



Valencia Waste Management Ltd

Proposed Pilsworth South Material Recovery Facility

Flood Risk Assessment Addendum
ECL.9595.R05.001 Rev -

March 2025

Appendix 3

Existing Surface Water Management System Plan



Notes

1. This drawing has been produced to support the review of the existing surface water management system.
2. This drawing is provided to National Grid coordinates with all levels in metres Above Ordnance Datum (m AOD) Newlyn.
3. The topographical survey information included is provided by Valencia; data included within the drawing includes the following:

PWS1500 - May '2024 - DU - SW and GW management
2024 SEPT PILS DRONE SURVEY - for mrf area
July 2024 annual topographical survey Rev A
OS map data is provided under licence 100035207.
4. At this interim stage, it is assumed there is a 75/25 split for the northern and southern catchments due to the incomplete landform.
5. Note * the landfill site sub-catchments are subject to a 0.40 runoff coefficient given basal cell impermeable membrane, topography and related losses to the environment.
6. This landfill area marked with green dashed line is 5.725ha in size; not included in sw model at this operational stage given zones have no landfill (effectively greenfield).
7. Future landform catchments in green and yellow dashed overlaid for reference.

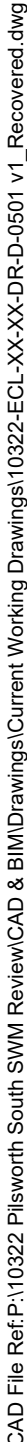
	Landfill site boundary
	Existing cells
	Future cell development
	Cells in progress
	New MRF extent



Valencia Waste
Management Ltd.

Existing Surface Water Catchment during Operational Stage

Drawing Number	Revision
10322-ECL-XX-XX-DR-D-0502	-





Valencia Waste Management Ltd

Proposed Pilsworth South Material Recovery Facility

Flood Risk Assessment Addendum
ECL.9595.R05.001 Rev -

March 2025

Appendix 4

FEH Rainfall

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Valencia Waste Management Ltd

Proposed Pilsworth South Material Recovery Facility

Flood Risk Assessment Addendum
ECL.9595.R05.001 Rev -

March 2025

Appendix 5

Surface Water Network Model

Project:
Pilsworth South MRF
Project No 9595
Sw model existing - v4.1

Report Details
Type: Stormwater Controls
Storm Phase: Phase

Date:
25/03/2025

Designed By:
DJH

Checked By:

Approved By:

Company Address:
Egniol Consulting Ltd
Warren Park
Milton Keynes



Pond 8

Type : Pond

Dimensions

Exceedance Level (m)	101.500
Depth (m)	1.500
Base Level (m)	100.000
Freeboard (mm)	250
Initial Depth (m)	0.000
Porosity (%)	100
Average Slope (1:X)	4.633
Total Volume (m³)	1781.257

Depth (m)	Area (m²)	Volume (m³)
0.000	1050.00	0.000
0.750	1500.00	951.248
1.500	2000.00	2259.260

Inlets

Inlet

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

Outlets

Outlet

Outgoing Connection	10.000
Outlet Type	Free Discharge

Advanced

Perimeter	Circular
Length (m)	102.846
Friction Scheme	Manning's n
n	0.04

Project:
Pilsworth South MRF
Project No 9595
Sw model existing - v4.1

Report Details:
Type: Stormwater Controls
Storm Phase: Phase

Date:
25/03/2025

Designed By:
DJH

Checked By:

Approved By:

Company Address:
Egniol Consulting Ltd
Warren Park
Milton Keynes

I

DRN



Pond 7

Type : Pond

Dimensions

Exceedance Level (m)	96.000
Depth (m)	1.750
Base Level (m)	94.250
Freeboard (mm)	250
Initial Depth (m)	0.000
Porosity (%)	100
Average Slope (1:X)	5.714
Total Volume (m³)	4954.239

Depth (m)	Area (m²)	Volume (m³)
0.000	2500.00	0.000
0.750	3250.00	2150.110
1.500	4250.00	4954.239

Inlets

Inlet

Inlet Type	Point Inflow
Incoming Item(s)	10.003
Bypass Destination	(None)
Capacity Type	No Restriction

Inlet (1)

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

Outlets

Outlet

Outgoing Connection	10.004
Outlet Type	Free Discharge

Advanced

Perimeter	Circular
Length (m)	140.509
Friction Scheme	Manning's n
n	0.04

Project:
Pilsforth South MRF
Project No 9595
Sw model existing - v4.1

Report Details:
Type: Stormwater Controls
Storm Phase: Phase

Date:
25/03/2025

Designed by:
DJH

Checked by:

Approved By:

Company Address:
Egniol Consulting Ltd
Warren Park
Milton Keynes

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Pond (2)

Type : Pond

Dimensions

Exceedance Level (m)	98.00C
Depth (m)	1.750
Base Level (m)	96.25C
Freeboard (mm)	250
Initial Depth (m)	0.000
Porosity (%)	100
Average Slope (1:X)	2.525
Total Volume (m³)	1489.655

Depth (m)	Area (m²)	Volume (m³)
0.000	780.0C	0.000
0.750	1000.0C	665.794
1.500	1200.0C	1489.655

Inlets

Inlet

Inlet Type	Point Inflow
Incoming Item(s)	1.004
Bypass Destination	(None)
Capacity Type	No Restriction

Inlet (1)

Inlet Type	Point Inflow
Incoming Item(s)	Road
Bypass Destination	(None)
Capacity Type	No Restriction

Inlet (2)

Inlet Type	Point Inflow
Incoming Item(s)	Landfill 2
Bypass Destination	(None)
Capacity Type	No Restriction

Outlets

Outlet

Outgoing Connection	1.005
Outlet Type	Free Discharge

Advanced

Perimeter	Circular
Length (m)	124.93C
Friction Scheme	Manning's n
n	0.04

Project:
Pilsworth South MRF
Project No 9595
Sw model existing - v4.1

Report Details:
Type: Stormwater Controls
Storm Phase: Phase

Date:
25/03/2025

Designed By:
DJH

Checked By:

Approved By:

Company Address:
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Pond (3)

Type : Pond

Dimensions

Exceedance Level (m)	95.500
Depth (m)	1.750
Base Level (m)	93.750
Freeboard (mm)	250
Initial Depth (m)	0.000
Porosity (%)	100
Average Slope (1:X)	1.146
Total Volume (m³)	1619.420

Depth (m)	Area (m²)	Volume (m³)
0.000	980.00	0.000
0.750	1080.00	772.196
1.500	1180.00	1619.420

Inlets

Inlet

Inlet Type	Point Inflow
Incoming Item(s)	1.005
Bypass Destination	(None)
Capacity Type	No Restriction

Outlets

Outlet

Outgoing Connection	1.006
Outlet Type	Free Discharge

Advanced

Perimeter	Circular
Length (m)	49.270
Friction Scheme	Manning's n
n	0.04

Project:
Pilsworth South MRF
Project No 9595
Sw model existing - v4.1

Report Details:
Type: Stormwater Controls
Storm Phase: Phase

Date:
25/03/2025

Designed By:
DJH

Checked By:

Approved By:

Company Address:
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Warren Park
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Pond (4)

Type : Pond

Dimensions

Exceedance Level (m)	95.000
Depth (m)	1.750
Base Level (m)	93.250
Freeboard (mm)	250
Initial Depth (m)	0.000
Porosity (%)	100
Average Slope (1:X)	1.464
Total Volume (m³)	2396.859

Depth (m)	Area (m²)	Volume (m³)
0.000	1480.00	0.000
0.750	1588.00	1150.262
1.500	1737.38	2396.859
1.750	1850.00	2845.208

Inlets

Inlet

Inlet Type	Point Inflow
Incoming Item(s)	1.006
Bypass Destination	(None)
Capacity Type	No Restriction

Outlets

Outlet

Outgoing Connection	1.007
Outlet Type	Free Discharge

Advanced

Perimeter	Circular
Length (m)	61.795
Friction Scheme	Manning's n
n	0.04

Project:
Pilsworth South MRF
Project No 9595
Sw model existing - v4.1

Report Details:
Type: Stormwater Controls
Storm Phase: Phase

Date:
25/03/2025

Designed By:
DJH

Checked By:

Approved By:

Company Address:
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Pond (5)

Type : Pond

Dimensions

Exceedance Level (m)	93.500
Depth (m)	1.500
Base Level (m)	92.000
Freeboard (mm)	250
Initial Depth (m)	0.000
Porosity (%)	100
Average Slope (1:X)	0.826
Total Volume (m³)	415.889

Depth (m)	Area (m²)	Volume (m³)
0.000	300.00	0.000
1.000	350.00	324.679
1.500	410.99	514.722
2.000	410.00	719.968

Inlets

Inlet

Inlet Type	Point Inflow
Incoming Item(s)	1.007
Bypass Destination	(None)
Capacity Type	No Restriction

Outlets

Outlet

Outgoing Connection	1.008
Outlet Type	Free Discharge

Advanced

Perimeter	Circular
Length (m)	25.950
Friction Scheme	Manning's n
n	0.04

Project:
Pilsworth South MRF
Project No 9595
Sw model existing - v4.1

Report Details:
Type: Stormwater Controls
Storm Phase: Phase

Date:
25/03/2025

Designed by:
DJH

Checked by:

Approved By:

Company Address:
Egniol Consulting Ltd
Warren Park
Milton Keynes

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Pond (6)

Type : Pond

Dimensions

Exceedance Level (m)	89.250
Depth (m)	1.600
Base Level (m)	87.650
Freeboard (mm)	100
Initial Depth (m)	0.000
Porosity (%)	100
Average Slope (1:X)	4.26
Total Volume (m³)	1951.603

Depth (m)	Area (m²)	Volume (m³)
0.000	950.00	0.000
0.750	1250.00	822.431
1.500	1776.51	1951.603

Inlets

Inlet

Inlet Type	Point Inflow
Incoming Item(s)	10.007
Bypass Destination	(None)
Capacity Type	No Restriction

Outlets

Outlet

Outgoing Connection	10.008
Outlet Type	V-Notch Weir
Angle of V (°)	50.000
Coefficient of Discharge	0.590
Invert Level (m)	87.650

Advanced

Perimeter	Circular
Length (m)	79.367
Friction Scheme	Manning's n
n	0.04

Project:
Pilsworth South MRF
Project No 9595
Sw model existing - v4.1

Report Details
Type: Stormwater Controls
Storm Phase: Phase

Date:
25/03/2025

Designed by:
DJH

Checked by:

Approved By:

Company Address:
Egniol Consulting Ltd
Warren Park
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Type : Pond

Dimensions

Exceedance Level (m)	102.15C
Depth (m)	1.500
Base Level (m)	100.65C
Freeboard (mm)	0
Initial Depth (m)	0.250
Porosity (%)	100
Average Slope (1:X)	3.577
Total Volume (m³)	4932.34C

Depth (m)	Area (m²)	Volume (m³)
0.000	2750.0C	0.000
0.750	3290.0C	2261.977
1.500	3838.0C	4932.34C

Inlets

Inlet

Inlet Type	Point Inflow
Incoming Item(s)	Base Flow
Bypass Destination	(None)
Capacity Type	No Restriction

Inlet (1)

Inlet Type	Point Inflow
Incoming Item(s)	Landfill 1
Bypass Destination	(None)
Capacity Type	No Restriction

Inlet (2)

Inlet Type	Point Inflow
Incoming Item(s)	Landfill 3
Bypass Destination	(None)
Capacity Type	No Restriction

Outlets

Outlet

Outgoing Connection	1.000
Outlet Type	Free Discharge

Advanced

Perimeter	Circular
Length (m)	82.94C
Friction Scheme	Manning's n
n	0.45

Project: Pilsworth South MRF Project No 9595 Sw model existing - v4.1		Date: 25/03/2025			
		Designed by: DJH	Checked by:		Approved By:
Report Details: Type: Connections Storm Phase: Phase		Company Address: Egniol Consulting Ltd Warren Park Milton Keynes			

Name	Length (m)	Connection Type	Slope (1:X)	Manning's n	Colebrook-White Roughness (mm)	Diameter / Base Width (mm)	Height (mm)	Side Slope (1:X)
1.001	26.437	Pipe	88.125		0.6	600		
1.002	67.05	Pipe	191.574		0.6	600		
1.003	21.50	Pipe	50.000		0.6	600		
1.004	5.260	Pipe	17.533		0.6	600		
1.005	16.252	Pipe	19.499		0.6	225		
1.006	4.632	Pipe	0.000		0.6	200		
1.007	22.036	Pipe	88.144		0.6	160		
1.009	10.809	Pipe	25.976		0.6	450		
1.008	37.069	Pipe	18.535		0.6	160		
10.001	136.136	Trapezoidal Channel	87.830		0.6	500	1311	1.00
10.002	183.032	Trapezoidal Channel	122.022		0.6	500	669	1.00
10.000	3.446	Trapezoidal Channel	5.744		0.6	500	1900	1.00
10.003	8.910	Trapezoidal Channel	7.128		0.6	500	1250	1.00
10.005	175.028	Trapezoidal Channel	36.464		0.6	500	1495	1.00
10.006	84.448	Trapezoidal Channel	93.83		0.6	500	1495	1.00
10.007	5.670	Trapezoidal Channel	0.000		0.6	500	1495	0.75
10.004	14.753	Trapezoidal Channel	18.442		0.6	500	2000	1.00
1.000	78.760	Pipe	105.014		0.6	185		
10.008	17.582	Pipe	29.144		0.6	225		
20.000	17.497	Pipe	149.545		0.6	225		
20.002	11.710	Pipe	200.000		0.6	225		
20.003	32.457	Pipe	200.000		0.6	225		
20.004	44.565	Pipe	220.000		0.6	300		
20.005	34.295	Pipe	220.000		0.6	300		
20.001	33.409	Pipe	-43.360		0.6	225		
20.001 (1)	49.176	Pipe	37.213		0.6	225		

