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Drainage Strategy Report

LAND ADJACENT TO SCHOOL HOUSE, ST BEES

16630

October 22

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INTRODUCTION

A L Daines & Partners LLP (ALD) have been instructed to undertake a Surface and Foul Water Drainage Strategy, in accordance with the National Planning Policy Framework (NPPF) [1], for the proposed housing development on land adjacent to school House, St Bees.

The purpose of this report is to provide a strategy to manage surface and foul water flows from the site, in support of the planning application, while fulfilling the requirements of the Local Planning Authority (LPA) and the Lead Local Flood Authority (LLFA).

PLANNING POLICY

NPPF footnote 55 states that "*a site-specific flood risk assessment should be provided for all development in Flood Zones 2 and 3. In Flood Zone 1, an assessment should accompany all proposals involving: sites of 1 hectare or more; land which has been identified by the Environment Agency as having critical drainage problems; land identified in a strategic flood risk assessment as being at increased flood risk in future; or land that may be subject to other sources of flooding, where its development would introduce a more vulnerable use*."

Paragraph 169 reads *"Major developments should incorporate sustainable drainage systems unless there is clear evidence that this would be inappropriate. The systems used should:*

> *a) take account of advice from the lead local flood authority.*
> *b) have appropriate proposed minimum operational standards.*
> *c) have maintenance arrangements in place to ensure an acceptable standard of operation for the lifetime of the development; and*
> *d) where possible, provide multifunctional benefits."*

A major development, as per The Town and Country Planning Order 2015, is partly, buy not wholly, categorised as development involving the provision of dwellinghouses where the number of dwellinghouses to be provided is 10 or more and a development carried out on a site having an area of 1 hectare or more.

The Cumbria Minerals and Local Waste Plan – Strategic Flood Risk Assessment (June 2018) references the same criteria for local planning policy.

The site is therefore not classed as a major development under the above criteria due to the proposals having fewer than 10 dwellinghouses and a site area of less than 1 hectare.

PLANNING POLICY IN SITE CONTEXT

The site covers 0.244ha of greenfield site, and according to the most recent Environment Agency (EA) flood risk maps, lies entirely within Flood Zone 1.

The NPPF site categorisation Table 1.1 puts a residential development of this nature within the 'More vulnerable' category. Developments in the 'More vulnerable' category are acceptable within Flood Zone 1 and therefore the site-specific Flood Risk Assessment (FRA) need only be brief.

SITE PLAN

The proposed development is located on an existing area of greenfield land to the Northwest of St Bees School, St Bees, Cumbria as shown on red line bordered plan in Figure 1.

Figure 1: Aerial photo of site - Google Maps

DEVELOPMENT DESCRIPTION

The proposed development will see one new access created off the adopted highway network, leading to 3 dwellings to be built on the existing greenfield site.

The existing ground is generally open grassed landscape. The site is approximately 0.244ha in land area. The proposed development hardstanding areas are split as follows:

0.065ha for 3 dwellings + 10% urban creep = 0.072ha.

Total hardstanding area = 0.072ha

The remaining land is to remain as garden to the residential properties and permeable paved areas are provided for the access onto the adopted highway network along with areas designated for parking and driveways.

The land generally runs in a South-westerly direction, with the high point located in the Northwest corner of the site at 29.266m AOD.

PERMEABILITY AND SOIL PROFILE

British Geological Survey (BGS) and Land Information Systems (LandIS) mapping services have been used determine the following land make-up:

Bedrock: St Bees Sandstone

Superficial drift: Clay, silt, sand, and gravel

Soil: Soilscape 10 – Loamy and clayey soils with naturally high groundwater

CURRENT FOUL AND SURFACE WATER DRAINAGE PROVISION

Existing watercourses

A 225m diameter culverted watercourse was discovered during site investigations which flows along the Southern boundary of the site. Following extensive site investigations which took place on the 28 September 2022, it can be confirmed that the culvert flows in a south-easterly direction towards St Bees School, with the outfall being into Pow Beck approximately 290m from the development site. The path of the culverted watercourse is illustrated within Appendix E of this document. The source of the culvert is a gully on the adopted highway network with no evidence of the development site discharging surface water into this system.

