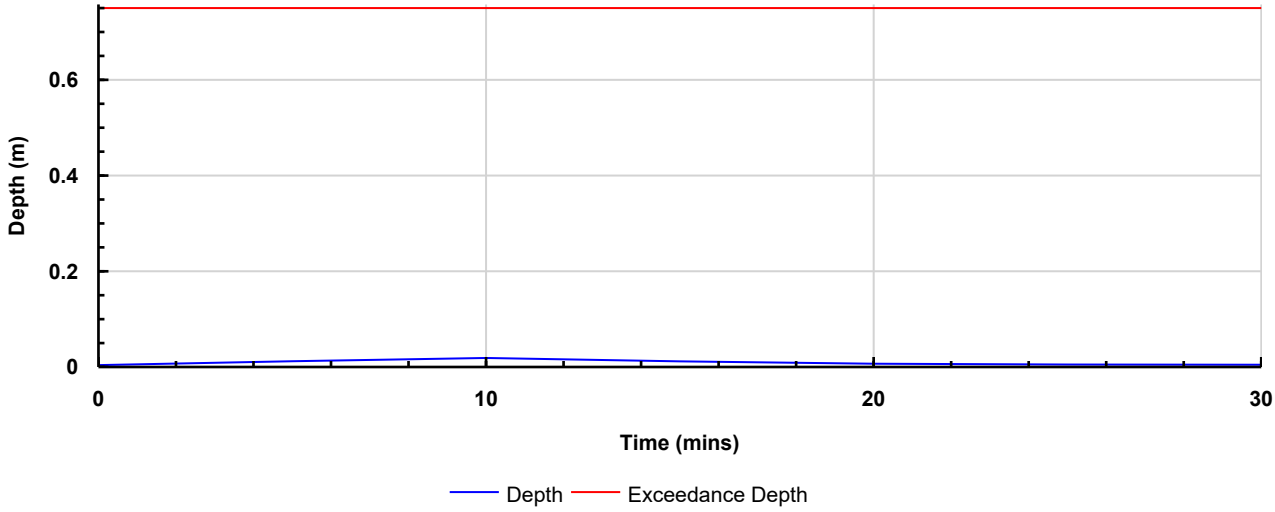
Graphs





Project:	Date: 20/01/2024		
	Designed by: GraemeBeaven	Checked by:	Approved By:
Report Details: Type: Junction Results Storm Phase: Phase	Company Address:		

Depth Graph



Project:	Date: 20/01/2024		
	Designed by: GraemeBeaven	Checked by:	Approved By:
Report Details: Type: Junction Results Storm Phase: Phase	Company Address:		

Tables

Time (mins)	Total Inflow (L/s)	Depth (m)	Volume (m³)	Flooded Volume (m³)	Total Outflow (L/s)
0	0.0	0.000	0.000	0.000	0.0
5	0.7	0.008	0.006	0.000	0.7
10	2.7	0.015	0.012	0.000	2.6
15	0.8	0.008	0.006	0.000	0.9
20	0.1	0.003	0.002	0.000	0.1
25	0.0	0.001	0.001	0.000	0.0
30	0.0	0.001	0.001	0.000	0.0

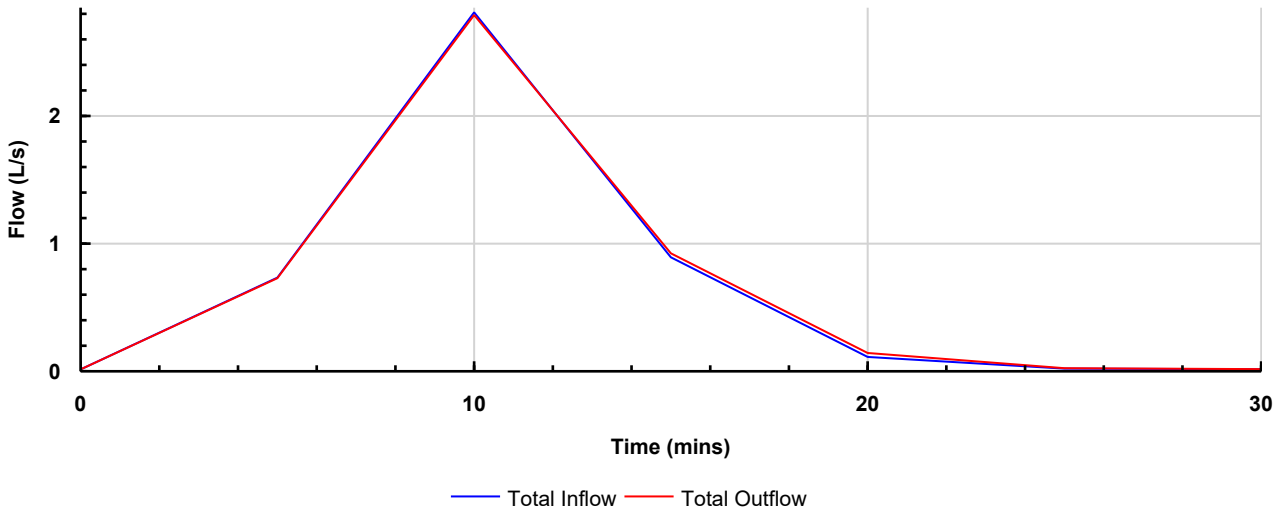
Project:	Date: 20/01/2024		
	Designed by: GraemeBeaven	Checked by:	Approved By:
Report Details: Type: Junction Results Storm Phase: Phase	Company Address:		

SMH12 Type : Manhole

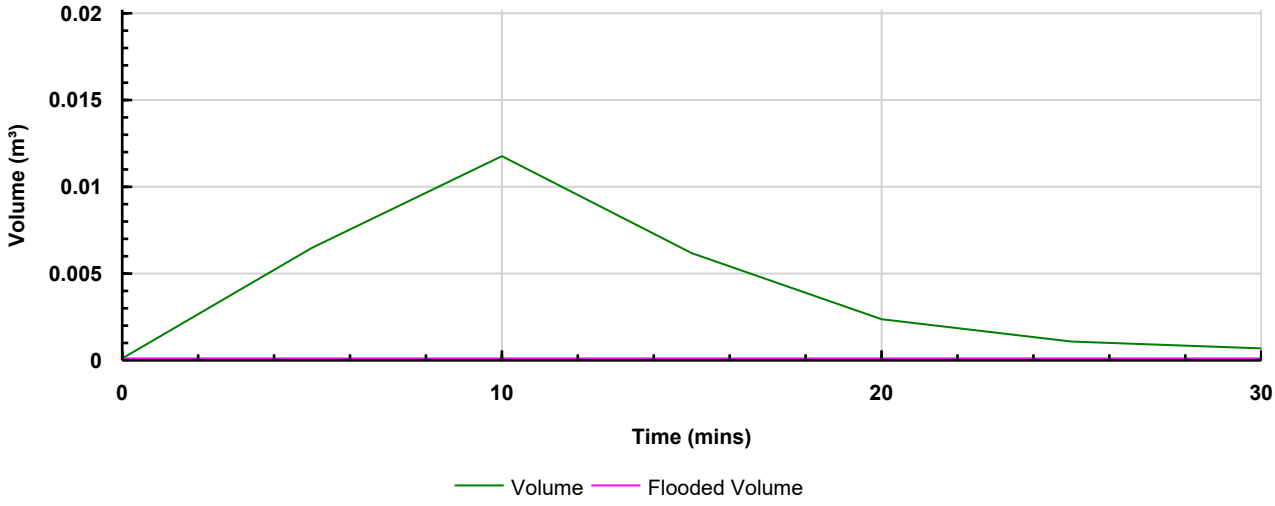
Critical by Return Period: FEH: 2 years: Increase Rainfall (%): +0: 15 mins: Winter

Graphs

Flow Graph

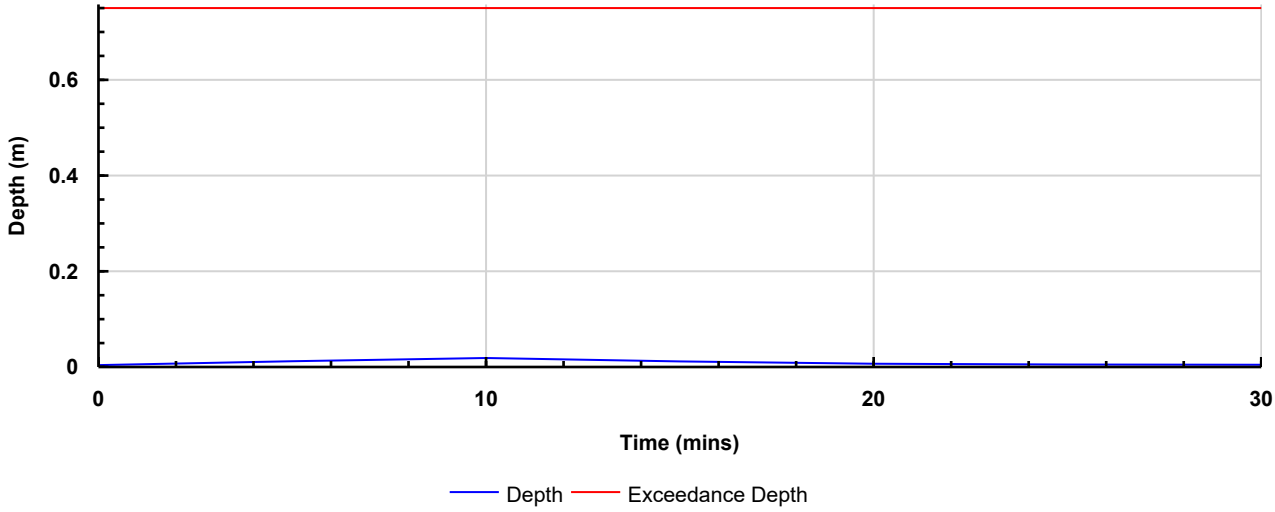


Volume Graph



Project:	Date: 20/01/2024		
	Designed by: GraemeBeaven	Checked by:	Approved By:
Report Details: Type: Junction Results Storm Phase: Phase	Company Address:		

Depth Graph



Project:	Date: 20/01/2024		
	Designed by: GraemeBeaven	Checked by:	Approved By:
Report Details: Type: Junction Results Storm Phase: Phase	Company Address:		

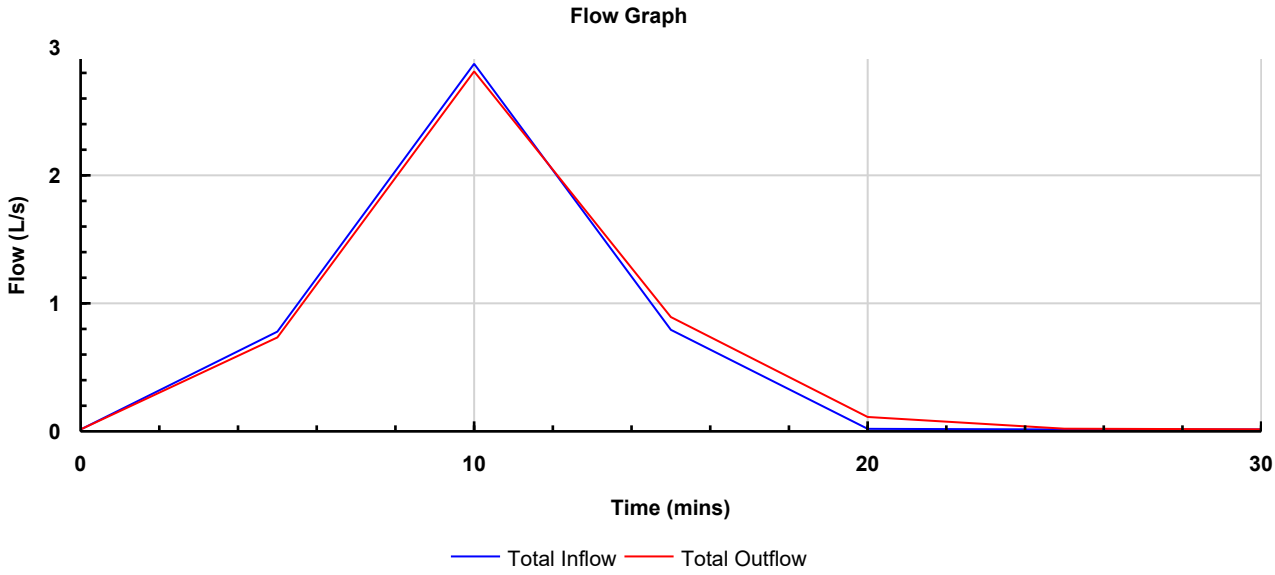
Tables

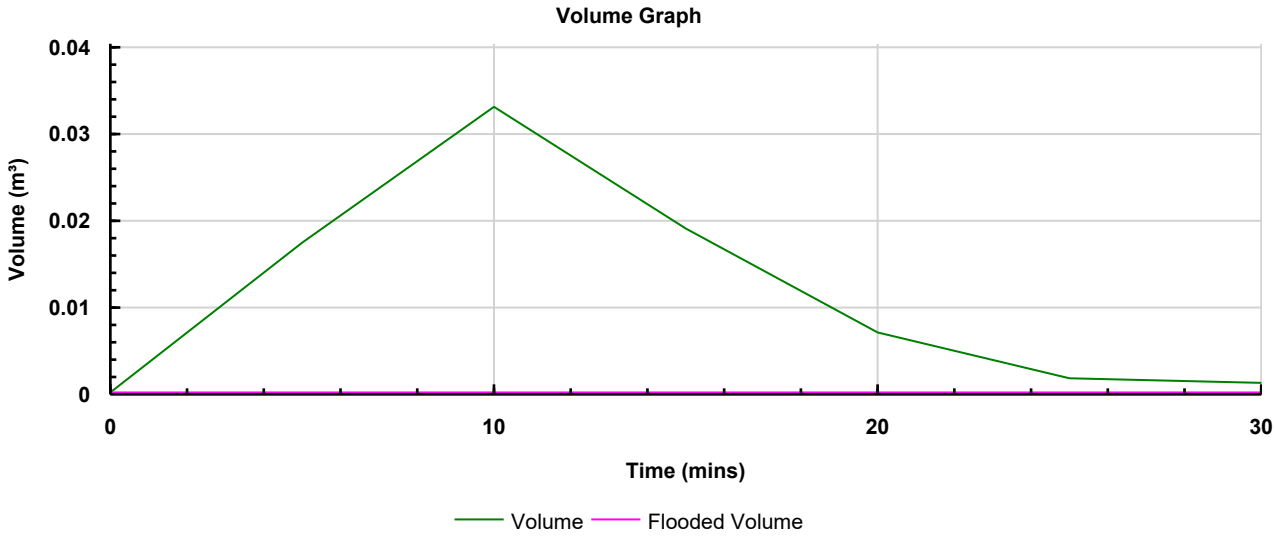
Time (mins)	Total Inflow (L/s)	Depth (m)	Volume (m³)	Flooded Volume (m³)	Total Outflow (L/s)
0	0.0	0.000	0.000	0.000	0.0
5	0.7	0.008	0.006	0.000	0.7
10	2.8	0.015	0.012	0.000	2.8
15	0.9	0.008	0.006	0.000	0.9
20	0.1	0.003	0.002	0.000	0.1
25	0.0	0.001	0.001	0.000	0.0
30	0.0	0.001	0.001	0.000	0.0

SMH13 Type : Manhole

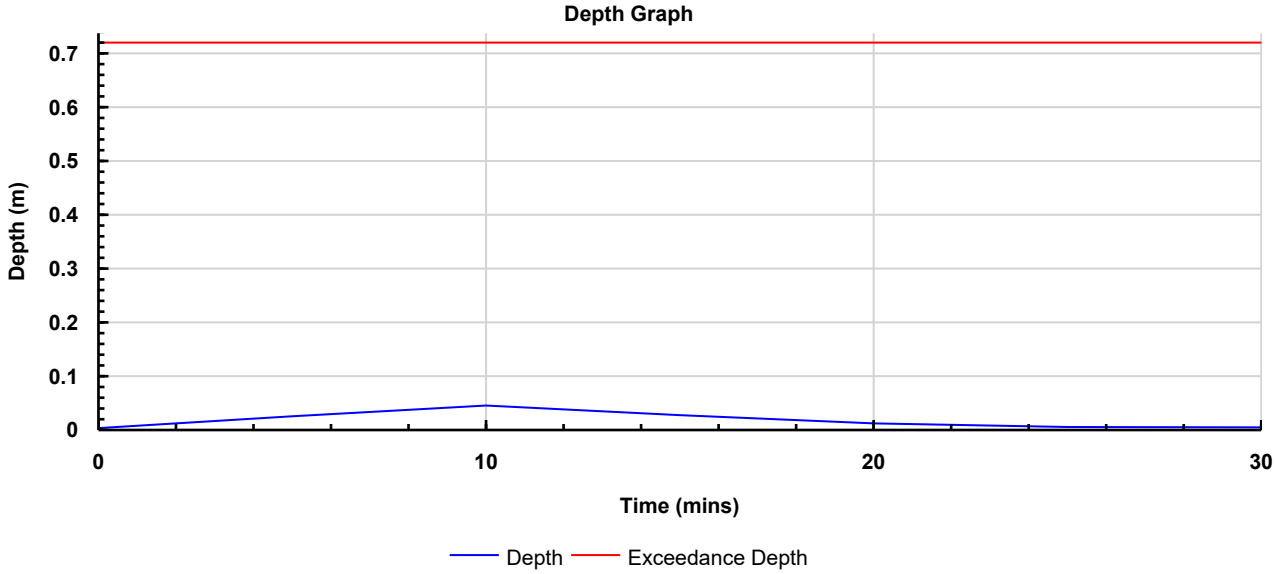
Critical by Return Period: FEH: 2 years: Increase Rainfall (%): +0: 15 mins: Winter

Graphs





Project:	Date: 20/01/2024		
	Designed by: GraemeBeaven	Checked by:	Approved By:
Report Details: Type: Junction Results Storm Phase: Phase	Company Address:		



Project:	Date: 20/01/2024		
	Designed by: GraemeBeaven	Checked by:	Approved By:
Report Details: Type: Junction Results Storm Phase: Phase	Company Address:		

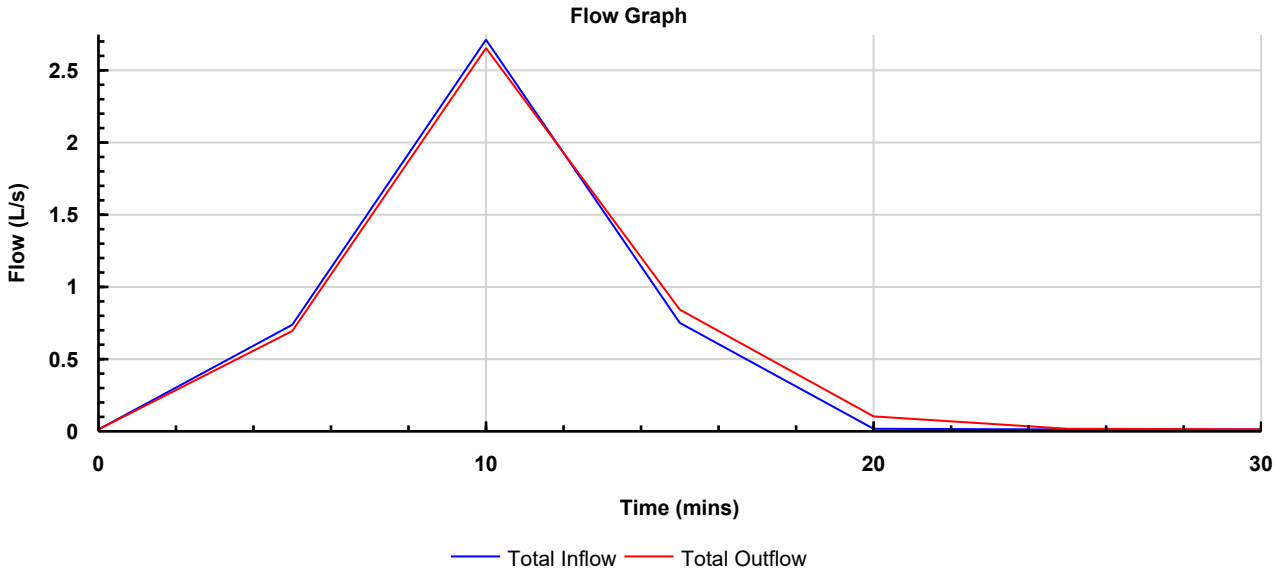
Tables

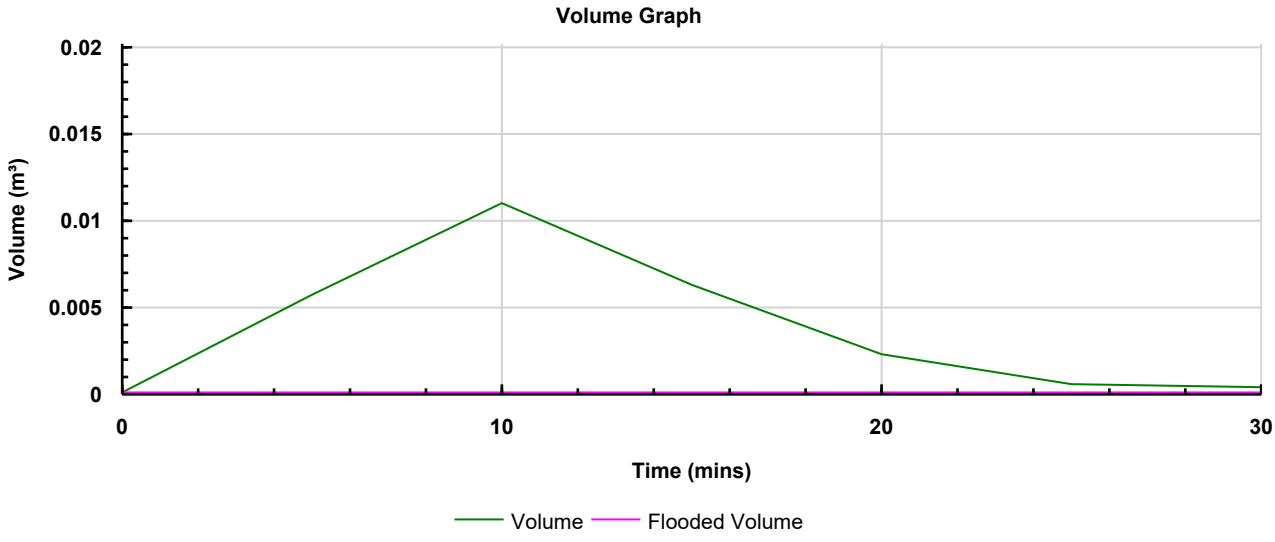
Time (mins)	Total Inflow (L/s)	Depth (m)	Volume (m³)	Flooded Volume (m³)	Total Outflow (L/s)
0	0.0	0.000	0.000	0.000	0.0
5	0.8	0.022	0.017	0.000	0.7
10	2.9	0.042	0.033	0.000	2.8
15	0.8	0.024	0.019	0.000	0.9
20	0.0	0.009	0.007	0.000	0.1
25	0.0	0.002	0.002	0.000	0.0
30	0.0	0.001	0.001	0.000	0.0

SIC05 Type : Manhole

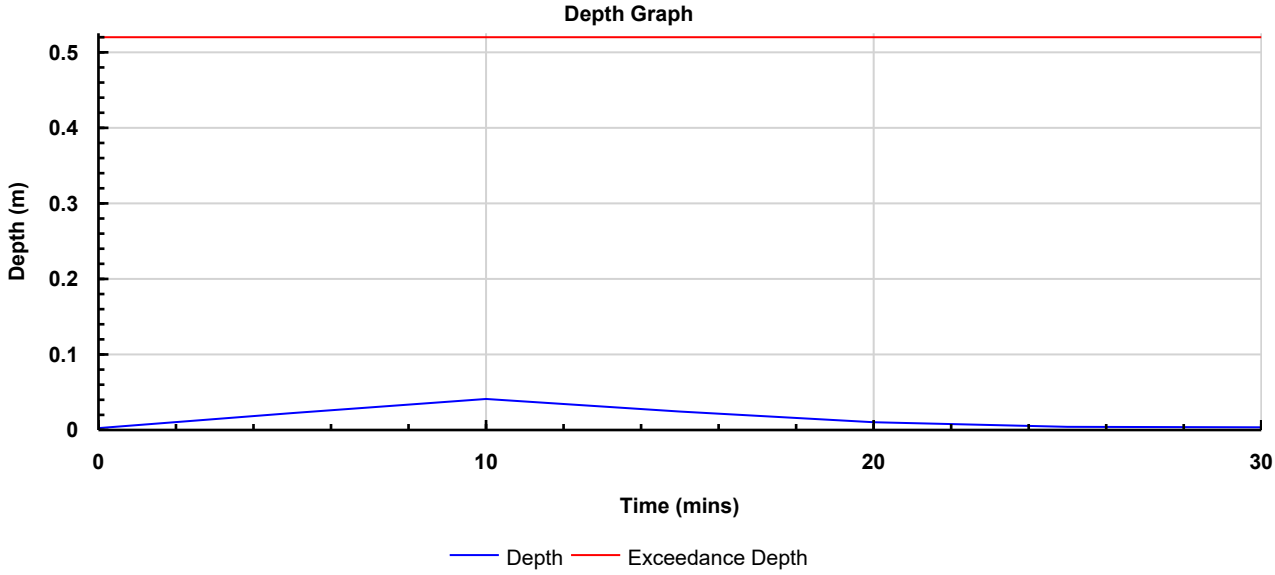
Critical by Return Period: FEH: 2 years: Increase Rainfall (%): +0: 15 mins: Winter

Graphs





Project:	Date: 20/01/2024		
	Designed by: GraemeBeaven	Checked by:	Approved By:
Report Details: Type: Junction Results Storm Phase: Phase	Company Address:		



Project:	Date: 20/01/2024		
	Designed by: GraemeBeaven	Checked by:	Approved By:
Report Details: Type: Junction Results Storm Phase: Phase	Company Address:		