Project:

Pilsworth South MRF

Project No 9595

Sw model existing - v4.1

Date:

25/03/2025

Designed by:

DJH

Checked by:

Approved By:

Report Details

Type: Connections

Storm Phase: Phase

Company Address:

Egniol Consulting Ltd

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Name	Upstream Cover Level (m)	Upstream Invert Level (m)	Downstream Cover Level (m)	Downstream Invert Level (m)	Part Family	Lock	Flow Restriction (L/s)
1.001	101.00C	99.90C	100.50C	99.60C		None	
1.002	100.50C	99.60C	100.00C	99.25C		None	
1.003	100.00C	99.25C	99.40C	98.82C		All	
1.004	99.40C	98.80C	99.00C	98.50C		All	
1.005	97.00C	96.25C	95.50C	95.417		All	
1.006	95.50C	93.75C	95.50C	93.75C		All	
1.007	95.00C	93.25C	94.00C	93.00C		All	
1.009	90.50C	89.76C	90.00C	89.35C		All	
1.008	93.00C	92.00C	90.50C	90.00C		All	
10.00*	101.30C	99.989	99.75C	98.439		All	
10.002	99.75C	99.08*	98.25C	97.58*		All	
10.00C	101.90C	100.00C	101.30C	99.40C		All	
10.003	98.25C	97.00C	97.00C	95.75C		All	
10.005	95.70C	94.205	90.90C	89.405		All	
10.006	90.90C	89.405	90.00C	88.505		All	
10.007	90.00C	88.505	90.00C	88.505		All	
10.004	96.50C	94.50C	95.70C	93.70C		All	
1.000	102.00C	100.65C	101.00C	99.90C		None	
10.008	89.25C	87.65C	90.00C	87.047		None	1791.02
20.00C	100.25C	99.00C	100.25C	98.883		None	
20.002	100.208	98.332	99.41C	98.273		None	
20.003	99.41C	98.273	99.70*	98.11*		None	
20.004	99.70*	98.11*	99.683	97.909		None	
20.005	99.683	97.909	99.683	97.753		None	
20.00*	100.25C	98.883	101.227	99.653		None	
20.001 (1)	101.227	99.653	100.208	98.332		None	

Project:
Pilsworth South MRF
Project No 9595
Sw model existing - v4.1

Report Details:
Type: Inflow Summary
Storm Phase: Phase

Date:
25/03/2025

Designed By:
DJH

Checked By:

Approved By:

Company Address:
Egniol Consulting Ltd
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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)
Base Flow	Pond (1)	5.0						
Catchment Area	Pond 7		Time Area Diagram	1.500	100	0	100	1.500
Catchment Area (1)	Pond 8		Time Area Diagram	1.400	100	0	100	1.400
Landfill 1	Pond (1)		Time Area Diagram	2.800	100	0	100	2.800
Landfill 2	Pond (2)		Time Area Diagram	3.100	100	0	100	3.100
Landfill 3	Pond (1)		Time Area Diagram	2.800	100	0	100	2.800
MRF 1	S20		Time of Concentration	0.133	100	0	100	0.133
MRF 2	S21B		Time of Concentration	0.133	100	0	100	0.133
MRF 3	S22		Time of Concentration	0.132	100	0	100	0.132
MRF 4	S21		Time of Concentration	0.132	100	0	100	0.132
Road	Pond (2)		Time Area Diagram	0.710	100	0	100	0.710
Yard	S25		Time Area Diagram	0.970	100	0	100	0.970
TOTAL		5.0		13.810				13.810

Project: Pilsworth South MRF Project No 9595 Sw model existing - v4.1		Date: 25/03/2025			
Report Details: Type: Outfall Details Storm Phase: Phase		Designed By: DJH	Checked By:		Approved By:
		Company Address: Egniol Consulting Ltd Warren Park Milton Keynes			

Outfalls

Outfall	Outfall Type	Fixed Surcharge Level (m)	Level Curve
S16	Free Discharge		
S26	Free Discharge		

Project: Pilsworth South MRF Project No 9595 Sw model existing - v4.1		Date: 25/03/2025			
Report Title: Rainfall Analysis Criteria		Designed by: DJH	Checked by:		Approved By:
		Company Address: Egniol Consulting Ltd Warren Park Milton Keynes			

Runoff Type	Dynamic
Output Interval (mins)	30
Time Step	Default
Urban Creep	Apply Global Value
Urban Creep Global Value (%)	0
Junction Flood Risk Margin (mm)	300
Perform No Discharge Analysis	☐

Project: Pilsworth South MRF Project No 9595 Sw model existing - v4.1	Date: 25/03/2025		
	Designed by: DJH	Checked by:	Approved By:
Report Details: Type: Inflows Summary Storm Phase: Phase	Company Address: Egniol Consulting Ltd Warren Park Milton Keynes		



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 (m³)
Landfill 3	FEH: 2 years: +C %: 60 mins: Winter	2.80	157.8	328.654
Landfill 2	FEH: 2 years: +C %: 60 mins: Winter	3.10	176.9	363.869
Road	FEH: 2 years: +C %: 60 mins: Winter	0.71	47.2	83.332
Yard	FEH: 2 years: +C %: 60 mins: Winter	0.97	64.2	113.846
Catchment Area	FEH: 2 years: +C %: 60 mins: Winter	1.50	92.6	188.638
Base Flow	FEH: 2 years: +C %: 30 mins: Summer	-	5.0	18.000
Landfill 1	FEH: 2 years: +C %: 60 mins: Winter	2.80	157.8	328.654
Catchment Area (1)	FEH: 2 years: +C %: 60 mins: Winter	1.40	84.6	176.066
MRF 1	FEH: 2 years: +C %: 60 mins: Summer	0.13	11.1	13.937
MRF 3	FEH: 2 years: +C %: 60 mins: Summer	0.13	11.0	13.835
MRF 2	FEH: 2 years: +C %: 60 mins: Summer	0.13	11.1	13.937
MRF 4	FEH: 2 years: +C %: 60 mins: Summer	0.13	11.0	13.835

Project: Pilsworth South MRF Project No 9595 Sw model existing - v4.1	Date: 25/03/2025		
	Designed by: DJH	Checked by:	Approved By:
Report Details: Type: Inflows Summary Storm Phase: Phase	Company Address: Egniol Consulting Ltd Warren Park Milton Keynes		



FEH: 30 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)
Landfill 3	FEH: 30 years: +40 %: 60 mins: Winter	2.80	497.0	1034.772
Landfill 2	FEH: 30 years: +40 %: 60 mins: Winter	3.10	557.1	1145.637
Road	FEH: 30 years: +40 %: 60 mins: Winter	0.71	148.5	262.389
Yard	FEH: 30 years: +40 %: 60 mins: Winter	0.97	202.1	358.472
Catchment Area	FEH: 30 years: +40 %: 60 mins: Winter	1.50	291.7	593.937
Base Flow	FEH: 30 years: +40 %: 30 mins: Summer	-	5.0	18.000
Landfill 1	FEH: 30 years: +40 %: 60 mins: Winter	2.80	497.0	1034.772
Catchment Area (1)	FEH: 30 years: +40 %: 60 mins: Winter	1.40	266.2	554.341
MRF 1	FEH: 30 years: +40 %: 60 mins: Summer	0.13	35.0	43.879
MRF 3	FEH: 30 years: +40 %: 60 mins: Summer	0.13	34.8	43.555
MRF 2	FEH: 30 years: +40 %: 60 mins: Summer	0.13	35.0	43.879
MRF 4	FEH: 30 years: +40 %: 60 mins: Summer	0.13	34.8	43.555

Project: Pilsworth South MRF Project No 9595 Sw model existing - v4.1	Date: 25/03/2025		
	Designed by: DJH	Checked by:	Approved By:
Report Details: Type: Inflows Summary Storm Phase: Phase	Company Address: Egniol Consulting Ltd Warren Park Milton Keynes		



FEH: 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)
Landfill 3	FEH: 100 years: +0 %: 60 mins: Winter	2.80	455.7	948.930
Landfill 2	FEH: 100 years: +0 %: 60 mins: Winter	3.10	510.9	1050.601
Road	FEH: 100 years: +0 %: 60 mins: Winter	0.71	136.2	240.621
Yard	FEH: 100 years: +0 %: 60 mins: Winter	0.97	185.4	328.740
Catchment Area	FEH: 100 years: +0 %: 60 mins: Winter	1.50	267.5	544.667
Base Flow	FEH: 100 years: +0 %: 30 mins: Summer	-	5.0	18.000
Landfill 1	FEH: 100 years: +0 %: 60 mins: Winter	2.80	455.7	948.930
Catchment Area (1)	FEH: 100 years: +0 %: 60 mins: Winter	1.40	244.2	508.359
MRF 1	FEH: 100 years: +0 %: 60 mins: Summer	0.13	32.1	40.243
MRF 3	FEH: 100 years: +0 %: 60 mins: Summer	0.13	31.9	39.937
MRF 2	FEH: 100 years: +0 %: 60 mins: Summer	0.13	32.1	40.243
MRF 4	FEH: 100 years: +0 %: 60 mins: Summer	0.13	31.9	39.937

Project: Pilsworth South MRF Project No 9595 Sw model existing - v4.1	Date: 25/03/2025		
	Designed by: DJH	Checked by:	Approved By:
Report Details: Type: Inflows Summary Storm Phase: Phase	Company Address: Egniol Consulting Ltd Warren Park Milton Keynes		



FEH: 100 years: Increase Rainfall (%): +30: Critical Storm Per Item: Rank By: Max. Inflow

Inflow	Storm Event	Inflow Area (ha)	Max. Inflow (L/s)	Total Inflow Volume (m³)
Landfill 3	FEH: 100 years: +30 %: 60 mins: Winter	2.80	592.5	1233.594
Landfill 2	FEH: 100 years: +30 %: 60 mins: Winter	3.10	664.1	1365.759
Road	FEH: 100 years: +30 %: 60 mins: Winter	0.71	177.1	312.795
Yard	FEH: 100 years: +30 %: 60 mins: Winter	0.97	241.0	427.339
Catchment Area	FEH: 100 years: +30 %: 60 mins: Winter	1.50	347.7	708.053
Base Flow	FEH: 100 years: +30 %: 30 mins: Summer	-	5.0	18.000
Landfill 1	FEH: 100 years: +30 %: 60 mins: Winter	2.80	592.5	1233.594
Catchment Area (1)	FEH: 100 years: +30 %: 60 mins: Winter	1.40	317.4	660.850
MRF 1	FEH: 100 years: +30 %: 60 mins: Summer	0.13	41.8	52.319
MRF 3	FEH: 100 years: +30 %: 60 mins: Summer	0.13	41.4	51.923
MRF 2	FEH: 100 years: +30 %: 60 mins: Summer	0.13	41.8	52.319
MRF 4	FEH: 100 years: +30 %: 60 mins: Summer	0.13	41.4	51.923

Project: Pilsworth South MRF Project No 9595 Sw model existing - v4.1	Date: 25/03/2025		
	Designed by: DJH	Checked by:	Approved By:
Report Details: Type: Inflows Summary Storm Phase: Phase	Company Address: Egniol Consulting Ltd Warren Park Milton Keynes		



FEH: 100 years: Increase Rainfall (%): +45: Critical Storm Per Item: Rank By: Max. Inflow

Inflow	Storm Event	Inflow Area (ha)	Max. Inflow (L/s)	Total Inflow Volume (m³)
Landfill 3	FEH: 100 years: +45 %: 60 mins: Winter	2.80	660.8	1375.924
Landfill 2	FEH: 100 years: +45 %: 60 mins: Winter	3.10	740.7	1523.339
Road	FEH: 100 years: +45 %: 60 mins: Winter	0.71	197.5	348.879
Yard	FEH: 100 years: +45 %: 60 mins: Winter	0.97	268.8	476.642
Catchment Area	FEH: 100 years: +45 %: 60 mins: Winter	1.50	387.9	789.74
Base Flow	FEH: 100 years: +45 %: 30 mins: Summer	-	5.0	18.000
Landfill 1	FEH: 100 years: +45 %: 60 mins: Winter	2.80	660.8	1375.924
Catchment Area (1)	FEH: 100 years: +45 %: 60 mins: Winter	1.40	354.0	737.095
MRF 1	FEH: 100 years: +45 %: 60 mins: Summer	0.13	46.6	58.353
MRF 3	FEH: 100 years: +45 %: 60 mins: Summer	0.13	46.2	57.915
MRF 2	FEH: 100 years: +45 %: 60 mins: Summer	0.13	46.6	58.353
MRF 4	FEH: 100 years: +45 %: 60 mins: Summer	0.13	46.2	57.915