Flooding is known to occur downstream of the site in the playing fields of St Bees school. The culverted watercourse is acknowledged as the source of the flooding as sections of the pipework are deteriorating and blockages occurring as a result.

Combined surface and foul water

There is an existing combined foul and surface water sewer adjacent to the site within the adopted highway network. The development is proposing to connect into the combined sewer as the preferred method of surface water disposal.

FLOOD RISK ASSESSMENT (FRA)

As described earlier in the report, the current Environment Agency Flood Map for Planning shows the site to be located wholly within Flood Zone 1.

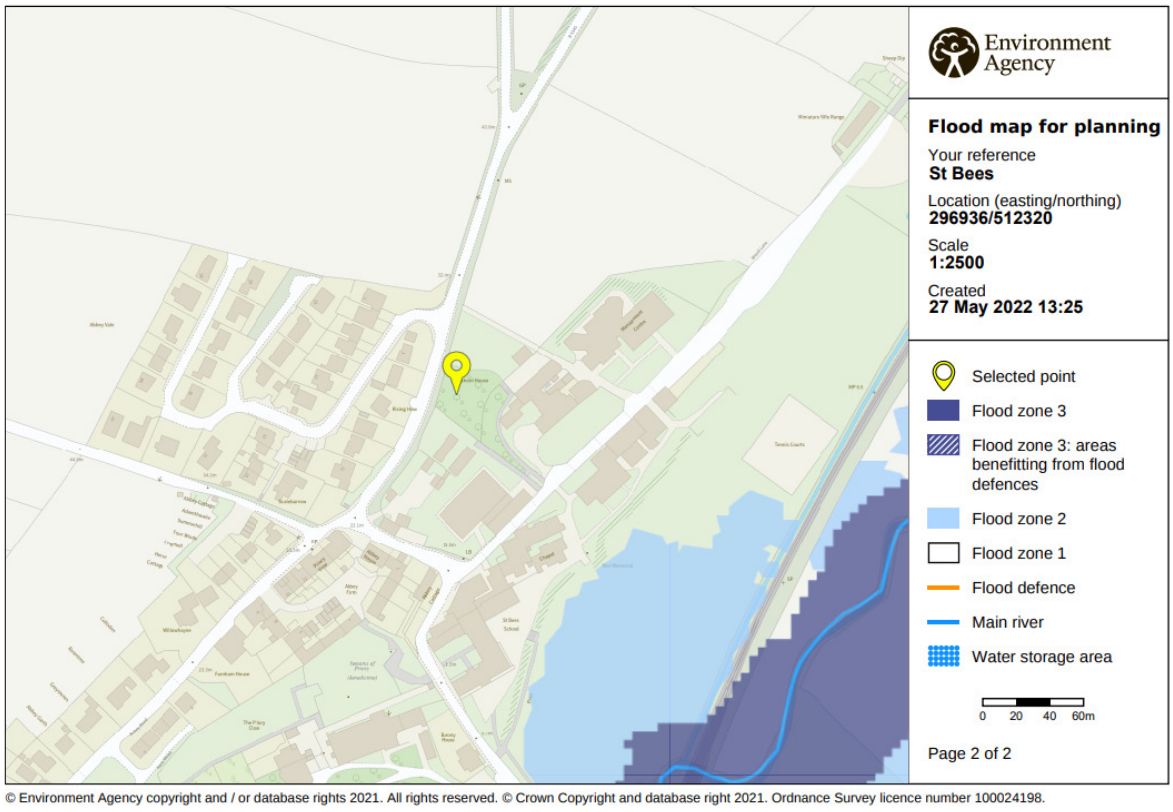


Figure 2: Flood map for planning

A full FRA is therefore not required, although the Environment Agency long term flood risk maps are included below to further inform this report.

Figure 3: EA long term flooding from surface water

The long-term flood risk from surface water is very low (0.1%) with no areas of the site showing any form of heightened flood risk.

