

Project: Cophorne	Date: 14/04/2025			
	Designed by: JR	Checked by: RG	Approved By: RG	
Report Details: Type: Inflows Storm Phase: Phase	Company Address: Pluviam Environmental Ltd			



Catchment Area MUGA

Type : Catchment Area

Area (ha)	0.095
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Dynamic Sizing	
Runoff Method	Time of Concentration
Summer Volumetric Runoff	0.750
Winter Volumetric Runoff	0.750
Time of Concentration (mins)	5
Percentage Impervious (%)	100



Catchment Area Car P/Play

Type : Catchment Area

Area (ha)	0.147
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Dynamic Sizing	
Runoff Method	Time of Concentration
Summer Volumetric Runoff	0.750
Winter Volumetric Runoff	0.750
Time of Concentration (mins)	5
Percentage Impervious (%)	100

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Tank

Type : Tank

Dimensions

Exceedance Level (m)	78.600
Depth (m)	1.700
Base Level (m)	76.900
Freeboard (mm)	0
Initial Depth (m)	0.000
Porosity (%)	43
Average Slope (1:X)	5.427
Total Volume (m³)	117.691

Depth (m)	Area (m²)	Volume (m³)
0.000	65.00	0.000
0.800	65.00	22.360
0.801	65.00	22.388
1.250	65.00	34.938
1.251	550.00	35.053
1.600	550.00	117.591

Inlets

Inlet

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

Advanced

Base Infiltration Rate (m/hr)	0.0072
Side Infiltration Rate (m/hr)	0.0072
Safety Factor	3.0
Perimeter	Rectangular
Length (m)	16.069

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MUGA

Type : Porous Paving

Dimensions

Exceedance Level (m)	77.000
Depth (m)	0.410
Base Level (m)	76.590
Paving Layer Depth (mm)	100
Membrane Percolation (m/hr)	50.0
Porosity (%)	30
Length (m)	46.111
Long. Slope (1:X)	200.00
Width (m)	18.512
Total Volume (m³)	79.384

Inlets

Inlet

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

Advanced

Base Infiltration Rate (m/hr)	0.0068
Side Infiltration Rate (m/hr)	0.0068
Safety Factor	3.0
Conductivity (m/hr)	50.0

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Inflow Label	Connected To	Flow (L/s)	Runoff Method	Area (ha)	Percentage Impervious (%)	Urban Creep (%)	Adjusted Percentage Impervious (%)	Area Analysed (ha)
Catchment Area Car P/Play	Tank		Time of Concentration	0.147	100	0	100	0.147
Catchment Area MUGA	MUGA		Time of Concentration	0.095	100	0	100	0.095
TOTAL		0.0		0.242				0.242

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Report Details: Type: Network Design Criteria Storm Phase: Phase	Company Address: Pluviam Environmental Ltd			

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

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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: Cophthorne	Date: 14/04/2025			
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Report Title: Rainfall Analysis Criteria	Company Address: Pluviam Environmental Ltd			

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

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

Inflow	Storm Event	Inflow Area (ha)	Max. Inflow (L/s)	Total Inflow Volume (m³)
Catchment Area MUGA	FSR: 1 years: +0 %: 15 mins: Summer	0.10	11.7	5.293
Catchment Area Car P/Play	FSR: 1 years: +0 %: 15 mins: Summer	0.15	18.1	8.162

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FSR: 10 years: Increase Rainfall (%): +0: Critical Storm Per Item: Rank By: Max. Inflow

Inflow	Storm Event	Inflow Area (ha)	Max. Inflow (L/s)	Total Inflow Volume (m³)
Catchment Area MUGA	FSR: 10 years: +0 %: 15 mins: Summer	0.10	22.7	10.248
Catchment Area Car P/Play	FSR: 10 years: +0 %: 15 mins: Summer	0.15	35.0	15.796

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FSR: 30 years: Increase Rainfall (%): +0: Critical Storm Per Item: Rank By: Max. Inflow

Inflow	Storm Event	Inflow Area (ha)	Max. Inflow (L/s)	Total Inflow Volume (m³)
Catchment Area MUGA	FSR: 30 years: +0 %: 15 mins: Summer	0.10	28.8	12.982
Catchment Area Car P/Play	FSR: 30 years: +0 %: 15 mins: Summer	0.15	44.4	20.009