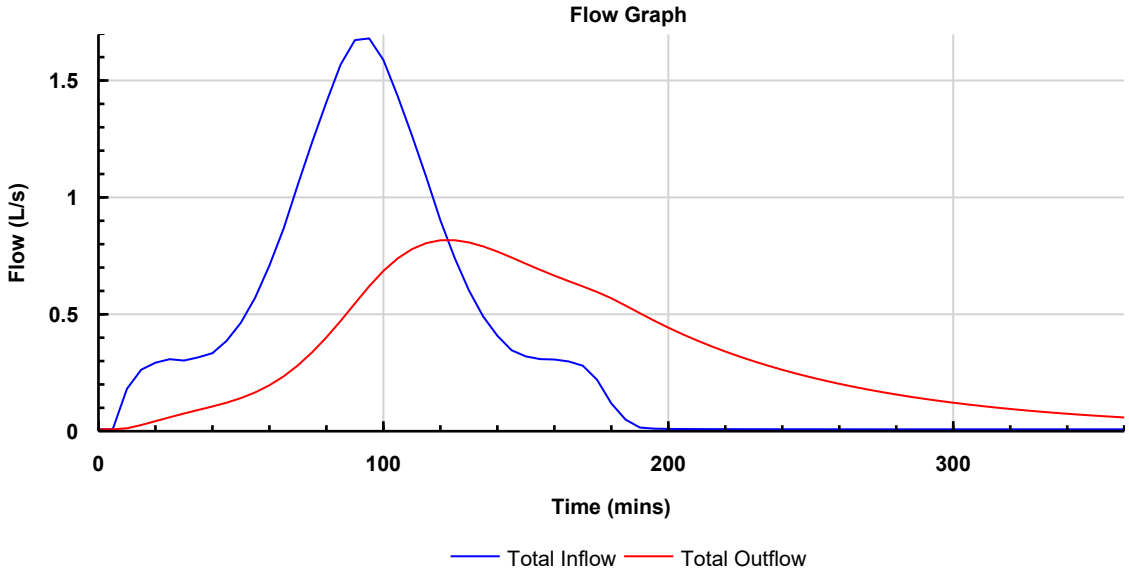
Tables

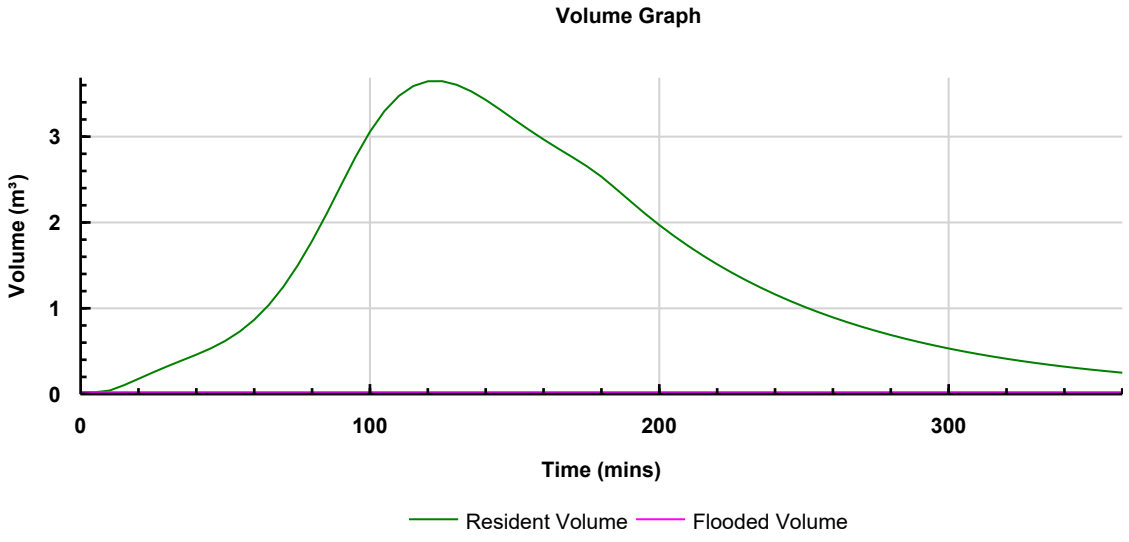
Time (mins)	Total Inflow (L/s)	Depth (m)	Volume (m³)	Flooded Volume (m³)	Total Outflow (L/s)
0	0.0	0.000	0.000	0.000	0.0
5	0.7	0.020	0.006	0.000	0.7
10	2.7	0.039	0.011	0.000	2.7
15	0.7	0.022	0.006	0.000	0.8
20	0.0	0.008	0.002	0.000	0.1
25	0.0	0.002	0.000	0.000	0.0
30	0.0	0.001	0.000	0.000	0.0

Soakaway
Critical by Return Period: FEH: 2 years: Increase Rainfall (%): +0: 180 mins: Winter

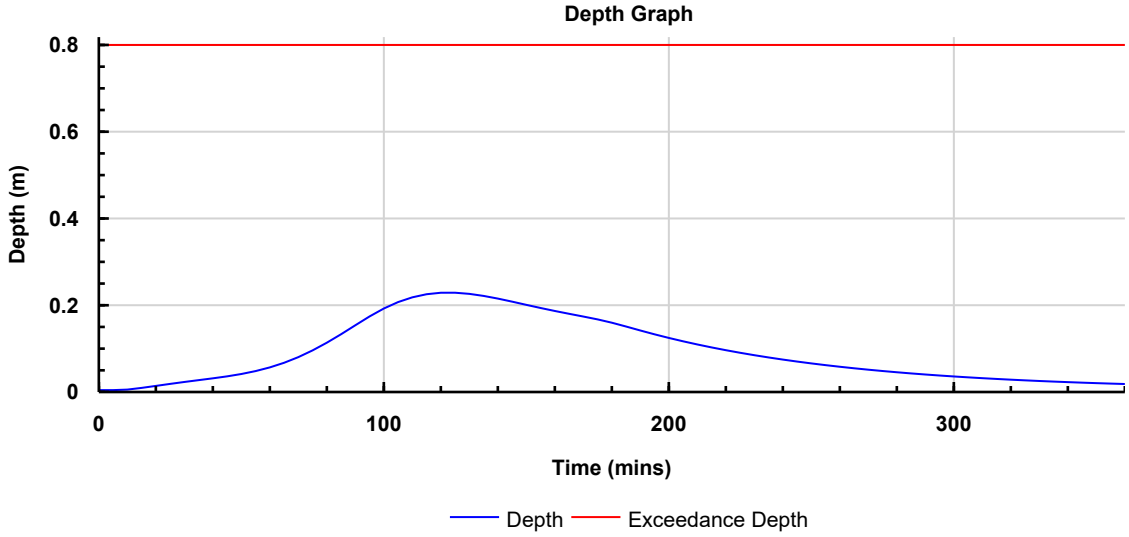
Type : Soakaway

Graphs





Project:	Date: 20/01/2024		
	Designed by: GraemeBeaven	Checked by:	Approved By:
Report Details: Type: Stormwater Control Results Storm Phase: Phase	Company Address:		



Project:	Date: 20/01/2024		
	Designed by: GraemeBeaven	Checked by:	Approved By:
Report Details: Type: Stormwater Control Results Storm Phase: Phase	Company Address:		

Tables

Time (mins)	Total Inflow (L/s)	Depth(m)	Resident Volume(m³)	Flooded Volume (m³)	Total Outflow (L/s)
0	0.0	0.000	0.000	0.000	0.0
5	0.0	0.000	0.000	0.000	0.0
10	0.2	0.001	0.019	0.000	0.0
15	0.3	0.005	0.083	0.000	0.0
20	0.3	0.010	0.157	0.000	0.0
25	0.3	0.014	0.232	0.000	0.1
30	0.3	0.019	0.304	0.000	0.1
35	0.3	0.023	0.372	0.000	0.1
40	0.3	0.027	0.440	0.000	0.1
45	0.4	0.032	0.514	0.000	0.1
50	0.5	0.037	0.602	0.000	0.1
55	0.6	0.044	0.711	0.000	0.2
60	0.7	0.053	0.849	0.000	0.2
65	0.9	0.063	1.021	0.000	0.2
70	1.1	0.076	1.233	0.000	0.3
75	1.2	0.092	1.485	0.000	0.3
80	1.4	0.110	1.773	0.000	0.4
85	1.6	0.130	2.090	0.000	0.5
90	1.7	0.150	2.426	0.000	0.5
95	1.7	0.171	2.757	0.000	0.6
100	1.6	0.189	3.054	0.000	0.7
105	1.4	0.204	3.295	0.000	0.7
110	1.3	0.215	3.473	0.000	0.8
115	1.1	0.222	3.589	0.000	0.8
120	0.9	0.226	3.645	0.000	0.8
125	0.7	0.226	3.646	0.000	0.8
130	0.6	0.223	3.603	0.000	0.8
135	0.5	0.218	3.527	0.000	0.8
140	0.4	0.212	3.427	0.000	0.8
145	0.3	0.205	3.312	0.000	0.7
150	0.3	0.198	3.192	0.000	0.7
155	0.3	0.190	3.075	0.000	0.7
160	0.3	0.183	2.963	0.000	0.7
165	0.3	0.177	2.857	0.000	0.6
170	0.3	0.171	2.755	0.000	0.6
175	0.2	0.164	2.648	0.000	0.6
180	0.1	0.156	2.527	0.000	0.6
185	0.0	0.147	2.385	0.000	0.5
190	0.0	0.138	2.239	0.000	0.5
195	0.0	0.129	2.095	0.000	0.5
200	0.0	0.121	1.960	0.000	0.4
205	0.0	0.113	1.833	0.000	0.4
210	0.0	0.106	1.715	0.000	0.4
215	0.0	0.099	1.604	0.000	0.4
220	0.0	0.093	1.500	0.000	0.3
225	0.0	0.087	1.403	0.000	0.3
230	0.0	0.081	1.312	0.000	0.3
235	0.0	0.076	1.227	0.000	0.3
240	0.0	0.071	1.147	0.000	0.3
245	0.0	0.066	1.073	0.000	0.2
250	0.0	0.062	1.003	0.000	0.2
255	0.0	0.058	0.938	0.000	0.2
260	0.0	0.054	0.877	0.000	0.2
265	0.0	0.051	0.820	0.000	0.2
270	0.0	0.047	0.767	0.000	0.2

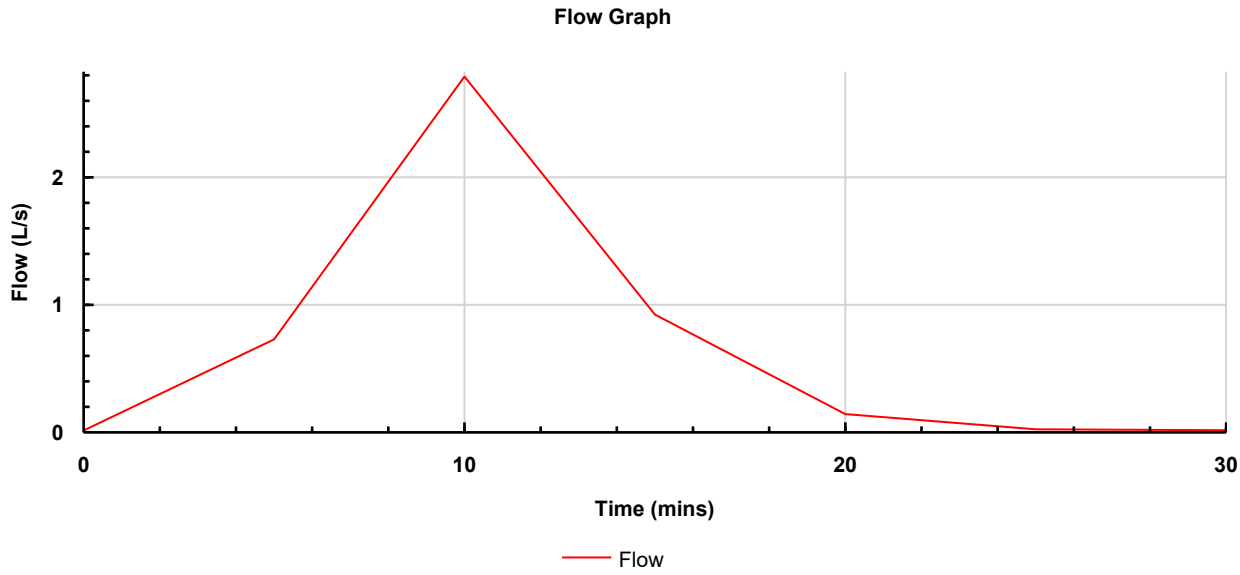
Project:	Date: 20/01/2024		
	Designed by: GraemeBeaven	Checked by:	Approved By:
Report Details: Type: Stormwater Control Results Storm Phase: Phase	Company Address:		

Time (mins)	Total Inflow (L/s)	Depth(m)	Resident Volume(m³)	Flooded Volume (m³)	Total Outflow (L/s)
275	0.0	0.044	0.717	0.000	0.2
280	0.0	0.041	0.671	0.000	0.1
285	0.0	0.039	0.627	0.000	0.1
290	0.0	0.036	0.587	0.000	0.1
295	0.0	0.034	0.548	0.000	0.1
300	0.0	0.032	0.513	0.000	0.1
305	0.0	0.030	0.480	0.000	0.1
310	0.0	0.028	0.448	0.000	0.1
315	0.0	0.026	0.419	0.000	0.1
320	0.0	0.024	0.392	0.000	0.1
325	0.0	0.023	0.367	0.000	0.1
330	0.0	0.021	0.343	0.000	0.1
335	0.0	0.020	0.321	0.000	0.1
340	0.0	0.019	0.300	0.000	0.1
345	0.0	0.017	0.280	0.000	0.1
350	0.0	0.016	0.262	0.000	0.1
355	0.0	0.015	0.245	0.000	0.1
360	0.0	0.014	0.229	0.000	0.1

Pipe
Critical by Return Period: FEH: 2 years: Increase Rainfall (%): +0: 15 mins: Winter

Type : Pipe

Graphs



Tables

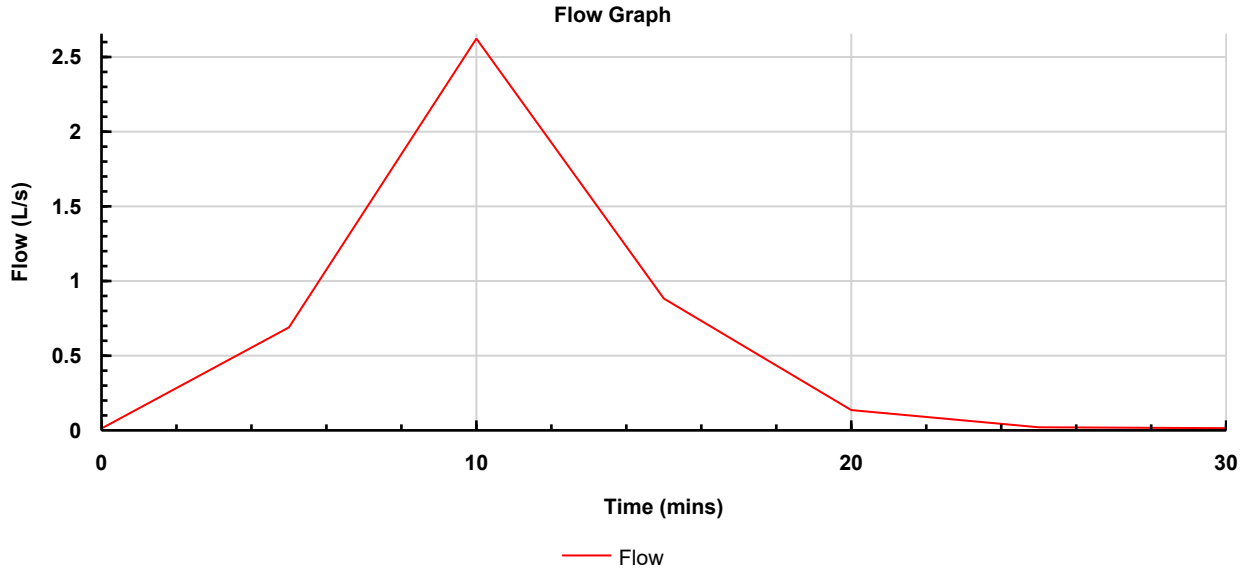
Time (mins)	Depth (m)	Flow (L/s)
0	0.000	0.0
5	0.009	0.7
10	0.042	2.8
15	0.070	0.9
20	0.071	0.1
25	0.066	0.0
30	0.062	0.0

Project:	Date: 20/01/2024		
	Designed by: GraemeBeaven	Checked by:	Approved By:
Report Details: Type: Connection Results Storm Phase: Phase	Company Address:		

Pipe (1)
Critical by Return Period: FEH: 2 years: Increase Rainfall (%): +0: 15 mins: Winter

Type : Pipe

Graphs



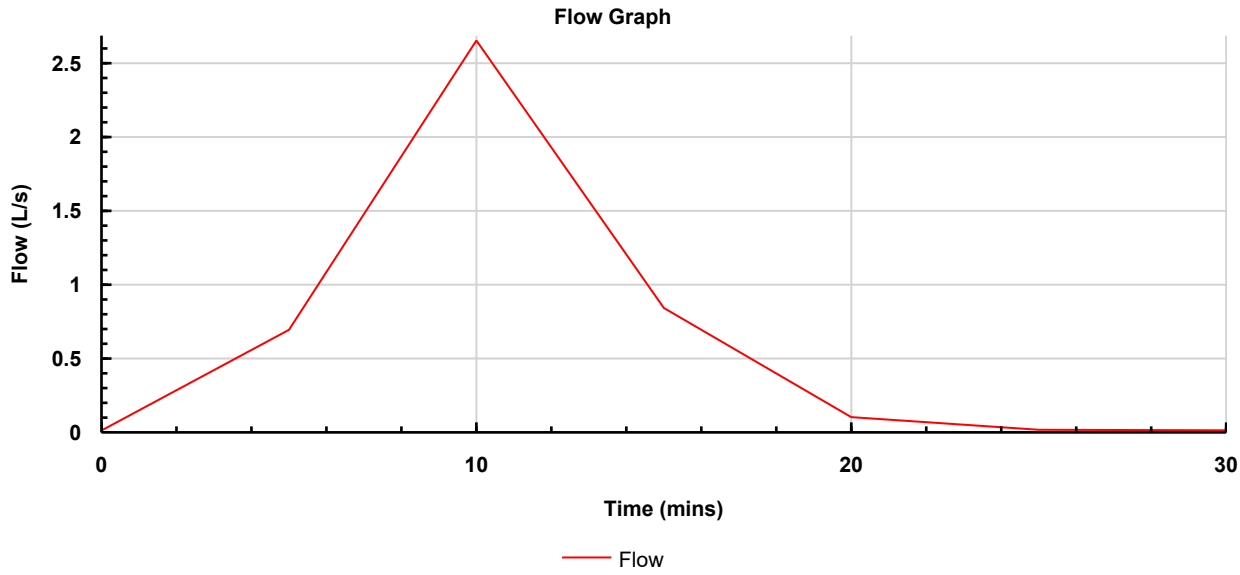
Tables

Time (mins)	Depth (m)	Flow (L/s)
0	0.000	0.0
5	0.009	0.7
10	0.042	2.6
15	0.070	0.9
20	0.071	0.1
25	0.066	0.0
30	0.062	0.0

Pipe (2)
Critical by Return Period: FEH: 2 years: Increase Rainfall (%): +0: 15 mins: Winter

Type : Pipe

Graphs



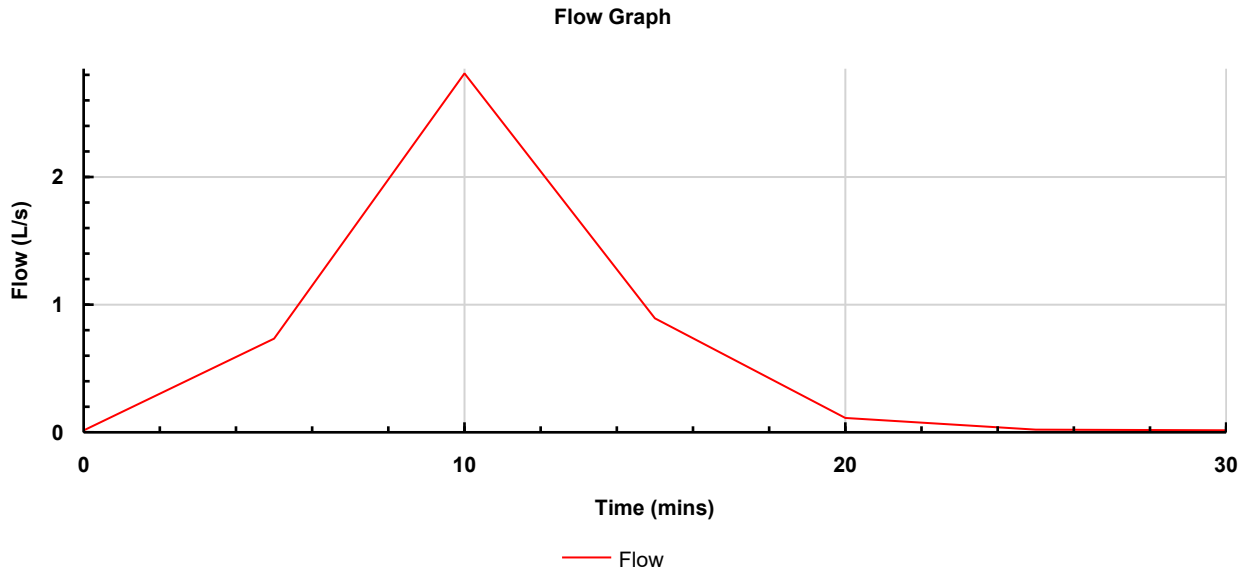
Tables

Time (mins)	Depth (m)	Flow (L/s)
0	0.000	0.0
5	0.014	0.7
10	0.027	2.7
15	0.015	0.8
20	0.005	0.1
25	0.001	0.0
30	0.001	0.0

Pipe (3)
Critical by Return Period: FEH: 2 years: Increase Rainfall (%): +0: 15 mins: Winter

Type : Pipe

Graphs



Tables

Time (mins)	Depth (m)	Flow (L/s)
0	0.000	0.0
5	0.015	0.7
10	0.029	2.8
15	0.016	0.9
20	0.006	0.1
25	0.002	0.0
30	0.001	0.0

Project:	Date: 20/01/2024		
	Designed by: GraemeBeaven	Checked by:	Approved By:
Report Details: Type: Inflow Results Storm Phase: Phase	Company Address:		

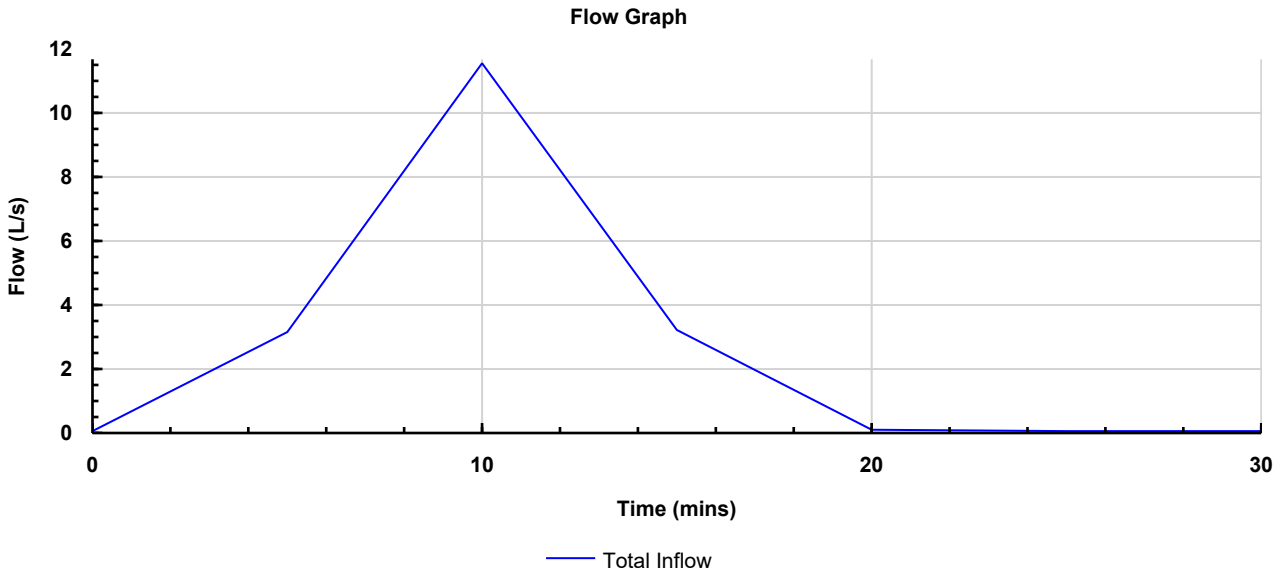
Catchment Area
Critical by Return Period: FEH: 100 years: Increase Rainfall (%): +40: 15 mins: Winter

Type : Catchment Area

Inflow

Max. Inflow (L/s)	11.6
Total Inflow Volume (m³)	5.353

Graphs



Tables

Time (mins)	Total Inflow (L/s)
0	0.0
5	3.1
10	11.6
15	3.2
20	0.0
25	0.0
30	0.0

Project:	Date: 20/01/2024		
	Designed by: GraemeBeaven	Checked by:	Approved By:
Report Details: Type: Inflow Results Storm Phase: Phase	Company Address:		

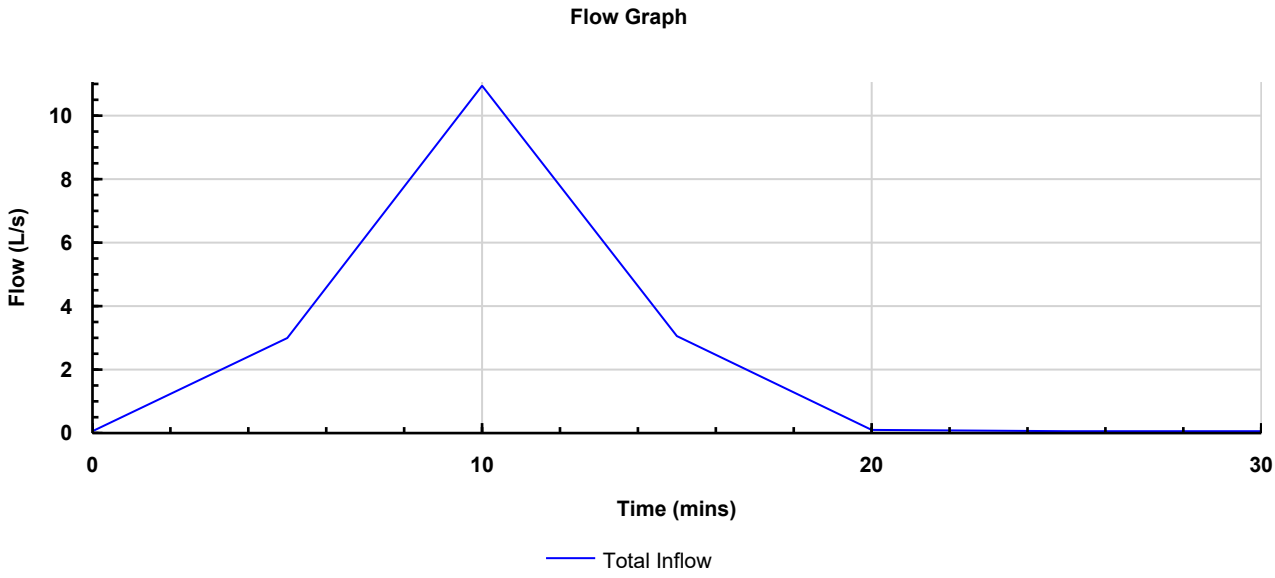
Catchment Area (1)
Critical by Return Period: FEH: 100 years: Increase Rainfall (%): +40: 15 mins: Winter