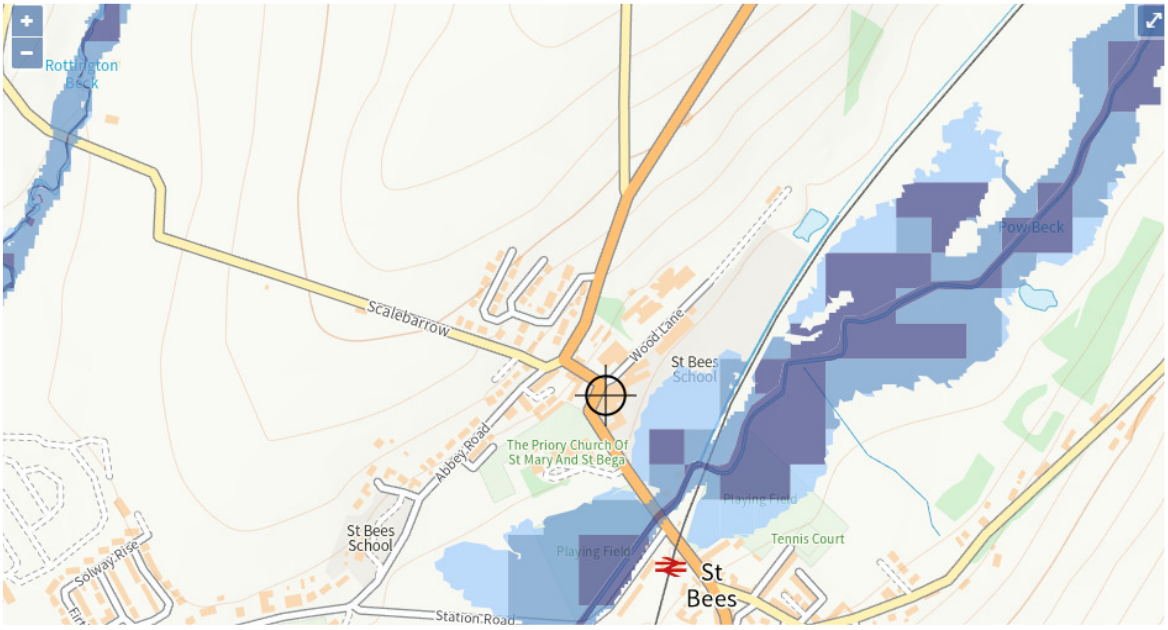


Figure 4: EA long term flood risk from river or sea

The long-term flood risk from rivers or sea is very low (0.1%) with no areas of the site showing any form of heightened flood risk. Therefore, the risk to the new development is seen to be negligible.

SURFACE WATER DRAINAGE STRATEGY

The aim of the strategy is to provide a design which will avoid, reduce, and delay the discharge of surface water flows into public sewers and watercourses. This will aid in the protection of watercourses but will also ensure that no knock-on effects are seen beyond the site and that the risk of localised flooding and pollution within the site are reduced as far as possible.

To satisfy these criteria, surface water flows shall be subject to assessment via the hierarchy of drainage in accordance with the LASOO Non-Statutory Technical Standards for Sustainable Drainage: Practice Guidance. The hierarchy is as follows:

Hierarchy options:

1. Drain into the ground (infiltration).
2. To a surface water body.
3. To a surface water sewer, highway drain or another drainage system.
4. To a combined sewer.

The drainage strategy for the site is to be developed using the third level on the above hierarchy for the following reasons:

Drain into the ground (infiltration) – highest viable drainage option route.

Trial holes in accordance with the BRE 365 method have shown that the site is not suitable for infiltration as the method of surface water disposal. Three trial holes were dug on site, as shown in Appendix A, all of which illustrated that soakaways are not a viable method of surface water disposal.

Surface Water Body

As stated previously within this report, a culverted ordinary watercourse has been identified on the southern boundary of the site. Site investigations have determined that the site does not drain into this culvert; as such allowing the proposed development to discharge surface water into a system which has known flooding issues would comprehensively go against the principles of the National Planning Policy Guidance (NPPG). Therefore, it is not proposed to discharge surface water into this system.

Surface water sewer, highway drain or another drainage system

No surface water sewers, highway drains or other drainage systems are known to be located at the boundary of the site. As such this method of surface water discharge is not viable.

