



1894_251015

15TH OCTOBER 2025

FTAO Stefan Galyas MPLAN

Planning Officer

Mid Sussex District Council

Dear Mr Galyas,

DM/25/1123 - EASTLANDS FARMHOUSE MALTHOUSE LANE HURSTPIERPOINT HASSOCKS WEST SUSSEX BN6 9LA

Following the recent further drainage survey work, we can respond to the drainage engineers comments below:-

MSDC drainage engineer comment - Any outlets from the pond should be traced to a watercourse to demonstrate onward connectivity. Alternatively, a calculation showing the existing discharge rate through the outfall pipe into the pond should also be provided to evidence that site discharge would decrease post-development. If this existing discharge through the outfall pipe is greater than the proposed 1.8l/s then we would find the discharge rate acceptable. The greenfield site run off

SDA response – The outlet has been exposed and CCTV traced (report attached) to the pond showing the 100mm pipe from the rainwater pipe is not only severely blocked but damaged thus requiring renewal. The survey was also able to prove that the pond has an outlet. Regarding the flowrates from the site, the 1.8 lit/sec is restricted run off rate given as less than the 10 year greenfield rate for the site boundary (see attached, the 30, & 100 year indicate 4.2 and 5.8 l/s greenfield rates). We have attached our GA drawing revised to suit the recent surveys.

The existing site run off from the existing house area of 135 sq m. Using FEH rainfall data for the 1, 30 and 100 year event results in flowrates from the house of 1.45 lit/sec, 4.06 lit/sec and 5.2 lit/sec respectively, thus indicating that we are reducing the flowrate for the development by restricting to 1.8 lit/sec maximum and supplying the 100 year + 45% climate change storage volume.

MSDC drainage engineer comment - The applicant has not yet confirmed the viability of reusing the downstream connection into the pond. While the applicant states that the existing outlet could be lowered if it is too high, no supporting information has been provided to show that the outlet can be modified while still maintaining a gravity connection into the downstream pond.

SDA response - The exposed pipe and level taken from the recent survey indicates that the pipe level can remain at the pond achieving almost identical levels to what our design warrants. We have however raised pipe levels to ensure a higher discharge to the pond, raising/relocating the tank and raising pipe/chamber levels to suit. We are satisfied that a gravity route is capable to the pond along with proof of the outlet from the pond.

We trust the above and attached will enable you to now offer your removal of the relevant drainage condition.

Kind regards,

Simon Dent For Simon Dent Associates

Land Use	PHL	TSS	Metals	Hydrocarbons
Residential roofs	Very Low	0.2	0.2	0.05
Other roofs	Low	0.3	0.5	0.05
Paved driveways	Low	0.5	0.4	0.4
Public car parks & roads	Medium	0.7	0.6	0.7
Industrial sites	High	0.8	0.8	0.9

Project**Project Name:** Eastlands Farmhouse - SW**Project Description:** CCTV Survey, trace & plot**Project Status:** Complete**Project Date:** 05/10/2025**Inspection Standard:** MSCC5 Sewers & Drainage GB (SRM5 Scoring)

EYES ON DRAINAGE

CCTV-Trace-Plot-Map-Repair

Table of Contents

Project Name	Project Number	Project Date
Eastlands Farmhouse - SW		05/10/2025

Project Information	P-1
Scoring Summary	P-3
Section Profile	P-4
Section Summary	P-5
Section Item 1: RWP > Outfall 1 (RWPX)	1
Section Item 2: RG > Outfall 2 (RGX)	3
Disclaimer	6



Project Information

Project Name	Project Number	Project Date
Eastlands Farmhouse - SW		05/10/2025

Site

Department: Eastlands Farmhouse
Street: Malthouse Lane
Town or City: Hurstpierpoint
County: W.Sussex
Post Code: BN6 9LA

Contractor

Company: Eyes On Drainage Services Ltd
Contact: Jay Young
Department: Merrion House
Street: Bines Green
Town or City: Horsham
County: West Sussex
Post Code: RH13 8EH
Phone: 01403 710971
Mobile: 077111 84951
Email: info@eyesondrainage.co.uk



Project Information

Project Name Eastlands Farmhouse - SW	Project Number	Project Date 05/10/2025
---	-----------------------	-----------------------------------

Project Drawing, Page 'Eastlands Farm'



Scoring Summary

Project Name
Eastlands Farmhouse - SW**Project Number****Project Date**
05/10/2025

Structural Defects

Grade 3: Best practice suggests consideration should be given to repairs in the medium term.