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FSR: 100 years: Increase Rainfall (%): +0: Critical Storm Per Item: Rank By: Max. Inflow

Inflow	Storm Event	Inflow Area (ha)	Max. Inflow (L/s)	Total Inflow Volume (m³)
Catchment Area MUGA	FSR: 100 years: +0 %: 15 mins: Summer	0.10	37.3	16.826
Catchment Area Car P/Play	FSR: 100 years: +0 %: 15 mins: Summer	0.15	57.5	25.927

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

Inflow	Storm Event	Inflow Area (ha)	Max. Inflow (L/s)	Total Inflow Volume (m³)
Catchment Area MUGA	FSR: 100 years: +40 %: 15 mins: Summer	0.10	52.2	23.550
Catchment Area Car P/Play	FSR: 100 years: +40 %: 15 mins: Summer	0.15	80.5	36.295

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

Stormwater Control	Storm Event	Max. US Depth (m)	Max. DS Depth (m)	Max. Inflow (L/s)	Max. Residual Volume (m³)	Max. Flooded Volume (m³)	Max. Outflow (L/s)	Total Discharge Volume (m³)	Percentage Available (%)	Status
MUGA	FSR: 1 years: +0 %: 15 mins: Summer	0.018	0.018	11.7	4.674	0.000	0.0	0.000	94.113	OK
Tank	FSR: 1 years: +0 %: 15 mins: Summer	0.290	0.290	18.1	8.102	0.000	0.0	0.000	93.116	OK

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FSR: 10 years: Increase Rainfall (%): +0: Critical Storm Per Item: Rank By: Max. Outflow

Stormwater Control	Storm Event	Max. US Depth (m)	Max. DS Depth (m)	Max. Inflow (L/s)	Max. Residual Volume (m³)	Max. Flooded Volume (m³)	Max. Outflow (L/s)	Total Discharge Volume (m³)	Percentage Available (%)	Status
MUGA	FSR: 10 years: +0 %: 15 mins: Summer	0.037	0.038	22.7	9.615	0.000	0.0	0.000	87.888	OK
Tank	FSR: 10 years: +0 %: 15 mins: Summer	0.563	0.563	35.0	15.727	0.000	0.0	0.000	86.637	OK

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FSR: 30 years: Increase Rainfall (%): +0: Critical Storm Per Item: Rank By: Max. Outflow

Stormwater Control	Storm Event	Max. US Depth (m)	Max. DS Depth (m)	Max. Inflow (L/s)	Max. Residual Volume (m³)	Max. Flooded Volume (m³)	Max. Outflow (L/s)	Total Discharge Volume (m³)	Percentage Available (%)	Status
MUGA	FSR: 30 years: +0 %: 15 mins: Summer	0.048	0.048	28.8	12.344	0.000	0.0	0.000	84.450	OK
Tank	FSR: 30 years: +0 %: 15 mins: Summer	0.714	0.714	44.4	19.935	0.000	0.0	0.000	83.062	OK

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FSR: 100 years: Increase Rainfall (%): +0: Critical Storm Per Item: Rank By: Max. Outflow

Stormwater Control	Storm Event	Max. US Depth (m)	Max. DS Depth (m)	Max. Inflow (L/s)	Max. Resident Volume (m³)	Max. Flooded Volume (m³)	Max. Outflow (L/s)	Total Discharge Volume (m³)	Percentage Available (%)	Status
MUGA	FSR: 100 years: +0 %: 15 mins: Summer	0.063	0.063	37.3	16.183	0.000	0.0	0.000	79.614	OK
Tank	FSR: 100 years: +0 %: 15 mins: Summer	0.925	0.925	57.5	25.847	0.000	0.0	0.000	78.038	OK

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

Stormwater Control	Storm Event	Max. US Depth (m)	Max. DS Depth (m)	Max. Inflow (L/s)	Max. Resident Volume (m³)	Max. Flooded Volume (m³)	Max. Outflow (L/s)	Total Discharge Volume (m³)	Percentage Available (%)	Status
MUGA	FSR: 100 years: +40 %: 15 mins: Summer	0.089	0.090	52.2	22.901	0.000	0.0	0.000	71.152	OK
Tank	FSR: 100 years: +40 %: 15 mins: Summer	1.256	1.256	80.5	36.147	0.000	0.0	0.000	69.287	OK