Type : Catchment Area

Inflow

Max. Inflow (L/s)	10.9
Total Inflow Volume (m³)	5.074

Graphs



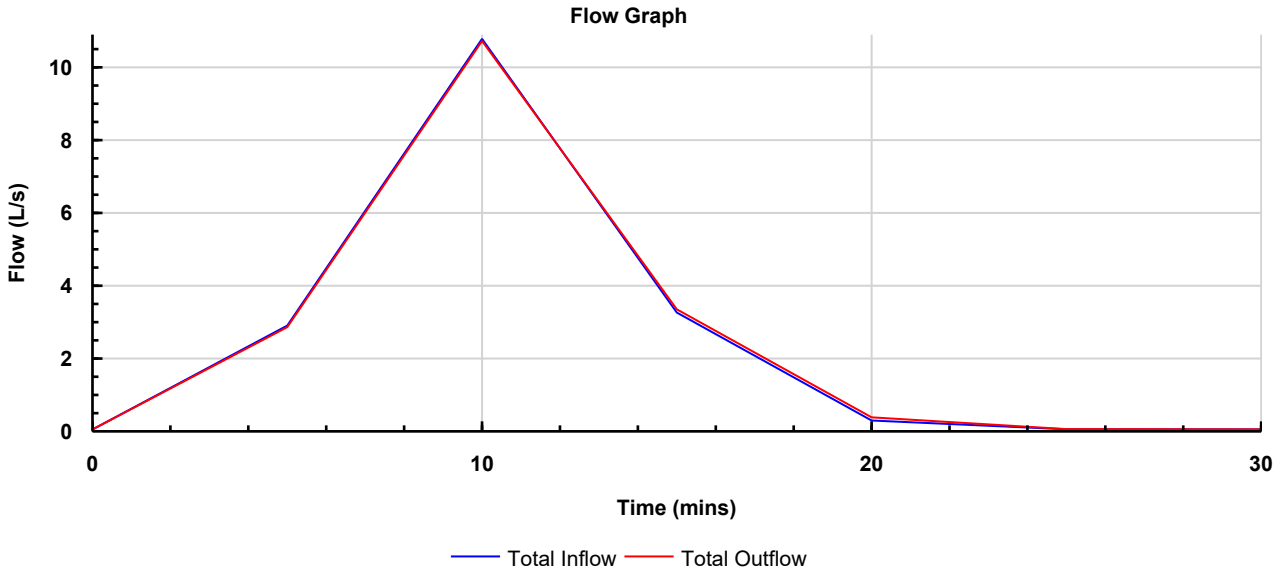
Tables

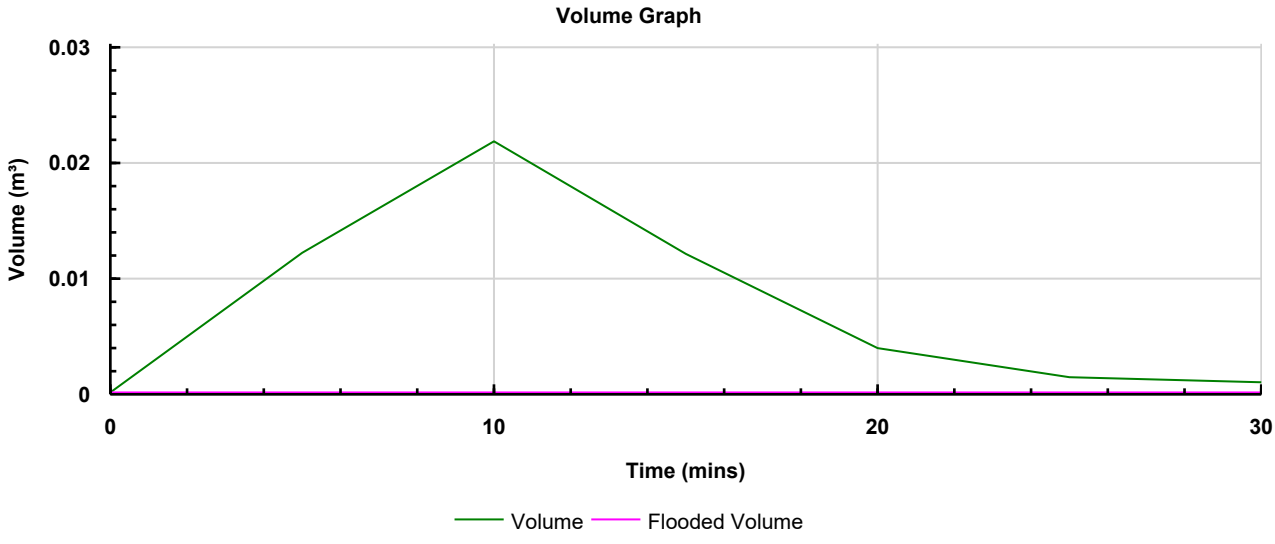
Time (mins)	Total Inflow (L/s)
0	0.0
5	3.0
10	10.9
15	3.0
20	0.0
25	0.0
30	0.0

SMH11 Type : Manhole

Critical by Return Period: FEH: 100 years: Increase Rainfall (%): +40: 15 mins: Winter

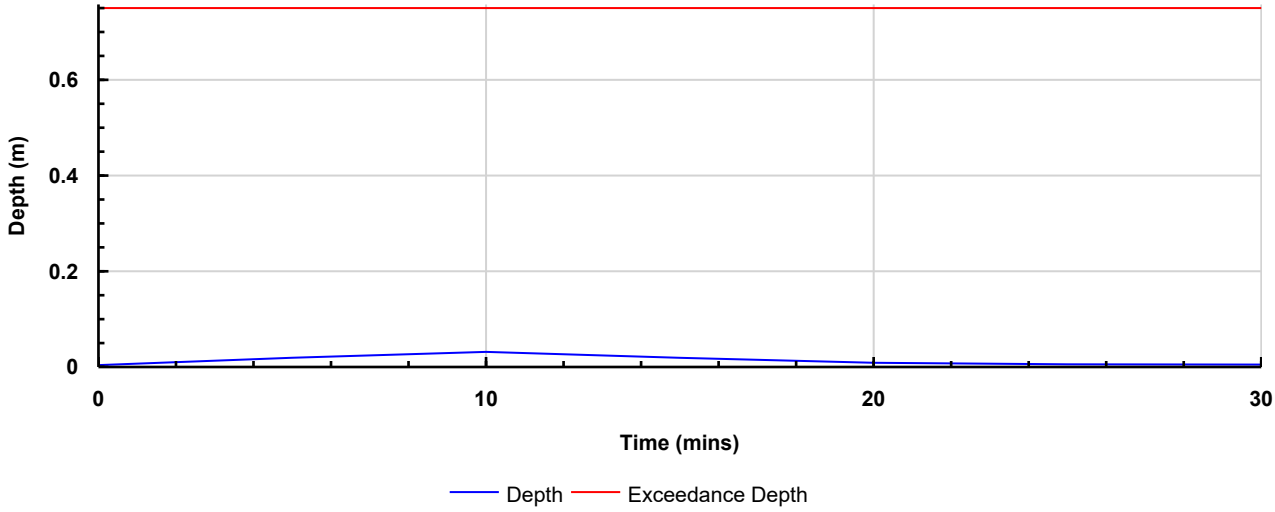
Graphs





Project:	Date: 20/01/2024		
	Designed by: GraemeBeaven	Checked by:	Approved By:
Report Details: Type: Junction Results Storm Phase: Phase	Company Address:		

Depth Graph



Project:	Date: 20/01/2024		
	Designed by: GraemeBeaven	Checked by:	Approved By:
Report Details: Type: Junction Results Storm Phase: Phase	Company Address:		

Tables

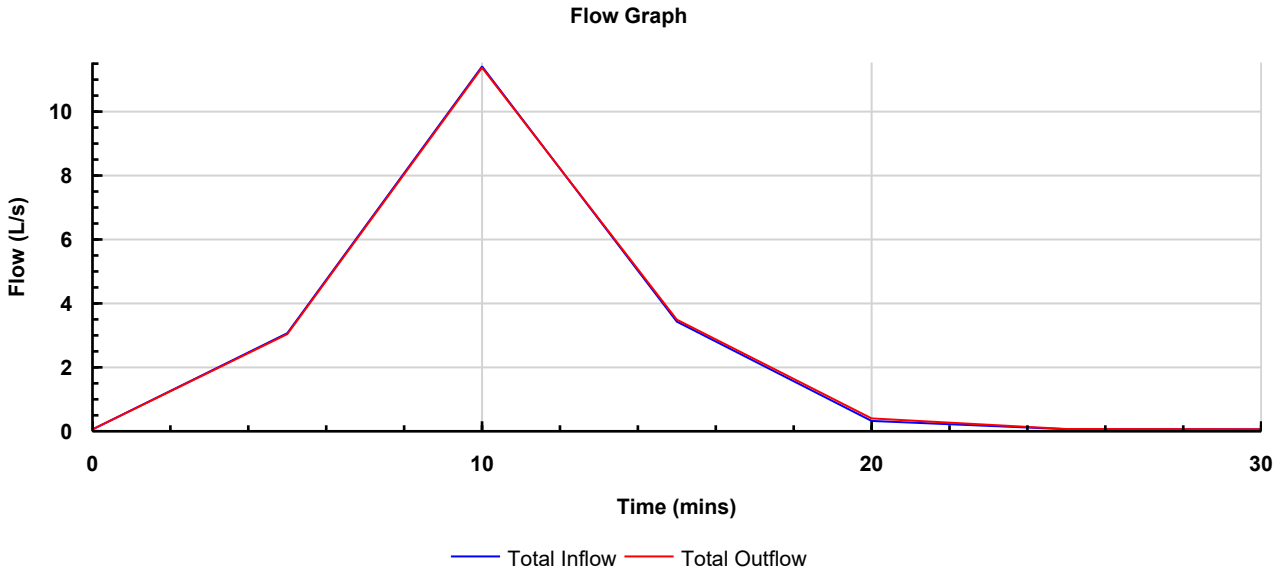
Time (mins)	Total Inflow (L/s)	Depth (m)	Volume (m³)	Flooded Volume (m³)	Total Outflow (L/s)
0	0.0	0.000	0.000	0.000	0.0
5	2.9	0.015	0.012	0.000	2.8
10	10.8	0.028	0.022	0.000	10.7
15	3.2	0.015	0.012	0.000	3.3
20	0.2	0.005	0.004	0.000	0.3
25	0.0	0.002	0.001	0.000	0.0
30	0.0	0.001	0.001	0.000	0.0

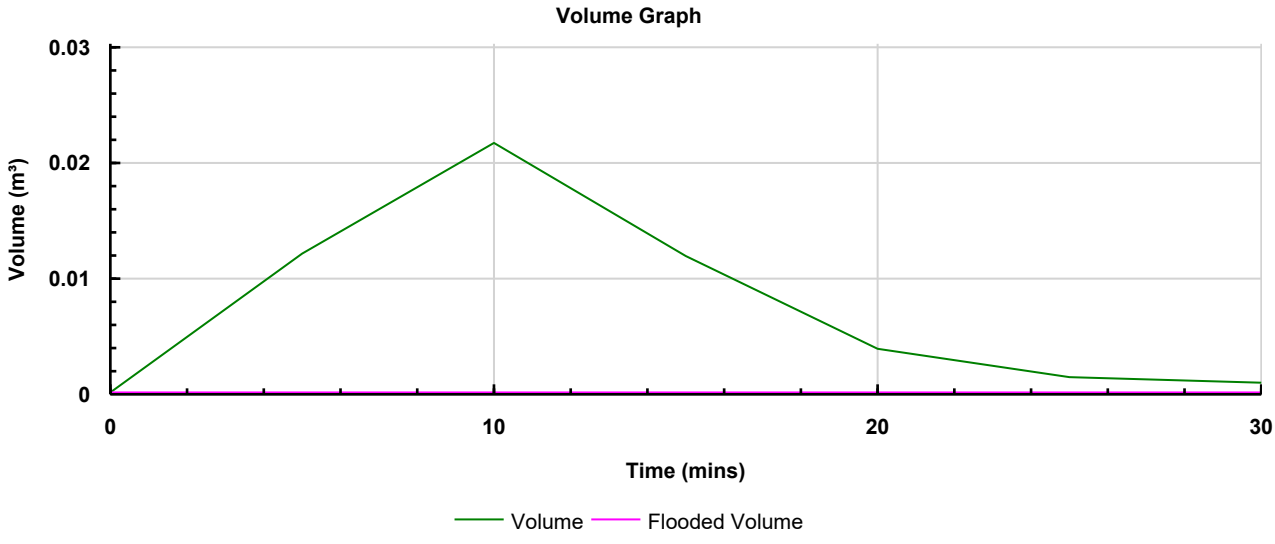
Project:	Date: 20/01/2024		
	Designed by: GraemeBeaven	Checked by:	Approved By:
Report Details: Type: Junction Results Storm Phase: Phase	Company Address:		

SMH12 Type : Manhole

Critical by Return Period: FEH: 100 years: Increase Rainfall (%): +40: 15 mins: Winter

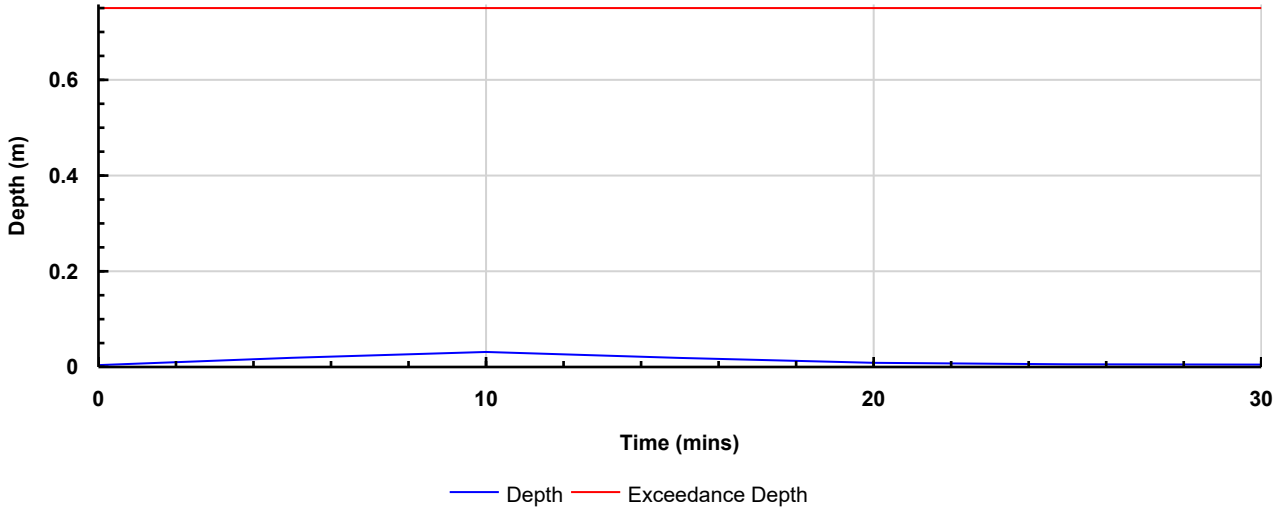
Graphs





Project:	Date: 20/01/2024		
	Designed by: GraemeBeaven	Checked by:	Approved By:
Report Details: Type: Junction Results Storm Phase: Phase	Company Address:		

Depth Graph



Project:	Date: 20/01/2024		
	Designed by: GraemeBeaven	Checked by:	Approved By:
Report Details: Type: Junction Results Storm Phase: Phase	Company Address:		

Tables

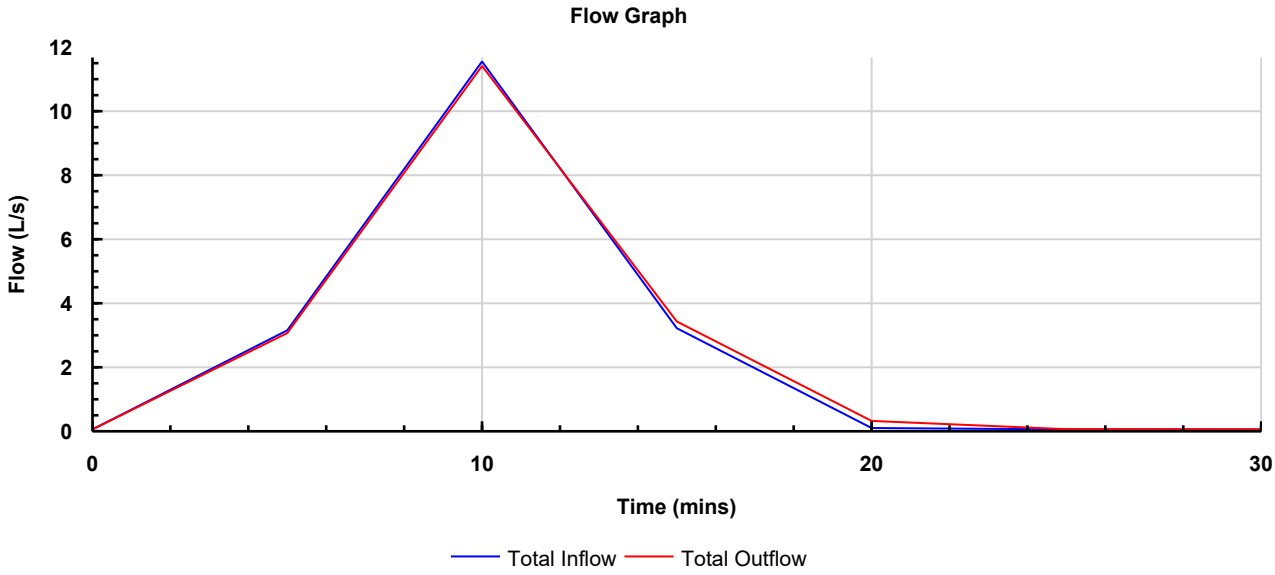
Time (mins)	Total Inflow (L/s)	Depth (m)	Volume (m³)	Flooded Volume (m³)	Total Outflow (L/s)
0	0.0	0.000	0.000	0.000	0.0
5	3.0	0.015	0.012	0.000	3.0
10	11.4	0.028	0.022	0.000	11.4
15	3.4	0.015	0.012	0.000	3.5
20	0.3	0.005	0.004	0.000	0.3
25	0.0	0.002	0.001	0.000	0.0
30	0.0	0.001	0.001	0.000	0.0

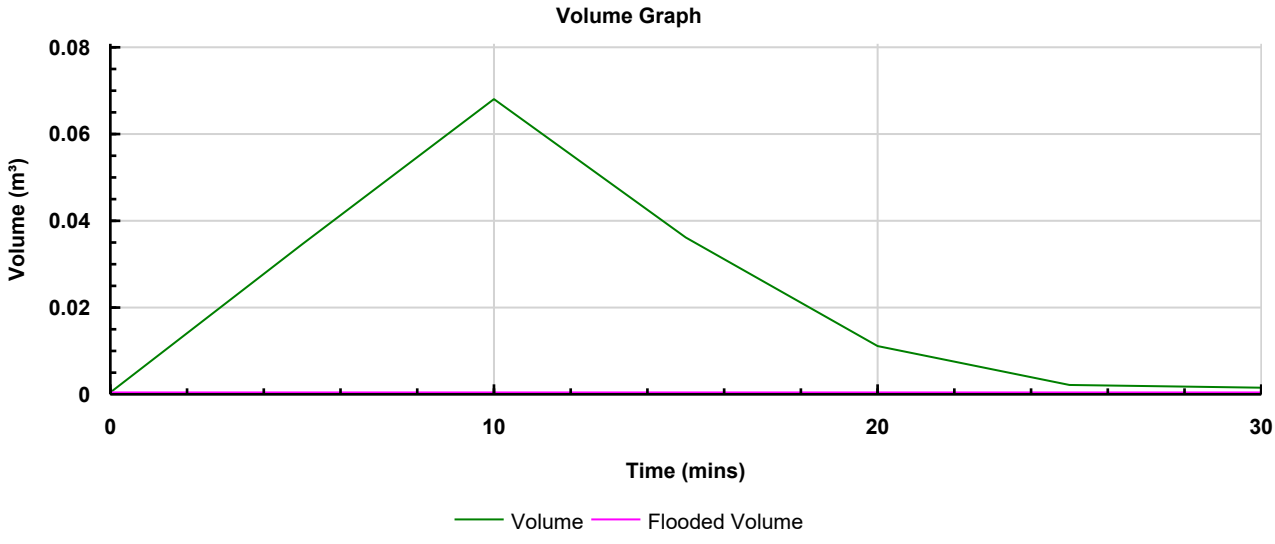
Project:	Date: 20/01/2024		
	Designed by: GraemeBeaven	Checked by:	Approved By:
Report Details: Type: Junction Results Storm Phase: Phase	Company Address:		

SMH13 Type : Manhole

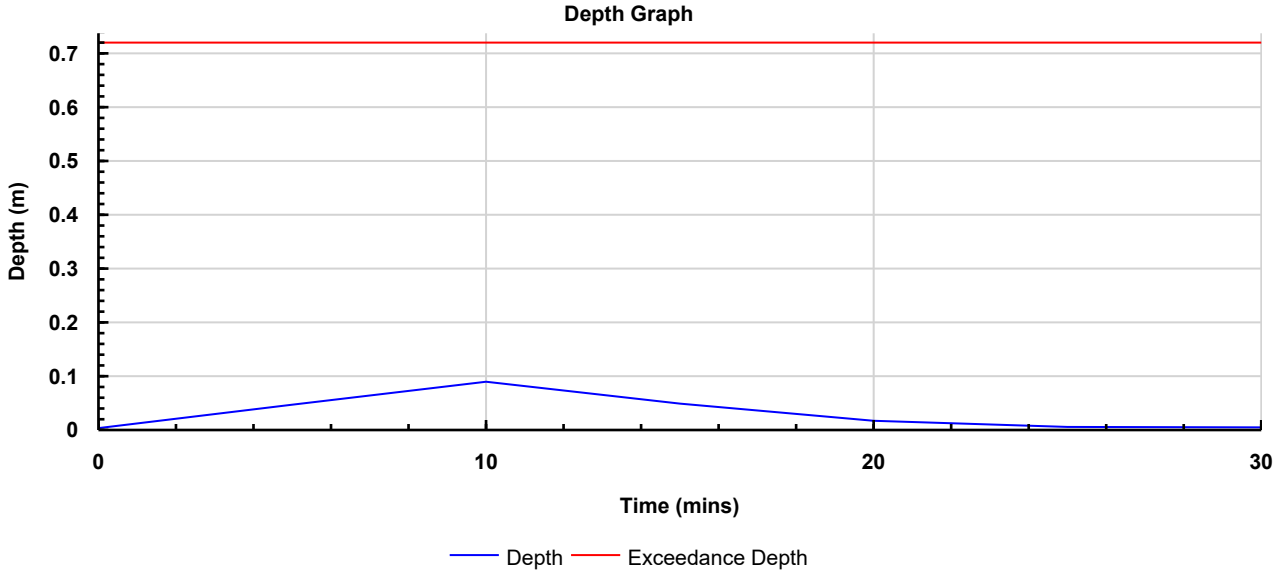
Critical by Return Period: FEH: 100 years: Increase Rainfall (%): +40: 15 mins: Winter

Graphs





Project:	Date: 20/01/2024		
	Designed by: GraemeBeaven	Checked by:	Approved By:
Report Details: Type: Junction Results Storm Phase: Phase	Company Address:		



Project:	Date: 20/01/2024		
	Designed by: GraemeBeaven	Checked by:	Approved By:
Report Details: Type: Junction Results Storm Phase: Phase	Company Address:		

Tables

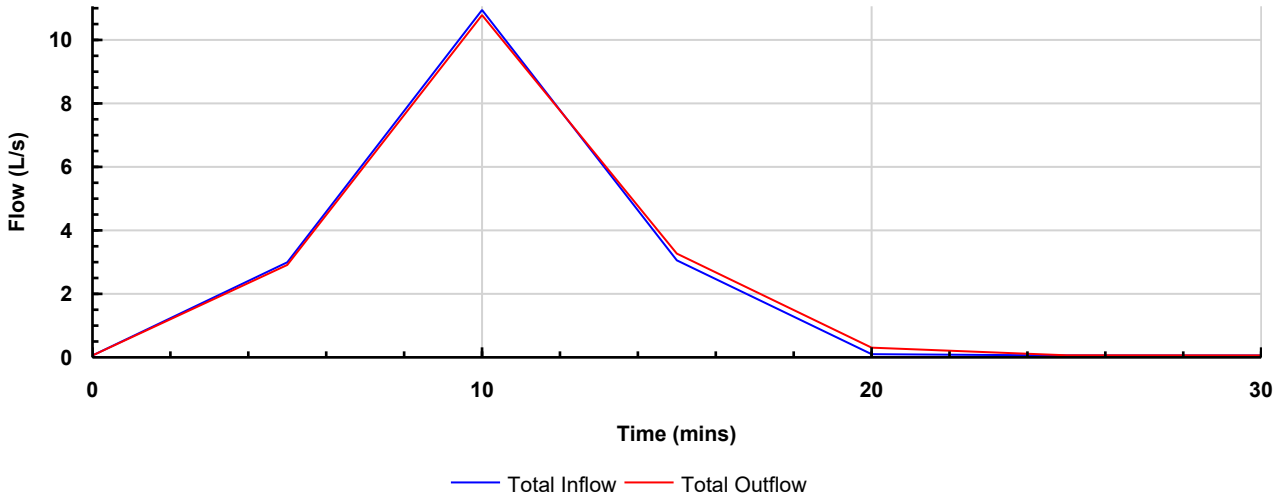
Time (mins)	Total Inflow (L/s)	Depth (m)	Volume (m³)	Flooded Volume (m³)	Total Outflow (L/s)
0	0.0	0.000	0.000	0.000	0.0
5	3.1	0.044	0.034	0.000	3.0
10	11.6	0.087	0.068	0.000	11.4
15	3.2	0.046	0.036	0.000	3.4
20	0.0	0.014	0.011	0.000	0.3
25	0.0	0.002	0.002	0.000	0.0
30	0.0	0.001	0.001	0.000	0.0