Grade 4: Best practice suggests consideration should be given to repairs to avoid a potential collapse.

Grade 5: Best practice suggests that this pipe is at risk of collapse at any time. Urgent consideration should be given to repairs to avoid total failure.

Section	PLR	Grade	Description
1	RWPX	5	Collapsed drain or sewer, 100% cross-sectional area loss

Service / Operational Condition

Grade 3: Best practice suggests consideration should be given to maintenance activities in the medium term.

Grade 4: Best practice suggests consideration should be given to maintenance activity to avoid potential blockages.

Grade 5: Best practice suggests that this pipe is at a high risk of backing up or causing flooding.

Section	PLR	Grade	Description
1	RWPX	5	Roots, mass, 100% cross-sectional area loss
2	RGX	4	Multiple defects

Abandoned Surveys

Section	PLR	Description
1	RWPX	Survey abandoned

Information

These scoring summaries are based on the SRM grading from the WRc.

Section Profile

Project Name Eastlands Farmhouse - SW	Project Number	Project Date 05/10/2025
---	-----------------------	-----------------------------------

Circular, 150 mm

Item No.	Upstream Node	Downstream Node	Date	Road	Material	Total Length	Inspected Length
2	RG	Outfall 2	03/10/2025	Malthouse Lane	Concrete	1.00 m	1.00 m

Total: 1 Inspection x Circular 150 mm, 0 mm = 1.00 m Total Length and 1.00 m Inspected Length**Total: 1 Inspection = 1.00 m Total Length and 1.00 m Inspected Length**

Section Summary

Project Name Eastlands Farmhouse - SW	Project Number	Project Date 05/10/2025
---	-----------------------	-----------------------------------

Number of sections	2
Total length of sections	4.00 m
Total length of inspected sections	4.00 m
Total length of not inspected sections	0.00 m
Number of abandoned inspections	1
Number of section inspection photos	11
Number of section inspection videos	1
Number of section inspection scans	0
Number of section inclination measurements	0

PLR:	RWPX	Upstream Node:	RWP
Inspection Direction:	Downstream	Downstream Node:	Outfall 1
Inspected Length:	3.00 m	Dia/Height:	100 mm
Total Length:	3.00 m	Material:	Cast iron

No.	m+	Code	Observation
1	0.00	MH	Start node, manhole, reference: RWP, Exposed to confirm route.
2	0.00	WL	Water level, 0% of the vertical dimension
3	0.00	RM	Roots, mass, 100% cross-sectional area loss, Continuous
4	3.00	XP	Collapsed drain or sewer, 100% cross-sectional area loss
5	3.00	SA	Survey abandoned, Unable to continue, assumed to discharge to pond

PLR:	RGX	Upstream Node:	RG
Inspection Direction:	Downstream	Downstream Node:	Outfall 2
Inspected Length:	1.00 m	Dia/Height:	150 mm
Total Length:	1.00 m	Material:	Concrete

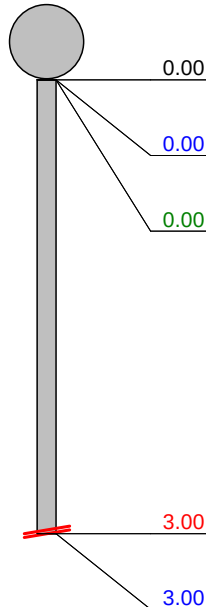
No.	m+	Code	Observation
1	0.00	GY	Start node, gully, reference: RG
2	0.00	WL	Water level, 0% of the vertical dimension
3	0.20	RFJ	Roots, fine at joint
4	0.90	DER	Settled deposits, coarse, 20% cross-sectional area loss
5	0.90	RT	Roots, tap
6	1.00	OFF	Finish node, outfall, reference: Outfall 2, Buried

Section Inspection - 05/10/2025 - RWPX

Item No. 1	Insp. No. 1	Date 05/10/25	Time 16:39	Client's Job Ref Not Specified	Weather No Rain Or Snow	Pre Cleaned No	PLR RWPX
Operator JY		Vehicle FV73 RZB		Camera P540	Preset Length Not Specified	Legal Status Private Drain	Alternative ID Not Specified