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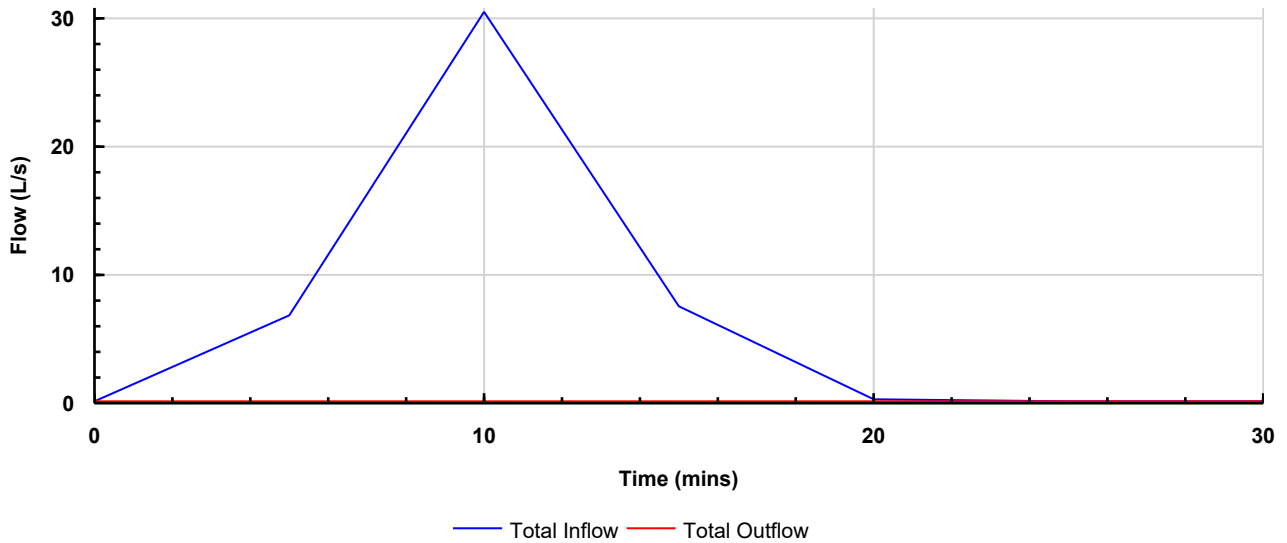
Phase
FSR: 1 years: Increase Rainfall (%): +0: 15 mins: Summer

Tables

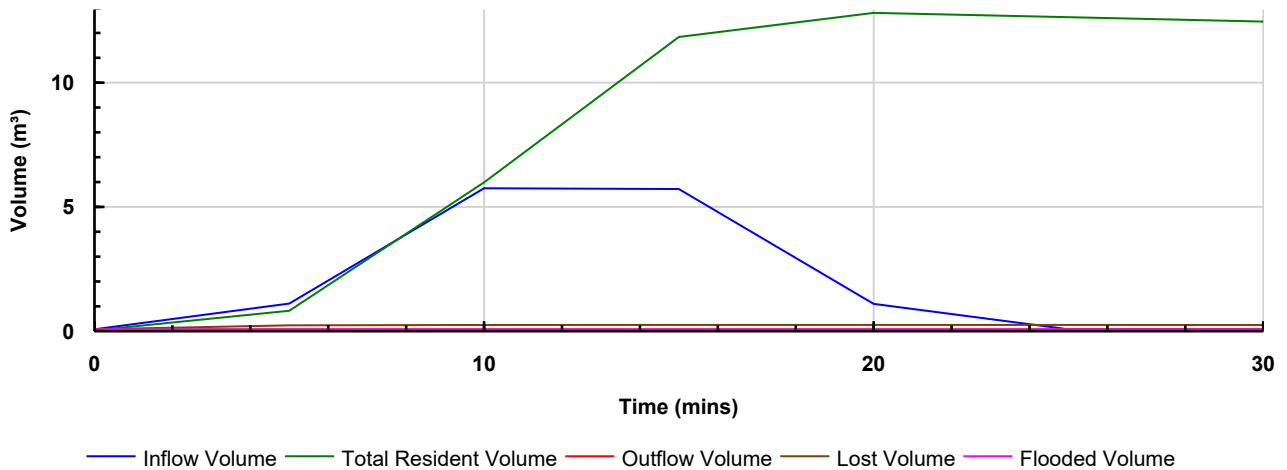
Name	Max. Inflow (L/s)	Total Inflow Volume (m³)	Max. Outflow (L/s)	Total Outflow Volume (m³)
TOTAL	30.5	13.456	0.0	0.000