Project: Pilsforth South MRF Project No 9595 Sw model existing - v4.1	Date: 25/03/2025		
	Designed by:	Checked by:	Approved By:
	DJH		
Report details: Type: Junctions Summary Storm Phase: Phase	Company Address: Egniol Consulting Ltd Warren Park Milton Keynes		



FEH: 2 years: Increase Rainfall (%): +0: Critical Storm Per Item: Rank By: Max. Outflow

Junction	Storm Event	Cover Level (m)	Invert Level (m)	Max. Level (m)	Max. Depth (m)	Max. Inflow (L/s)	Max. Resident Volume (m³)	Max. Flooded Volume (m³)	Max. Outflow (L/s)	Total Discharge Volume (m³)	Status
S1	FEH: 2 years: +0 %: 240 mins: Winter	101.000	99.900	99.99*	0.091	35.8	0.103	0.000	35.8	991.933	OK
S2	FEH: 2 years: +0 %: 240 mins: Winter	100.500	99.600	99.713	0.113	35.8	0.128	0.000	35.8	990.129	OK
S3	FEH: 2 years: +0 %: 240 mins: Winter	100.000	99.250	99.33*	0.081	35.8	0.091	0.000	35.8	988.697	OK
S4	FEH: 2 years: +0 %: 240 mins: Winter	99.400	98.800	98.867	0.067	35.8	0.076	0.000	35.8	988.535	OK
S5	FEH: 2 years: +0 %: 1440 mins: Winter	90.500	89.766	89.848	0.082	40.1	0.093	0.000	40.1	4543.484	OK
S16	FEH: 2 years: +0 %: 2160 mins: Winter	90.000	87.047	87.059	0.012	50.9	0.000	0.000	50.9	5957.238	OK
S10	FEH: 2 years: +0 %: 30 mins: Winter	101.300	99.400	100.069	0.669	72.8	0.756	0.000	75.6	99.403	OK
S11	FEH: 2 years: +0 %: 120 mins: Winter	99.750	98.439	99.158	0.719	56.6	0.814	0.000	60.3	179.697	OK
S12	FEH: 2 years: +0 %: 120 mins: Winter	98.250	97.000	97.030	0.030	60.3	0.034	0.000	60.3	179.678	OK
S13	FEH: 2 years: +0 %: 1440 mins: Winter	95.700	93.700	94.234	0.534	20.0	0.604	0.000	20.0	392.210	OK
S14	FEH: 2 years: +0 %: 1440 mins: Winter	90.900	89.405	89.443	0.038	20.0	0.043	0.000	20.0	392.142	OK
S15	FEH: 2 years: +0 %: 1440 mins: Winter	90.000	88.505	88.578	0.073	20.0	0.082	0.000	20.0	392.015	OK
S20	FEH: 2 years: +0 %: 60 mins: Summer	100.250	99.000	99.84*	0.841	11.1	0.951	0.000	10.6	12.968	Surchargec
S21	FEH: 2 years: +0 %: 60 mins: Summer	100.250	98.883	99.83*	0.948	21.7	1.072	0.000	21.2	25.104	Surchargec
S22	FEH: 2 years: +0 %: 60 mins: Summer	100.208	98.332	98.565	0.233	42.6	0.263	0.000	39.2	52.082	Surchargec
S23	FEH: 2 years: +0 %: 60 mins: Summer	99.410	98.273	98.475	0.201	39.2	0.228	0.000	36.9	52.068	OK
S24	FEH: 2 years: +0 %: 60 mins: Winter	99.70*	98.11*	98.363	0.252	31.6	0.285	0.000	29.5	58.773	OK
S25	FEH: 2 years: +0 %: 60 mins: Winter	99.683	97.909	98.324	0.416	93.7	0.470	0.000	91.9	172.619	Surchargec
S26	FEH: 2 years: +0 %: 60 mins: Winter	99.683	97.753	98.053	0.300	91.9	0.000	0.000	92.0	172.619	OK
S21B	FEH: 2 years: +0 %: 60 mins: Summer	101.227	99.653	99.748	0.094	32.4	0.107	0.000	31.6	38.87*	OK

Project:
Pilsworth South MRF
Project No 9595
Sw model existing - v4.1

Report Details
Type: Junctions Summary
Storm Phase: Phase

Date:
25/03/2025

Designed by:
DJH

Checked by:

Approved By:

Company Address:
Egniol Consulting Ltd
Warren Park
Milton Keynes

I

DRN



FEH: 30 years: Increase Rainfall (%): +40: Critical Storm Per Item: Rank By: Max. Outflow

Junction	Storm Event	Cover Level (m)	Invert Level (m)	Max. Level (m)	Max. Depth (m)	Max. Inflow (L/s)	Max. Resident Volume (m³)	Max. Flooded Volume (m³)	Max. Outflow (L/s)	Total Discharge Volume (m³)	Status
S1	FEH: 30 years: +40 %: 480 mins: Winter	101.000	99.900	100.00	0.101	44.0	0.115	0.000	44.0	2296.525	OK
S2	FEH: 30 years: +40 %: 480 mins: Winter	100.500	99.600	99.725	0.125	44.0	0.142	0.000	44.0	2294.530	OK
S3	FEH: 30 years: +40 %: 480 mins: Winter	100.000	99.250	99.340	0.090	44.0	0.101	0.000	44.0	2292.945	OK
S4	FEH: 30 years: +40 %: 480 mins: Winter	99.400	98.800	98.875	0.075	44.0	0.085	0.000	44.0	2292.765	OK
S5	FEH: 30 years: +40 %: 2160 mins: Winter	90.500	89.766	89.86	0.095	52.9	0.108	0.000	52.9	10425.610	OK
S16	FEH: 30 years: +40 %: 720 mins: Winter	90.000	87.047	87.166	0.119	126.8	0.000	0.000	126.8	4686.693	OK
S10	FEH: 30 years: +40 %: 30 mins: Winter	101.300	99.400	100.164	0.764	281.6	0.865	0.000	287.1	376.857	OK
S11	FEH: 30 years: +40 %: 30 mins: Winter	99.750	98.439	99.275	0.837	287.1	0.947	0.000	280.9	317.703	OK
S12	FEH: 30 years: +40 %: 30 mins: Winter	98.250	97.000	97.095	0.095	280.9	0.107	0.000	280.7	317.573	OK
S13	FEH: 30 years: +40 %: 180 mins: Winter	95.700	93.700	94.309	0.609	171.8	0.689	0.000	169.0	794.610	OK
S14	FEH: 30 years: +40 %: 180 mins: Winter	90.900	89.405	89.540	0.135	169.0	0.153	0.000	163.1	793.867	OK
S15	FEH: 30 years: +40 %: 180 mins: Winter	90.000	88.505	88.745	0.240	163.1	0.272	0.000	158.4	793.256	OK
S20	FEH: 30 years: +40 %: 60 mins: Winter	100.250	99.000	100.260	1.260	31.6	11.63	10.217	36.3	48.287	Flood
S21	FEH: 30 years: +40 %: 30 mins: Summer	100.250	98.883	100.259	1.376	18.5	10.428	8.882	40.2	64.920	Flood
S22	FEH: 30 years: +40 %: 60 mins: Summer	100.208	98.332	99.786	1.454	84.1	1.645	0.000	83.4	171.430	Surcharge
S23	FEH: 30 years: +40 %: 60 mins: Summer	99.410	98.273	99.453	1.179	83.4	43.612	42.326	78.1	178.202	Flood
S24	FEH: 30 years: +40 %: 60 mins: Winter	99.70	98.11	99.425	1.314	78.0	1.486	0.000	78.3	197.747	Flood Risk
S25	FEH: 30 years: +40 %: 60 mins: Winter	99.683	97.909	99.432	1.523	211.7	1.723	0.000	210.7	553.447	Flood Risk
S26	FEH: 30 years: +40 %: 60 mins: Winter	99.683	97.753	98.053	0.300	210.7	0.000	0.000	210.8	550.839	OK
S21B	FEH: 30 years: +40 %: 120 mins: Summer	101.227	99.653	100.169	0.515	50.1	0.583	0.000	49.9	154.260	Surcharge

Project: Pilsworth South MRF Project No 9595 Sw model existing - v4.1	Date: 25/03/2025		
	Designed by:	Checked by:	Approved By:
	DJH		
Report Details: Type: Junctions Summary Storm Phase: Phase	Company Address: Egniol Consulting Ltd Warren Park Milton Keynes		



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

Junction	Storm Event	Cover Level (m)	Invert Level (m)	Max. Level (m)	Max. Depth (m)	Max. Inflow (L/s)	Max. Resident Volume (m³)	Max. Flooded Volume (m³)	Max. Outflow (L/s)	Total Discharge Volume (m³)	Status
S1	FEH: 100 years: +0 %: 360 mins: Winter	101.000	99.900	99.999	0.099	42.4	0.112	0.000	42.4	1682.697	OK
S2	FEH: 100 years: +0 %: 360 mins: Winter	100.500	99.600	99.723	0.123	42.4	0.139	0.000	42.4	1680.714	OK
S3	FEH: 100 years: +0 %: 360 mins: Winter	100.000	99.250	99.338	0.088	42.4	0.100	0.000	42.4	1679.139	OK
S4	FEH: 100 years: +0 %: 360 mins: Winter	99.400	98.800	98.874	0.074	42.4	0.083	0.000	42.4	1678.961	OK
S5	FEH: 100 years: +0 %: 2160 mins: Winter	90.500	89.766	89.859	0.093	50.7	0.105	0.000	50.7	9766.517	OK
S16	FEH: 100 years: +0 %: 720 mins: Winter	90.000	87.047	87.144	0.097	110.3	0.000	0.000	110.3	4377.423	OK
S10	FEH: 100 years: +0 %: 30 mins: Winter	101.300	99.400	100.154	0.754	278.3	0.853	0.000	260.1	339.866	OK
S11	FEH: 100 years: +0 %: 30 mins: Winter	99.750	98.439	99.261	0.822	260.1	0.930	0.000	245.2	281.030	OK
S12	FEH: 100 years: +0 %: 30 mins: Winter	98.250	97.000	97.085	0.085	245.2	0.097	0.000	244.9	280.903	OK
S13	FEH: 100 years: +0 %: 240 mins: Winter	95.700	93.700	94.295	0.595	131.7	0.673	0.000	132.6	731.041	OK
S14	FEH: 100 years: +0 %: 240 mins: Winter	90.900	89.405	89.525	0.120	132.6	0.136	0.000	134.2	730.550	OK
S15	FEH: 100 years: +0 %: 240 mins: Winter	90.000	88.505	88.725	0.221	134.2	0.249	0.000	135.4	730.066	OK
S20	FEH: 100 years: +0 %: 60 mins: Winter	100.250	99.000	100.255	1.255	29.0	6.603	5.189	36.9	44.118	Flood
S21	FEH: 100 years: +0 %: 30 mins: Summer	100.250	98.883	100.254	1.371	18.4	6.007	4.461	41.0	58.781	Flood
S22	FEH: 100 years: +0 %: 60 mins: Summer	100.208	98.332	99.763	1.431	81.5	1.619	0.000	80.9	156.935	Surchargec
S23	FEH: 100 years: +0 %: 60 mins: Summer	99.410	98.273	99.435	1.161	80.9	25.509	24.223	78.1	159.265	Flood
S24	FEH: 100 years: +0 %: 60 mins: Winter	99.701	98.111	99.372	1.260	78.1	1.425	0.000	78.3	176.375	Surchargec
S25	FEH: 100 years: +0 %: 60 mins: Winter	99.683	97.909	99.362	1.453	206.2	1.644	0.000	204.9	504.946	Surchargec
S26	FEH: 100 years: +0 %: 60 mins: Winter	99.683	97.753	98.053	0.300	204.9	0.000	0.000	204.9	504.946	OK
S21B	FEH: 100 years: +0 %: 120 mins: Summer	101.227	99.653	100.151	0.497	50.2	0.562	0.000	50.0	138.425	Surchargec

Project:
Pilsworth South MRF
Project No 9595
Sw model existing - v4.1

Report details:
Type: Junctions Summary
Storm Phase: Phase

Date:
25/03/2025

Designed by:
DJH

Checked by:

Approved By:

Company Address:
Egniol Consulting Ltd
Warren Park
Milton Keynes





FEH: 100 years: Increase Rainfall (%): +30: Critical Storm Per Item: Rank By: Max. Outflow