Town or Village:	Hurstpierpoint	Inspection Direction:	Downstream	Upstream Node:	RWP
Road:	Malthouse Lane	Inspected Length:	3.00 m	Upstream Pipe Depth:	
Location:	Gardens (private)	Total Length:	3.00 m	Downstream Node:	OUTFALL 1
Surface Type:	Earth	Joint Length:		Downstream Pipe Depth:	
Use:	Surface water	Pipe Shape:	Circular		
Type of Pipe:	Gravity drain/sewer	Dia/Height:	100 mm		
Flow Control:	No flow control	Material:	Cast iron		
Year Constructed:	Not Specified	Lining Type:	No Lining		
Inspection Purpose:	Routine inspection	Lining Material:	No Lining		

Comments:
Recommendations:

Scale:	1:50	Position [m]	Code	Observation	MPEG	Photo	Grade																																			
Depth: m RWP  <table><tr><td>0.00</td><td>MH</td><td>Start node, manhole, reference: RWP: Exposed to confirm route.</td><td>1, 2</td><td></td><td></td><td></td></tr><tr><td>0.00</td><td>WL</td><td>Water level, 0% of the vertical dimension</td><td>00:00:01</td><td></td><td></td><td></td></tr><tr><td>0.00</td><td>RM</td><td>Roots, mass, 100% cross-sectional area loss: Continuous</td><td>00:00:02</td><td>3</td><td>5</td><td></td></tr><tr><td>3.00</td><td>XP</td><td>Collapsed drain or sewer, 100% cross-sectional area loss</td><td></td><td>4</td><td>5</td><td></td></tr><tr><td>3.00</td><td>SA</td><td>Survey abandoned: Unable to continue, assumed to discharge to pond</td><td></td><td></td><td></td><td></td></tr></table>								0.00	MH	Start node, manhole, reference: RWP: Exposed to confirm route.	1, 2				0.00	WL	Water level, 0% of the vertical dimension	00:00:01				0.00	RM	Roots, mass, 100% cross-sectional area loss: Continuous	00:00:02	3	5		3.00	XP	Collapsed drain or sewer, 100% cross-sectional area loss		4	5		3.00	SA	Survey abandoned: Unable to continue, assumed to discharge to pond				
0.00	MH	Start node, manhole, reference: RWP: Exposed to confirm route.	1, 2																																							
0.00	WL	Water level, 0% of the vertical dimension	00:00:01																																							
0.00	RM	Roots, mass, 100% cross-sectional area loss: Continuous	00:00:02	3	5																																					
3.00	XP	Collapsed drain or sewer, 100% cross-sectional area loss		4	5																																					
3.00	SA	Survey abandoned: Unable to continue, assumed to discharge to pond																																								

Construction Features					Miscellaneous Features				
Structural Defects					Service & Operational Observations				
STR No. Def	STR Peak	STR Mean	STR Total	STR Grade	SER No. Def	SER Peak	SER Mean	SER Total	SER Grade
1	165.0	55.0	165.0	5.0	1	20.0	6.7	20.0	5.0

Section Pictures - 05/10/2025 - RWPX

Item No.	Inspection Direction	PLR	Client's Job Ref	Contractor's Job Ref
1	Downstream	RWPX		



1, 0.00 m

Start node, manhole, reference: RWP, Exposed to confirm route.



2, 0.00 m

Start node, manhole, reference: RWP, Exposed to confirm route.



3, 00:00:02, 0.00 m

Roots, mass, 100% cross-sectional area loss, Continuous



4, 3.00 m

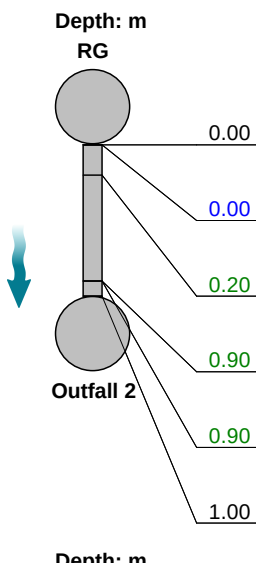
Collapsed drain or sewer, 100% cross-sectional area loss