Graphs

Flow Graph



Volume Graph



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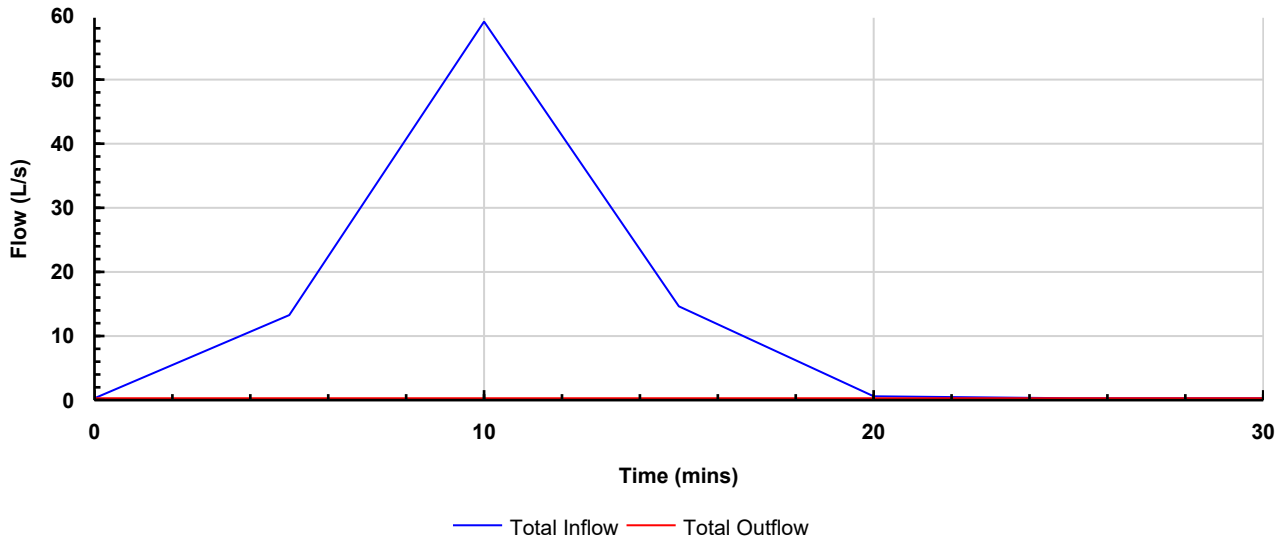
Phase
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Tables

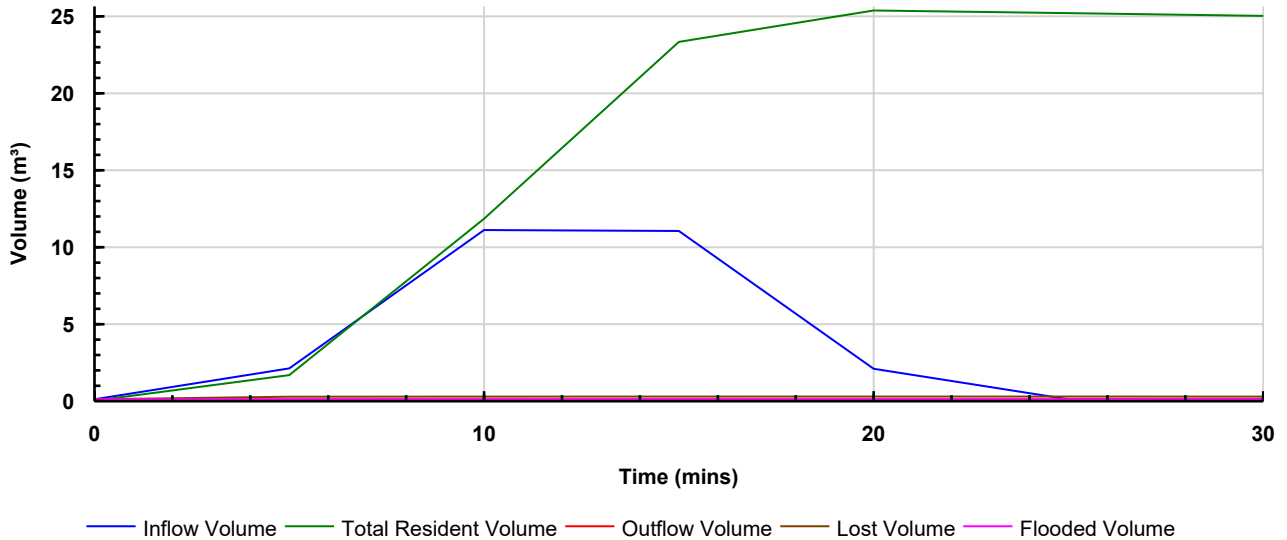
Name	Max. Inflow (L/s)	Total Inflow Volume (m³)	Max. Outflow (L/s)	Total Outflow Volume (m³)
TOTAL	59.0	26.044	0.0	0.000