Junction	Storm Event	Cover Level (m)	Invert Level (m)	Max. Level (m)	Max. Depth (m)	Max. Inflow (L/s)	Max. Resident Volume (m³)	Max. Flooded Volume (m³)	Max. Outflow (L/s)	Total Discharge Volume (m³)	Status
S1	FEH: 100 years: +30 %: 600 mins: Winter	101.000	99.900	100.004	0.104	46.1	0.118	0.000	46.1	2965.95*	OK
S2	FEH: 100 years: +30 %: 600 mins: Winter	100.500	99.600	99.728	0.128	46.1	0.145	0.000	46.1	2963.925	OK
S3	FEH: 100 years: +30 %: 600 mins: Winter	100.000	99.250	99.342	0.092	46.1	0.104	0.000	46.1	2962.315	OK
S4	FEH: 100 years: +30 %: 600 mins: Winter	99.400	98.800	98.877	0.077	46.1	0.087	0.000	46.1	2962.133	OK
S5	FEH: 100 years: +30 %: 2880 mins: Winter	90.500	89.766	89.865	0.099	56.8	0.112	0.000	56.8	13625.185	OK
S16	FEH: 100 years: +30 %: 960 mins: Winter	90.000	87.047	87.172	0.126	137.7	0.000	0.000	137.7	6783.507	OK
S10	FEH: 100 years: +30 %: 30 mins: Winter	101.300	99.400	100.183	0.783	321.1	0.886	0.000	342.3	452.626	OK
S11	FEH: 100 years: +30 %: 30 mins: Winter	99.750	98.439	99.30*	0.862	342.3	0.975	0.000	347.8	392.547	OK
S12	FEH: 100 years: +30 %: 30 mins: Winter	98.250	97.000	97.11*	0.111	347.8	0.126	0.000	347.8	392.408	OK
S13	FEH: 100 years: +30 %: 120 mins: Winter	95.700	93.700	94.342	0.642	271.2	0.726	0.000	270.2	861.759	OK
S14	FEH: 100 years: +30 %: 120 mins: Winter	90.900	89.405	89.585	0.180	270.2	0.203	0.000	267.7	860.400	OK
S15	FEH: 100 years: +30 %: 120 mins: Winter	90.000	88.505	88.825	0.320	267.7	0.362	0.000	265.2	859.36*	OK
S20	FEH: 100 years: +30 %: 120 mins: Summer	100.250	99.000	100.256	1.256	29.1	7.472	6.059	34.7	60.427	Flood
S21	FEH: 100 years: +30 %: 60 mins: Winter	100.250	98.883	100.258	1.375	44.1	9.367	7.821	41.4	114.189	Flood
S22	FEH: 100 years: +30 %: 60 mins: Summer	100.208	98.332	99.839	1.507	89.4	1.705	0.000	88.7	205.297	Surchargec
S23	FEH: 100 years: +30 %: 30 mins: Winter	99.410	98.273	99.522	1.248	55.8	112.555	111.269	83.6	172.89*	Flood
S24	FEH: 100 years: +30 %: 30 mins: Winter	99.70*	98.11*	99.017	0.906	83.6	1.025	0.000	83.7	200.846	Surchargec
S25	FEH: 100 years: +30 %: 60 mins: Winter	99.683	97.909	99.528	1.619	241.0	1.831	0.000	218.3	675.664	Flood Risk
S26	FEH: 100 years: +30 %: 60 mins: Winter	99.683	97.753	98.053	0.300	218.3	0.000	0.000	218.4	657.372	OK
S21B	FEH: 100 years: +30 %: 180 mins: Summer	101.227	99.653	100.153	0.499	50.0	0.565	0.000	49.9	197.357	Surchargec

Project:
Pilsworth South MRF
Project No 9595
Sw model existing - v4.1

Report details:
Type: Junctions Summary
Storm Phase: Phase

Date:
25/03/2025

Designed by:
DJH

Checked by:

Approved By:

Company Address:
Egniol Consulting Ltd
Warren Park
Milton Keynes





FEH: 100 years: Increase Rainfall (%): +45: Critical Storm Per Item: Rank By: Max. Outflow

Junction	Storm Event	Cover Level (m)	Invert Level (m)	Max. Level (m)	Max. Depth (m)	Max. Inflow (L/s)	Max. Resident Volume (m³)	Max. Flooded Volume (m³)	Max. Outflow (L/s)	Total Discharge Volume (m³)	Status
S1	FEH: 100 years: +45 %: 720 mins: Winter	101.000	99.900	100.006	0.106	47.9	0.120	0.000	47.9	3654.024	OK
S2	FEH: 100 years: +45 %: 720 mins: Winter	100.500	99.600	99.731	0.131	47.9	0.148	0.000	47.9	3651.977	OK
S3	FEH: 100 years: +45 %: 720 mins: Winter	100.000	99.250	99.344	0.094	47.9	0.106	0.000	47.9	3650.352	OK
S4	FEH: 100 years: +45 %: 720 mins: Winter	99.400	98.800	98.879	0.079	47.9	0.089	0.000	47.9	3650.168	OK
S5	FEH: 100 years: +45 %: 2880 mins: Winter	90.500	89.766	89.868	0.102	59.7	0.115	0.000	59.7	14939.045	OK
S16	FEH: 100 years: +45 %: 720 mins: Winter	90.000	87.047	87.212	0.165	144.8	0.000	0.000	144.8	5484.073	OK
S10	FEH: 100 years: +45 %: 30 mins: Winter	101.300	99.400	100.198	0.798	380.4	0.902	0.000	386.9	511.289	OK
S11	FEH: 100 years: +45 %: 30 mins: Winter	99.750	98.439	99.318	0.880	386.9	0.995	0.000	397.9	450.730	OK
S12	FEH: 100 years: +45 %: 30 mins: Winter	98.250	97.000	97.123	0.123	397.9	0.139	0.000	398.0	450.585	OK
S13	FEH: 100 years: +45 %: 120 mins: Winter	95.700	93.700	94.362	0.662	339.5	0.748	0.000	339.7	1046.581	OK
S14	FEH: 100 years: +45 %: 120 mins: Winter	90.900	89.405	89.611	0.206	339.7	0.233	0.000	339.6	1045.197	OK
S15	FEH: 100 years: +45 %: 120 mins: Winter	90.000	88.505	88.872	0.367	339.6	0.415	0.000	339.0	1044.119	OK
S20	FEH: 100 years: +45 %: 180 mins: Summer	100.250	99.000	100.255	1.255	25.2	6.528	5.115	32.1	74.261	Flood
S21	FEH: 100 years: +45 %: 120 mins: Summer	100.250	98.883	100.253	1.370	39.5	4.740	3.194	41.1	133.747	Flood
S22	FEH: 100 years: +45 %: 60 mins: Summer	100.208	98.332	99.875	1.543	92.8	1.745	0.000	92.1	229.356	Surchargec
S23	FEH: 100 years: +45 %: 30 mins: Winter	99.410	98.273	99.539	1.265	87.9	129.363	128.077	84.8	163.608	Flood
S24	FEH: 100 years: +45 %: 30 mins: Winter	99.701	98.111	99.656	1.545	84.8	1.747	0.000	84.8	199.175	Flood Risk
S25	FEH: 100 years: +45 %: 30 mins: Winter	99.683	97.909	99.691	1.783	99.2	9.512	7.504	231.4	521.781	Flood
S26	FEH: 100 years: +45 %: 30 mins: Winter	99.683	97.753	98.053	0.300	231.4	0.000	0.000	231.4	483.616	OK
S21B	FEH: 100 years: +45 %: 240 mins: Summer	101.227	99.653	100.138	0.484	49.9	0.548	0.000	49.7	237.867	Surchargec

Project:
Pilsworth South MRF
Project No 9595
Sw model existing - v4.1

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

Date:
25/03/2025

Designed by:
DJH

Checked by:

Approved By:

Company Address:
Egniol Consulting Ltd
Warren Park
Milton Keynes





FEH: 2 years: Increase Rainfall (%): +0: Critical Storm Per Item: Rank By: Max. DS 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
Pond 8	FEH: 2 years: +C %: 30 mins: Winter	100.102	100.072	0.102	0.072	60.4	96.47	0.000	0.000	72.8	101.309	94.584	OK
Pond 7	FEH: 2 years: +C %: 1440 mins: Winter	94.52	94.52	0.271	0.271	31.9	711.062	0.000	0.000	20.0	396.108	85.647	OK
Pond (2)	FEH: 2 years: +C %: 120 mins: Winter	96.658	96.657	0.408	0.407	219.6	341.302	0.000	0.000	114.4	1014.957	77.089	OK
Pond (3)	FEH: 2 years: +C %: 480 mins: Winter	94.322	94.322	0.572	0.572	109.6	581.693	0.000	0.000	81.5	2581.258	64.080	OK
Pond (4)	FEH: 2 years: +C %: 1440 mins: Winter	94.01C	94.01C	0.760	0.760	65.3	1165.386	0.000	0.000	40.1	4554.885	51.379	OK
Pond (5)	FEH: 2 years: +C %: 1440 mins: Winter	92.116	92.115	0.116	0.115	40.1	34.998	0.000	0.000	40.1	4543.567	91.585	OK
Pond (6)	FEH: 2 years: +C %: 7200 mins: Summer	87.838	87.838	0.188	0.188	16.1	185.636	0.000	0.000	12.9	1063.313	90.488	OK
Pond (1)	FEH: 2 years: +C %: 240 mins: Winter	101.138	101.137	0.488	0.487	196.1	1424.096	0.000	0.000	35.8	992.762	71.127	OK

Project:
Pilsworth South MRF
Project No 9595
Sw model existing - v4.1

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

Date:
25/03/2025

Designed by:
DJH

Checked by:

Approved By:

Company Address:
Egniol Consulting Ltd
Warren Park
Milton Keynes





FEH: 30 years: Increase Rainfall (%): +40: Critical Storm Per Item: Rank By: Max. DS 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
Pond 8	FEH: 30 years: +40 %: 30 mins: Winter	100.193	100.168	0.193	0.168	188.6	200.547	0.000	0.000	281.6	378.030	88.74%	OK
Pond 7	FEH: 30 years: +40 %: 180 mins: Winter	94.580	94.579	0.330	0.329	288.5	876.444	0.000	0.000	171.8	798.860	82.309	OK
Pond (2)	FEH: 30 years: +40 %: 60 mins: Winter	97.445	97.445	1.195	1.195	740.1	1136.376	0.000	0.000	159.1	893.988	23.715	OK
Pond (3)	FEH: 30 years: +40 %: 1440 mins: Winter	94.847	94.847	1.097	1.097	115.4	1154.626	0.000	0.000	89.8	8749.740	28.70%	OK
Pond (4)	FEH: 30 years: +40 %: 2160 mins: Winter	94.628	94.628	1.378	1.378	80.9	2186.268	0.000	0.000	54.1	10449.666	8.786	OK
Pond (5)	FEH: 30 years: +40 %: 2160 mins: Winter	92.566	92.566	0.566	0.566	54.1	177.483	0.000	0.000	52.9	10425.815	57.325	OK
Pond (6)	FEH: 30 years: +40 %: 360 mins: Winter	88.079	88.079	0.429	0.429	154.0	442.371	0.000	0.000	92.1	979.663	77.333	OK
Pond (1)	FEH: 30 years: +40 %: 480 mins: Winter	101.695	101.694	1.045	1.044	308.8	3261.629	0.000	0.000	44.0	2297.432	33.873	OK

Project:
Pilsworth South MRF
Project No 9595
Sw model existing - v4.1

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

Date:
25/03/2025

Designed by:
DJH

Checked by:

Approved By:

Company Address:
Egniol Consulting Ltd
Warren Park
Milton Keynes





FEH: 100 years: Increase Rainfall (%): +0: Critical Storm Per Item: Rank By: Max. DS 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
Pond 8	FEH: 100 years: +0 %: 30 mins: Winter	100.183	100.158	0.183	0.158	171.5	189.217	0.000	0.000	278.3	340.472	89.377	OK
Pond 7	FEH: 100 years: +0 %: 240 mins: Winter	94.567	94.567	0.317	0.317	220.1	841.126	0.000	0.000	131.7	735.142	83.022	OK
Pond (2)	FEH: 100 years: +0 %: 60 mins: Winter	97.352	97.352	1.102	1.102	681.3	1033.322	0.000	0.000	154.5	865.95	30.633	OK
Pond (3)	FEH: 100 years: +0 %: 960 mins: Winter	94.723	94.723	0.973	0.973	123.6	1016.364	0.000	0.000	99.5	6143.775	37.239	OK
Pond (4)	FEH: 100 years: +0 %: 216C mins: Winter	94.53C	94.53C	1.280	1.280	76.9	2019.834	0.000	0.000	52.1	9781.172	15.73C	OK
Pond (5)	FEH: 100 years: +0 %: 216C mins: Winter	92.394	92.394	0.394	0.394	52.1	121.895	0.000	0.000	50.7	9766.63C	70.69C	OK
Pond (6)	FEH: 100 years: +0 %: 600 mins: Winter	88.034	88.034	0.384	0.384	111.1	392.623	0.000	0.000	74.3	1044.465	79.882	OK
Pond (1)	FEH: 100 years: +0 %: 360 mins: Winter	101.588	101.588	0.938	0.938	335.6	2894.538	0.000	0.000	42.4	1683.599	41.315	OK

Project:
Pilsworth South MRF
Project No 9595
Sw model existing - v4.1

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

Date:
25/03/2025

Designed by:
DJH

Checked by:

Approved By:

Company Address:
Egniol Consulting Ltd
Warren Park
Milton Keynes





FEH: 100 years: Increase Rainfall (%): +30: Critical Storm Per Item: Rank By: Max. DS 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
Pond 8	FEH: 100 years: +30 %: 30 mins: Winter	100.212	100.187	0.212	0.187	222.9	222.376	0.000	0.000	321.1	453.993	87.516	OK
Pond 7	FEH: 100 years: +30 %: 120 mins: Winter	94.607	94.605	0.357	0.355	397.9	951.086	0.000	0.000	271.2	866.330	80.803	OK
Pond (2)	FEH: 100 years: +30 %: 60 mins: Winter	97.655	97.655	1.405	1.405	876.1	1376.914	0.000	0.000	169.2	954.814	7.568	OK
Pond (3)	FEH: 100 years: +30 %: 1440 mins: Winter	95.07	95.07	1.321	1.321	127.7	1410.810	0.000	0.000	94.5	9591.298	12.882	OK
Pond (4)	FEH: 100 years: +30 %: 2160 mins: Winter	94.835	94.835	1.585	1.585	86.4	2545.980	0.000	0.000	58.3	11550.174	-6.22	Flood Risk
Pond (5)	FEH: 100 years: +30 %: 2880 mins: Winter	92.868	92.868	0.868	0.868	58.0	278.858	0.000	0.000	56.8	13625.264	32.949	OK
Pond (6)	FEH: 100 years: +30 %: 360 mins: Winter	88.184	88.184	0.534	0.534	202.0	562.560	0.000	0.000	101.9	1251.865	71.174	OK
Pond (1)	FEH: 100 years: +30 %: 600 mins: Winter	101.842	101.842	1.192	1.192	303.9	3784.983	0.000	0.000	46.1	2966.87	23.262	OK

Project:
Pilsworth South MRF
Project No 9595
Sw model existing - v4.1

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

Date:
25/03/2025

Designed by:
DJH

Checked by:

Approved By:

Company Address:
Egniol Consulting Ltd
Warren Park
Milton Keynes





FEH: 100 years: Increase Rainfall (%): +45: Critical Storm Per Item: Rank By: Max. DS 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
Pond 8	FEH: 100 years: +45 %: 30 mins: Winter	100.225	100.20	0.225	0.201	248.7	238.576	0.000	0.000	380.4	511.125	86.606	OK
Pond 7	FEH: 100 years: +45 %: 12C mins: Winter	94.624	94.622	0.374	0.372	449.1	998.420	0.000	0.000	339.5	1051.139	79.847	OK
Pond (2)	FEH: 100 years: +45 %: 12C mins: Winter	97.816	97.816	1.566	1.566	721.0	1568.845	0.000	0.000	176.7	2020.764	-5.316	Flood Risk
Pond (3)	FEH: 100 years: +45 %: 216C mins: Winter	95.246	95.246	1.496	1.496	123.1	1615.180	0.000	0.000	93.3	13364.896	0.262	OK
Pond (4)	FEH: 100 years: +45 %: 216C mins: Winter	94.988	94.988	1.738	1.738	93.3	2822.700	0.000	0.000	61.3	12241.29	-17.767	Flood Risk
Pond (5)	FEH: 100 years: +45 %: 288C mins: Winter	93.095	93.095	1.095	1.095	61.1	358.474	0.000	0.000	59.7	14939.145	13.805	OK
Pond (6)	FEH: 100 years: +45 %: 36C mins: Winter	88.287	88.287	0.637	0.637	238.7	683.836	0.000	0.000	107.5	1489.280	64.960	OK
Pond (1)	FEH: 100 years: +45 %: 72C mins: Winter	101.970	101.970	1.320	1.320	298.3	4252.335	0.000	0.000	47.9	3654.952	13.787	OK

Project: Pilsforth South MRF Project No 9595 Sw model existing - v4.1 Report Details: Type: Connections Summary Storm Phase: Phase	Date: 25/03/2025		
	Designed by:	Checked by:	Approved By:
	DJH		
Company Address: Egniol Consulting Ltd Warren Park Milton Keynes			



FEH: 2 years: Increase Rainfall (%): +0: Critical Storm Per Item: Rank By: Total Discharge Volume

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
1.001	FEH: 2 years: +C %: 7200 mins: Winter	Pipe	S1	S2	101.00C	99.985	0.096	8491.12*	1.1	0.04	31.6	OK
1.002	FEH: 2 years: +C %: 7200 mins: Winter	Pipe	S2	S3	100.50C	99.706	0.091	8490.58C	1.2	0.06	31.6	OK
1.003	FEH: 2 years: +C %: 7200 mins: Winter	Pipe	S3	S4	100.00C	99.326	0.075	8490.12*	1.6	0.03	31.6	OK
1.004	FEH: 2 years: +C %: 7200 mins: Winter	Pipe	S4	Pond (2)	99.40C	98.863	0.060	8490.069	2.1	0.02	31.6	OK
1.005	FEH: 2 years: +C %: 7200 mins: Winter	Pipe	Pond (2)	Pond (3)	97.00C	96.354	0.093	10924.36C	2.6	0.33	39.7	OK
1.006	FEH: 2 years: +C %: 7200 mins: Winter	Pipe	Pond (3)	Pond (4)	95.50C	94.025	0.200	10845.563	1.3	1.67	39.4	Surchar ged
1.007	FEH: 2 years: +C %: 7200 mins: Winter	Pipe	Pond (4)	Pond (5)	95.00C	93.785	0.160	10767.292	1.7	1.51	33.8	Surchar ged
1.009	FEH: 2 years: +C %: 7200 mins: Winter	Pipe	S5	S16	90.50C	89.84*	0.073	10756.607	2.0	0.05	33.8	OK
1.008	FEH: 2 years: +C %: 7200 mins: Winter	Pipe	Pond (5)	S5	93.00C	92.102	0.099	10756.684	2.6	0.69	33.8	OK
10.00*	FEH: 2 years: +C %: 7200 mins: Winter	Trapezoidal Channel	S10	S11	101.30C	100.005	0.339	966.94C	0.1	0	5.7	OK
10.002	FEH: 2 years: +C %: 7200 mins: Winter	Trapezoidal Channel	S11	S12	99.75C	99.099	0.021	923.109	0.5	0	5.7	OK
10.00C	FEH: 2 years: +C %: 7200 mins: Winter	Trapezoidal Channel	Pond 8	S10	101.90C	100.023	0.306	968.46C	0.0	0	5.7	OK
10.003	FEH: 2 years: +C %: 7200 mins: Winter	Trapezoidal Channel	S12	Pond 7	98.25C	97.007	0.011	923.113	1.0	0	5.7	OK
10.005	FEH: 2 years: +C %: 7200 mins: Winter	Trapezoidal Channel	S13	S14	95.70C	94.226	0.024	1298.772	0.9	0	11.7	OK
10.006	FEH: 2 years: +C %: 7200 mins: Winter	Trapezoidal Channel	S14	S15	90.90C	89.433	0.039	1298.742	0.6	0	11.7	OK
10.007	FEH: 2 years: +C %: 7200 mins: Winter	Trapezoidal Channel	S15	Pond (6)	90.00C	88.554	0.039	1298.674	0.6	0.01	11.7	OK
10.004	FEH: 2 years: +C %: 7200 mins: Winter	Trapezoidal Channel	Pond 7	S13	96.50C	94.515	0.270	1302.642	0.1	0	11.7	OK
1.000	FEH: 2 years: +C %: 7200 mins: Winter	Pipe	Pond (1)	S1	102.00C	100.884	0.159	8491.272	1.5	1.04	31.5	Surchar ged
10.008	FEH: 2 years: +C %: 7200 mins: Winter	Pipe	Pond (6)	S16	89.25C	87.828	0.037	1284.447	2.6	0.12	11.2	OK
20.00C	FEH: 2 years: +C %: 7200 mins: Winter	Pipe	S20	S21	100.25C	99.674	0.225	85.064	0.0	0.01	0.5	Surchar ged
20.002	FEH: 2 years: +C %: 7200 mins: Winter	Pipe	S22	S23	100.208	98.369	0.036	339.605	0.5	0.05	2.0	OK
20.003	FEH: 2 years: +C %: 7200 mins: Winter	Pipe	S23	S24	99.41C	98.31C	0.035	339.605	0.5	0.05	2.0	OK
20.004	FEH: 2 years: +C %: 7200 mins: Winter	Pipe	S24	S25	99.70*	98.144	0.045	339.602	0.3	0.03	2.0	OK

Project: Pilsworth South MRF Project No 9595 Sw model existing - v4.1				Date: 25/03/2025									
				Designed by: DJH		Checked by:						Approved By:	
Report Details: Type: Connections Summary Storm Phase: Phase				Company Address: Egniol Consulting Ltd Warren Park Milton Keynes									
20.005	FEH: 2 years: +C %: 7200 mins: Winter	Pipe	S25	S26	99.683	97.965	0.056	966.721	0.6	0.08	5.7	OK	
20.00*	FEH: 2 years: +C %: 480 mins: Winter	Pipe	S21	S21B	100.250	99.707	0.225	0.664	0.1	0.2	5.9	Surchar ged	
20.001 (1)	FEH: 2 years: +C %: 7200 mins: Winter	Pipe	S21B	S22	101.227	99.674	0.029	254.225	0.5	0.02	1.5	OK	

Project: Pilsforth South MRF Project No 9595 Sw model existing - v4.1	Date: 25/03/2025		
	Designed by: DJH	Checked by:	Approved By:
Report Details: Type: Connections Summary Storm Phase: Phase	Company Address: Egniol Consulting Ltd Warren Park Milton Keynes		



FEH: 30 years: Increase Rainfall (%): +40: Critical Storm Per Item: Rank By: Total Discharge Volume

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
1.001	FEH: 30 years: +40 %: 720C mins: Winter	Pipe	S1	S2	101.00C	99.99*	0.102	12573.50*	1.1	0.05	36.1	OK
1.002	FEH: 30 years: +40 %: 720C mins: Winter	Pipe	S2	S3	100.50C	99.714	0.097	12572.96C	1.2	0.07	36.1	OK
1.003	FEH: 30 years: +40 %: 720C mins: Winter	Pipe	S3	S4	100.00C	99.33*	0.080	12572.50*	1.6	0.04	36.1	OK
1.004	FEH: 30 years: +40 %: 720C mins: Winter	Pipe	S4	Pond (2)	99.40C	98.868	0.064	12572.45C	2.2	0.02	36.1	OK
1.005	FEH: 30 years: +40 %: 720C mins: Winter	Pipe	Pond (2)	Pond (3)	97.00C	96.389	0.125	17784.605	2.9	0.55	65.3	OK
1.006	FEH: 30 years: +40 %: 720C mins: Winter	Pipe	Pond (3)	Pond (4)	95.50C	94.596	0.200	17705.807	1.8	2.43	57.2	Surchar ged
1.007	FEH: 30 years: +40 %: 720C mins: Winter	Pipe	Pond (4)	Pond (5)	95.00C	94.455	0.160	17627.53*	2.5	2.25	50.5	Surchar ged
1.009	FEH: 30 years: +40 %: 720C mins: Winter	Pipe	S5	S16	90.50C	89.859	0.089	17616.848	2.3	0.08	50.5	OK
1.008	FEH: 30 years: +40 %: 720C mins: Winter	Pipe	Pond (5)	S5	93.00C	92.147	0.152	17616.924	2.7	1.03	50.5	OK
10.00*	FEH: 30 years: +40 %: 720C mins: Winter	Trapezoidal Channel	S10	S11	101.30C	100.014	0.348	2061.245	0.2	0	12.1	OK
10.002	FEH: 30 years: +40 %: 720C mins: Winter	Trapezoidal Channel	S11	S12	99.75C	99.11C	0.034	2017.359	0.7	0	12.1	OK
10.00C	FEH: 30 years: +40 %: 720C mins: Winter	Trapezoidal Channel	Pond 8	S10	101.90C	100.033	0.315	2062.713	0.0	0	12.1	OK
10.003	FEH: 30 years: +40 %: 720C mins: Winter	Trapezoidal Channel	S12	Pond 7	98.25C	97.01*	0.022	2017.363	1.1	0	12.1	OK
10.005	FEH: 30 years: +40 %: 720C mins: Winter	Trapezoidal Channel	S13	S14	95.70C	94.238	0.038	3566.357	1.2	0	25.0	OK
10.006	FEH: 30 years: +40 %: 720C mins: Winter	Trapezoidal Channel	S14	S15	90.90C	89.449	0.064	3566.327	0.7	0	25.0	OK
10.007	FEH: 30 years: +40 %: 720C mins: Winter	Trapezoidal Channel	S15	Pond (6)	90.00C	88.59C	0.073	3566.258	0.6	0.01	25.0	OK
10.004	FEH: 30 years: +40 %: 720C mins: Winter	Trapezoidal Channel	Pond 7	S13	96.50C	94.524	0.281	3570.228	0.1	0	25.0	OK
1.000	FEH: 30 years: +40 %: 720C mins: Winter	Pipe	Pond (1)	S1	102.00C	101.165	0.185	12573.653	1.5	1.19	36.1	Surchar ged
10.008	FEH: 30 years: +40 %: 720C mins: Winter	Pipe	Pond (6)	S16	89.25C	87.896	0.060	3551.84*	3.0	0.26	24.9	Surchar ged
20.00C	FEH: 30 years: +40 %: 720C mins: Winter	Pipe	S20	S21	100.25C	99.684	0.225	182.078	0.0	0.03	1.1	Surchar ged
20.002	FEH: 30 years: +40 %: 720C mins: Winter	Pipe	S22	S23	100.208	98.386	0.053	725.71*	0.6	0.12	4.3	OK
20.003	FEH: 30 years: +40 %: 720C mins: Winter	Pipe	S23	S24	99.41C	98.326	0.050	725.71*	0.6	0.12	4.3	OK
20.004	FEH: 30 years: +40 %: 720C mins: Winter	Pipe	S24	S25	99.70*	98.159	0.066	725.706	0.4	0.06	4.3	OK