SIC05 Type : Manhole

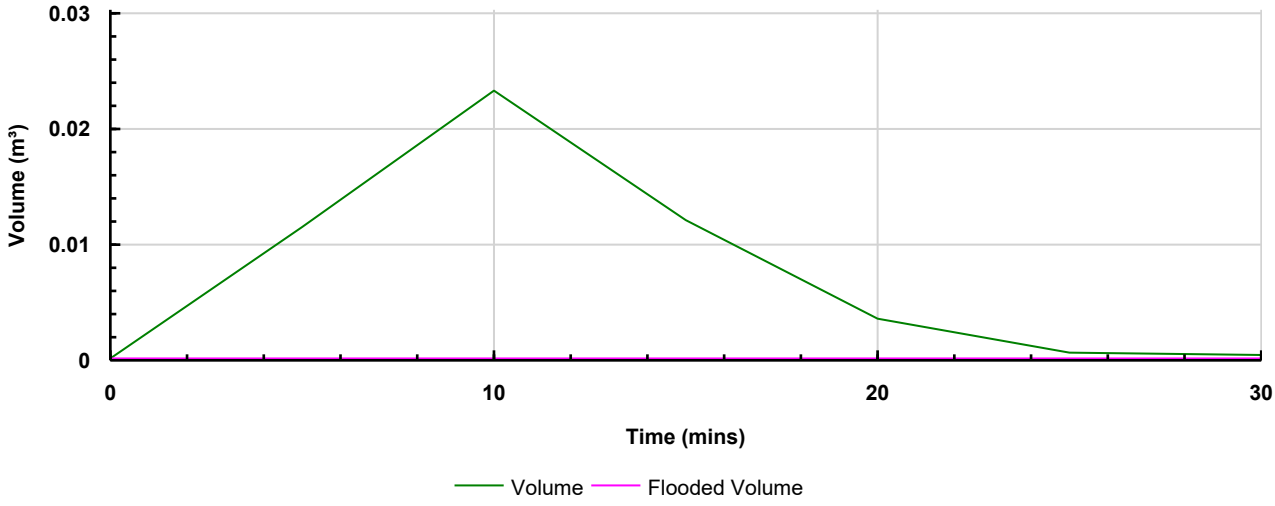
Critical by Return Period: FEH: 100 years: Increase Rainfall (%): +40: 15 mins: Winter

Graphs

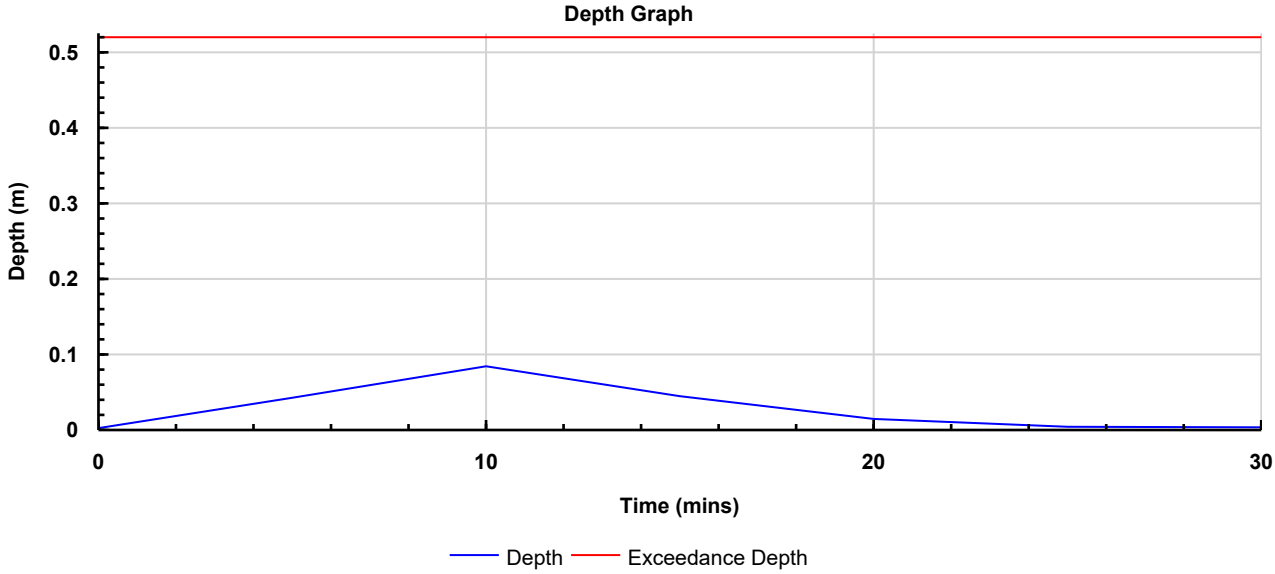
Flow Graph



Volume Graph



Project:	Date: 20/01/2024		
	Designed by: GraemeBeaven	Checked by:	Approved By:
Report Details: Type: Junction Results Storm Phase: Phase	Company Address:		



Project:	Date: 20/01/2024		
	Designed by: GraemeBeaven	Checked by:	Approved By:
Report Details: Type: Junction Results Storm Phase: Phase	Company Address:		

Tables

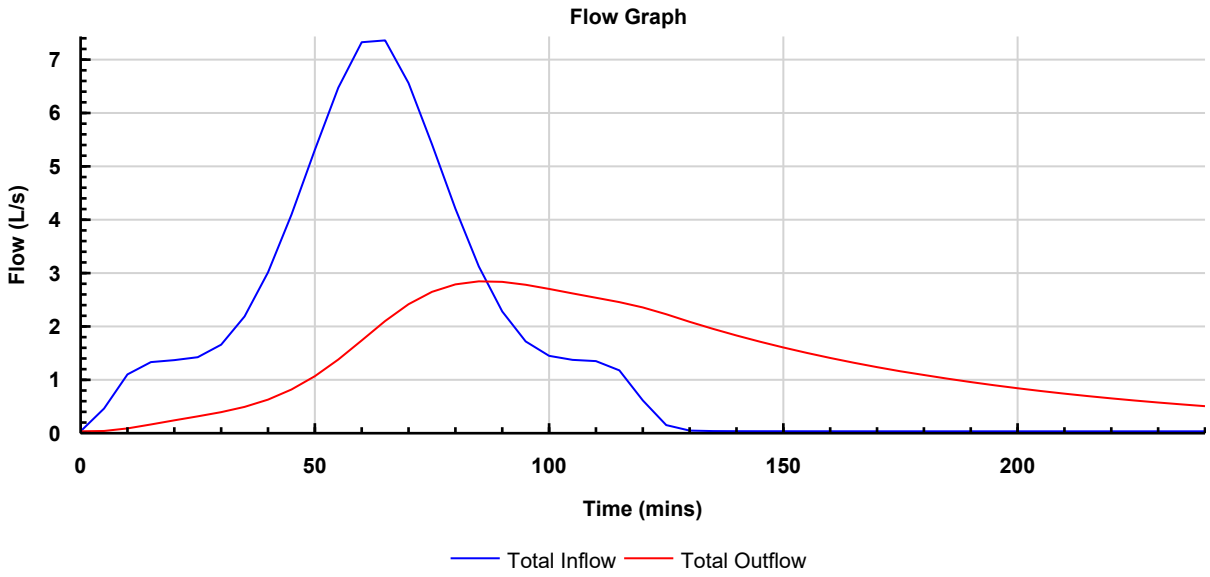
Time (mins)	Total Inflow (L/s)	Depth (m)	Volume (m³)	Flooded Volume (m³)	Total Outflow (L/s)
0	0.0	0.000	0.000	0.000	0.0
5	3.0	0.040	0.011	0.000	2.9
10	10.9	0.082	0.023	0.000	10.8
15	3.0	0.042	0.012	0.000	3.2
20	0.0	0.012	0.003	0.000	0.2
25	0.0	0.002	0.001	0.000	0.0
30	0.0	0.001	0.000	0.000	0.0

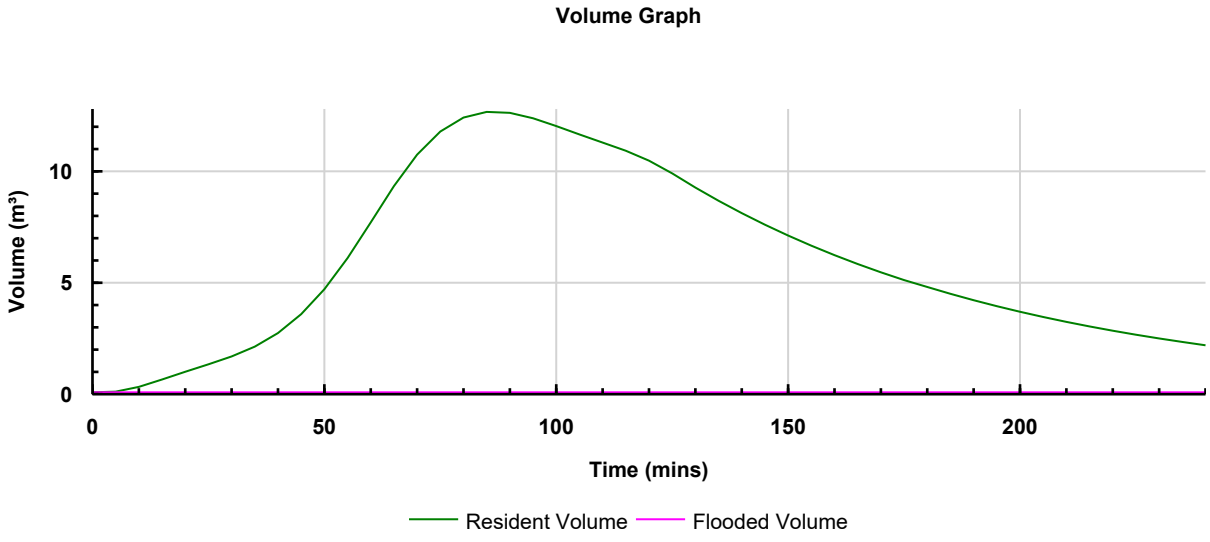
Project:	Date: 20/01/2024		
	Designed by: GraemeBeaven	Checked by:	Approved By:
Report Details: Type: Stormwater Control Results Storm Phase: Phase	Company Address:		

Soakaway
Critical by Return Period: FEH: 100 years: Increase Rainfall (%): +40: 120 mins: Winter

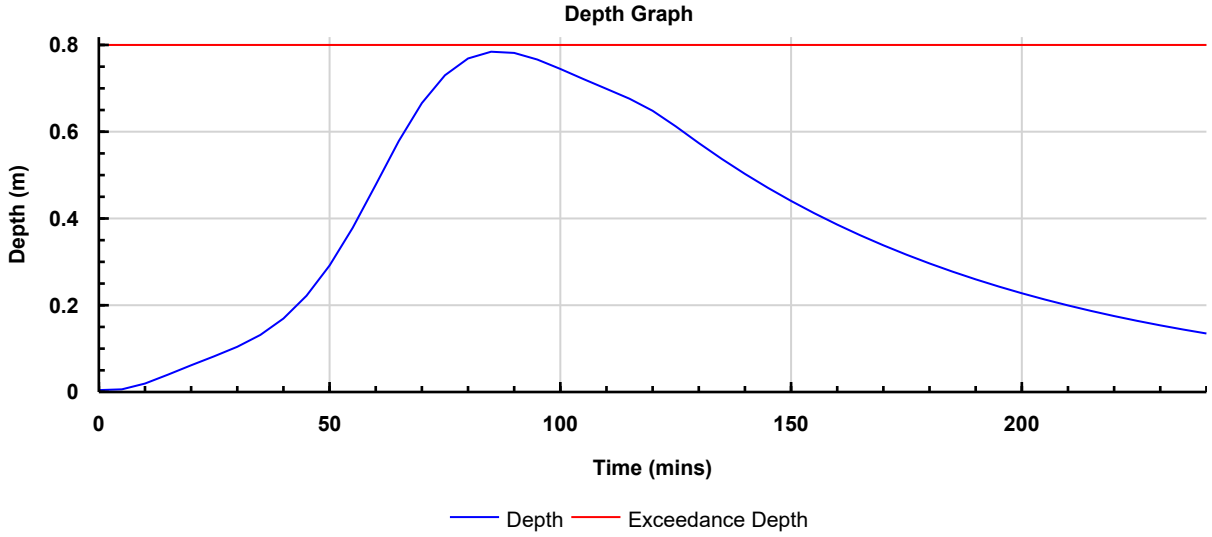
Type : Soakaway

Graphs





Project:	Date: 20/01/2024		
	Designed by: GraemeBeaven	Checked by:	Approved By:
Report Details: Type: Stormwater Control Results Storm Phase: Phase	Company Address:		



Project:	Date: 20/01/2024		
	Designed by: GraemeBeaven	Checked by:	Approved By:
Report Details: Type: Stormwater Control Results Storm Phase: Phase	Company Address:		

Tables

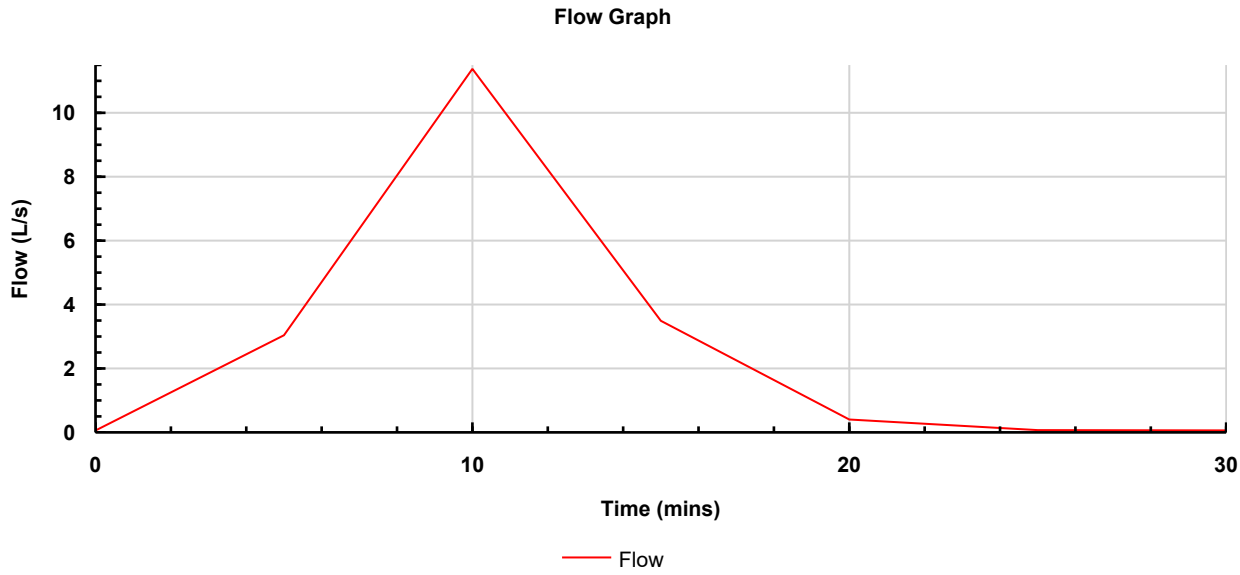
Time (mins)	Total Inflow (L/s)	Depth(m)	Resident Volume(m³)	Flooded Volume (m³)	Total Outflow (L/s)
0	0.0	0.000	0.000	0.000	0.0
5	0.4	0.002	0.029	0.000	0.0
10	1.1	0.015	0.245	0.000	0.1
15	1.3	0.036	0.578	0.000	0.1
20	1.3	0.058	0.927	0.000	0.2
25	1.4	0.078	1.264	0.000	0.3
30	1.6	0.100	1.619	0.000	0.4
35	2.2	0.128	2.063	0.000	0.5
40	3.0	0.166	2.676	0.000	0.6
45	4.1	0.219	3.530	0.000	0.8
50	5.3	0.289	4.656	0.000	1.0
55	6.5	0.376	6.062	0.000	1.4
60	7.3	0.476	7.675	0.000	1.7
65	7.4	0.577	9.314	0.000	2.1
70	6.6	0.665	10.736	0.000	2.4
75	5.4	0.730	11.779	0.000	2.6
80	4.2	0.769	12.411	0.000	2.8
85	3.1	0.784	12.666	0.000	2.8
90	2.3	0.781	12.623	0.000	2.8
95	1.7	0.766	12.378	0.000	2.8
100	1.4	0.744	12.026	0.000	2.7
105	1.3	0.721	11.648	0.000	2.6
110	1.3	0.698	11.281	0.000	2.5
115	1.1	0.675	10.911	0.000	2.4
120	0.6	0.647	10.463	0.000	2.3
125	0.1	0.611	9.889	0.000	2.2
130	0.0	0.573	9.248	0.000	2.1
135	0.0	0.536	8.652	0.000	1.9
140	0.0	0.501	8.093	0.000	1.8
145	0.0	0.469	7.570	0.000	1.7
150	0.0	0.438	7.081	0.000	1.6
155	0.0	0.410	6.624	0.000	1.5
160	0.0	0.384	6.195	0.000	1.4
165	0.0	0.359	5.795	0.000	1.3
170	0.0	0.336	5.420	0.000	1.2
175	0.0	0.314	5.070	0.000	1.1
180	0.0	0.294	4.758	0.000	1.1
185	0.0	0.275	4.449	0.000	1.0
190	0.0	0.257	4.160	0.000	0.9
195	0.0	0.240	3.890	0.000	0.9
200	0.0	0.224	3.638	0.000	0.8
205	0.0	0.210	3.402	0.000	0.8
210	0.0	0.196	3.181	0.000	0.7
215	0.0	0.184	2.975	0.000	0.7
220	0.0	0.172	2.782	0.000	0.6
225	0.0	0.160	2.601	0.000	0.6
230	0.0	0.150	2.432	0.000	0.5
235	0.0	0.140	2.274	0.000	0.5
240	0.0	0.131	2.123	0.000	0.5

Project:	Date: 20/01/2024		
	Designed by: GraemeBeaven	Checked by:	Approved By:
Report Details: Type: Connection Results Storm Phase: Phase	Company Address:		

Pipe
Critical by Return Period: FEH: 100 years: Increase Rainfall (%): +40: 15 mins: Winter

Type : Pipe

Graphs



Tables

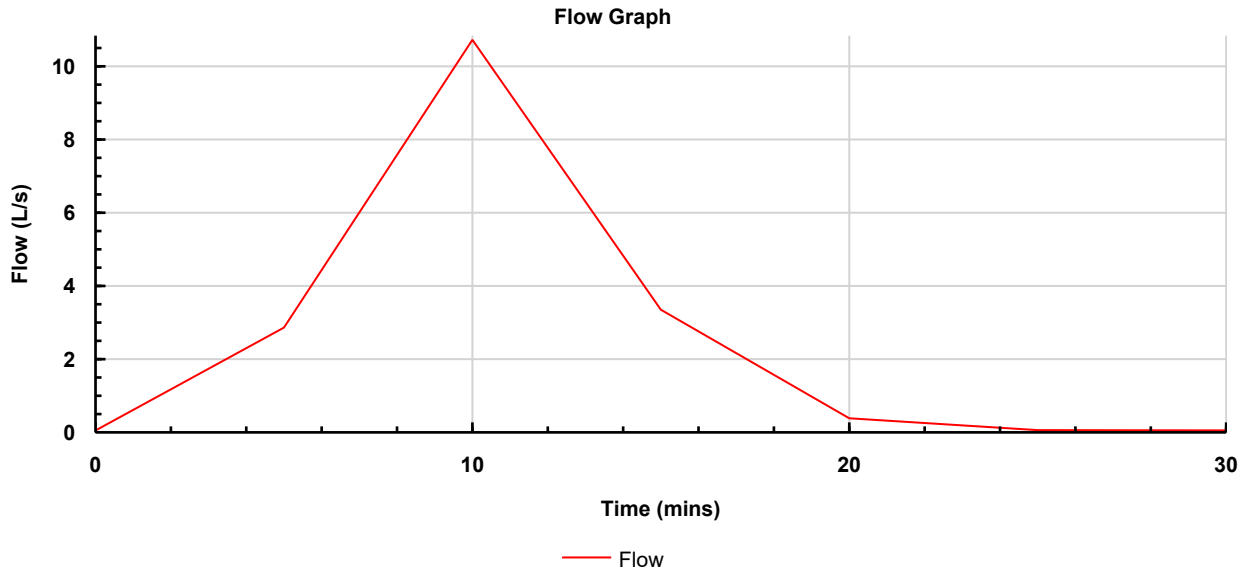
Time (mins)	Depth (m)	Flow (L/s)
0	0.000	0.0
5	0.031	3.0
10	0.150	11.4
15	0.150	3.5
20	0.150	0.3
25	0.150	0.0
30	0.150	0.0

Project:	Date: 20/01/2024		
	Designed by: GraemeBeaven	Checked by:	Approved By:
Report Details: Type: Connection Results Storm Phase: Phase	Company Address:		

Pipe (1)
Critical by Return Period: FEH: 100 years: Increase Rainfall (%): +40: 15 mins: Winter

Type : Pipe

Graphs



Tables

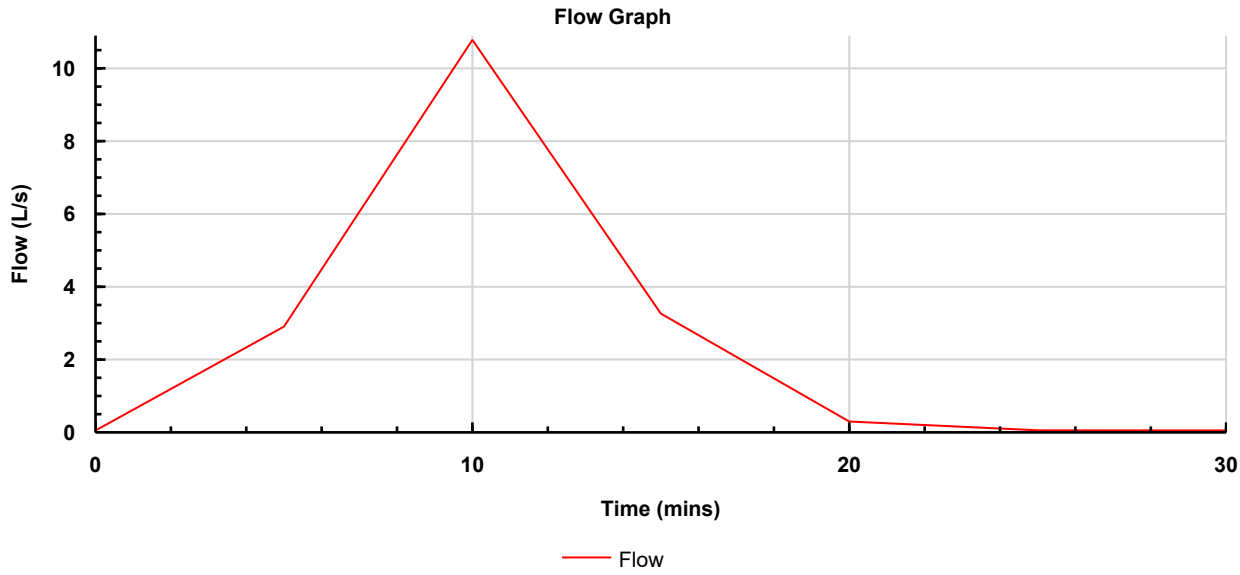
Time (mins)	Depth (m)	Flow (L/s)
0	0.000	0.0
5	0.031	2.8
10	0.150	10.7
15	0.150	3.3
20	0.150	0.3
25	0.150	0.0
30	0.150	0.0

Project:	Date: 20/01/2024		
	Designed by: GraemeBeaven	Checked by:	Approved By:
Report Details: Type: Connection Results Storm Phase: Phase	Company Address:		

Pipe (2)
Critical by Return Period: FEH: 100 years: Increase Rainfall (%): +40: 15 mins: Winter

Type : Pipe

Graphs



Tables

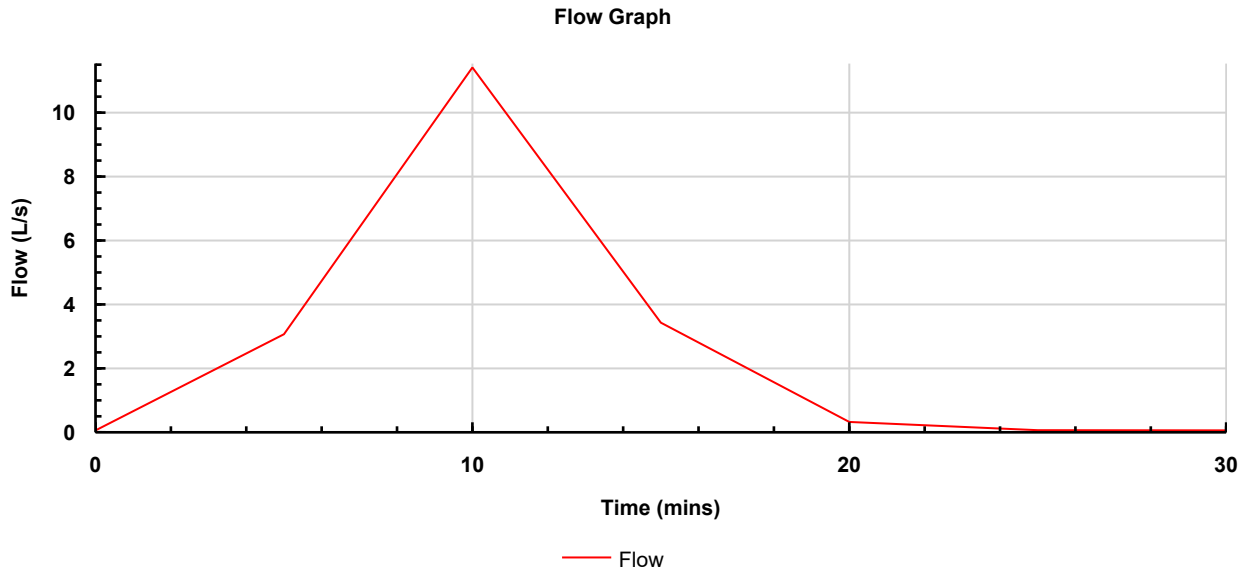
Time (mins)	Depth (m)	Flow (L/s)
0	0.000	0.0
5	0.028	2.9
10	0.055	10.8
15	0.029	3.2
20	0.009	0.2
25	0.002	0.0
30	0.001	0.0

Project:	Date: 20/01/2024		
	Designed by: GraemeBeaven	Checked by:	Approved By:
Report Details: Type: Connection Results Storm Phase: Phase	Company Address:		

Pipe (3)
Critical by Return Period: FEH: 100 years: Increase Rainfall (%): +40: 15 mins: Winter