Graphs

Flow Graph



Volume Graph



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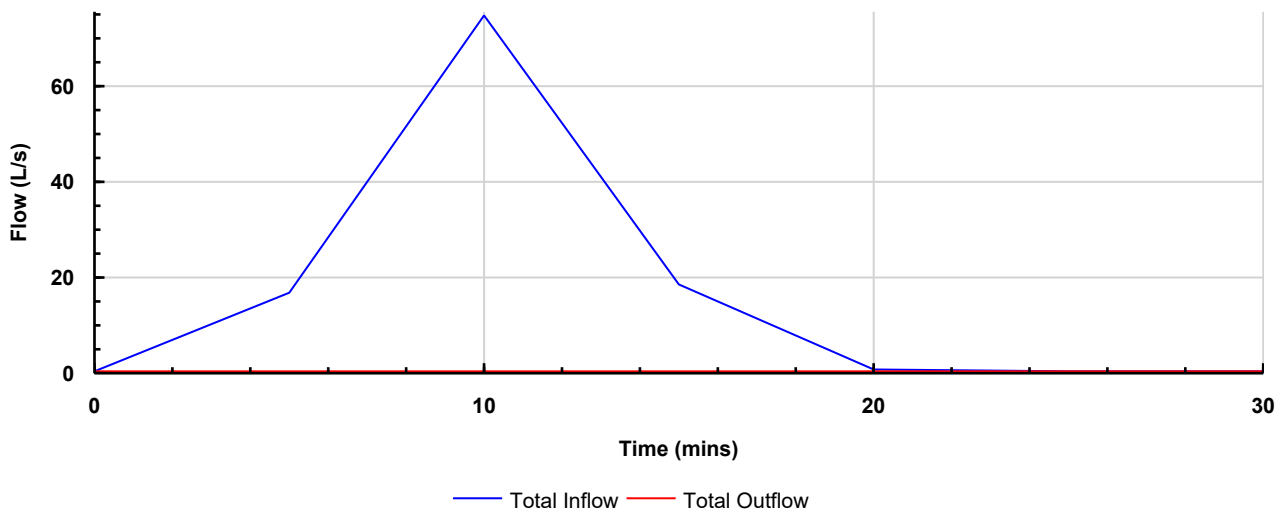
Phase
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Tables

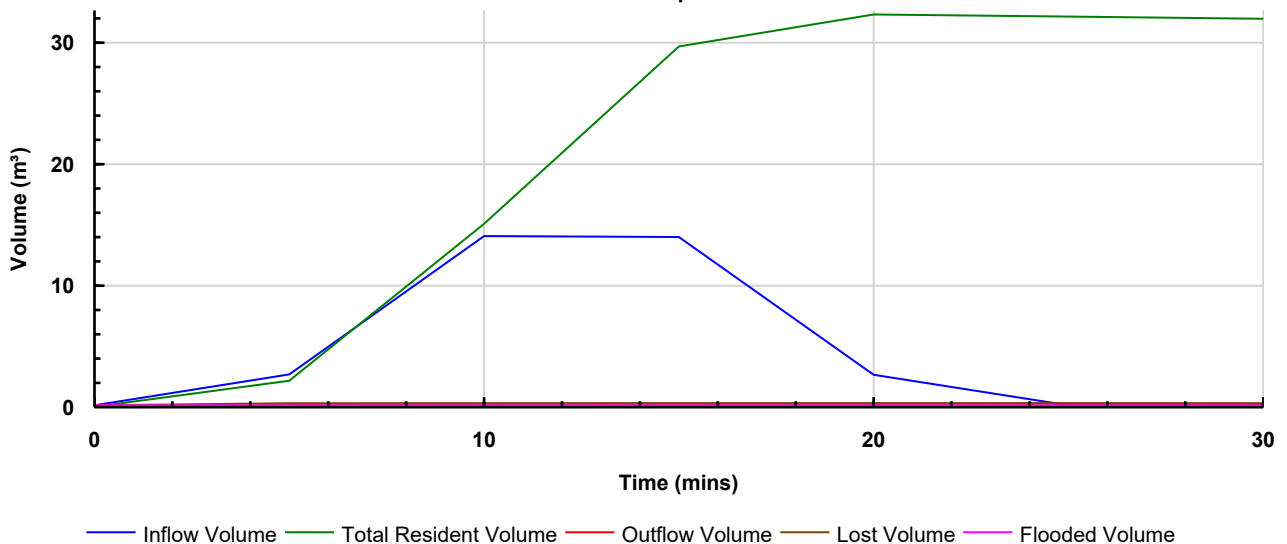
Name	Max. Inflow (L/s)	Total Inflow Volume (m³)	Max. Outflow (L/s)	Total Outflow Volume (m³)
TOTAL	74.8	32.991	0.0	0.000