Section Inspection - 03/10/2025 - RGX

Item No. 2	Insp. No. 1	Date 03/10/25	Time 9:58	Client's Job Ref Not Specified	Weather No Rain Or Snow	Pre Cleaned No	PLR RGX
Operator JY		Vehicle FV73 RZB		Camera P540	Preset Length Not Specified	Legal Status Highways Drainage	Alternative ID Not Specified

Town or Village:	Hurstpierpoint	Inspection Direction:	Downstream	Upstream Node:	RG
Road:	Malthouse Lane	Inspected Length:	1.00 m	Upstream Pipe Depth:	
Location:	Road	Total Length:	1.00 m	Downstream Node:	OUTFALL 2
Surface Type:	Earth	Joint Length:		Downstream Pipe Depth:	
Use:	Surface water	Pipe Shape:	Circular		
Type of Pipe:	Gravity drain/sewer	Dia/Height:	150 mm		
Flow Control:	No flow control	Material:	Concrete		
Year Constructed:	Not Specified	Lining Type:	No Lining		
Inspection Purpose:	Routine inspection	Lining Material:	No Lining		

Comments:
Recommendations:

Scale:	1:50	Position [m]	Code	Observation	MPEG	Photo	Grade
							
Depth: m							
RG							
	0.00	GY	Start node, gully, reference: RG			1, 2	
	0.00	WL	Water level, 0% of the vertical dimension		00:00:00	3	
	0.20	RFJ	Roots, fine at joint		00:00:20	4	2
	0.90	DER	Settled deposits, coarse, 20% cross-sectional area loss		00:00:33	5	4
Outfall 2	0.90	RT	Roots, tap		00:00:42	6	4
	1.00	OFF	Finish node, outfall, reference: Outfall 2: Buried		00:00:46	7	
Depth: m							

Construction Features
Structural Defects
Miscellaneous Features
Service & Operational Observations

STR No. Def	STR Peak	STR Mean	STR Total	STR Grade	SER No. Def	SER Peak	SER Mean	SER Total	SER Grade
0	0.0	0.0	0.0	1.0	3	10.0	11.0	11.0	5.0



Section Pictures - 03/10/2025 - RGX

Item No.	Inspection Direction	PLR	Client's Job Ref	Contractor's Job Ref
2	Downstream	RGX		



1, 0.00 m
Start node, gully, reference: RG



2, 0.00 m
Start node, gully, reference: RG



3, 00:00:00, 0.00 m
Water level, 0% of the vertical dimension



4, 00:00:20, 0.20 m
Roots, fine at joint



5, 00:00:33, 0.90 m
Settled deposits, coarse, 20% cross-sectional area loss



6, 00:00:42, 0.90 m
Roots, tap



Section Pictures - 03/10/2025 - RGX

Item No.	Inspection Direction	PLR	Client's Job Ref	Contractor's Job Ref
2	Downstream	RGX		



7, 00:00:46, 1.00 m
Finish node, outfall, reference: Outfall 2, Buried

Disclaimer

Although every effort has been made to produce a thorough and precise report, Eyes On Drainage Services Ltd cannot be held liable for any discrepancies or omissions.

Furthermore Eyes On Drainage Services Ltd cannot be held responsible for any actions taken based on the information supplied within this report.