Project: Pilsworth South MRF Project No 9595 Sw model existing - v4.1				Date: 25/03/2025									
				Designed by: DJH		Checked by:						Approved By:	
Report Details: Type: Connections Summary Storm Phase: Phase				Company Address: Egniol Consulting Ltd Warren Park Milton Keynes									
20.005	FEH: 30 years: +40 %: 720C mins: Winter	Pipe	S25	S26	99.683	97.992	0.082	2060.11C	0.8	0.16	12.1	OK	
20.00*	FEH: 30 years: +40 %: 960 mins: Winter	Pipe	S21	S21B	100.25C	99.724	0.225	0.674	0.2	0.29	8.7	Surchar ged	
20.001 (1)	FEH: 30 years: +40 %: 720C mins: Winter	Pipe	S21B	S22	101.227	99.683	0.042	544.292	0.6	0.04	3.2	OK	

Project: Pilsforth South MRF Project No 9595 Sw model existing - v4.1	Date: 25/03/2025		
	Designed by:	Checked by:	Approved By:
	DJH		
Report Details: Type: Connections Summary Storm Phase: Phase	Company Address: Egniol Consulting Ltd Warren Park Milton Keynes		



FEH: 100 years: Increase Rainfall (%): +0: Critical Storm Per Item: Rank By: Total Discharge Volume

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
1.001	FEH: 100 years: +0 %: 7200 mins: Winter	Pipe	S1	S2	101.00C	99.989	0.100	11669.56*	1.1	0.05	34.7	OK
1.002	FEH: 100 years: +0 %: 7200 mins: Winter	Pipe	S2	S3	100.50C	99.71*	0.095	11669.02C	1.2	0.07	34.7	OK
1.003	FEH: 100 years: +0 %: 7200 mins: Winter	Pipe	S3	S4	100.00C	99.329	0.078	11668.56*	1.6	0.04	34.7	OK
1.004	FEH: 100 years: +0 %: 7200 mins: Winter	Pipe	S4	Pond (2)	99.40C	98.866	0.063	11668.509	2.2	0.02	34.7	OK
1.005	FEH: 100 years: +0 %: 7200 mins: Winter	Pipe	Pond (2)	Pond (3)	97.00C	96.382	0.119	16265.507	2.8	0.51	60.2	OK
1.006	FEH: 100 years: +0 %: 7200 mins: Winter	Pipe	Pond (3)	Pond (4)	95.50C	94.457	0.200	16186.708	1.8	2.34	55.2	Surchar ged
1.007	FEH: 100 years: +0 %: 7200 mins: Winter	Pipe	Pond (4)	Pond (5)	95.00C	94.329	0.160	16108.436	2.4	2.12	47.7	Surchar ged
1.009	FEH: 100 years: +0 %: 7200 mins: Winter	Pipe	S5	S16	90.50C	89.856	0.087	16097.752	2.2	0.07	47.7	OK
1.008	FEH: 100 years: +0 %: 7200 mins: Winter	Pipe	Pond (5)	S5	93.00C	92.137	0.131	16097.827	2.7	0.97	47.7	OK
10.00*	FEH: 100 years: +0 %: 7200 mins: Winter	Trapezoidal Channel	S10	S11	101.30C	100.012	0.346	1818.492	0.1	0	10.7	OK
10.002	FEH: 100 years: +0 %: 7200 mins: Winter	Trapezoidal Channel	S11	S12	99.75C	99.108	0.031	1774.614	0.6	0	10.7	OK
10.00C	FEH: 100 years: +0 %: 7200 mins: Winter	Trapezoidal Channel	Pond 8	S10	101.90C	100.03*	0.313	1819.966	0.0	0	10.7	OK
10.003	FEH: 100 years: +0 %: 7200 mins: Winter	Trapezoidal Channel	S12	Pond 7	98.25C	97.01C	0.020	1774.618	1.0	0	10.7	OK
10.005	FEH: 100 years: +0 %: 7200 mins: Winter	Trapezoidal Channel	S13	S14	95.70C	94.236	0.036	3063.91*	1.2	0	22.1	OK
10.006	FEH: 100 years: +0 %: 7200 mins: Winter	Trapezoidal Channel	S14	S15	90.90C	89.446	0.059	3063.882	0.7	0	22.1	OK
10.007	FEH: 100 years: +0 %: 7200 mins: Winter	Trapezoidal Channel	S15	Pond (6)	90.00C	88.583	0.067	3063.812	0.6	0.01	22.1	OK
10.004	FEH: 100 years: +0 %: 7200 mins: Winter	Trapezoidal Channel	Pond 7	S13	96.50C	94.522	0.279	3067.78C	0.1	0	22.1	OK
1.000	FEH: 100 years: +0 %: 7200 mins: Winter	Pipe	Pond (1)	S1	102.00C	101.049	0.185	11669.712	1.5	1.15	34.7	Surchar ged
10.008	FEH: 100 years: +0 %: 7200 mins: Winter	Pipe	Pond (6)	S16	89.25C	87.883	0.055	3049.488	2.9	0.23	21.9	Surchar ged
20.00C	FEH: 100 years: +0 %: 7200 mins: Winter	Pipe	S20	S21	100.25C	99.682	0.225	160.64C	0.0	0.02	0.9	Surchar ged
20.002	FEH: 100 years: +0 %: 7200 mins: Winter	Pipe	S22	S23	100.208	98.383	0.050	640.90*	0.6	0.1	3.8	OK
20.003	FEH: 100 years: +0 %: 7200 mins: Winter	Pipe	S23	S24	99.41C	98.323	0.048	640.90*	0.6	0.1	3.8	OK
20.004	FEH: 100 years: +0 %: 7200 mins: Winter	Pipe	S24	S25	99.70*	98.156	0.062	640.897	0.4	0.05	3.8	OK

Project: Pilsworth South MRF Project No 9595 Sw model existing - v4.1				Date: 25/03/2025									
Report Details: Type: Connections Summary Storm Phase: Phase				Designed by: DJH		Checked by:						Approved By:	
				Company Address: Egniol Consulting Ltd Warren Park Milton Keynes									
20.005	FEH: 100 years: +0 %: 7200 mins: Winter	Pipe	S25	S26	99.683	97.987	0.077	1818.448	0.7	0.14	10.7	OK	
20.00*	FEH: 100 years: +0 %: 1440 mins: Winter	Pipe	S21	S21B	100.250	99.707	0.225	0.696	0.1	0.2	5.9	Surchar ged	
20.001 (1)	FEH: 100 years: +0 %: 7200 mins: Winter	Pipe	S21B	S22	101.227	99.682	0.039	480.449	0.6	0.03	2.8	OK	

Project: Pilsforth South MRF Project No 9595 Sw model existing - v4.1	Date: 25/03/2025		
	Designed by: DJH	Checked by:	Approved By:
Report Details: Type: Connections Summary Storm Phase: Phase	Company Address: Egniol Consulting Ltd Warren Park Milton Keynes		



FEH: 100 years: Increase Rainfall (%): +30: Critical Storm Per Item: Rank By: Total Discharge Volume

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
1.001	FEH: 100 years: +30 %: 720C mins: Winter	Pipe	S1	S2	101.00C	99.994	0.106	13709.392	1.1	0.05	38.3	OK
1.002	FEH: 100 years: +30 %: 720C mins: Winter	Pipe	S2	S3	100.50C	99.717	0.100	13708.85*	1.2	0.08	38.3	OK
1.003	FEH: 100 years: +30 %: 720C mins: Winter	Pipe	S3	S4	100.00C	99.333	0.082	13708.39*	1.6	0.04	38.3	OK
1.004	FEH: 100 years: +30 %: 720C mins: Winter	Pipe	S4	Pond (2)	99.40C	98.87C	0.066	13708.34C	2.2	0.02	38.3	OK
1.005	FEH: 100 years: +30 %: 720C mins: Winter	Pipe	Pond (2)	Pond (3)	97.00C	96.397	0.132	19693.148	2.9	0.6	71.0	OK
1.006	FEH: 100 years: +30 %: 720C mins: Winter	Pipe	Pond (3)	Pond (4)	95.50C	94.775	0.200	19614.35C	2.0	2.61	61.6	Surchar ged
1.007	FEH: 100 years: +30 %: 720C mins: Winter	Pipe	Pond (4)	Pond (5)	95.00C	94.617	0.160	19536.072	2.7	2.4	53.9	Surchar ged
1.009	FEH: 100 years: +30 %: 720C mins: Winter	Pipe	S5	S16	90.50C	89.86*	0.092	19525.389	2.3	0.08	53.1	OK
1.008	FEH: 100 years: +30 %: 720C mins: Winter	Pipe	Pond (5)	S5	93.00C	92.58*	0.160	19525.465	2.7	1.08	53.1	Surchar ged
10.00*	FEH: 100 years: +30 %: 720C mins: Winter	Trapezoidal Channel	S10	S11	101.30C	100.017	0.351	2365.248	0.1	0	13.9	OK
10.002	FEH: 100 years: +30 %: 720C mins: Winter	Trapezoidal Channel	S11	S12	99.75C	99.113	0.037	2321.35C	0.7	0	13.9	OK
10.00C	FEH: 100 years: +30 %: 720C mins: Winter	Trapezoidal Channel	Pond 8	S10	101.90C	100.035	0.318	2366.704	0.1	0	13.9	OK
10.003	FEH: 100 years: +30 %: 720C mins: Winter	Trapezoidal Channel	S12	Pond 7	98.25C	97.012	0.025	2321.355	1.1	0	13.9	OK
10.005	FEH: 100 years: +30 %: 720C mins: Winter	Trapezoidal Channel	S13	S14	95.70C	94.24*	0.042	4196.078	1.3	0	28.7	OK
10.006	FEH: 100 years: +30 %: 720C mins: Winter	Trapezoidal Channel	S14	S15	90.90C	89.453	0.069	4196.048	0.7	0	28.7	OK
10.007	FEH: 100 years: +30 %: 720C mins: Winter	Trapezoidal Channel	S15	Pond (6)	90.00C	88.596	0.078	4195.979	0.7	0.02	28.7	OK
10.004	FEH: 100 years: +30 %: 720C mins: Winter	Trapezoidal Channel	Pond 7	S13	96.50C	94.526	0.283	4199.948	0.1	0	28.7	OK
1.000	FEH: 100 years: +30 %: 720C mins: Winter	Pipe	Pond (1)	S1	102.00C	101.32*	0.185	13709.543	1.5	1.27	38.3	Surchar ged
10.008	FEH: 100 years: +30 %: 720C mins: Winter	Pipe	Pond (6)	S16	89.25C	87.91C	0.065	4181.536	3.0	0.3	28.6	Surchar ged
20.00C	FEH: 100 years: +30 %: 720C mins: Winter	Pipe	S20	S21	100.25C	99.686	0.225	209.217	0.0	0.03	1.2	Surchar ged
20.002	FEH: 100 years: +30 %: 720C mins: Winter	Pipe	S22	S23	100.208	98.39C	0.057	833.693	0.6	0.13	4.9	OK
20.003	FEH: 100 years: +30 %: 720C mins: Winter	Pipe	S23	S24	99.41C	98.33C	0.054	833.694	0.7	0.13	4.9	OK
20.004	FEH: 100 years: +30 %: 720C mins: Winter	Pipe	S24	S25	99.70*	98.162	0.070	833.688	0.4	0.07	4.9	OK

Project: Pilsworth South MRF Project No 9595 Sw model existing - v4.1				Date: 25/03/2025				I DRN					
				Designed by: DJH		Checked by:						Approved By:	
Report Details: Type: Connections Summary Storm Phase: Phase				Company Address: Egniol Consulting Ltd Warren Park Milton Keynes									
20.005	FEH: 100 years: +30 %: 720C mins: Winter	Pipe	S25	S26	99.683	97.998	0.088	2364.57*	0.8	0.19	13.9	OK	
20.00*	FEH: 100 years: +30 %: 600 mins: Summer	Pipe	S21	S21B	100.25C	99.814	0.225	0.675	0.5	0.66	19.7	Surchar ged	
20.001 (1)	FEH: 100 years: +30 %: 720C mins: Winter	Pipe	S21B	S22	101.227	99.685	0.045	625.42*	0.7	0.04	3.7	OK	