Graphs

Flow Graph



Volume Graph



Project: Copthorne	Date: 14/04/2025			
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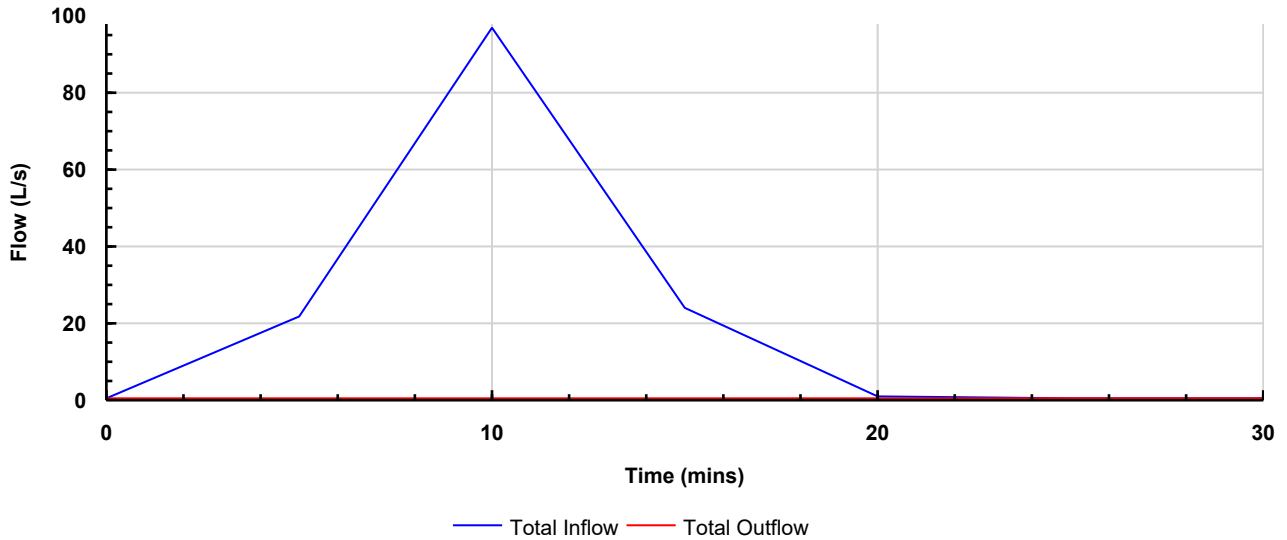
Phase
FSR: 100 years: Increase Rainfall (%): +0: 15 mins: Summer