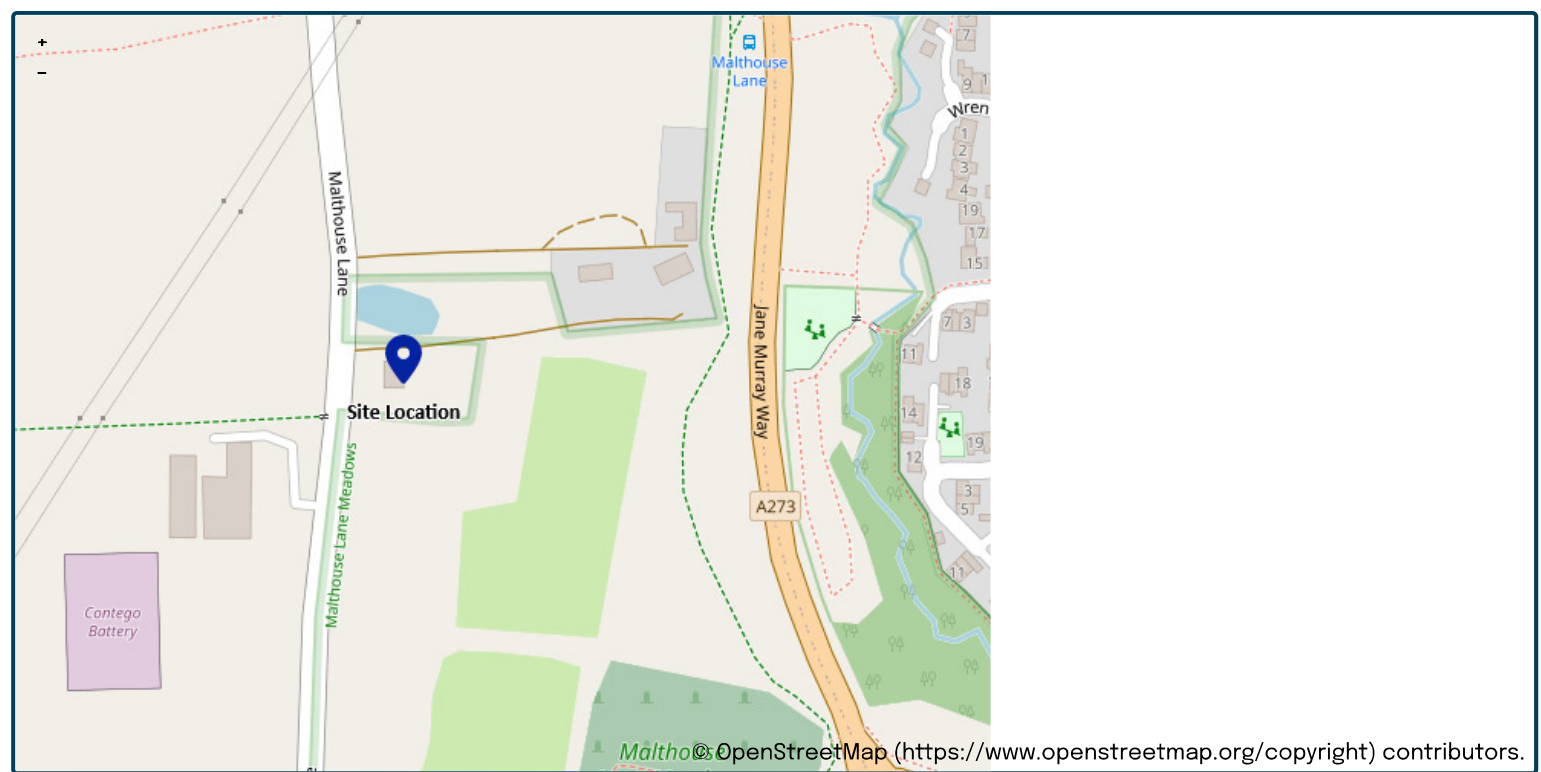
This is an estimation of the greenfield runoff rates that are used to meet normal best practice criteria in line with Environment Agency guidance “Rainfall runoff management for developments”, SC030219 (2013), the SuDS Manual C753 (CIRIA, 2015) and the non-statutory standards for SuDS (Defra, 2015). This information on greenfield runoff rates may be the basis for setting consents for the drainage of surface water runoff from sites.

Project details

Date	10/06/2025
Calculated by	Simon Dent Associates
Reference	1894
Model version	2.0.1

Location

Site name	Eastlands Farm
Site location	Hurstpierpoint



Site easting	529264
Site northing	119029

Site details

Total site area (ha)	.2	ha
----------------------	----	----

Greenfield runoff

Method

Method	FEH statistical
--------	-----------------

FEH statistical

	<u>My value</u>		<u>Map value</u>
SAAR (mm)	823	mm	823
BFIHOST	0.233		
QMed-QBar conversion	1.136		1.136
QMed (l/s)	1.6	l/s	
QBar (FEH statistical) (l/s)	1.8	l/s	

Growth curve factors

	<u>My value</u>		<u>Map value</u>
Hydrological region	7		7
1 year growth factor	0.85		
2 year growth factor	0.88		
10 year growth factor	1.62		
30 year growth factor	2.3		
100 year growth factor	3.19		
200 year growth factor	3.74		

Results

Method	FEH statistical	
Flow rate 1 year (l/s)	1.5	l/s
Flow rate 2 year (l/s)	1.6	l/s
Flow rate 10 years (l/s)	2.9	l/s
Flow rate 30 years (l/s)	4.2	l/s
Flow rate 100 years (l/s)	5.8	l/s
Flow rate 200 years (l/s)	6.8	l/s

Disclaimer

This report was produced using the Greenfield runoff rate estimation tool (2.0.1) developed by HR Wallingford and available at uksuds.com (<https://www.uksuds.com/>).