Project: Pitsworth South MRF Project No 9595 Sw model existing - v4.1	Date: 25/03/2025		
	Designed by: DJH	Checked by:	Approved By:
Report Details: Type: Connections Summary Storm Phase: Phase	Company Address: Egniol Consulting Ltd Warren Park Milton Keynes		



FEH: 100 years: Increase Rainfall (%): +45: Critical Storm Per Item: Rank By: Total Discharge Volume

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
1.001	FEH: 100 years: +45 %: 720C mins: Winter	Pipe	S1	S2	101.00C	99.997	0.109	14729.265	1.2	0.06	40.5	OK
1.002	FEH: 100 years: +45 %: 720C mins: Winter	Pipe	S2	S3	100.50C	99.72C	0.103	14728.724	1.2	0.08	40.5	OK
1.003	FEH: 100 years: +45 %: 720C mins: Winter	Pipe	S3	S4	100.00C	99.336	0.084	14728.265	1.7	0.04	40.5	OK
1.004	FEH: 100 years: +45 %: 720C mins: Winter	Pipe	S4	Pond (2)	99.40C	98.872	0.068	14728.214	2.3	0.02	40.5	OK
1.005	FEH: 100 years: +45 %: 720C mins: Winter	Pipe	Pond (2)	Pond (3)	97.00C	96.404	0.139	21406.783	3.0	0.64	76.2	OK
1.006	FEH: 100 years: +45 %: 720C mins: Winter	Pipe	Pond (3)	Pond (4)	95.50C	94.942	0.200	21327.982	2.1	2.79	65.8	Surchar ged
1.007	FEH: 100 years: +45 %: 720C mins: Winter	Pipe	Pond (4)	Pond (5)	95.00C	94.769	0.160	21249.707	2.8	2.54	57.0	Flood Risk
1.009	FEH: 100 years: +45 %: 720C mins: Winter	Pipe	S5	S16	90.50C	89.864	0.094	21239.02*	2.3	0.09	56.2	OK
1.008	FEH: 100 years: +45 %: 720C mins: Winter	Pipe	Pond (5)	S5	93.00C	92.818	0.160	21239.098	2.8	1.14	56.2	Surchar ged
10.00*	FEH: 100 years: +45 %: 720C mins: Winter	Trapezoidal Channel	S10	S11	101.30C	100.018	0.353	2638.525	0.2	0	15.5	OK
10.002	FEH: 100 years: +45 %: 720C mins: Winter	Trapezoidal Channel	S11	S12	99.75C	99.115	0.039	2594.619	0.7	0.01	15.5	OK
10.00C	FEH: 100 years: +45 %: 720C mins: Winter	Trapezoidal Channel	Pond 8	S10	101.90C	100.037	0.320	2639.97C	0.1	0	15.5	OK
10.003	FEH: 100 years: +45 %: 720C mins: Winter	Trapezoidal Channel	S12	Pond 7	98.25C	97.012	0.027	2594.624	1.1	0	15.5	OK
10.005	FEH: 100 years: +45 %: 720C mins: Winter	Trapezoidal Channel	S13	S14	95.70C	94.243	0.045	4762.055	1.3	0	32.0	OK
10.006	FEH: 100 years: +45 %: 720C mins: Winter	Trapezoidal Channel	S14	S15	90.90C	89.456	0.073	4762.025	0.8	0	32.0	OK
10.007	FEH: 100 years: +45 %: 720C mins: Winter	Trapezoidal Channel	S15	Pond (6)	90.00C	88.60*	0.083	4761.957	0.7	0.02	32.0	OK
10.004	FEH: 100 years: +45 %: 720C mins: Winter	Trapezoidal Channel	Pond 7	S13	96.50C	94.528	0.285	4765.927	0.1	0	32.0	OK
1.000	FEH: 100 years: +45 %: 720C mins: Winter	Pipe	Pond (1)	S1	102.00C	101.46C	0.185	14729.417	1.5	1.34	40.5	Surchar ged
10.008	FEH: 100 years: +45 %: 720C mins: Winter	Pipe	Pond (6)	S16	89.25C	87.92*	0.070	4747.497	3.1	0.33	31.9	Surchar ged
20.00C	FEH: 100 years: +45 %: 720C mins: Winter	Pipe	S20	S21	100.25C	99.688	0.225	232.977	0.0	0.03	1.4	Surchar ged
20.002	FEH: 100 years: +45 %: 720C mins: Winter	Pipe	S22	S23	100.208	98.393	0.061	929.669	0.6	0.15	5.5	OK
20.003	FEH: 100 years: +45 %: 720C mins: Winter	Pipe	S23	S24	99.41C	98.334	0.057	929.67C	0.7	0.15	5.5	OK
20.004	FEH: 100 years: +45 %: 720C mins: Winter	Pipe	S24	S25	99.70*	98.165	0.075	929.664	0.4	0.07	5.5	OK

Project: Pilsworth South MRF Project No 9595 Sw model existing - v4.1				Date: 25/03/2025				I DRN					
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Report Details: Type: Connections Summary Storm Phase: Phase				Company Address: Egniol Consulting Ltd Warren Park Milton Keynes									
20.005	FEH: 100 years: +45 %: 720C mins: Winter	Pipe	S25	S26	99.683	98.004	0.094	2637.364	0.8	0.21	15.5	OK	
20.00*	FEH: 100 years: +45 %: 720 mins: Summer	Pipe	S21	S21B	100.250	99.81C	0.225	0.658	0.5	0.65	19.3	Surchar ged	
20.001 (1)	FEH: 100 years: +45 %: 720C mins: Winter	Pipe	S21B	S22	101.227	99.687	0.047	697.169	0.7	0.05	4.1	OK	

Project: Pilsworth South MRF Project No 9595 Sw model existing - v4.1	Date: 25/03/2025		
	Designed By: DJH	Checked By:	Approved By:
Report Details: Type: Phase Management Storm Phase: Phase	Company Address: Egniol Consulting Ltd Warren Park Milton Keynes		

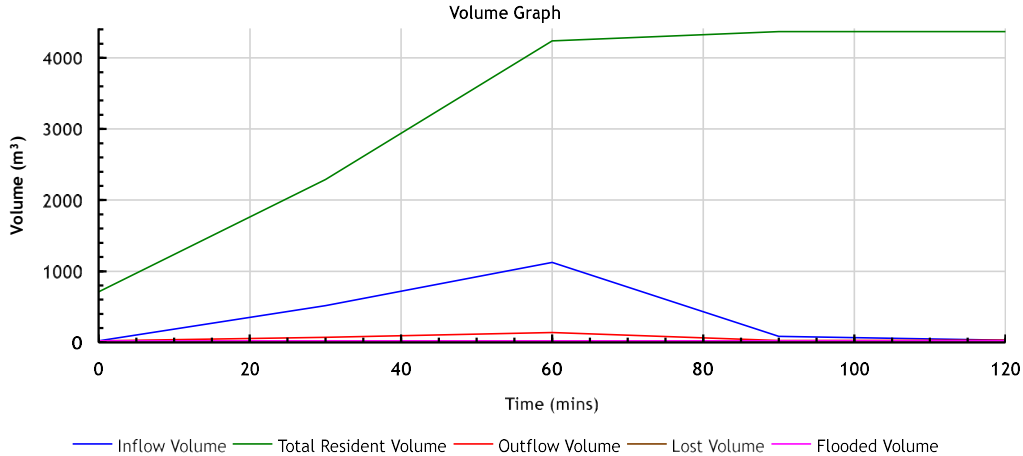
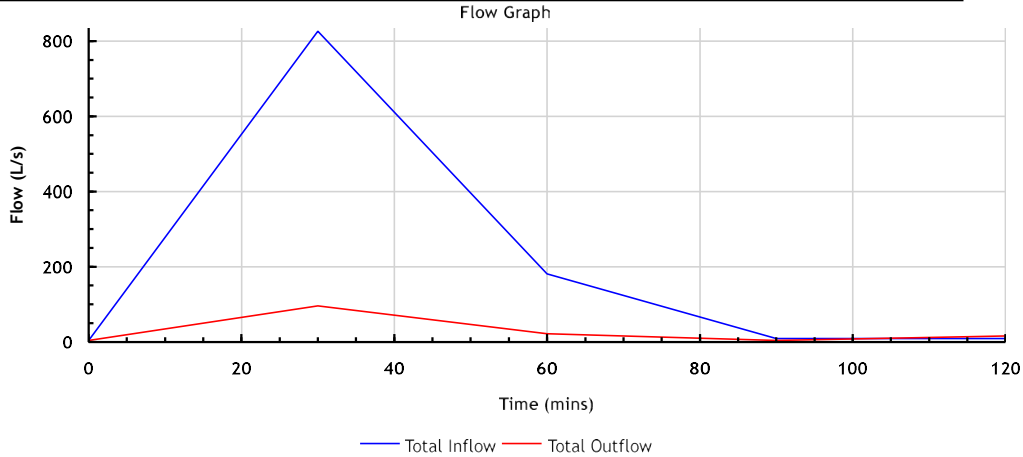


Phase
FEH: 2 years: Increase Rainfall (%): +0: 60 mins: Winter

Tables

Name	Max. Inflow (L/s)	Total Inflow Volume (m³)	Max. Outflow (L/s)	Total Outflow Volume (m³)
S16			11.7	9.035
S26			92.0	172.619
TOTAL	826.5	1681.298	92.0	181.654

Graphs



Project: Pilsforth South MRF Project No 9595 Sw model existing - v4.1	Date: 25/03/2025		
	Designed By: DJH	Checked By:	Approved By:
Report Details: Type: Phase Management Storm Phase: Phase	Company Address: Egniol Consulting Ltd Warren Park Milton Keynes		

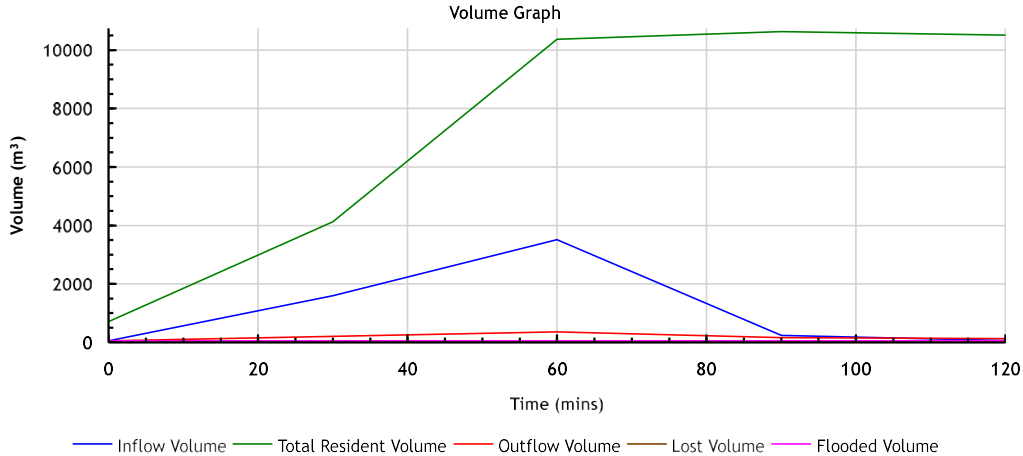
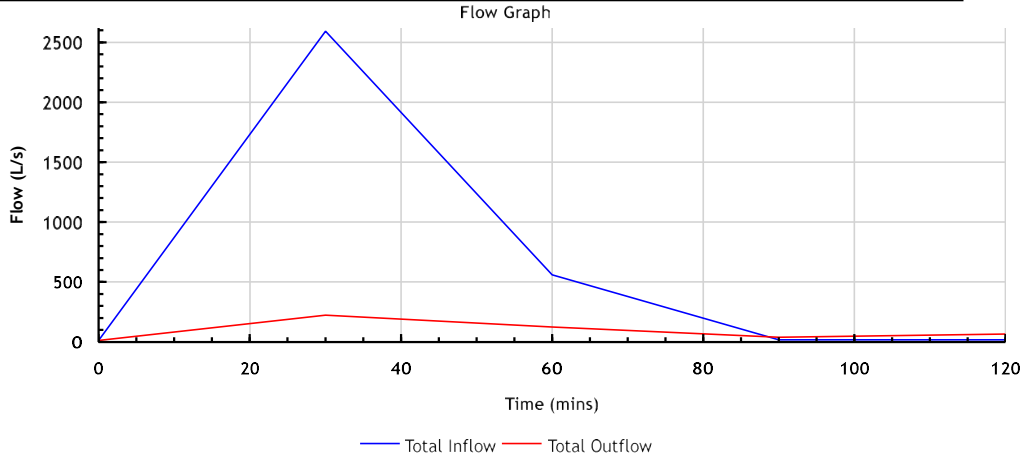