To a combined sewer

A combined sewer is located on the Western boundary of the site, and it is proposed to connect into this system at a maximum of the greenfield runoff rate of 3l/s.

SURFACE WATER PROPOSED DESIGN

The greenfield run off calculations, via the ICP SuDS Mean Annual Flood method, for the site are summarised below:

Event	Run off rate (l/s)
Q1	2.6
QBAR	3.0
Q30	5.1
Q100	6.2

In accordance with the earlier mentioned hierarchy of drainage options, the system has been designed to utilise permeable paving to treat surface water prior to discharge into the combined sewer network.

As per the LASOO guidance, the peak runoff rate from the development for the 1 in 1yr rainfall event and the 1 in 100yr rainfall event should not exceed the peak greenfield runoff for the same event.

The design is also required to prevent flooding to any part of the site for storms up to and including the 1:30yr rainfall event, while any exceedance for the 6 hour 1:100yr event should be controlled within the site and should not flood any properties or service areas.

Consideration of SuDS components

A range of SuDS components are available and have been considered for use. Their applicability to the site has been addressed below:

- Rainwater harvesting – suitable for use on the site, however there is no guarantee the systems will be able to capture flows if already full of previous events. Discounted for site flow calculations.
- Green roofs – suitable for use on the site, however not considered appropriate from a planning perspective and would not fit the character of the site. Discounted for site flow calculations.
- Soakaways – not suitable for use on site. Not viable.
- Water butts – suitable for use but their effectiveness is dependent on homeowner maintenance which cannot be enforced. Discounted for site flow calculations.

- Permeable paving – underlying ground conditions make this unsuitable for use as direct filtration; however permeable paving is being utilised to treat surface water and for attenuation.
- Swales – Due to the narrow nature of the site towards the outfall position, there is not the available space to provide swales throughout the site. Discounted due to a lack of available space.
- Filter drains – could be used but would require land uptake from plots and often do not provide volume control. Discounted.
- Detention basins – Not considered viable due to large area of open space required. Discounted.
- Ponds/wetlands – Not considered viable due to large area of open space required. Discounted.
- Underground closed storage crate/tank systems – Considered viable for use

Climate change

Environment Agency guidance issued in 2016 estimates that peak rainfall intensity will increase due to climate change over the next 100 years. There is therefore an allowance of 40% attributed to the 30yr and 100yr storm event calculations in line with the Upper End estimate of rainfall increases for small and urban catchments.

Surface water quality

The SuDS Manual provides best industry practice for assessing the pollutant potential of developments and providing mitigation methods to increase run off water quality using SuDS components.

The simple index approach has been utilised here to assess the pollutant hazard indices and proposed treatment components. Note, this has been carried out in conjunction with the above SuDS component suitability assessment for the site and as such many features have already been discounted.

Table 26.2 from The SuDS Manual below outlines the pollution hazard indices for different land uses.

TABLE 26.2 Pollution hazard indices for different land use classifications

Land use	Pollution hazard level	Total suspended solids (TSS)	Metals	Hydro-carbons
Residential roofs	Very low	0.2	0.2	0.05
Other roofs (typically commercial/ industrial roofs)	Low	0.3	0.2 (up to 0.8 where there is potential for metals to leach from the roof)	0.05
Individual property driveways, residential car parks, low traffic roads (eg cul de sacs, homezones and general access roads) and non-residential car parking with infrequent change (eg schools, offices) ie < 300 traffic movements/day	Low	0.5	0.4	0.4
Commercial yard and delivery areas, non-residential car parking with frequent change (eg hospitals, retail), all roads except low traffic roads and trunk roads/motorways[1]	Medium	0.7	0.6	0.7
Sites with heavy pollution (eg haulage yards, lorry parks, highly frequented lorry approaches to industrial estates, waste sites), sites where chemicals and fuels (other than domestic fuel oil) are to be delivered, handled, stored, used or manufactured; industrial sites; trunk roads and motorways[1]	High	0.8[2]	0.8[2]	0.9[2]

Figure 5 SuDS Manual Table 26.2 Pollution hazard indices

This development is to be classed as a mix of ‘Very low’ and ‘low’ risk land uses due to the presence of residential roofs and individual property driveways and access roads.