Type : Pipe

Graphs



Tables

Time (mins)	Depth (m)	Flow (L/s)
0	0.000	0.0
5	0.030	3.0
10	0.057	11.4
15	0.030	3.4
20	0.009	0.3
25	0.002	0.0
30	0.001	0.0

Project:	Date: 20/01/2024		
	Designed by: GraemeBeaven	Checked by:	Approved By:
Report Details: Type: Inflows Storm Phase: Phase	Company Address:		

Catchment Area

Type : Catchment Area

Area (ha)	0.008

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

Catchment Area (1)

Type : Catchment Area

Area (ha)	0.031

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

Catchment Area (2)

Type : Catchment Area

Area (ha)	0.037

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

Catchment Area (3)

Type : Catchment Area

Area (ha)	0.008

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: 20/01/2024		
	Designed by: GraemeBeaven	Checked by:	Approved By:
Report Details: Type: Junctions Storm Phase: Phase	Company Address:		

Name	Junction Type	Easting (m)	Northing (m)	Cover Level (m)	Depth (m)	Invert Level (m)	Chamber Shape	Diameter (m)
SMH11	Manhole	490948.013	211630.767	156.700	1.160	155.540	Circular	1.000
SMH10	Manhole	490951.038	211664.398	156.700	0.880	155.820	Circular	1.000
SIC07	Manhole	490945.101	211674.047	156.700	0.500	156.200	Circular	0.600
SIC03	Manhole	490943.391	211634.523	156.700	0.900	155.800	Circular	0.600
SMH09	Manhole	490966.873	211640.451	156.150	0.950	155.200	Circular	1.000
SIC04	Manhole	490932.493	211652.646	156.700	0.600	156.100	Circular	1.000

Name	Lock
SMH11	None
SMH10	None
SIC07	None
SIC03	None
SMH09	None
SIC04	None

Inlets

Junction	Inlet Name	Incoming Item(s)	Bypass Destination	Capacity Type
SMH11	Inlet	Pipe (2) Catchment Area (2)	(None)	No Restriction
SMH10	Inlet	Catchment Area (3)	(None)	No Restriction
	Inlet (1)	Pipe (3) Pipe	(None)	No Restriction
SIC07	Inlet (1)	Catchment Area	(None)	No Restriction
SMH09	Inlet	Pipe (1)	(None)	No Restriction
	Inlet (1)	Pipe (4)	(None)	No Restriction
SIC04	Inlet	Catchment Area (1)	(None)	No Restriction

Outlets

Junction	Outlet Name	Outgoing Connection	Outlet Type
SMH11	Outlet	Pipe (4)	Free Discharge
SMH10	Outlet	Pipe (1)	Free Discharge
SIC07	Outlet	Pipe (3)	Free Discharge
SIC03	Outlet	Pipe (2)	Free Discharge
SMH09	Outlet	Pipe (5)	Free Discharge
SIC04	Outlet	Pipe	Free Discharge

Project:	Date: 20/01/2024		
	Designed by: GraemeBeaven	Checked by:	Approved By:
Report Details: Type: Stormwater Controls Storm Phase: Phase	Company Address:		

Soakaway 4

Type : Soakaway

Dimensions

Exceedance Level (m)	155.800
Depth (m)	0.800
Base Level (m)	155.000
Freeboard (mm)	0
Soakaway Shape	Rectangular
Diameter / Width (m)	3.000
Length (m)	16.000
Porosity (%)	95
Ineffective Storage Depth (m)	0.000
Number of Soakaways	1
Side Infiltration Rate (m/hr)	0.36
Safety Factor	1.0
Total Volume (m³)	36.480

Inlets

Inlet

Incoming Item(s)	Pipe (5)
Bypass Destination	(None)
Capacity Type	No Restriction

Project:	Date: 20/01/2024		
	Designed by: GraemeBeaven	Checked by:	Approved By:
Report Details: Type: Connections Storm Phase: Phase	Company Address:		

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)
Pipe (2)	5.956	Pipe	22.907		0.6	150	156.700	155.800
Pipe (3)	11.329	Pipe	29.813		0.6	150	156.700	156.200
Pipe	21.955	Pipe	78.411		0.6	150	156.700	156.100
Pipe (1)	28.710	Pipe	46.306		0.6	150	156.700	155.820
Pipe (4)	21.200	Pipe	62.354		0.6	150	156.700	155.540
Pipe (5)	1.875	Pipe	9.375		0.6	150	156.150	155.200

Name	Downstream Cover Level (m)	Downstream Invert Level (m)	Lock
Pipe (2)	156.700	155.540	None
Pipe (3)	156.700	155.820	None
Pipe	156.700	155.820	None
Pipe (1)	156.150	155.200	None
Pipe (4)	156.150	155.200	None
Pipe (5)	155.800	155.000	None

Project:	Date: 20/01/2024		
	Designed by: GraemeBeaven	Checked by:	Approved By:
Report Details: Type: Manhole Schedule Storm Phase: Phase	Company Address:		

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
SMH11	156.700 155.540	Diameter / Length: 1.000	{1} Pipe (2)	Pipe	155.540	Diam/Width:150	Manhole
E:490948.013 N:211630.767	1.160		{a} Pipe (4)	Pipe	155.540	Diam/Width:150	Not Applicable
SMH10	156.700 155.820	Diameter / Length: 1.000	{1} Pipe (3) {2} Pipe	Pipe Pipe	155.820 155.820	Diam/Width:150 Diam/Width:150	Manhole
E:490951.038 N:211664.398	0.880		{a} Pipe (1)	Pipe	155.820	Diam/Width:150	Not Applicable
SIC07	156.700 156.200	Diameter / Length: 0.600					Manhole
E:490945.101 N:211674.047	0.500		{a} Pipe (3)	Pipe	156.200	Diam/Width:150	Not Applicable
SIC03	156.700 155.800	Diameter / Length: 0.600					Manhole
E:490943.391 N:211634.523	0.900		{a} Pipe (2)	Pipe	155.800	Diam/Width:150	Not Applicable
SMH09	156.150 155.200	Diameter / Length: 1.000	{1} Pipe (1) {2} Pipe (4)	Pipe Pipe	155.200 155.200	Diam/Width:150 Diam/Width:150	Manhole
E:490966.873 N:211640.451	0.950		{a} Pipe (5)	Pipe	155.200	Diam/Width:150	Not Applicable

Project:	Date: 20/01/2024		
	Designed by: GraemeBeaven	Checked by:	Approved By:
Report Details: Type: Manhole Schedule Storm Phase: Phase	Company Address:		

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
SIC04	156.700 156.100	Diameter / Length: 1.000					Manhole
E:490932.493 N:211652.646	0.600		{a} Pipe	Pipe	156.100	Diam/Width:150	Not Applicable

Project:	Date: 20/01/2024		
	Designed by: GraemeBeaven	Checked by:	Approved By:
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	SIC07		Time of Concentration	0.008	100	0	100	0.008
Catchment Area (1)	SIC04		Time of Concentration	0.031	100	0	100	0.031
Catchment Area (2)	SMH11		Time of Concentration	0.037	100	0	100	0.037
Catchment Area (3)	SMH10		Time of Concentration	0.008	100	0	100	0.008
TOTAL		**0.0**		**0.085**				**0.085**

Project:	Date: 20/01/2024		
	Designed by: GraemeBeaven	Checked by:	Approved By:
Report Details: Type: Network Design Criteria Storm Phase: Phase	Company Address:		

Flow Options

Peak Flow Calculation	(UK) Modified Rational Method
Min. Time of Entry (mins)	5
Max. Travel Time (mins)	30

Pipe Options

Lock Slope Options	None
Design Options	Minimise Excavation
Design Level	Level Soffits
Min. Cover Depth (m)	1.200
Min. Slope (1:X)	500.00
Max. Slope (1:X)	40.00
Min. Velocity (m/s)	1.0
Max. Velocity (m/s)	3.0
Use Flow Restriction	☐
Reduce Channel Depths	☐

Pipe Size Library

Default

Add. Increment (mm)	75
Max. Diameter (mm)	0

Diameter (mm)	Min. Slope (1:X)	Max. Slope (1:X)
100	0.00	0.00
150	0.00	0.00

Project:	Date: 20/01/2024		
	Designed by: GraemeBeaven	Checked by:	Approved By:
Report Details: Type: Network Design Criteria Storm Phase: Phase	Company Address:		

Manhole Options

Apply Offset	☐

Manhole Size Library

Default

Diameter / Width

Connection (mm)	Diameter / Length (m)	Width (m)
0	1.200	0.000
375	1.350	0.000
500	1.500	0.000
750	1.800	0.000

Additional Sizing

Connection (mm)	900
Diameter / Length (m)	0.900
Width (m)	0.000

Depth

Depth (m)	Diameter / Length (m)	Width (m)
0.000	1.050	0.000
1.500	1.200	0.000

Access

Depth (m)	Ladder Protrusion (mm)
0.000	130
3.000	230

Benching Requirements

Landing Width (mm)	500
Benching Width (mm)	225

Project:	Date: 20/01/2024		
	Designed by: GraemeBeaven	Checked by:	Approved By:
Report Title: Rainfall Analysis Criteria	Company Address:		

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)	0
Perform No Discharge Analysis	☐

Project:	Date: 20/01/2024		
	Designed by: GraemeBeaven	Checked by:	Approved By:
Report Details: Type: Inflows Summary Storm Phase: Phase	Company Address:		

Critical Storm Per Item: Rank By: Max. Inflow

Inflow	Storm Event	Inflow Area (ha)	Max. Inflow (L/s)	Total Inflow Volume (m^3)
Catchment Area	FEH: 2 years: +0 %: 15 mins: Winter	0.01	1.2	0.567
Catchment Area (1)	FEH: 2 years: +0 %: 15 mins: Winter	0.03	4.6	2.123
Catchment Area (2)	FEH: 2 years: +0 %: 15 mins: Winter	0.04	5.4	2.500
Catchment Area (3)	FEH: 2 years: +0 %: 15 mins: Winter	0.01	1.2	0.570

Project:	Date: 20/01/2024		
	Designed by: GraemeBeaven	Checked by:	Approved By:
Report Details: Type: Junctions Summary Storm Phase: Phase	Company Address:		

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)	Max. Outflow (L/s)	Total Discharge Volume (m³)	Status
SMH11	FEH: 2 years: +0 %: 15 mins: Winter	156.700	155.540	155.590	0.050	5.4	0.039	0.000	5.2	2.499	OK
SMH10	FEH: 2 years: +0 %: 15 mins: Winter	156.700	155.820	155.872	0.052	6.9	0.041	0.000	6.5	3.249	OK
SIC07	FEH: 2 years: +0 %: 15 mins: Winter	156.700	156.200	156.219	0.019	1.2	0.005	0.000	1.2	0.565	OK
SIC03	FEH: 2 years: +0 %: 15 mins: Summer	156.700	155.800	155.800	0.000	0.0	0.000	0.000	0.0	0.000	OK
SMH09	FEH: 2 years: +0 %: 15 mins: Winter	156.150	155.200	155.254	0.054	11.7	0.042	0.000	11.4	5.742	OK
SIC04	FEH: 2 years: +0 %: 15 mins: Winter	156.700	156.100	156.149	0.049	4.6	0.038	0.000	4.4	2.122	OK

Project:	Date: 20/01/2024		
	Designed by: GraemeBeaven	Checked by:	Approved By:
Report Details: Type: Stormwater Controls Summary Storm Phase: Phase	Company Address:		

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. Resident Volume (m³)	Max. Flooded Volume (m³)	Total Lost Volume (m³)	Max. Outflow (L/s)	Total Discharge Volume (m³)	Percentage Available (%)	Status
Soakaway 4	FEH: 2 years: +0 %: 240 mins: Winter	155.253	155.253	0.253	0.253	3.2	11.558	0.000	14.956	0.0	0.000	68.317	OK

Project:	Date: 20/01/2024		
	Designed by: GraemeBeaven	Checked by:	Approved By:
Report Details: Type: Connections Summary Storm Phase: Phase	Company Address:		

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
Pipe (2)	FEH: 2 years: +0 %: 15 mins: Summer	Pipe	SIC03	SMH11	156.700	155.800	0.024	0.000	0.0	0	0.0	OK
Pipe (3)	FEH: 2 years: +0 %: 15 mins: Winter	Pipe	SIC07	SMH10	156.700	156.219	0.036	0.565	0.4	0.04	1.2	OK
Pipe	FEH: 2 years: +0 %: 15 mins: Winter	Pipe	SIC04	SMH10	156.700	156.149	0.050	2.122	0.9	0.22	4.4	OK
Pipe (1)	FEH: 2 years: +0 %: 15 mins: Winter	Pipe	SMH10	SMH09	156.700	155.872	0.053	3.249	1.2	0.25	6.5	OK
Pipe (4)	FEH: 2 years: +0 %: 15 mins: Winter	Pipe	SMH11	SMH09	156.700	155.590	0.052	2.499	1.0	0.23	5.2	OK
Pipe (5)	FEH: 2 years: +0 %: 15 mins: Winter	Pipe	SMH09	Soakaway 4	156.150	155.254	0.068	5.742	2.7	0.19	11.4	OK

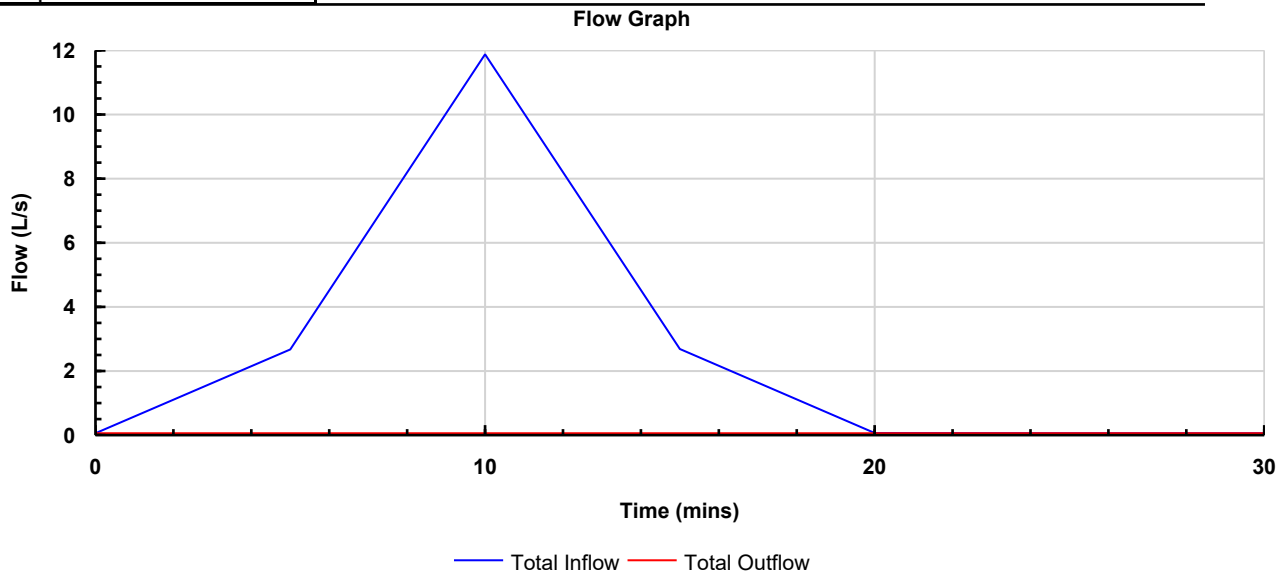
Project:	Date: 20/01/2024		
	Designed by: GraemeBeaven	Checked by:	Approved By:
Report Details: Type: Phase Management Storm Phase: Phase	Company Address:		

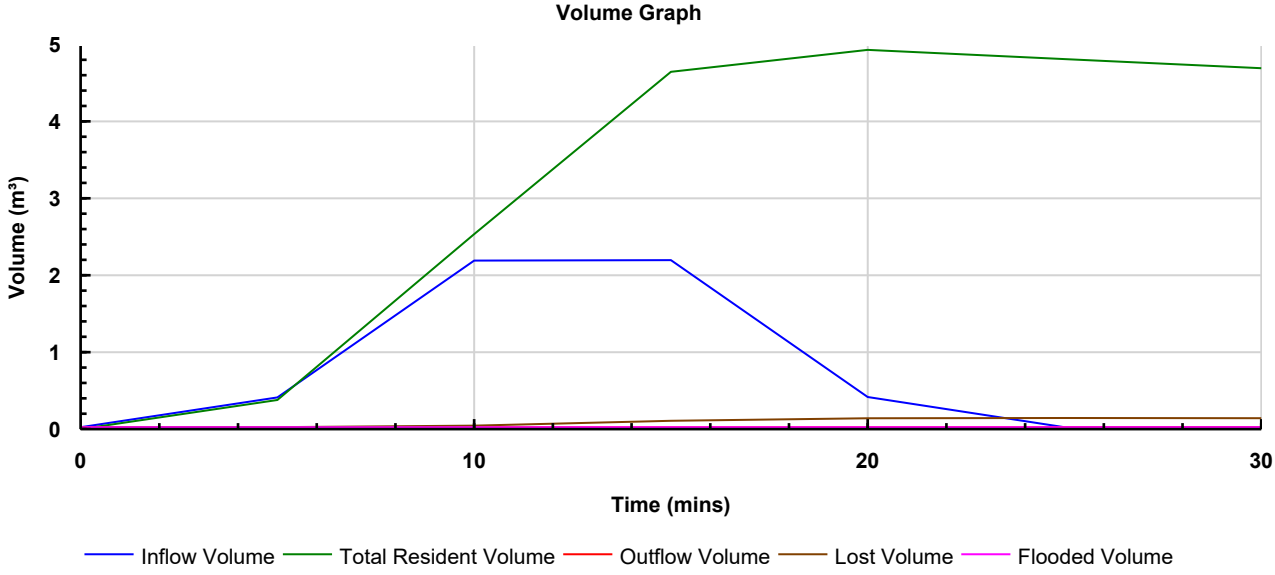
Phase
FEH: 2 years: Increase Rainfall (%): +0: 15 mins: Summer

Tables

Name	Max. Inflow (L/s)	Total Inflow Volume (m³)	Max. Outflow (L/s)	Total Outflow Volume (m³)
TOTAL	11.9	5.142	0.0	0.000

Graphs





Project:	Date: 20/01/2024		
	Designed by: GraemeBeaven	Checked by:	Approved By:
Report Details: Type: Inflow Results Storm Phase: Phase	Company Address:		

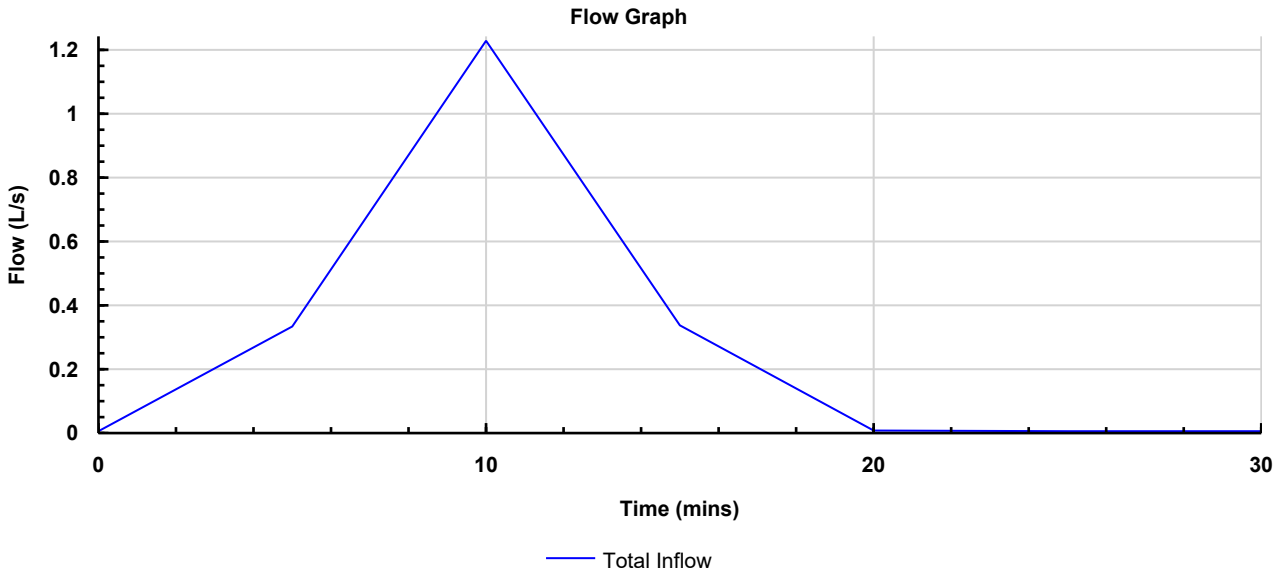
Catchment Area
Critical Storm: FEH: 2 years: Increase Rainfall (%): +0: 15 mins: Winter

Type : Catchment Area

Inflow

Max. Inflow (L/s)	1.2
Total Inflow Volume (m³)	0.567

Graphs



Tables

Time (mins)	Total Inflow (L/s)
0	0.0
5	0.3
10	1.2
15	0.3
20	0.0
25	0.0
30	0.0

Project:	Date: 20/01/2024		
	Designed by: GraemeBeaven	Checked by:	Approved By:
Report Details: Type: Inflow Results Storm Phase: Phase	Company Address:		

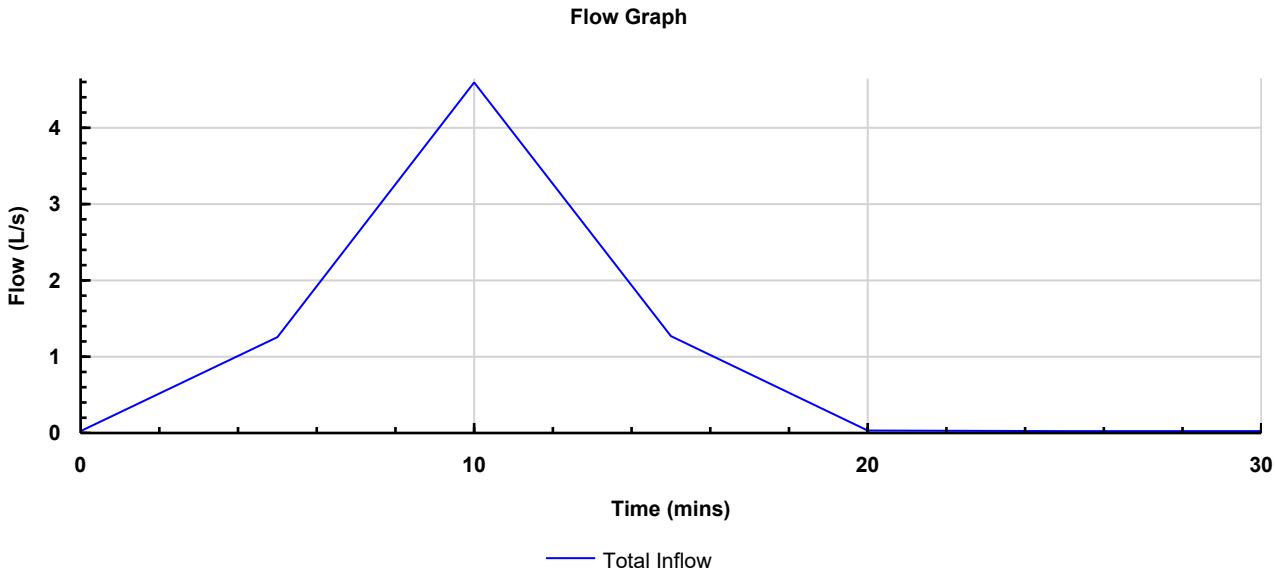
Catchment Area (1)
Critical Storm: FEH: 2 years: Increase Rainfall (%): +0: 15 mins: Winter

Type : Catchment Area

Inflow

Max. Inflow (L/s)	4.6
Total Inflow Volume (m³)	2.123

Graphs



Tables

Time (mins)	Total Inflow (L/s)
0	0.0
5	1.2
10	4.6
15	1.3
20	0.0
25	0.0
30	0.0

Project:	Date: 20/01/2024		
	Designed by: GraemeBeaven	Checked by:	Approved By:
Report Details: Type: Inflow Results Storm Phase: Phase	Company Address:		

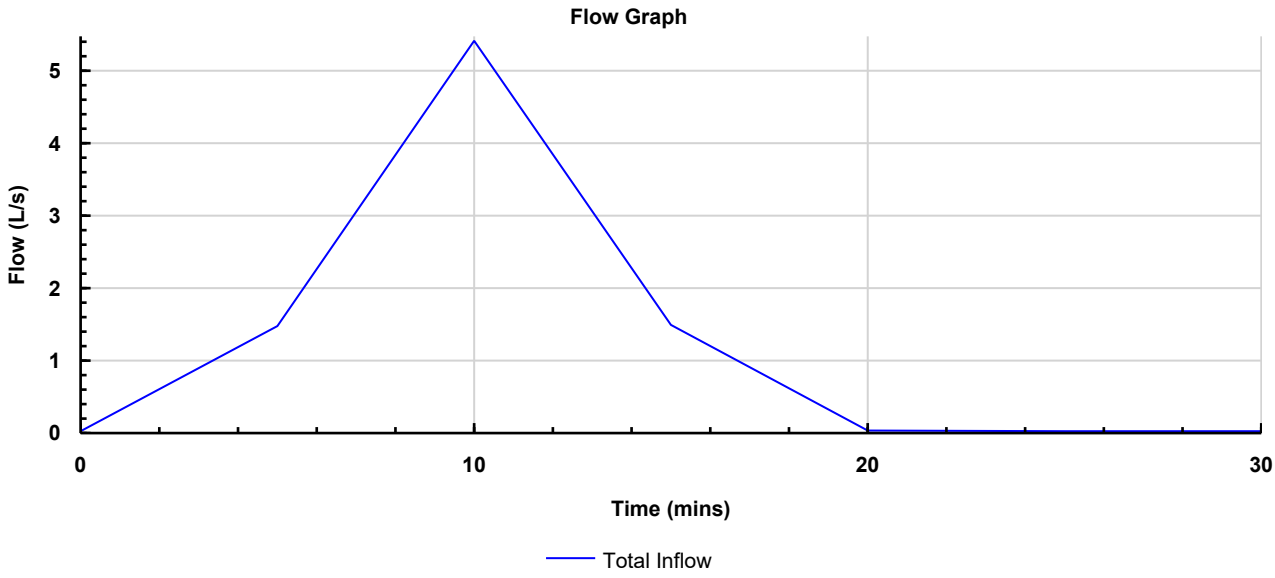
Catchment Area (2)
Critical Storm: FEH: 2 years: Increase Rainfall (%): +0: 15 mins: Winter