Phase
FEH: 30 years: Increase Rainfall (%): +40: 60 mins: Winter

Tables

Name	Max. Inflow (L/s)	Total Inflow Volume (m³)	Max. Outflow (L/s)	Total Outflow Volume (m³)
S16			52.1	93.002
S26			210.8	550.839
TOTAL	2593.6	5216.165	210.8	643.84

Graphs



Project: Pilsforth South MRF Project No 9595 Sw model existing - v4.1	Date: 25/03/2025		
	Designed By: DJH	Checked By:	Approved By:
Report Details: Type: Phase Management Storm Phase: Phase	Company Address: Egniol Consulting Ltd Warren Park Milton Keynes		



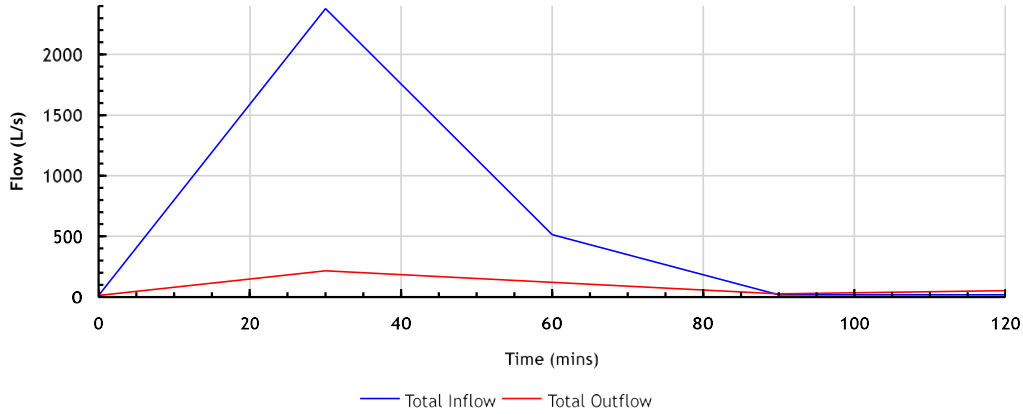
Phase
FEH: 100 years: Increase Rainfall (%): +0: 60 mins: Winter

Tables

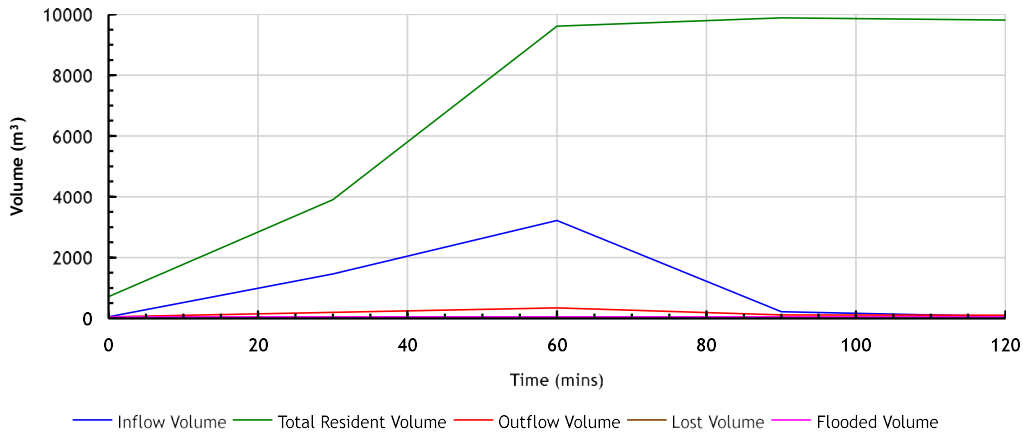
Name	Max. Inflow (L/s)	Total Inflow Volume (m³)	Max. Outflow (L/s)	Total Outflow Volume (m³)
S16			38.4	55.397
S26			204.9	504.946
TOTAL	2378.6	4786.482	204.9	560.343

Graphs

Flow Graph



Volume Graph



Project: Pilsforth South MRF Project No 9595 Sw model existing - v4.1	Date: 25/03/2025		
	Designed by: DJH	Checked by:	Approved By:
Report Details: Type: Phase Management Storm Phase: Phase	Company Address: Egniol Consulting Ltd Warren Park Milton Keynes		

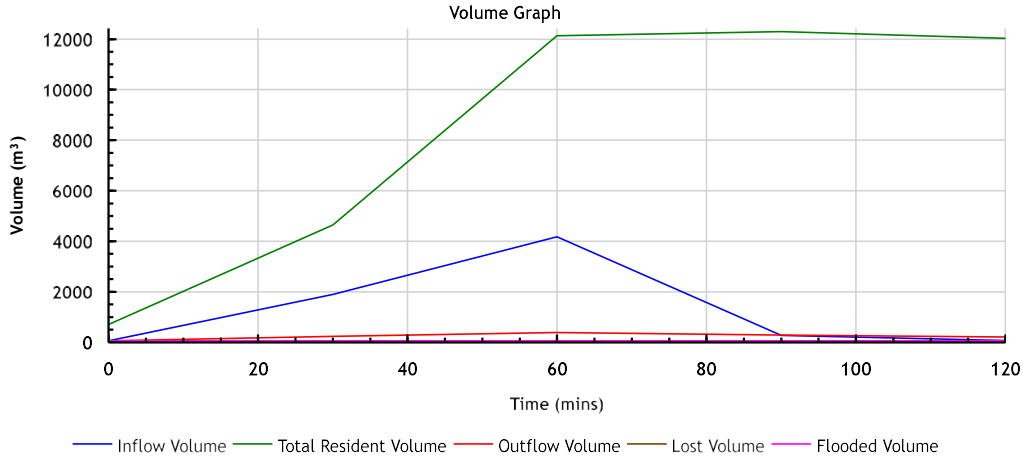
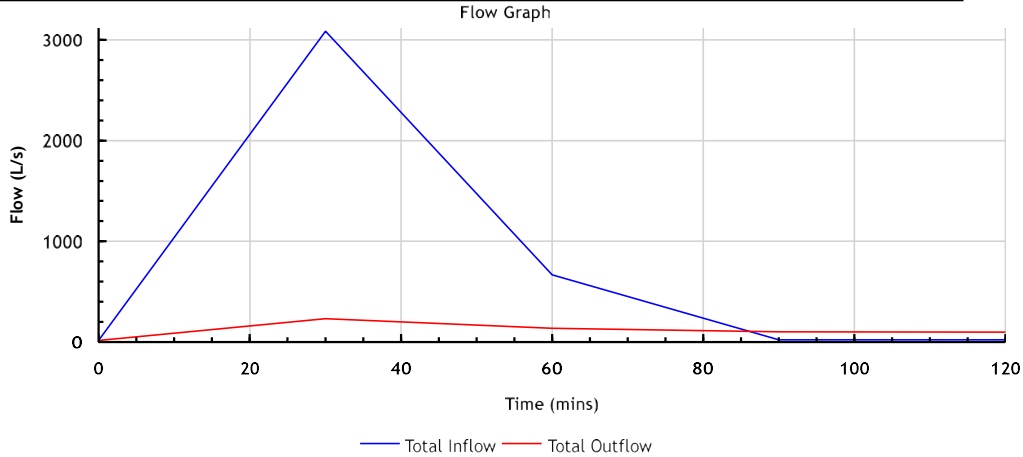


Phase
FEH: 100 years: Increase Rainfall (%): +30: 60 mins: Winter

Tables

Name	Max. Inflow (L/s)	Total Inflow Volume (m³)	Max. Outflow (L/s)	Total Outflow Volume (m³)
S16			82.7	220.342
S26			218.4	657.372
TOTAL	3088.3	6211.476	218.4	877.715

Graphs



Project: Pilsworth South MRF Project No 9595 Sw model existing - v4.1	Date: 25/03/2025		
	Designed By: DJH	Checked By:	Approved By:
Report Details: Type: Phase Management Storm Phase: Phase	Company Address: Egniol Consulting Ltd Warren Park Milton Keynes		

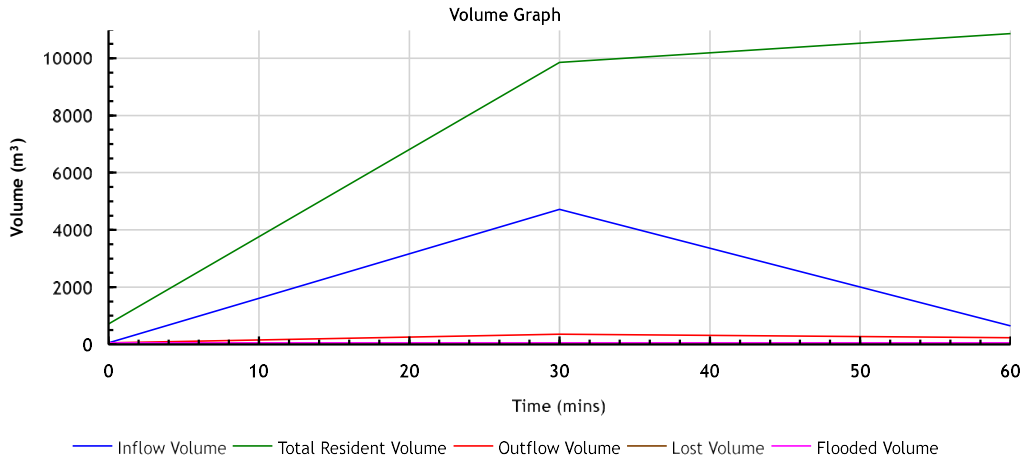
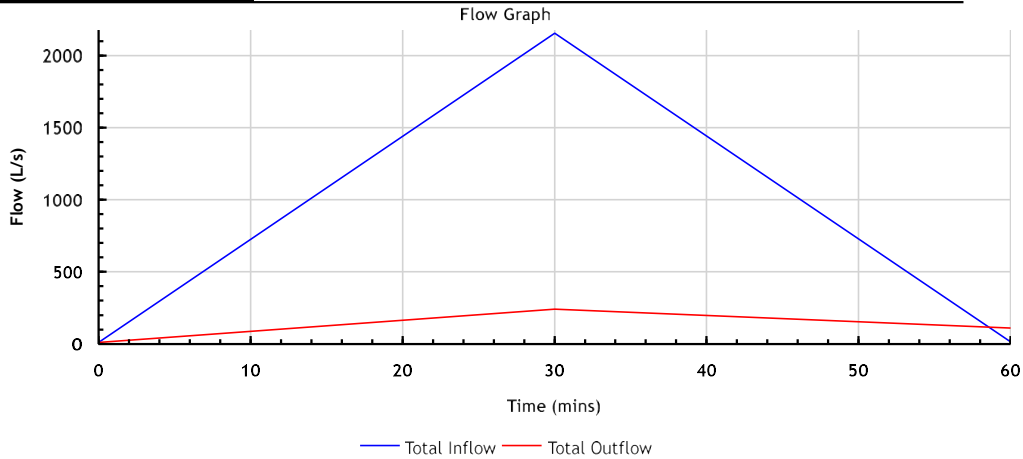


Phase
FEH: 100 years: Increase Rainfall (%): +45: 30 mins: Winter

Tables

Name	Max. Inflow (L/s)	Total Inflow Volume (m³)	Max. Outflow (L/s)	Total Outflow Volume (m³)
S16			15.9	6,749
S26			231.4	483,616
TOTAL	2155.2	5284.418	231.4	490,365

Graphs





Valencia Waste Management Ltd

Proposed Pilsworth South Material Recovery Facility

Flood Risk Assessment Addendum
ECL.9595.R05.001 Rev -

March 2025

Appendix 6

Site Inspection Summary

SuDS feature	Catchment	Function	Lagoon control outlet	Sediment to be removed	Vegetation to be removed	Additional information
Settlement Lagoon A	North	Settlement only	Pump	✓	✗	Temporary lagoon
Settlement Lagoon B	North	Settlement only	Pump	✓	✗	Temporary lagoon
Tarmac Lagoon (No.1)	North	Settlement only	Pump	✓	✓	Temporary lagoon
Lagoon No.2	North	Storage	Pipe	✓	✓	Severe sedimentation obscuring outlet
Lagoon No.3	North	Storage	Pipe	✓	✓	Severe sedimentation obscuring outlet
Lagoon No.4	North	Storage	Pipe	✓	✓	Severe sedimentation obscuring outlet
Lagoon No.5	North	Storage	Pipe	✓	✓	Severe sedimentation obscuring outlet
Lagoon No.5 ditch link to outlet (PSW1SW)	North	Conveyance	n/a	✗	✗	Outlet is PSW1SW
Lagoon No.6	South	Storage	High level V-notch weir	✓	✓	Outlet is PSW2SW
Lagoon No.6/7 ditch link	South	Conveyance and settlement	n/a	✓	✓	Several sections of ditch require maintenance
Lagoon No.7	South	Storage and settlement	High level orifice	✓	✓	Signs of uncontrolled/errant sw flow adjacent outlet undermining bank
Lagoon No.7/8 ditch link (lined)	South	Conveyance and settlement	n/a	✓	✓	Several sections of ditch require maintenance including relaying of HDPE liner
Lagoon No.8	South	Storage and settlement	Informal high level overflow	✓	✓	Informal high level weir outlet into ditch channel