This level of risk demands the following level of pollution control:

Land use	Suspended solids	Metal	Hydrocarbons
Residential roofs	0.2	0.2	0.05
Parking/access road	0.5	0.4	0.4

As per section 26.7.1 each SuDS component should be included in the total mitigation with a reduction of 50% for every additional component after the first.

Land use	Suspended solids	Metal	Hydrocarbons
Pollution hazard	0.5	0.4	0.4
Permeable Paving	0.7	0.6	0.7

In this case there is only one component included. Standard gully and pipe systems are not classed as having a mitigation index and have not been included above.

The above table shows that permeable paving would provide sufficient pollutant removal for the highest risk categories on the development. The introduction of further treatment would be deemed inappropriate for a development of this scale.

Surface water drainage proposals

Based on the above assessments, it is proposed that drainage system will convey flows from the three plots via gravity, to the combined sewer network. The system will accept all storm events up to 1:100yr + 40% allowance for climate change.

MAINTENANCE

All components shall be maintained in accordance with the relative requirements shown in the SuDS Manual. These intervals should be deemed as a minimum frequency and reference should also be made to the manufacturers and landscape designers' guidance to ensure all components are maintained correctly.

Table 21.3 from the SuDS Manual for attenuation tanks has been included below for reference.

TABLE 21.3 Operation and maintenance requirements for attenuation storage tanks

Maintenance schedule	Required action	Typical frequency
Regular maintenance	Inspect and identify any areas that are not operating correctly. If required, take remedial action	Monthly for 3 months, then annually
	Remove debris from the catchment surface (where it may cause risks to performance)	Monthly
	For systems where rainfall infiltrates into the tank from above, check surface of filter for blockage by sediment, algae or other matter; remove and replace surface infiltration medium as necessary.	Annually
	Remove sediment from pre-treatment structures and/ or internal forebays	Annually, or as required
Remedial actions	Repair/rehabilitate inlets, outlet, overflows and vents	As required
Monitoring	Inspect/check all inlets, outlets, vents and overflows to ensure that they are in good condition and operating as designed	Annually
	Survey inside of tank for sediment build-up and remove if necessary	Every 5 years or as required

Figure 7 SuDS Manual table 21.3 Attenuation storage maintenance

FOUL WATER DRAINAGE STRATEGY

All foul water from the plots will be positively drained towards the combined sewer network within the adopted highway network to the West of the development site.

MANAGEMENT

All separate surface and foul water drainage systems within the site are proposed to remain private and be maintained by a newly formed management company. This includes the section of culverted watercourse which flows through the site on the southern boundary.

Appendix A – Infiltration Testing

Test	Time Started	Level at first reading	Time of first reading	Level at second reading	Time of second reading	Level of third reading	Time of third reading
1	12.05	0.7m	12.41	0.65m	14.30	0.6m	16.30
2	12.15	0.8m	12.46	0.75m	12.46	0.7m	16.30
3	12.27	0.75m	12.48	0.65m	13.05	0.55m	16.30
4	12.27	0.75m	12.54	0.6m	13.05	0.5m	16.30
5	13.22	0.75m	13.42	0.65	16.37		

Infiltration testing failed on site as only one test reached 50% of the trial hole capacity in 3-4 hours. Therefore, infiltration tests were not in accordance with the requirements of the BRE 365 methodology and were deemed not viable.

Figure A1: Photograph of infiltration testing undertaken on site

Figure A2: Photograph of a trial hole dug on site

Appendix B – Greenfield Runoff Rate Calculations

A L Daines & Partners		Page 1
28 Castle Street Carlisle CA3 8TP		Micro Drainage
Date 20/06/2022 11:23 File	Designed by petera Checked by	
Micro Drainage	Source Control 2020.1.3	

IH 124 Mean Annual Flood

Input

Return Period (years)	100	Soil	0.450
Area (ha)	0.246	Urban	0.000
SAAR (mm)	1016	Region Number	Region 10

Results	l/s
QBAR Rural	3.0
QBAR Urban	3.0
Q100 years	6.2
Q1 year	2.6
Q2 years	2.8
Q5 years	3.6
Q10 years	4.1
Q20 years	4.7
Q25 years	4.9
Q30 years	5.1
Q50 years	5.5
Q100 years	6.2
Q200 years	7.1
Q250 years	7.3
Q1000 years	9.1

Warning: It is unusual to use the IH124 method with an area < 50ha. The Interim Code of Practice recommends that the IH124 method is applied with 50ha and the resulting discharge is linearly interpolated for the required area. The ICP SUDS tab will do this automatically.