Type : Catchment Area

Inflow

Max. Inflow (L/s)	5.4
Total Inflow Volume (m³)	2.500

Graphs



Tables

Time (mins)	Total Inflow (L/s)
0	0.0
5	1.5
10	5.4
15	1.5
20	0.0
25	0.0
30	0.0

Project:	Date: 20/01/2024		
	Designed by: GraemeBeaven	Checked by:	Approved By:
Report Details: Type: Inflow Results Storm Phase: Phase	Company Address:		

Catchment Area (3)
Critical Storm: FEH: 2 years: Increase Rainfall (%): +0: 15 mins: Winter

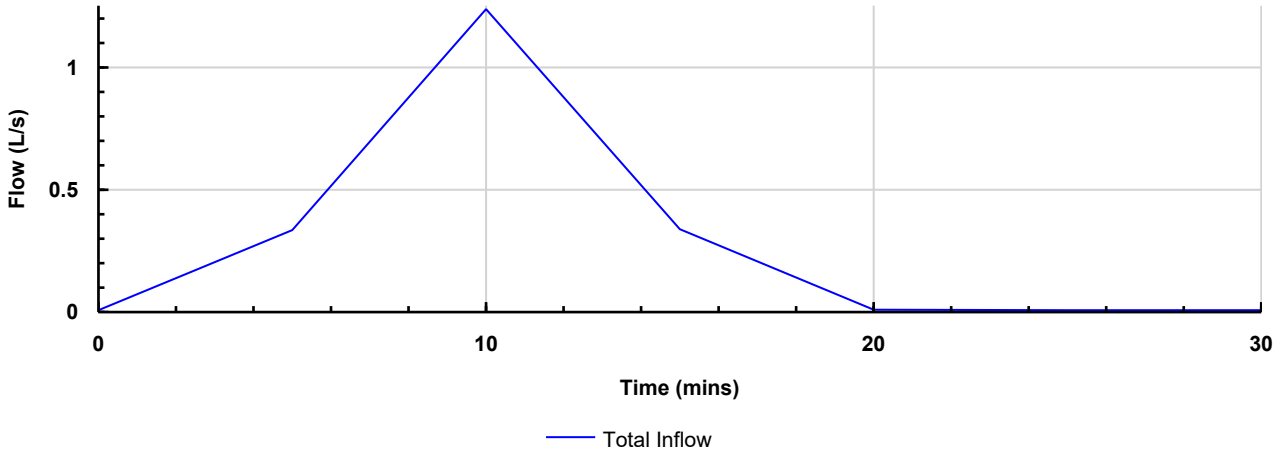
Type : Catchment Area

Inflow

Max. Inflow (L/s)	1.2
Total Inflow Volume (m³)	0.570

Graphs

Flow Graph



Tables

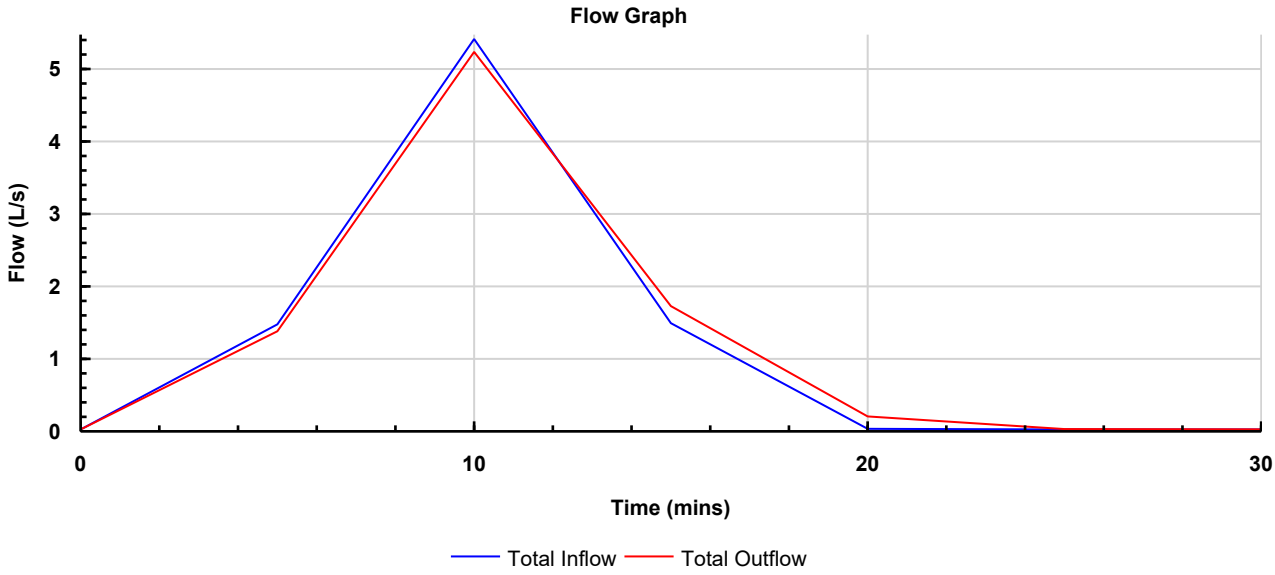
Time (mins)	Total Inflow (L/s)
0	0.0
5	0.3
10	1.2
15	0.3
20	0.0
25	0.0
30	0.0

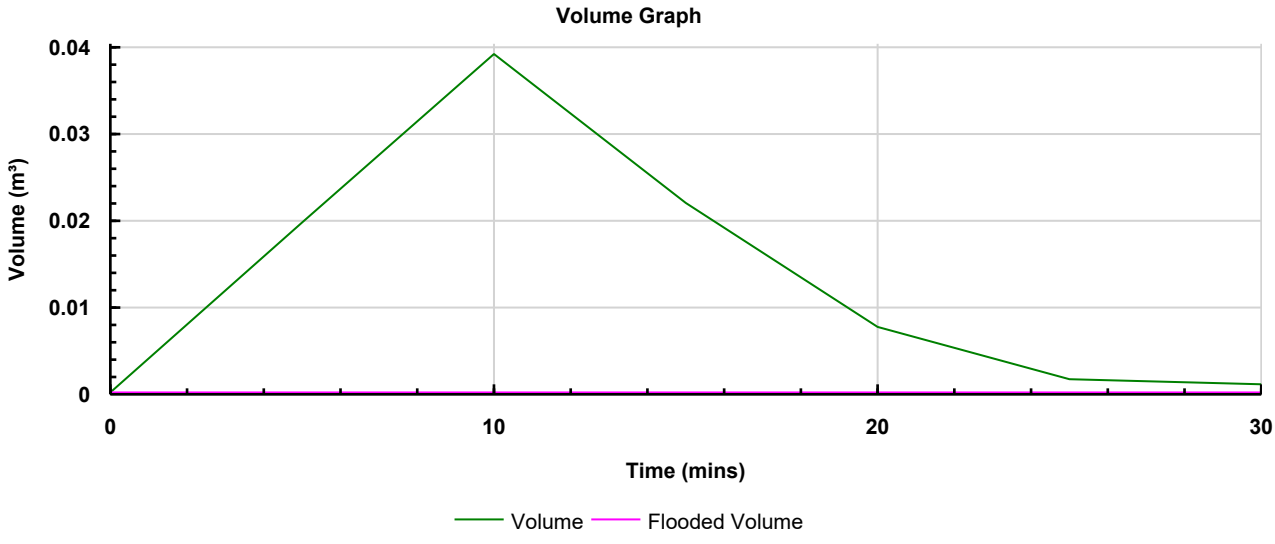
Project:	Date: 20/01/2024		
	Designed by: GraemeBeaven	Checked by:	Approved By:
Report Details: Type: Junction Results Storm Phase: Phase	Company Address:		

SMH11 Type : Manhole

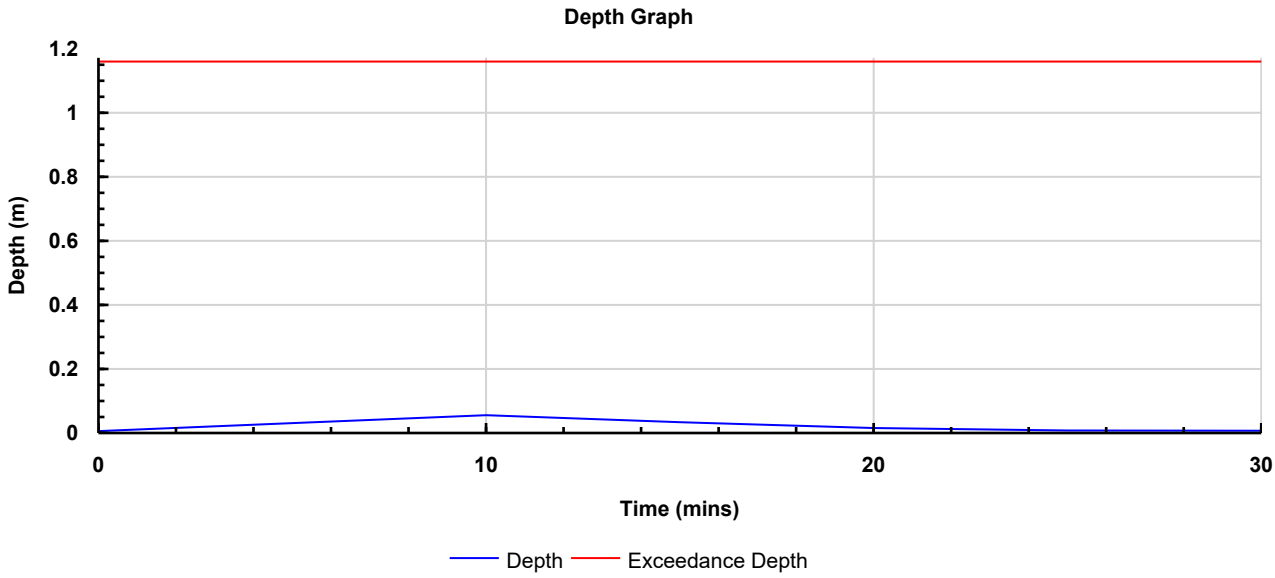
Critical Storm: FEH: 2 years: Increase Rainfall (%): +0: 15 mins: Winter

Graphs





Project:	Date: 20/01/2024		
	Designed by: GraemeBeaven	Checked by:	Approved By:
Report Details: Type: Junction Results Storm Phase: Phase	Company Address:		



Project:	Date: 20/01/2024		
	Designed by: GraemeBeaven	Checked by:	Approved By:
Report Details: Type: Junction Results Storm Phase: Phase	Company Address:		

Tables

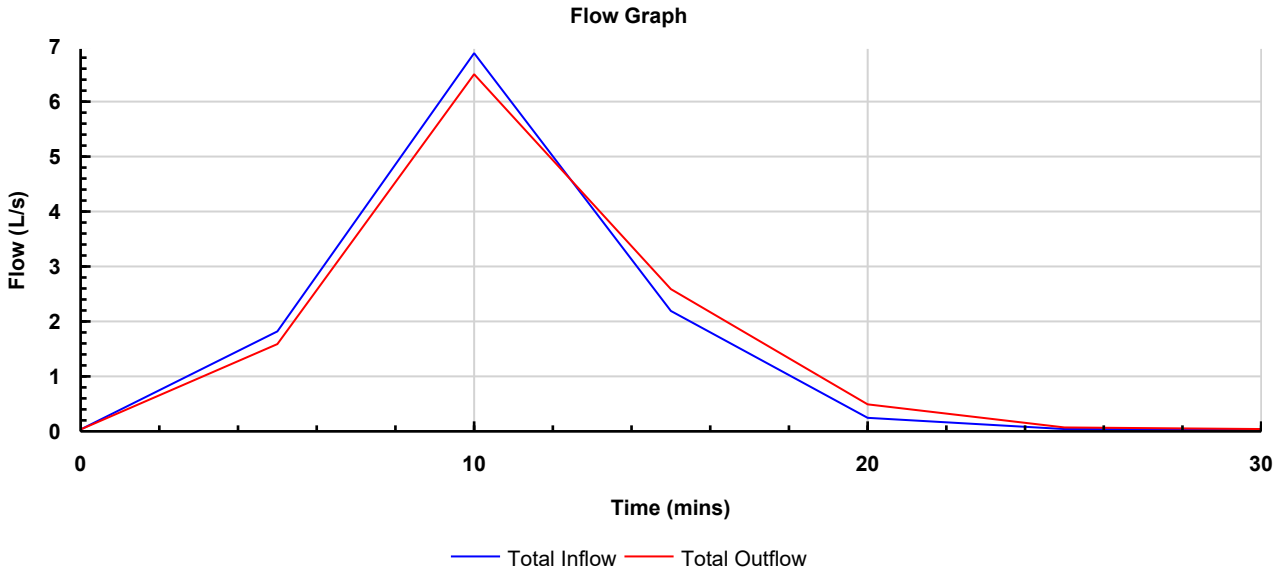
Time (mins)	Total Inflow (L/s)	Depth (m)	Volume (m³)	Flooded Volume (m³)	Total Outflow (L/s)
0	0.0	0.000	0.000	0.000	0.0
5	1.5	0.025	0.020	0.000	1.4
10	5.4	0.050	0.039	0.000	5.2
15	1.5	0.028	0.022	0.000	1.7
20	0.0	0.010	0.008	0.000	0.2
25	0.0	0.002	0.002	0.000	0.0
30	0.0	0.001	0.001	0.000	0.0

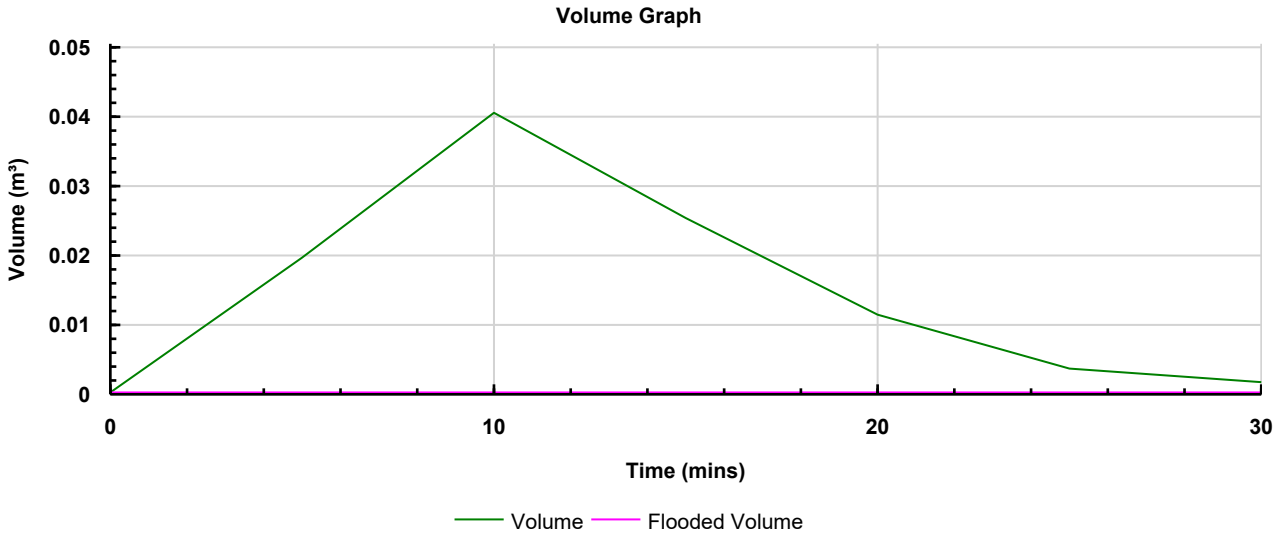
Project:	Date: 20/01/2024		
	Designed by: GraemeBeaven	Checked by:	Approved By:
Report Details: Type: Junction Results Storm Phase: Phase	Company Address:		

SMH10 Type : Manhole

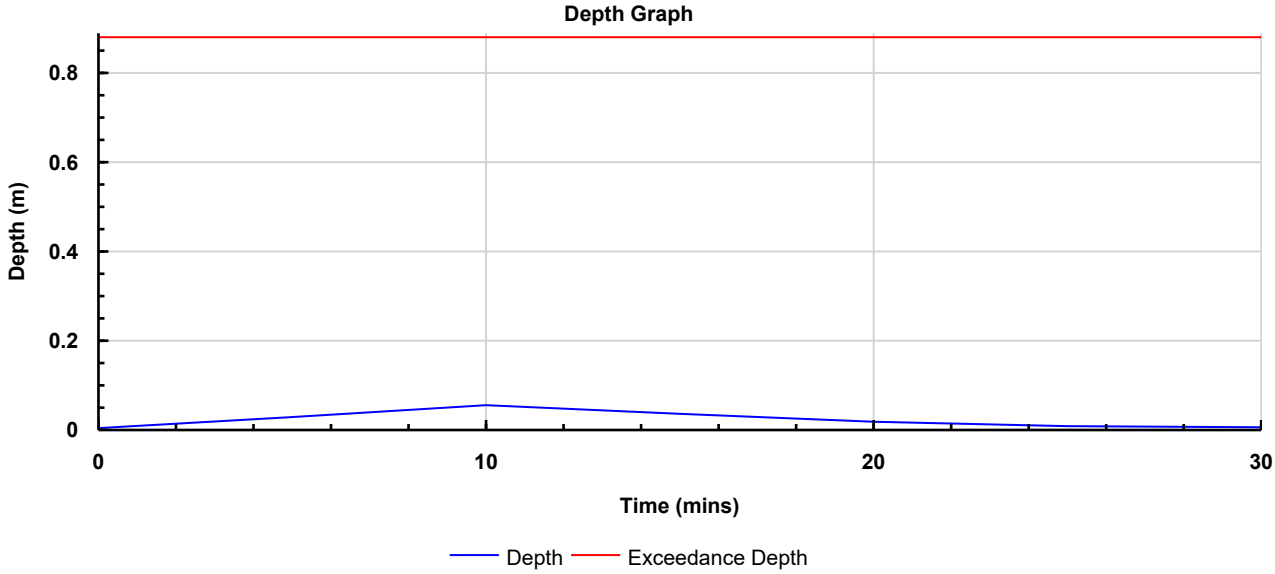
Critical Storm: FEH: 2 years: Increase Rainfall (%): +0: 15 mins: Winter

Graphs





Project:	Date: 20/01/2024		
	Designed by: GraemeBeaven	Checked by:	Approved By:
Report Details: Type: Junction Results Storm Phase: Phase	Company Address:		



Project:	Date: 20/01/2024		
	Designed by: GraemeBeaven	Checked by:	Approved By:
Report Details: Type: Junction Results Storm Phase: Phase	Company Address:		

Tables

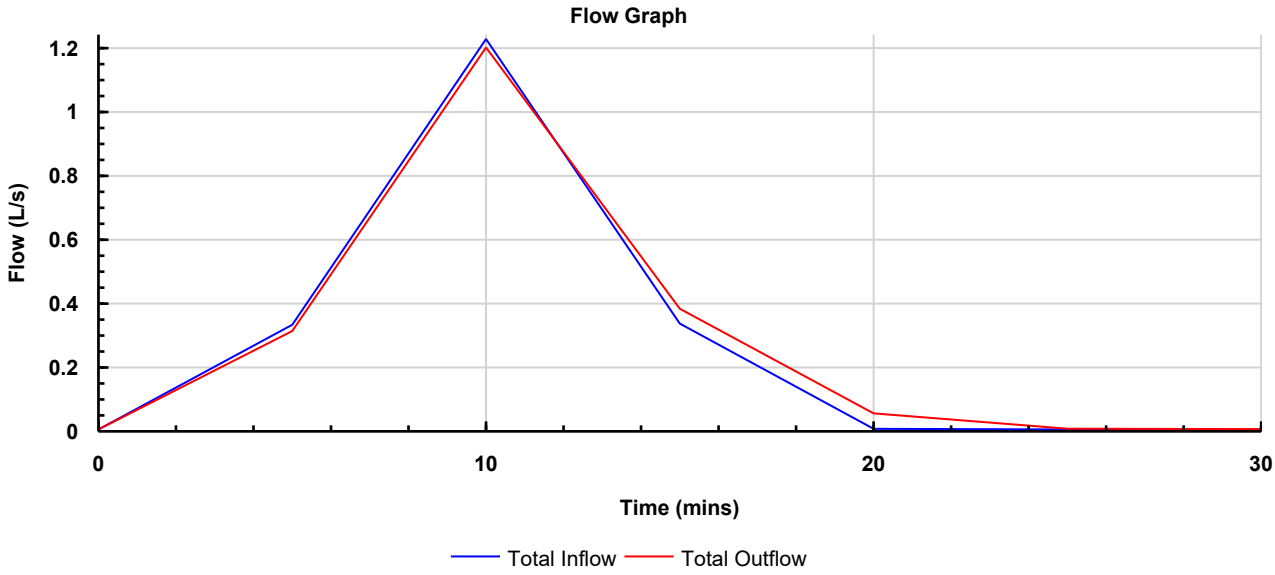
Time (mins)	Total Inflow (L/s)	Depth (m)	Volume (m³)	Flooded Volume (m³)	Total Outflow (L/s)
0	0.0	0.000	0.000	0.000	0.0
5	1.8	0.025	0.020	0.000	1.6
10	6.9	0.052	0.041	0.000	6.5
15	2.2	0.032	0.025	0.000	2.6
20	0.2	0.014	0.011	0.000	0.5
25	0.0	0.004	0.003	0.000	0.0
30	0.0	0.002	0.001	0.000	0.0

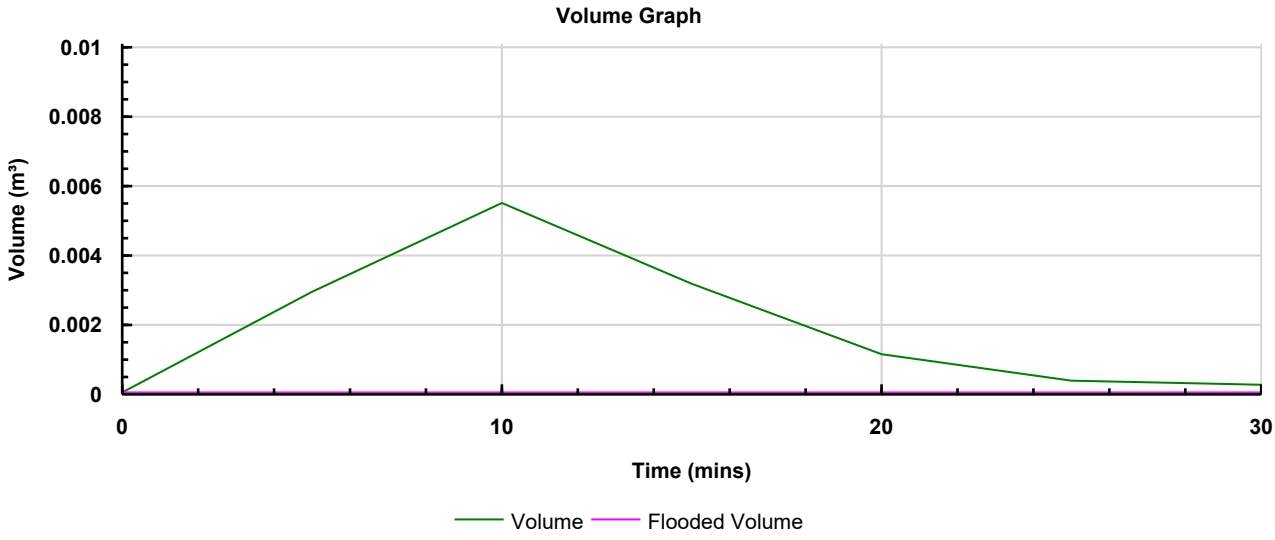
Project:	Date: 20/01/2024		
	Designed by: GraemeBeaven	Checked by:	Approved By:
Report Details: Type: Junction Results Storm Phase: Phase	Company Address:		

SIC07 Type : Manhole

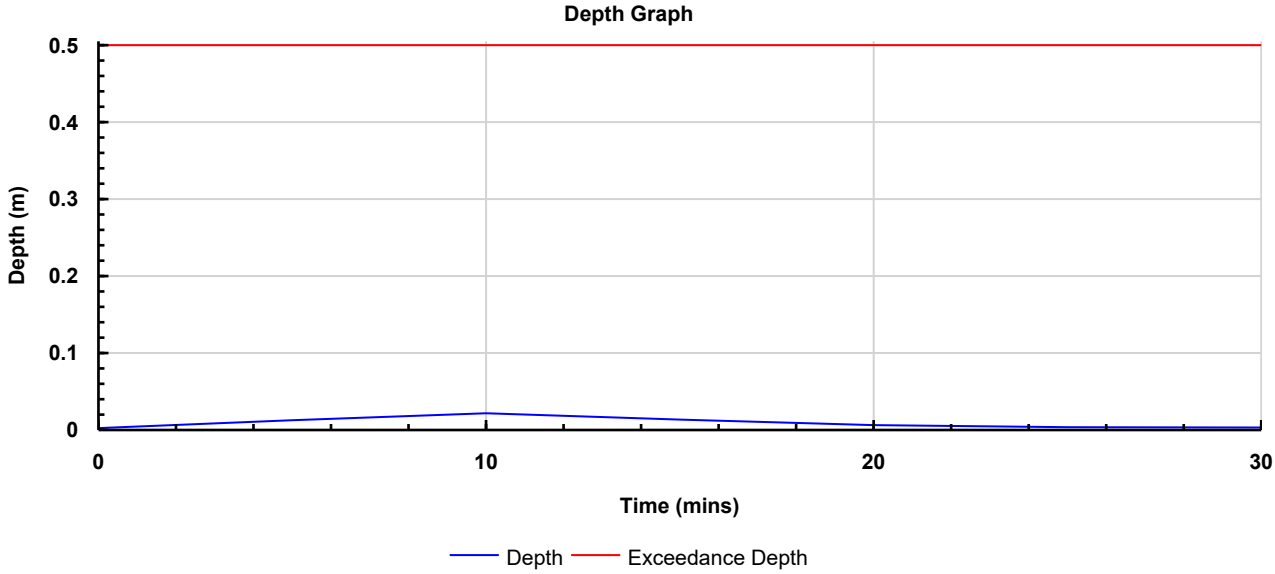
Critical Storm: FEH: 2 years: Increase Rainfall (%): +0: 15 mins: Winter

Graphs





Project:	Date: 20/01/2024		
	Designed by: GraemeBeaven	Checked by:	Approved By:
Report Details: Type: Junction Results Storm Phase: Phase	Company Address:		



Project:	Date: 20/01/2024		
	Designed by: GraemeBeaven	Checked by:	Approved By:
Report Details: Type: Junction Results Storm Phase: Phase	Company Address:		