The use of this tool is subject to the UK SuDS terms and conditions and licence agreement, which can both be found at [uksuds.com/terms-conditions](https://www.uksuds.com/terms-conditions) (<https://www.uksuds.com/terms-conditions>). The outputs from this tool have been used to estimate Greenfield runoff rates. The use of these results is the responsibility of the users of this tool. No liability will be accepted by HR Wallingford, the Environment Agency, Centre for Ecology and Hydrology, Wallingford Hydrosolutions or any other organisation for the use of these data in the design or operational characteristics of any drainage scheme.

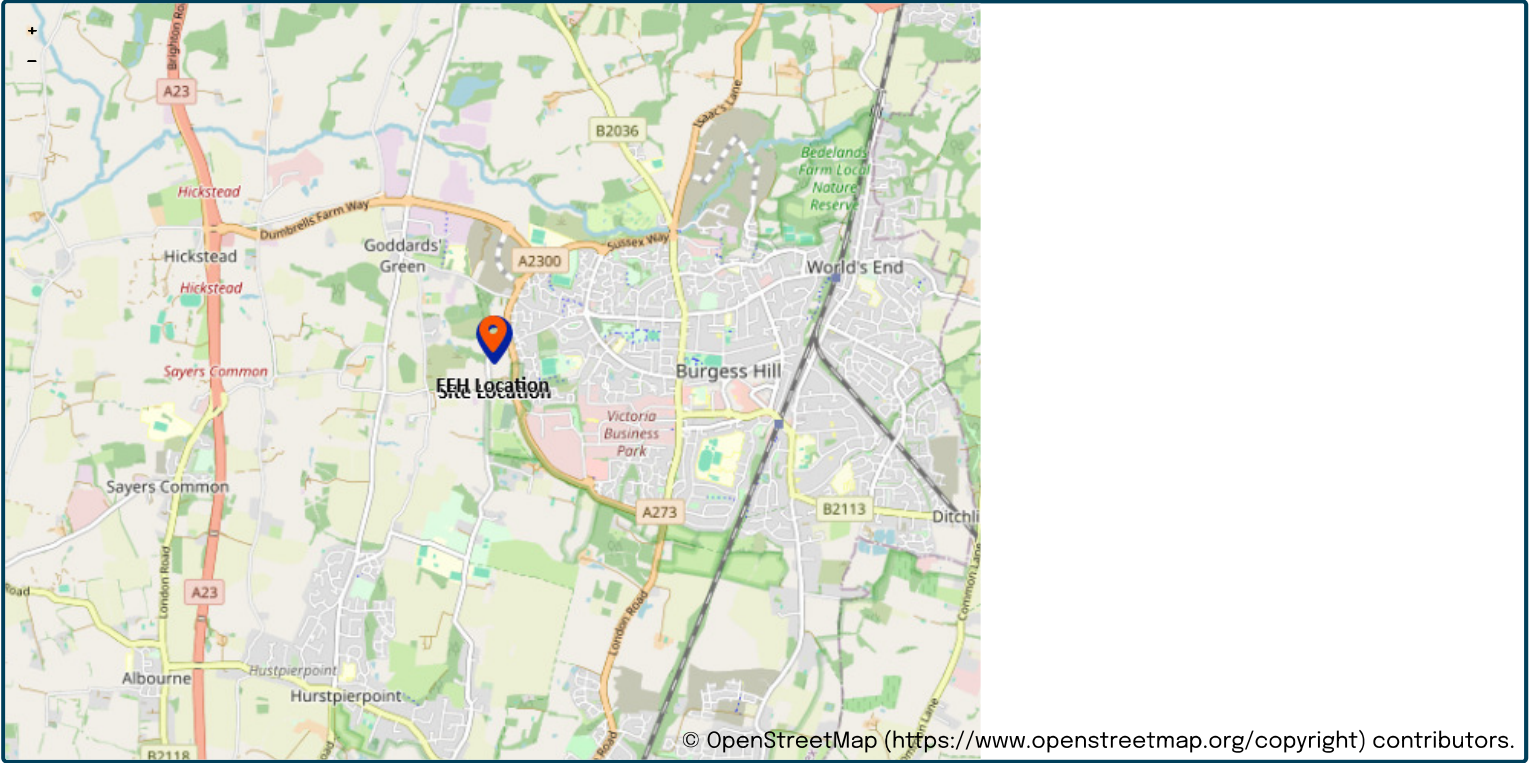
This is an estimation of the storage volume requirements that are needed to meet normal best practice criteria in line with Environment Agency guidance “Rainfall runoff management for developments”, SC030219 (2013), the SuDS Manual C753 (CIRIA, 2015) and the non-statutory standards for SuDS (Defra, 2015). It is recommended that the total storage volume for the site is distributed across the site using multiple SuDS and that hydraulic modelling software is used to undertake and finalise the detailed design of the drainage system.