Appendix C – Micro Drainage Calculations

A L Daines & Partners		Page 1
28 Castle Street Carlisle CA3 8TP		Micro Drainage
Date 14/07/2022 14:54 File MD CALCS.MDX	Designed by petera Checked by	
Micro Drainage	Network 2020.1.3	

1 year Return Period Summary of Critical Results by Maximum Level (Rank 1) for Storm

Simulation Criteria

Areal Reduction Factor	1.000	Additional Flow - % of Total Flow	40.000
Hot Start (mins)	0	MADD Factor * 10m³/ha Storage	2.000
Hot Start Level (mm)	0	Inlet Coefficient	0.800
Manhole Headloss Coeff (Global)	0.500	Flow per Person per Day (l/per/day)	0.000
Foul Sewage per hectare (l/s)	0.000		

Number of Input Hydrographs	0	Number of Storage Structures	1
Number of Online Controls	1	Number of Time/Area Diagrams	0
Number of Offline Controls	0	Number of Real Time Controls	0

Synthetic Rainfall Details

Rainfall Model		FSR	Ratio R 0.276
Region England and Wales		Cv (Summer)	0.750
M5-60 (mm)	16.400	Cv (Winter)	0.840

Margin for Flood Risk Warning (mm)	300.0	DVD Status	OFF
Analysis Timestep	Fine	Inertia Status	OFF
DTS Status	ON		

Profile(s)	Summer and Winter
Duration(s) (mins)	15, 30, 60, 120, 180, 240, 360, 480, 600, 720, 960, 1440, 2160, 2880, 4320, 5760, 7200, 8640, 10080
Return Period(s) (years)	1, 30, 100
Climate Change (%)	0, 40, 40

PN	US/MH Name	Storm	Return Period	Climate Change	First (X) Surcharge	First (Y) Flood	First (Z) Overflow	Overflow Act.	Water Level (m)
1.000	1	15 Winter	1	+0%					24.694
1.001	2	15 Winter	1	+0%					24.664
1.002	3	15 Winter	1	+0%					24.606
1.003	4	15 Winter	1	+0%					24.471
2.000	7	15 Winter	1	+0%					24.383
3.000	6	15 Winter	1	+0%					24.375
1.004	5	30 Winter	1	+0%	30/15 Summer				23.429
1.005	8	60 Summer	1	+0%	30/15 Summer				23.420

PN	US/MH Name	Surcharged Depth (m)	Flooded Volume (m³)	Flow / Cap.	Overflow (l/s)	Half Drain Time (mins)	Pipe Flow (l/s)	Status	Level Exceeded
1.000	1	-0.106	0.000	0.18			1.9	OK	
1.001	2	-0.101	0.000	0.24			1.9	OK	
1.002	3	-0.119	0.000	0.10			1.9	OK	
1.003	4	-0.129	0.000	0.05			1.9	OK	
2.000	7	-0.117	0.000	0.11			2.0	OK	

1 year Return Period Summary of Critical Results by Maximum Level (Rank 1) for Storm

PN	US/MH Name	Surcharged Depth (m)	Flooded Volume (m^3)	Flow / Cap.	Overflow (l/s)	Half Drain Time (mins)	Pipe Flow (l/s)	Status	Level Exceeded
3.000	6	-0.125	0.000	0.06			2.0	OK	
1.004	5	-0.121	0.000	0.08		19	4.3	OK	
1.005	8	-0.050	0.000	0.07			2.7	OK	

30 year Return Period Summary of Critical Results by Maximum Level (Rank 1) for Storm