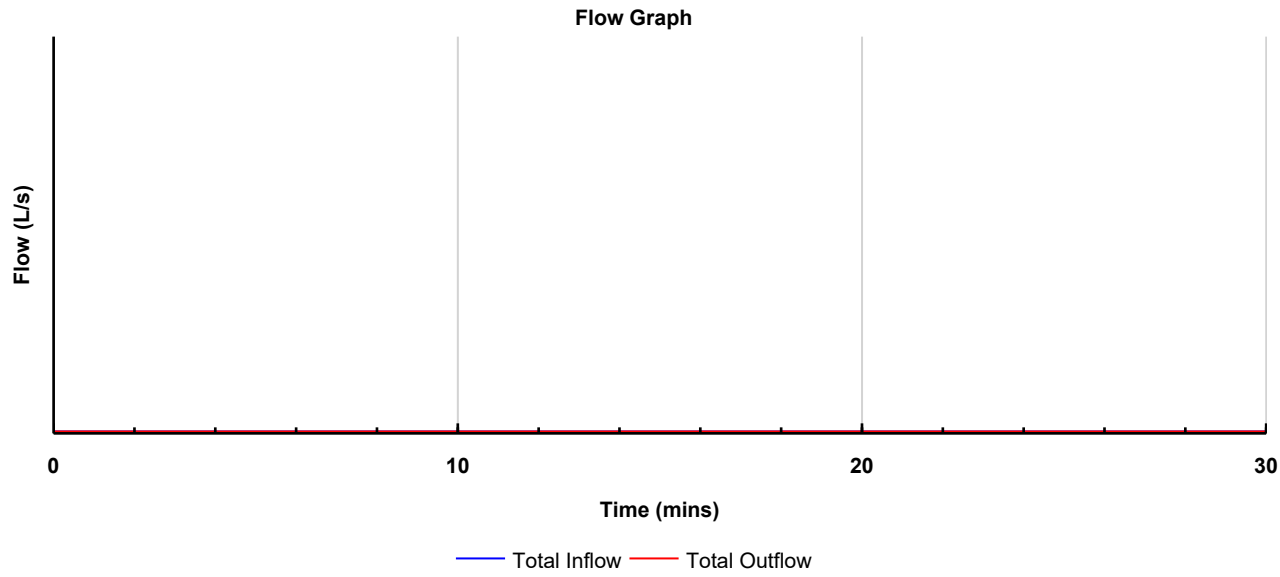
Tables

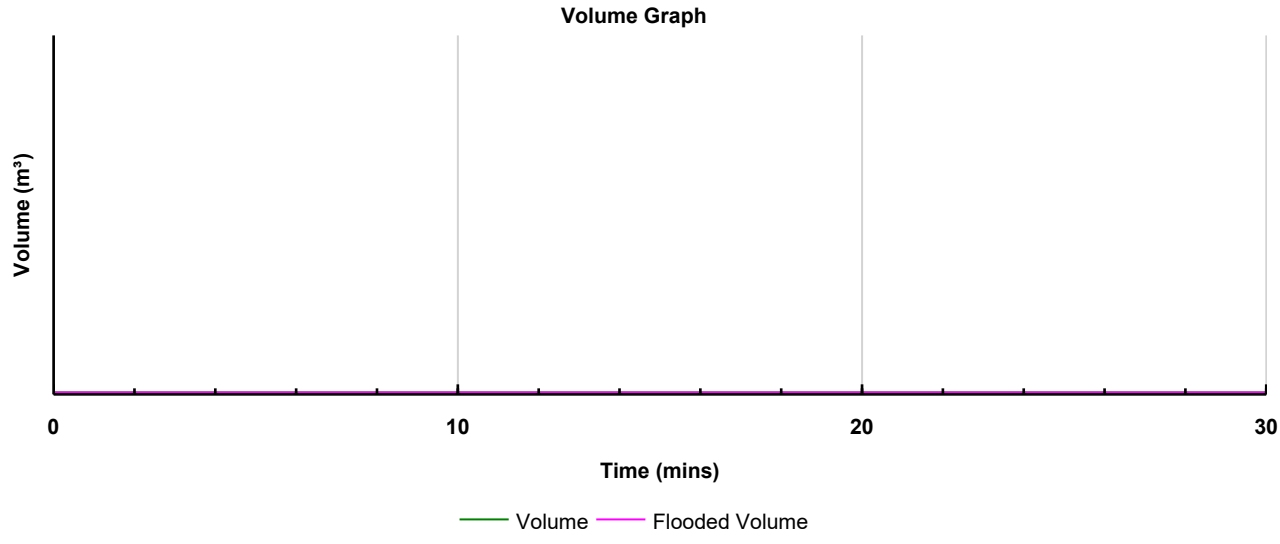
Time (mins)	Total Inflow (L/s)	Depth (m)	Volume (m³)	Flooded Volume (m³)	Total Outflow (L/s)
0	0.0	0.000	0.000	0.000	0.0
5	0.3	0.010	0.003	0.000	0.3
10	1.2	0.019	0.005	0.000	1.2
15	0.3	0.011	0.003	0.000	0.4
20	0.0	0.004	0.001	0.000	0.1
25	0.0	0.001	0.000	0.000	0.0
30	0.0	0.001	0.000	0.000	0.0

SIC03 Type : Manhole

Critical Storm: FEH: 2 years: Increase Rainfall (%): +0: 15 mins: Summer

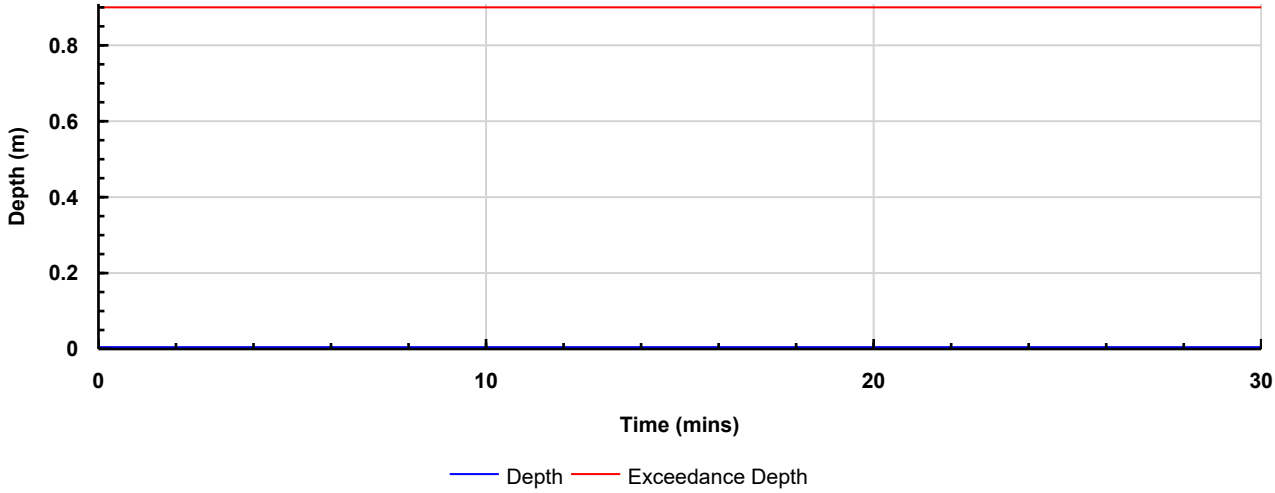
Graphs





Project:	Date: 20/01/2024		
	Designed by: GraemeBeaven	Checked by:	Approved By:
Report Details: Type: Junction Results Storm Phase: Phase	Company Address:		

Depth Graph



Project:	Date: 20/01/2024		
	Designed by: GraemeBeaven	Checked by:	Approved By:
Report Details: Type: Junction Results Storm Phase: Phase	Company Address:		

Tables

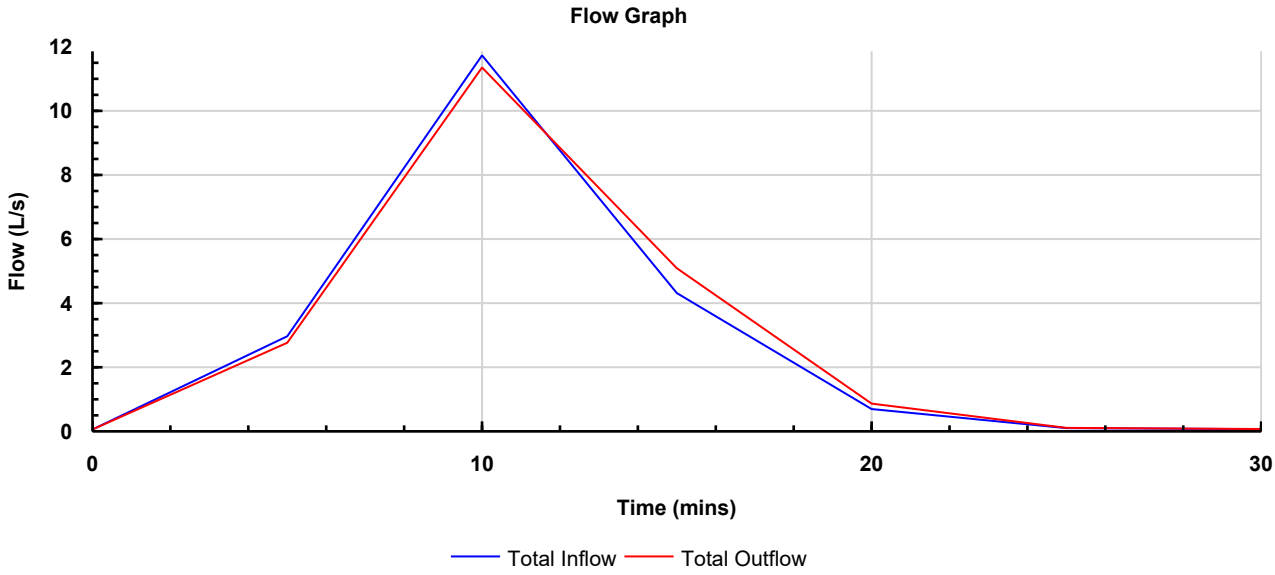
Time (mins)	Total Inflow (L/s)	Depth (m)	Volume (m³)	Flooded Volume (m³)	Total Outflow (L/s)
0	0.0	0.000	0.000	0.000	0.0
5	0.0	0.000	0.000	0.000	0.0
10	0.0	0.000	0.000	0.000	0.0
15	0.0	0.000	0.000	0.000	0.0
20	0.0	0.000	0.000	0.000	0.0
25	0.0	0.000	0.000	0.000	0.0
30	0.0	0.000	0.000	0.000	0.0

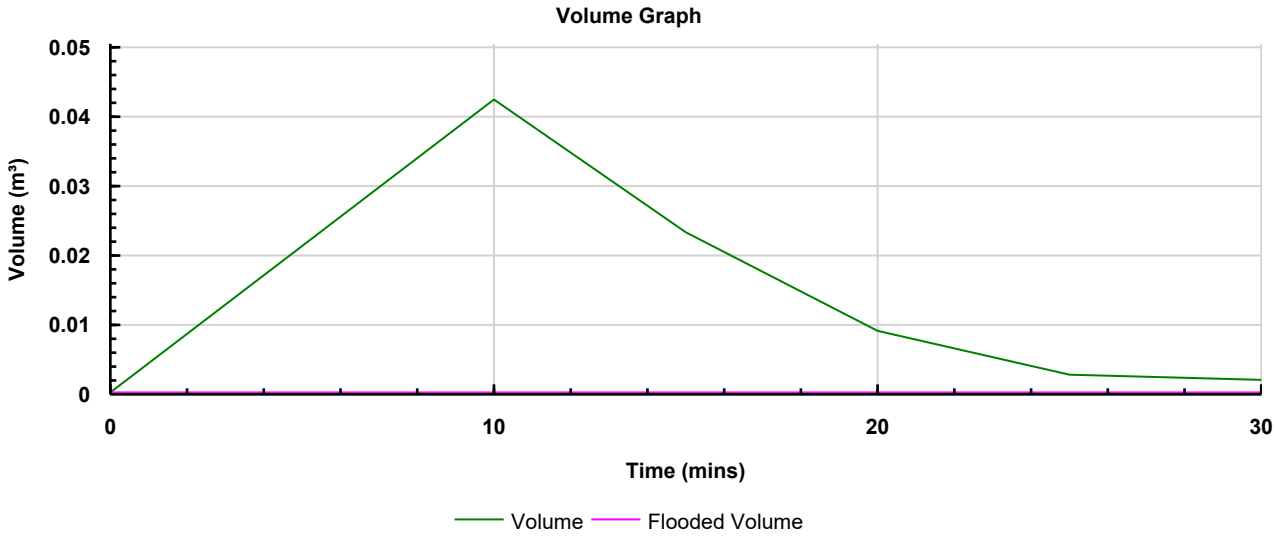
Project:	Date: 20/01/2024		
	Designed by: GraemeBeaven	Checked by:	Approved By:
Report Details: Type: Junction Results Storm Phase: Phase	Company Address:		

SMH09 Type : Manhole

Critical Storm: FEH: 2 years: Increase Rainfall (%): +0: 15 mins: Winter

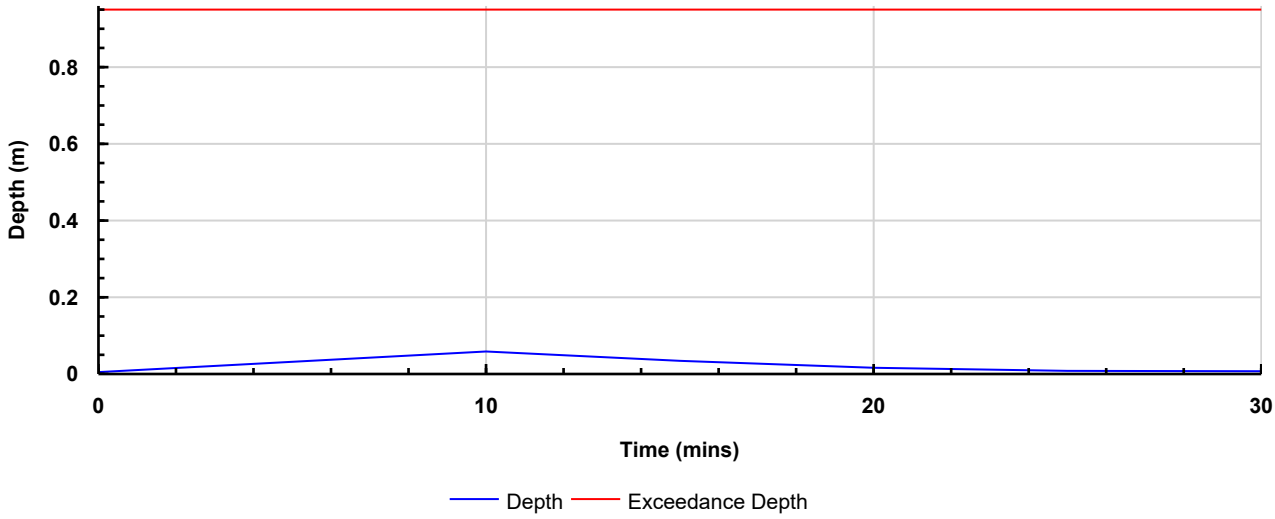
Graphs





Project:	Date: 20/01/2024		
	Designed by: GraemeBeaven	Checked by:	Approved By:
Report Details: Type: Junction Results Storm Phase: Phase	Company Address:		

Depth Graph



Project:	Date: 20/01/2024		
	Designed by: GraemeBeaven	Checked by:	Approved By:
Report Details: Type: Junction Results Storm Phase: Phase	Company Address:		

Tables

Time (mins)	Total Inflow (L/s)	Depth (m)	Volume (m³)	Flooded Volume (m³)	Total Outflow (L/s)
0	0.0	0.000	0.000	0.000	0.0
5	2.9	0.027	0.021	0.000	2.7
10	11.7	0.054	0.042	0.000	11.4
15	4.3	0.030	0.023	0.000	5.1
20	0.6	0.011	0.009	0.000	0.8
25	0.0	0.003	0.003	0.000	0.1
30	0.0	0.002	0.002	0.000	0.0

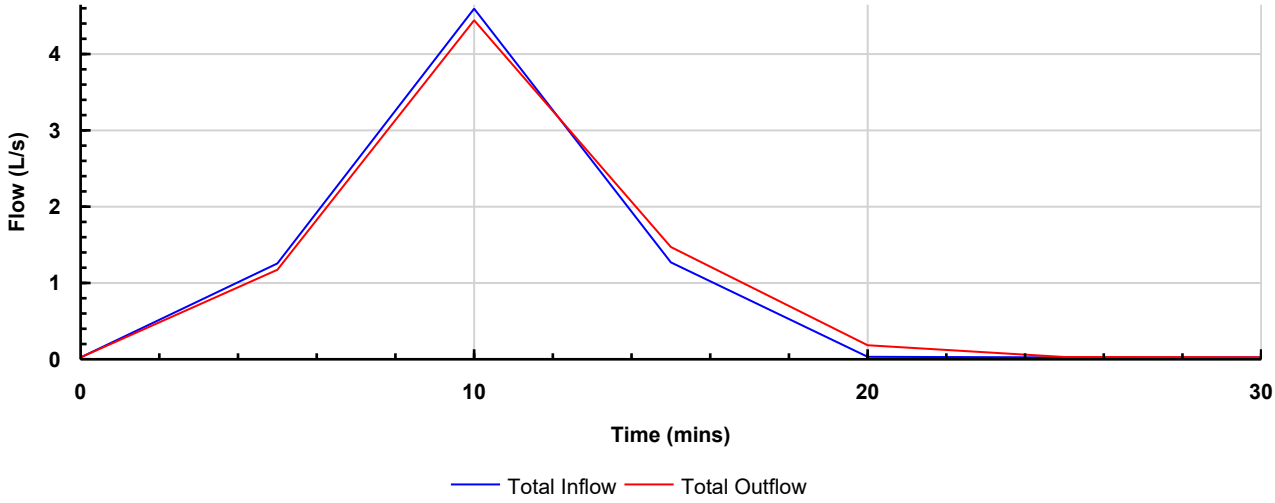
Project:	Date: 20/01/2024		
	Designed by: GraemeBeaven	Checked by:	Approved By:
Report Details: Type: Junction Results Storm Phase: Phase	Company Address:		

SIC04 Type : Manhole

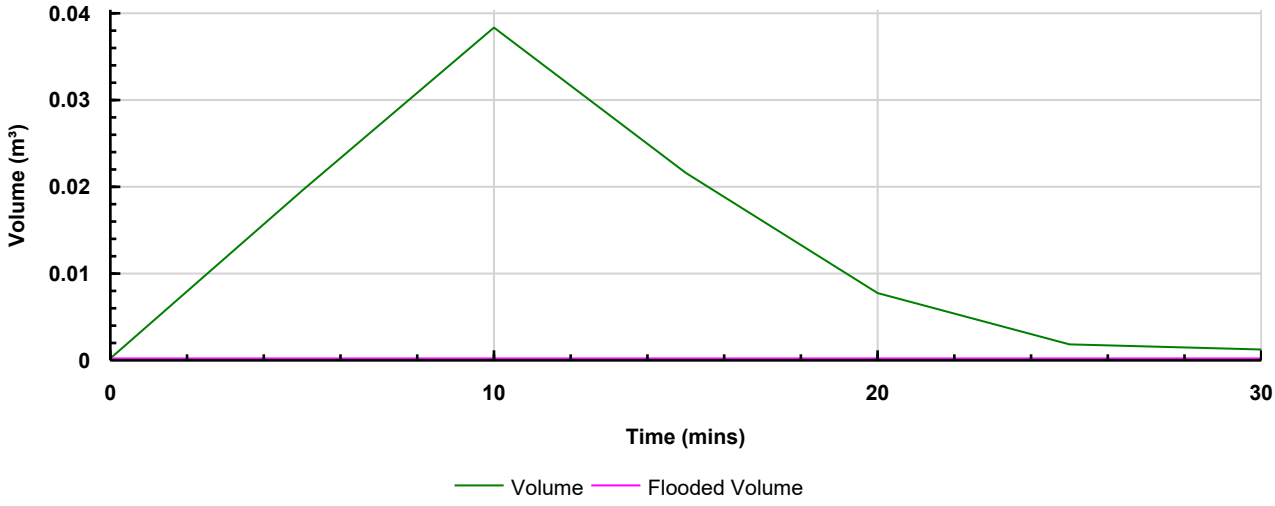
Critical Storm: FEH: 2 years: Increase Rainfall (%): +0: 15 mins: Winter

Graphs

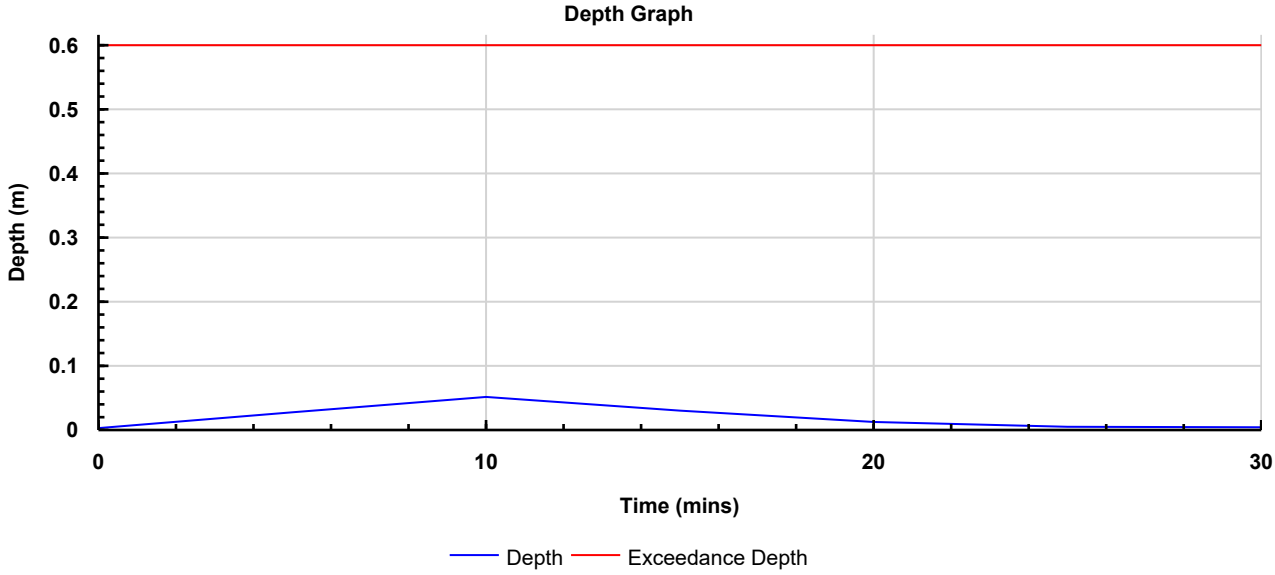
Flow Graph



Volume Graph



Project:	Date: 20/01/2024		
	Designed by: GraemeBeaven	Checked by:	Approved By:
Report Details: Type: Junction Results Storm Phase: Phase	Company Address:		



Project:	Date: 20/01/2024		
	Designed by: GraemeBeaven	Checked by:	Approved By:
Report Details: Type: Junction Results Storm Phase: Phase	Company Address:		

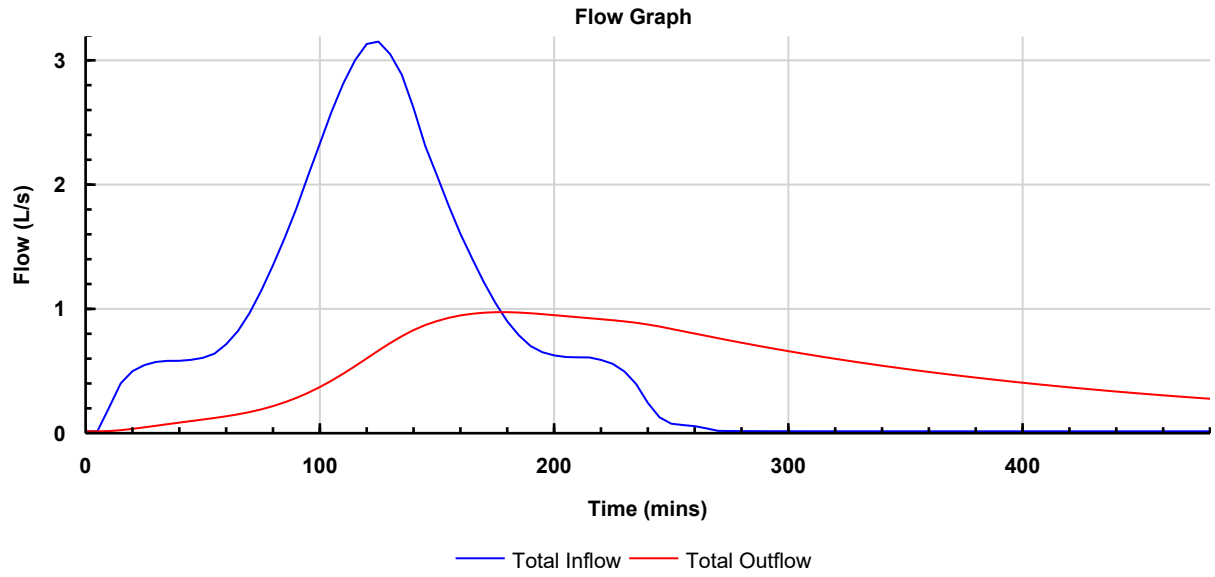
Tables

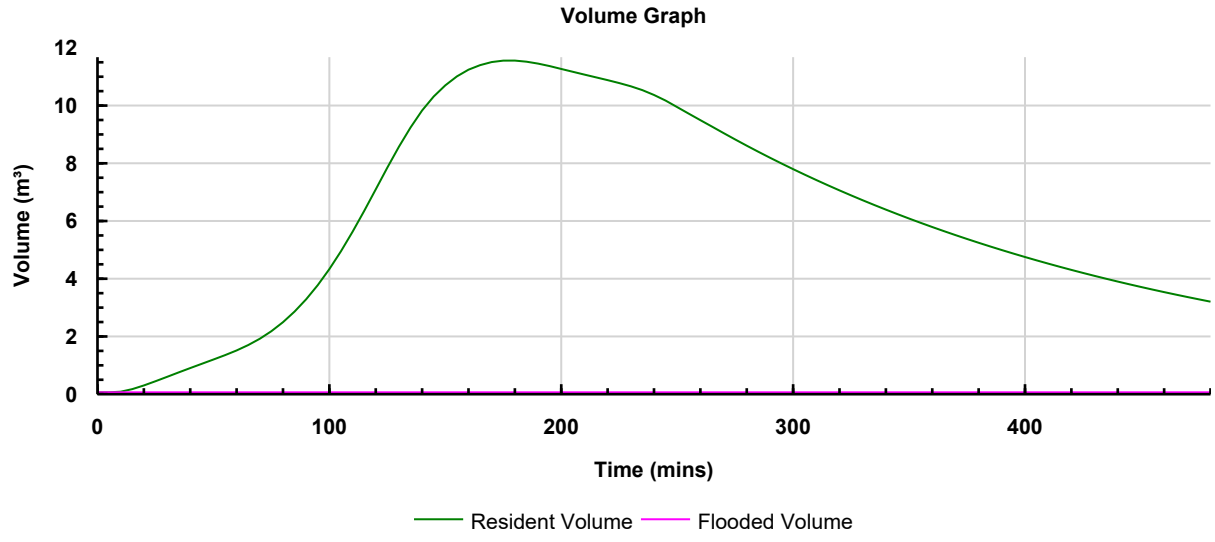
Time (mins)	Total Inflow (L/s)	Depth (m)	Volume (m³)	Flooded Volume (m³)	Total Outflow (L/s)
0	0.0	0.000	0.000	0.000	0.0
5	1.2	0.025	0.019	0.000	1.2
10	4.6	0.049	0.038	0.000	4.4
15	1.3	0.027	0.022	0.000	1.5
20	0.0	0.010	0.008	0.000	0.2
25	0.0	0.002	0.002	0.000	0.0
30	0.0	0.001	0.001	0.000	0.0