Project details

Date	10/06/2025
Calculated by	Simon Dent Associates
Reference	1894
Model version	2.0.1

Location

Site name	Eastlands Farm
Site location	Hurstpierpoint



Site easting	529280
Site northing	119046

Site areas

Total site area (ha)	.1989 ha
----------------------	--

Roof area

Total roof area (ha)	.0379 ha
Contributing roof area (ha)	.0379 ha
Non-contributing roof area (ha)	0 ha

Paved area

Total paved area (ha)	.0175 ha
Contributing paved area (ha)	.0175 ha
Non-contributing paved area (ha)	0 ha

Grass / vegetated area

Total grass / vegetated area (ha)	.1435 ha
Contributing grass / vegetated area (ha)	ha
Non-contributing grass / vegetated area (ha)	0.1435 ha

Total area

Total contributing area (ha)	0.0554 ha
------------------------------	---

Contributing areas with urban creep allowance

Urban creep allowance factor	+10%
Contributing roof area (adjusted for urban creep) (ha)	0.0379 ha
Contributing paved area (adjusted for urban creep) (ha)	0.0175 ha
Contributing grass / vegetated area (adjusted for urban creep) (ha)	0 ha

Storage design parameters

Storage base shape	Rectangular / square
Storage base length to width ratio	1:1 (square)
Storage design depth (mm)	500 mm
Storage side slope (1 in x)	1 in 1
Storage voids ratio (%)	90% (e.g. geocellular crate systems)
Storage volume design return period (years)	1:100 years

Discharge flow rate from the site

Method

Type of site

Greenfield

Specify the method

FEH statistical

FEH statistical

My value

SAAR (mm)

823mm

BFIHOST

.233

QMed (l/s)

1.6l/s

QMed-QBar conversion

1.136

Total area for greenfield runoff calculation (ha)

0.1989ha

QBar (l/s)

1.8l/s

Hydrological region

7

Return period (years)

Qbar (1:2.3 years)

Growth curve factor

1

Flow rate (FEH statistical) (l/s)

1.8l/s

Map/default value

823

1.136

0.1989

7

Final discharge rate

Runoff calculation method

FEH statistical

Design flow rate (l/s)

1.8l/s

Blockage risk

Specify the method

Orifice diameter

Minimum orifice diameter to prevent blockage (mm)

My value

Design orifice diameter (mm)

35mm

Flow rate of orifice (l/s)

1.8l/s

Calculated value

35

Rainfall and runoff

Rainfall input type

FEH22 CSV file

FEH_Point_Rainfall_FEH22_POT_529263_119045.csv

Distance from FEH location to site (km)

0km

Climate change allowance factor

145%

Specify the runoff method from grass / vegetated areas

Fixed percentage - based on rainfall event depth and SPR

My value

How should SPR be derived?