Simulation Criteria

Areal Reduction Factor	1.000	Additional Flow - % of Total Flow	40.000
Hot Start (mins)	0	MADD Factor * 10m³/ha Storage	2.000
Hot Start Level (mm)	0	Inlet Coefficient	0.800
Manhole Headloss Coeff (Global)	0.500	Flow per Person per Day (l/per/day)	0.000
Foul Sewage per hectare (l/s)	0.000		

Number of Input Hydrographs	0	Number of Storage Structures	1
Number of Online Controls	1	Number of Time/Area Diagrams	0
Number of Offline Controls	0	Number of Real Time Controls	0

Synthetic Rainfall Details

Rainfall Model	FSR	Ratio R	0.276
Region	England and Wales	Cv (Summer)	0.750
M5-60 (mm)	16.400	Cv (Winter)	0.840

Margin for Flood Risk Warning (mm)	300.0	DVD Status	OFF
Analysis Timestep	Fine	Inertia Status	OFF
DTS Status	ON		

Profile(s)	Summer and Winter
Duration(s) (mins)	15, 30, 60, 120, 180, 240, 360, 480, 600, 720, 960, 1440, 2160, 2880, 4320, 5760, 7200, 8640, 10080
Return Period(s) (years)	1, 30, 100
Climate Change (%)	0, 40, 40

PN	US/MH Name	Storm	Return Period	Climate Change	First (X) Surcharge	First (Y) Flood	First (Z) Overflow	Overflow Act.	Water Level (m)
1.000	1	15 Winter	30	+40%					24.743
1.001	2	15 Winter	30	+40%					24.718
1.002	3	15 Winter	30	+40%					24.634
1.003	4	15 Winter	30	+40%					24.490
2.000	7	15 Winter	30	+40%					24.413
3.000	6	15 Winter	30	+40%					24.398
1.004	5	60 Winter	30	+40%	30/15 Summer				23.714
1.005	8	60 Winter	30	+40%	30/15 Summer				23.756

PN	US/MH Name	Surcharged Depth (m)	Flooded Volume (m³)	Flow / Cap.	Overflow (l/s)	Half Drain Time (mins)	Pipe Flow (l/s)	Status	Level Exceeded
1.000	1	-0.057	0.000	0.62			6.5	OK	
1.001	2	-0.047	0.000	0.80			6.5	OK	
1.002	3	-0.091	0.000	0.33			6.5	OK	
1.003	4	-0.110	0.000	0.16			6.5	OK	
2.000	7	-0.087	0.000	0.36			6.6	OK	

30 year Return Period Summary of Critical Results by Maximum Level (Rank 1) for Storm

PN	US/MH Name	Surcharged Depth (m)	Flooded Volume (m^3)	Flow / Cap.	Overflow (l/s)	Half Drain Time (mins)	Pipe Flow (l/s)	Status	Level Exceeded
3.000	6	-0.102	0.000	0.22			6.7	OK	
1.004	5	0.164	0.000	0.06		40	3.6	SURCHARGED	
1.005	8	0.286	0.000	0.08			3.0	SURCHARGED	

100 year Return Period Summary of Critical Results by Maximum Level (Rank 1) for Storm

Simulation Criteria

Areal Reduction Factor	1.000	Additional Flow - % of Total Flow	40.000
Hot Start (mins)	0	MADD Factor * 10m³/ha Storage	2.000
Hot Start Level (mm)	0	Inlet Coefficient	0.800
Manhole Headloss Coeff (Global)	0.500	Flow per Person per Day (l/per/day)	0.000
Foul Sewage per hectare (l/s)	0.000		

Number of Input Hydrographs	0	Number of Storage Structures	1
Number of Online Controls	1	Number of Time/Area Diagrams	0
Number of Offline Controls	0	Number of Real Time Controls	0

Synthetic Rainfall Details

Rainfall Model	FSR	Ratio R	0.276
Region	England and Wales	Cv (Summer)	0.750
M5-60 (mm)	16.400	Cv (Winter)	0.840

Margin for Flood Risk Warning (mm)	300.0	DVD Status	OFF
Analysis Timestep	Fine	Inertia Status	OFF
DTS Status	ON		