Tables

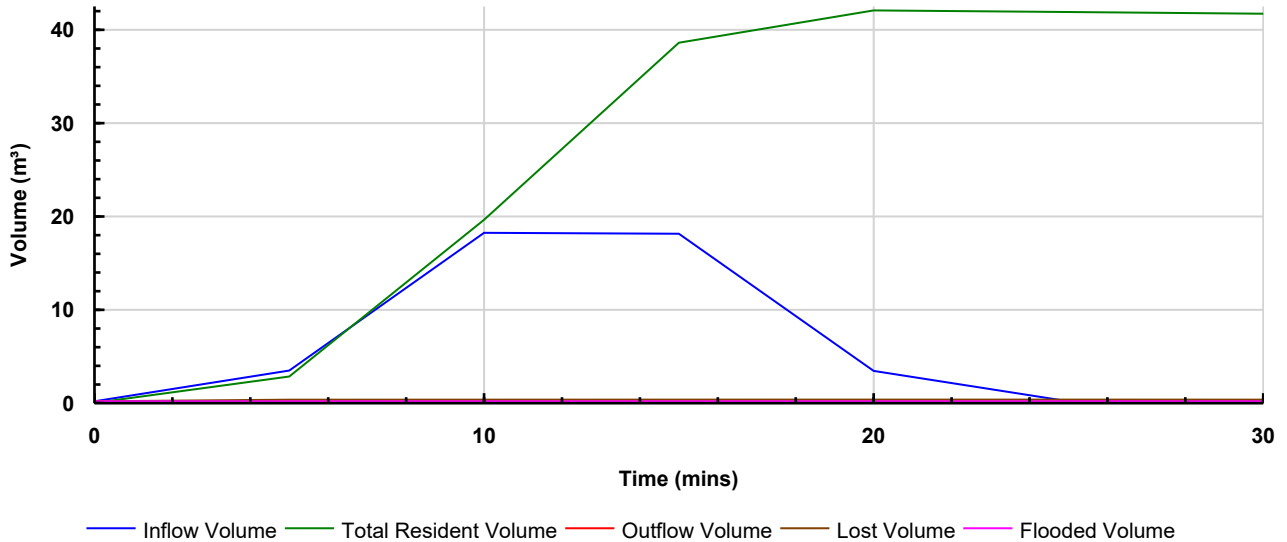
Name	Max. Inflow (L/s)	Total Inflow Volume (m³)	Max. Outflow (L/s)	Total Outflow Volume (m³)
TOTAL	96.9	42.753	0.0	0.000

Graphs

Flow Graph



Volume Graph



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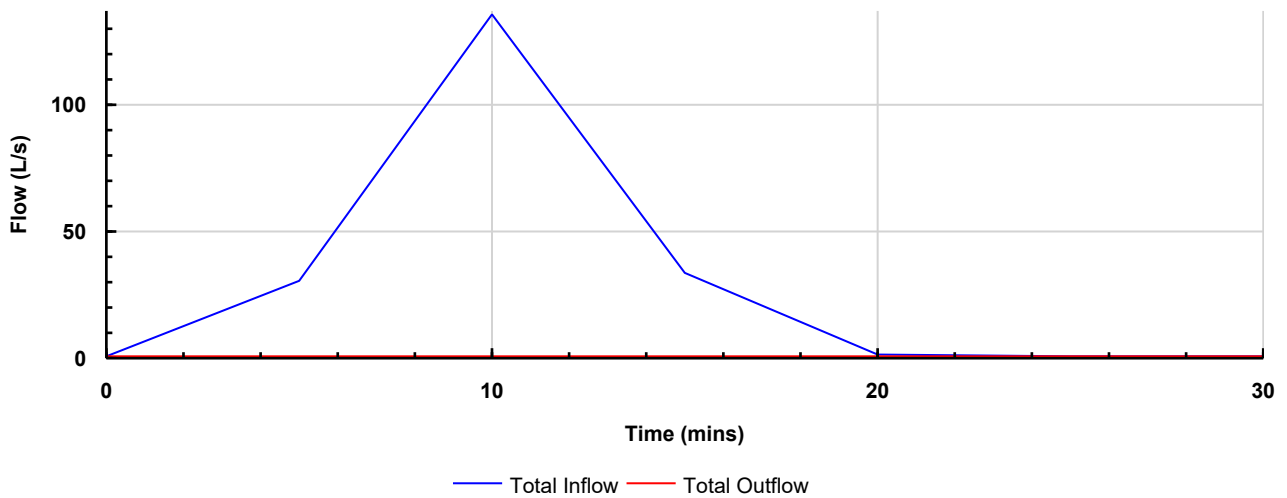
Phase
FSR: 100 years: Increase Rainfall (%): +40: 15 mins: Summer

Tables

Name	Max. Inflow (L/s)	Total Inflow Volume (m³)	Max. Outflow (L/s)	Total Outflow Volume (m³)
TOTAL	135.7	59.845	0.0	0.000

Graphs

Flow Graph



Volume Graph