WRAP soil type

WRAP soil type

4

SPR

0.47

Map value

4

Model results

- Maximum discharge flow rate: 1.8 (l/s)
- Outflow orifice diameter: 35 (mm)
- Storage base length: 8.39 (m)
- Storage base width: 8.39 (m)
- Storage base area: 70.45 (m²)
- Storage total volume: 39.6 (m³)
- Storage total water volume: 35.6 (m³)
- Storm return periods run: 1, 2, 10, 30, 100, 200 (years)
- Storm durations run: 15, 30, 60, 120, 180, 240, 360, 540, 720, 900, 1080, 1440, 1800, 2160, 2880 (minutes)

Return Period (years)	Critical Duration (minutes)	Peak Flow Rate (l/s)	Max Depth (m)	Max water volume (m ³)	Max storage volume (m ³)
1	360	1	0.18	11.9	13.2
2	240	1.1	0.21	13.8	15.3
10	240	1.4	0.32	21.8	24.2
30	240	1.6	0.4	28	31.1
<u>100</u>	<u>240</u>	<u>1.8</u>	<u>0.5</u>	<u>35.6</u>	<u>39.6</u>
200	240	1.9	0.56	40.9	45.4

Disclaimer

This report was produced using the surface water storage volume design tool (2.0.1) developed by HR Wallingford and available at [uksuds.com](https://www.uksuds.com/) (<https://www.uksuds.com/>). The use of this tool is subject to the UK SuDS terms and conditions and licence agreement, which can both be found at [uksuds.com/terms-conditions](https://www.uksuds.com/terms-conditions) (<https://www.uksuds.com/terms-conditions>). The outputs from this tool have been used to estimate surface water storage volumes for the whole site based on a limiting discharge rate from the site. The use of these results is the responsibility of the users of this tool. No liability will be accepted by HR Wallingford, the Environment Agency, Centre for Ecology and Hydrology, Wallingford Hydrosolutions or any other organisation for the use of these data in the design or operational characteristics of any drainage scheme.

HR Wallingford are not responsible for any rainfall data shared that is subject to licensing terms imposed by UK Centre for Ecology & Hydrology's Flood Estimation Handbook web service (<https://fehweb.ceh.ac.uk/Home/Terms> (<https://fehweb.ceh.ac.uk/Home/Terms>)).

Appendix A – Rainfall Depths

Rainfall depths (mm) with climate change

Duration (minutes)	Duration (hours)	1 years	2 years	10 years	30 years	100 years	200 years
15	0.25	11.14	13.41	22.74	29.2	36.58	41.02
30	0.5	14.53	17.54	29.97	38.8	49.18	55.53
60	1	18.3	22.1	37.92	49.46	63	71.4
120	2	26.22	30.51	48.18	60.96	76.05	85.75
180	3	31.25	35.83	54.66	68.31	84.61	95.34
240	4	34.92	39.72	59.39	73.72	91.12	102.82
360	6	40.08	45.18	66.08	81.43	100.91	114.54
540	9	45.17	50.58	72.75	89.39	111.51	127.74
720	12	48.84	54.46	77.55	95.19	119.52	137.88
900	15	51.78	57.57	81.34	99.72	125.96	146
1080	18	54.27	60.19	84.53	103.54	131.46	152.84
1440	24	58.55	64.66	89.91	110.06	140.68	163.94
1800	30	62.31	68.58	94.61	115.65	148.28	172.75
2160	36	65.79	72.21	98.9	120.68	154.85	180.22
2880	48	72.18	78.85	106.68	129.6	165.97	192.56

Rainfall depths (mm) without climate change

Duration (minutes)	Duration (hours)	1 years	2 years	10 years	30 years	100 years	200 years
15	0.25	7.68	9.25	15.68	20.14	25.23	28.29
30	0.5	10.02	12.1	20.67	26.76	33.92	38.3
60	1	12.62	15.24	26.15	34.11	43.45	49.24
120	2	18.08	21.04	33.23	42.04	52.45	59.14
180	3	21.55	24.71	37.7	47.11	58.35	65.75
240	4	24.08	27.39	40.96	50.84	62.84	70.91
360	6	27.64	31.16	45.57	56.16	69.59	78.99
540	9	31.15	34.88	50.17	61.65	76.9	88.1
720	12	33.69	37.56	53.48	65.65	82.43	95.09
900	15	35.71	39.7	56.1	68.77	86.87	100.69
1080	18	37.43	41.51	58.3	71.41	90.66	105.41
1440	24	40.38	44.59	62.01	75.9	97.02	113.06
1800	30	42.98	47.3	65.25	79.76	102.26	119.14
2160	36	45.38	49.8	68.21	83.23	106.79	124.29
2880	48	49.78	54.38	73.57	89.38	114.46	132.8