Soakaway 4
Critical Storm: FEH: 2 years: Increase Rainfall (%): +0: 240 mins: Winter

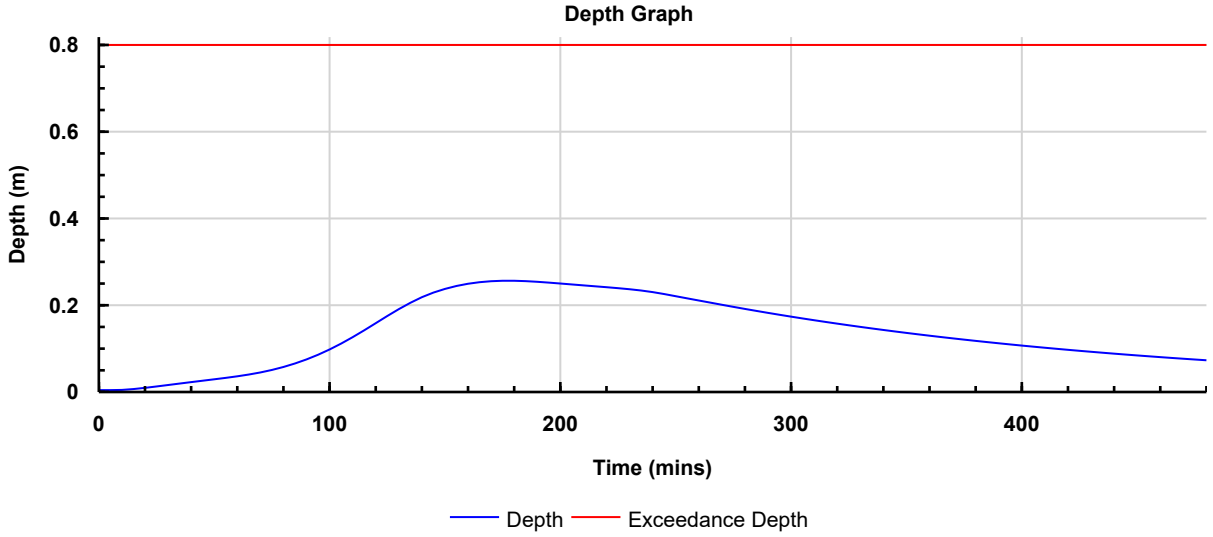
Type : Soakaway

Graphs





Project:	Date: 20/01/2024		
	Designed by: GraemeBeaven	Checked by:	Approved By:
Report Details: Type: Stormwater Control Results Storm Phase: Phase	Company Address:		



Project:	Date: 20/01/2024		
	Designed by: GraemeBeaven	Checked by:	Approved By:
Report Details: Type: Stormwater Control Results Storm Phase: Phase	Company Address:		

Tables

Time (mins)	Total Inflow (L/s)	Depth(m)	Resident Volume(m³)	Flooded Volume (m³)	Total Outflow (L/s)
0	0.0	0.000	0.000	0.000	0.0
5	0.0	0.000	0.000	0.000	0.0
10	0.2	0.000	0.021	0.000	0.0
15	0.4	0.002	0.110	0.000	0.0
20	0.5	0.005	0.239	0.000	0.0
25	0.5	0.008	0.385	0.000	0.0
30	0.6	0.012	0.538	0.000	0.0
35	0.6	0.015	0.693	0.000	0.1
40	0.6	0.019	0.844	0.000	0.1
45	0.6	0.022	0.993	0.000	0.1
50	0.6	0.025	1.142	0.000	0.1
55	0.6	0.028	1.294	0.000	0.1
60	0.7	0.032	1.458	0.000	0.1
65	0.8	0.036	1.646	0.000	0.1
70	1.0	0.041	1.865	0.000	0.2
75	1.1	0.047	2.129	0.000	0.2
80	1.3	0.054	2.443	0.000	0.2
85	1.6	0.062	2.813	0.000	0.2
90	1.8	0.071	3.242	0.000	0.3
95	2.1	0.082	3.734	0.000	0.3
100	2.3	0.094	4.293	0.000	0.4
105	2.6	0.108	4.914	0.000	0.4
110	2.8	0.123	5.593	0.000	0.5
115	3.0	0.139	6.317	0.000	0.5
120	3.1	0.155	7.070	0.000	0.6
125	3.2	0.172	7.829	0.000	0.7
130	3.0	0.188	8.556	0.000	0.7
135	2.9	0.202	9.225	0.000	0.8
140	2.6	0.215	9.820	0.000	0.8
145	2.3	0.226	10.307	0.000	0.9
150	2.1	0.235	10.695	0.000	0.9
155	1.8	0.241	11.007	0.000	0.9
160	1.6	0.246	11.241	0.000	0.9
165	1.4	0.250	11.399	0.000	0.9
170	1.2	0.252	11.507	0.000	1.0
175	1.0	0.253	11.556	0.000	1.0
180	0.9	0.253	11.558	0.000	1.0
185	0.8	0.253	11.520	0.000	1.0
190	0.7	0.251	11.453	0.000	1.0
195	0.6	0.249	11.366	0.000	0.9
200	0.6	0.247	11.266	0.000	0.9
205	0.6	0.245	11.168	0.000	0.9
210	0.6	0.243	11.070	0.000	0.9
215	0.6	0.241	10.973	0.000	0.9
220	0.6	0.239	10.877	0.000	0.9
225	0.5	0.236	10.775	0.000	0.9
230	0.5	0.234	10.662	0.000	0.9
235	0.4	0.231	10.528	0.000	0.9
240	0.2	0.227	10.360	0.000	0.9
245	0.1	0.223	10.165	0.000	0.8
250	0.1	0.218	9.937	0.000	0.8
255	0.1	0.213	9.708	0.000	0.8
260	0.0	0.208	9.482	0.000	0.8
265	0.0	0.203	9.259	0.000	0.8
270	0.0	0.198	9.032	0.000	0.8

Project:	Date: 20/01/2024		
	Designed by: GraemeBeaven	Checked by:	Approved By:
Report Details: Type: Stormwater Control Results Storm Phase: Phase	Company Address:		

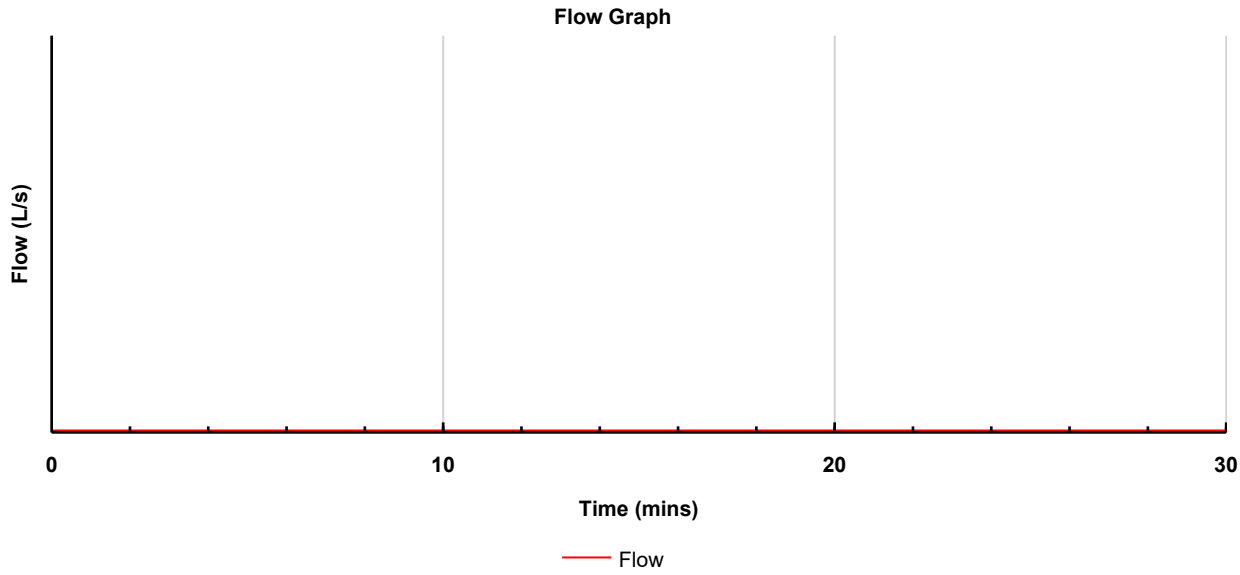
Time (mins)	Total Inflow (L/s)	Depth(m)	Resident Volume(m³)	Flooded Volume (m³)	Total Outflow (L/s)
275	0.0	0.193	8.810	0.000	0.7
280	0.0	0.188	8.593	0.000	0.7
285	0.0	0.184	8.381	0.000	0.7
290	0.0	0.179	8.174	0.000	0.7
295	0.0	0.175	7.972	0.000	0.7
300	0.0	0.170	7.775	0.000	0.6
305	0.0	0.166	7.583	0.000	0.6
310	0.0	0.162	7.396	0.000	0.6
315	0.0	0.158	7.213	0.000	0.6
320	0.0	0.154	7.035	0.000	0.6
325	0.0	0.150	6.861	0.000	0.6
330	0.0	0.147	6.692	0.000	0.6
335	0.0	0.143	6.526	0.000	0.5
340	0.0	0.139	6.365	0.000	0.5
345	0.0	0.136	6.208	0.000	0.5
350	0.0	0.133	6.054	0.000	0.5
355	0.0	0.129	5.905	0.000	0.5
360	0.0	0.126	5.759	0.000	0.5
365	0.0	0.123	5.616	0.000	0.5
370	0.0	0.120	5.478	0.000	0.5
375	0.0	0.117	5.342	0.000	0.4
380	0.0	0.114	5.210	0.000	0.4
385	0.0	0.111	5.081	0.000	0.4
390	0.0	0.109	4.956	0.000	0.4
395	0.0	0.106	4.833	0.000	0.4
400	0.0	0.103	4.714	0.000	0.4
405	0.0	0.101	4.597	0.000	0.4
410	0.0	0.098	4.484	0.000	0.4
415	0.0	0.096	4.373	0.000	0.4
420	0.0	0.093	4.265	0.000	0.4
425	0.0	0.091	4.159	0.000	0.3
430	0.0	0.089	4.057	0.000	0.3
435	0.0	0.087	3.956	0.000	0.3
440	0.0	0.085	3.858	0.000	0.3
445	0.0	0.082	3.763	0.000	0.3
450	0.0	0.080	3.670	0.000	0.3
455	0.0	0.078	3.579	0.000	0.3
460	0.0	0.076	3.491	0.000	0.3
465	0.0	0.075	3.405	0.000	0.3
470	0.0	0.073	3.320	0.000	0.3
475	0.0	0.071	3.238	0.000	0.3
480	0.0	0.069	3.158	0.000	0.3

Project:	Date: 20/01/2024		
	Designed by: GraemeBeaven	Checked by:	Approved By:
Report Details: Type: Connection Results Storm Phase: Phase	Company Address:		

Pipe (2)
Critical Storm: FEH: 2 years: Increase Rainfall (%): +0: 15 mins: Summer

Type : Pipe

Graphs



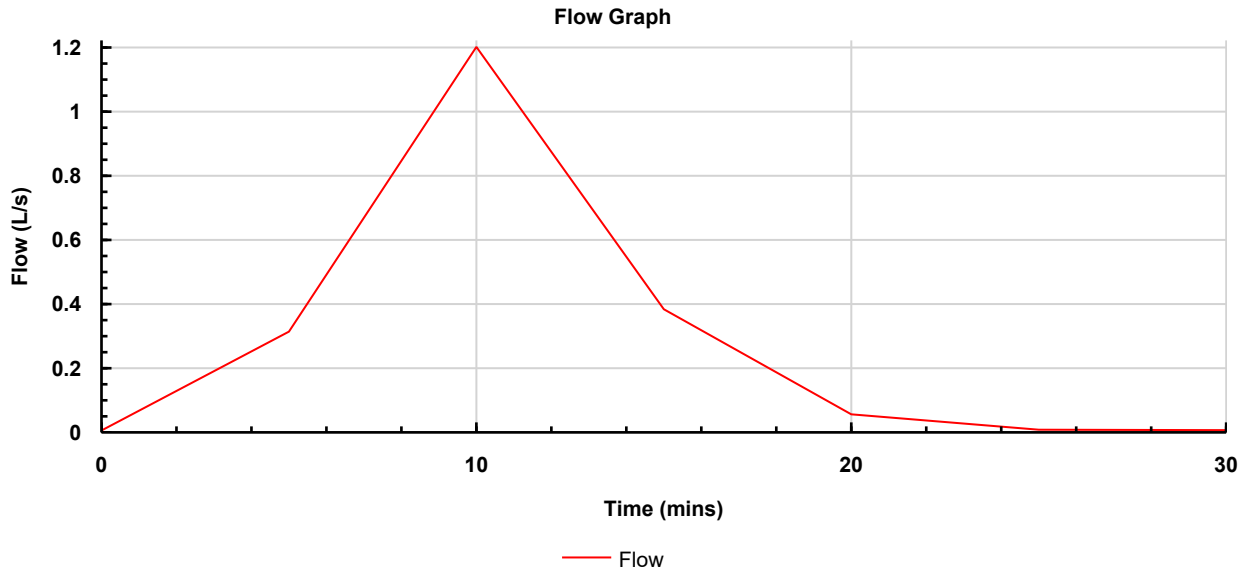
Tables

Time (mins)	Depth (m)	Flow (L/s)
0	0.000	0.0
5	0.011	0.0
10	0.024	0.0
15	0.013	0.0
20	0.004	0.0
25	0.001	0.0
30	0.001	0.0

Pipe (3)
Critical Storm: FEH: 2 years: Increase Rainfall (%): +0: 15 mins: Winter

Type : Pipe

Graphs



Tables

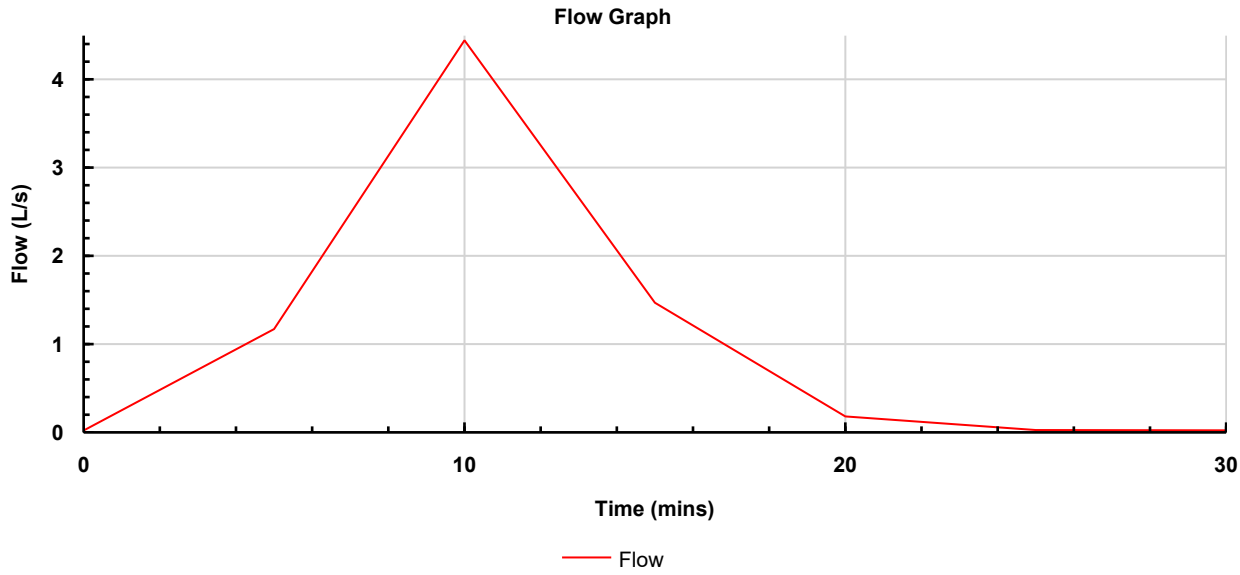
Time (mins)	Depth (m)	Flow (L/s)
0	0.000	0.0
5	0.018	0.3
10	0.036	1.2
15	0.022	0.4
20	0.009	0.1
25	0.003	0.0
30	0.001	0.0

Project:	Date: 20/01/2024		
	Designed by: GraemeBeaven	Checked by:	Approved By:
Report Details: Type: Connection Results Storm Phase: Phase	Company Address:		

Pipe
Critical Storm: FEH: 2 years: Increase Rainfall (%): +0: 15 mins: Winter

Type : Pipe

Graphs



Tables

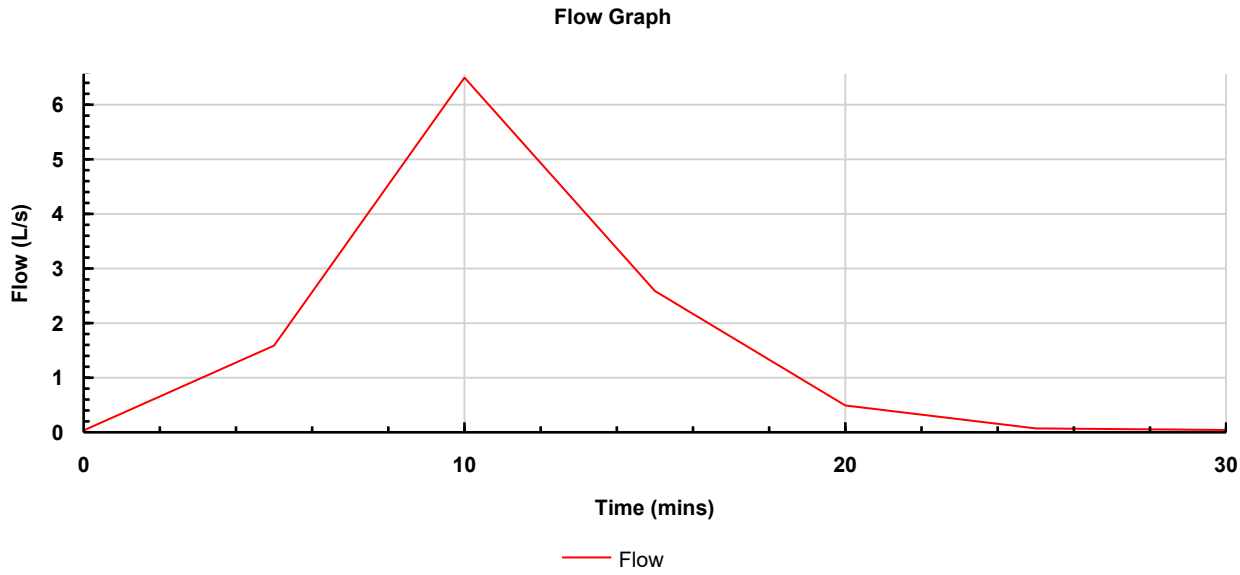
Time (mins)	Depth (m)	Flow (L/s)
0	0.000	0.0
5	0.025	1.2
10	0.050	4.4
15	0.030	1.5
20	0.012	0.2
25	0.003	0.0
30	0.002	0.0

Project:	Date: 20/01/2024		
	Designed by: GraemeBeaven	Checked by:	Approved By:
Report Details: Type: Connection Results Storm Phase: Phase	Company Address:		

Pipe (1)
Critical Storm: FEH: 2 years: Increase Rainfall (%): +0: 15 mins: Winter

Type : Pipe

Graphs



Tables

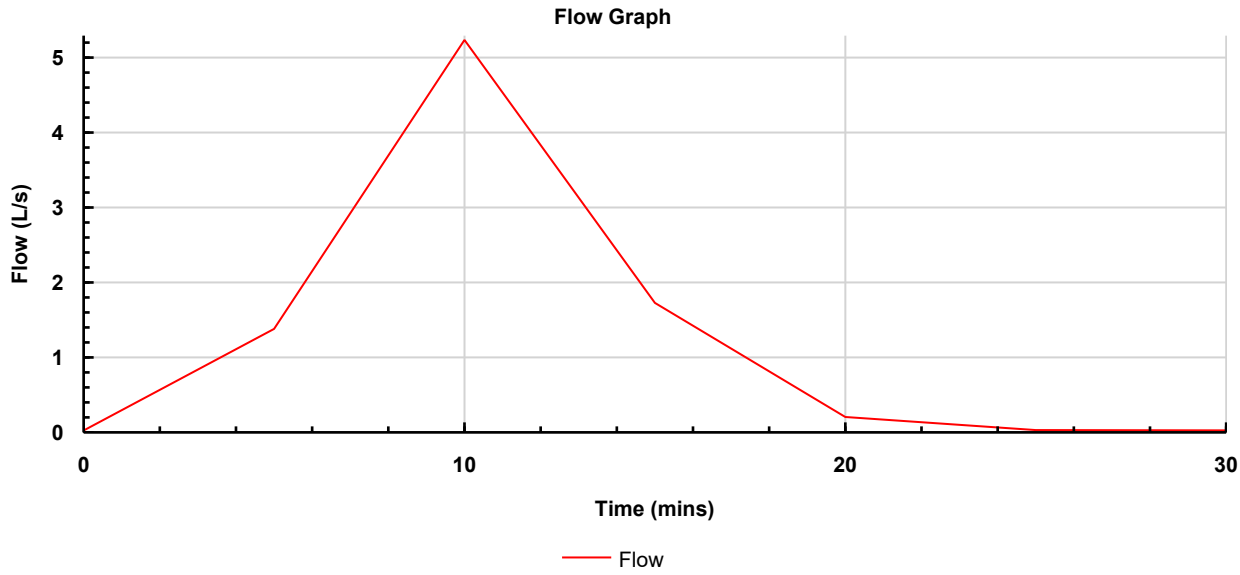
Time (mins)	Depth (m)	Flow (L/s)
0	0.000	0.0
5	0.026	1.6
10	0.053	6.5
15	0.031	2.6
20	0.013	0.5
25	0.004	0.0
30	0.002	0.0

Project:	Date: 20/01/2024		
	Designed by: GraemeBeaven	Checked by:	Approved By:
Report Details: Type: Connection Results Storm Phase: Phase	Company Address:		

Pipe (4)
Critical Storm: FEH: 2 years: Increase Rainfall (%): +0: 15 mins: Winter

Type : Pipe

Graphs



Tables

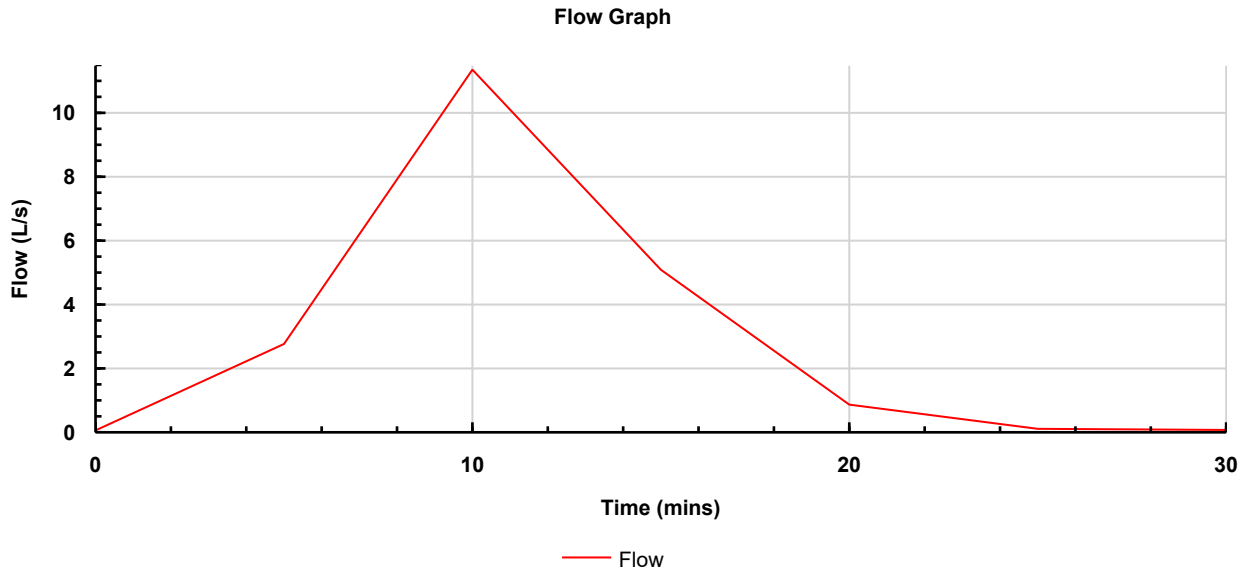
Time (mins)	Depth (m)	Flow (L/s)
0	0.000	0.0
5	0.026	1.4
10	0.052	5.2
15	0.029	1.7
20	0.011	0.2
25	0.003	0.0
30	0.002	0.0

Project:	Date: 20/01/2024		
	Designed by: GraemeBeaven	Checked by:	Approved By:
Report Details: Type: Connection Results Storm Phase: Phase	Company Address:		

Pipe (5)
Critical Storm: FEH: 2 years: Increase Rainfall (%): +0: 15 mins: Winter

Type : Pipe

Graphs



Tables

Time (mins)	Depth (m)	Flow (L/s)
0	0.000	0.0
5	0.016	2.7
10	0.051	11.4
15	0.068	5.1
20	0.065	0.8
25	0.060	0.1
30	0.058	0.0