Profile(s)	Summer and Winter
Duration(s) (mins)	15, 30, 60, 120, 180, 240, 360, 480, 600, 720, 960, 1440, 2160, 2880, 4320, 5760, 7200, 8640, 10080
Return Period(s) (years)	1, 30, 100
Climate Change (%)	0, 40, 40

PN	US/MH Name	Storm	Return Period	Climate Change	First (X) Surcharge	First (Y) Flood	First (Z) Overflow	Overflow Act.	Water Level (m)
1.000	1	15 Winter	100	+40%					24.767
1.001	2	15 Winter	100	+40%					24.739
1.002	3	15 Winter	100	+40%					24.642
1.003	4	15 Winter	100	+40%					24.495
2.000	7	15 Winter	100	+40%					24.422
3.000	6	15 Winter	100	+40%					24.404
1.004	5	120 Winter	100	+40%	30/15 Summer				23.891
1.005	8	120 Winter	100	+40%	30/15 Summer				23.904

PN	US/MH Name	Surcharged Depth (m)	Flooded Volume (m³)	Flow / Cap.	Overflow (l/s)	Half Drain Time (mins)	Pipe Flow (l/s)	Status	Level Exceeded
1.000	1	-0.033	0.000	0.78			8.2	OK	
1.001	2	-0.026	0.000	1.00			8.1	OK	
1.002	3	-0.083	0.000	0.41			8.1	OK	
1.003	4	-0.105	0.000	0.20			8.2	OK	
2.000	7	-0.078	0.000	0.46			8.5	OK	

100 year Return Period Summary of Critical Results by Maximum Level (Rank 1) for Storm

PN	US/MH Name	Surcharged Depth (m)	Flooded Volume (m^3)	Flow / Cap.	Overflow (l/s)	Half Drain Time (mins)	Pipe Flow (l/s)	Status	Level Exceeded
3.000	6	-0.096	0.000	0.28			8.5	OK	
1.004	5	0.341	0.000	0.06		72	3.1	SURCHARGED	
1.005	8	0.434	0.000	0.08			2.9	SURCHARGED	

Appendix D – United Utilities Sewer Records

United Utilities
Water for the North West

COMMERCIALDW
DRAINAGE AND WATER ENQUIRY

Commercial drainage and water enquiry

Responses to a drainage and water enquiry for commercial premises or development sites.

Client:

Legal Bricks Searches

T2
Dudley Court North, Waterfront East
Dudley, West Midlands
DY5 1XP

FAO:

Client ref: 384323

Order number: UUPS-ORD-323940
Received date: 07/09/2021
Response date: 10/09/2021

The following records were searched in compiling this report:

The map of public sewers
The map of waterworks
Water and sewerage billing records
Adoption of public sewers records
Building over public sewer records
Adoption of public water mains records
Water supply clarification

Property address: Land at St Bees St Bees, Cumbria, Ca27 0ds

Please Note - We must make you aware that due to the introduction of the open market with effect from 1st April 2017 for commercial customers, Property Searches will no longer be able to resolve issues regarding some discrepancies within the report. Due to the change in the structure of the market the retailer is now responsible for taking ownership of certain issues, particularly relating to billing/tariff charges as well as, but not limited to change of usage of a property.

Enquiries and Responses
The records were searched by Nathan Vaughan for United Utilities who does not have, nor is likely to have, any personal or business relationship with any person involved in the sale of the property.

This search report was prepared by Nathan Vaughan for United Utilities who does not have, nor is likely to have, any personal or business relationship with any person involved in the sale of the property.

How to contact us:

United Utilities Water Limited
Property Searches
Haweswater House
Lingley Mere Business Park
Great Sankey
Warrington
WA5 3LP

Telephone: 0370 7510101

E-mail: propertysearches@uupic.co.uk

If you are planning works anywhere in the North West, please read our access statement before you start work to check how it will affect our network. http://www.unitedutilities.com/work-near-asset.aspx .

What is included:

1. Summary of findings and key
2. Detailed findings of the CON29DW
3. Guidance for interpretation
4. Terms and conditions
5. Complaints policy

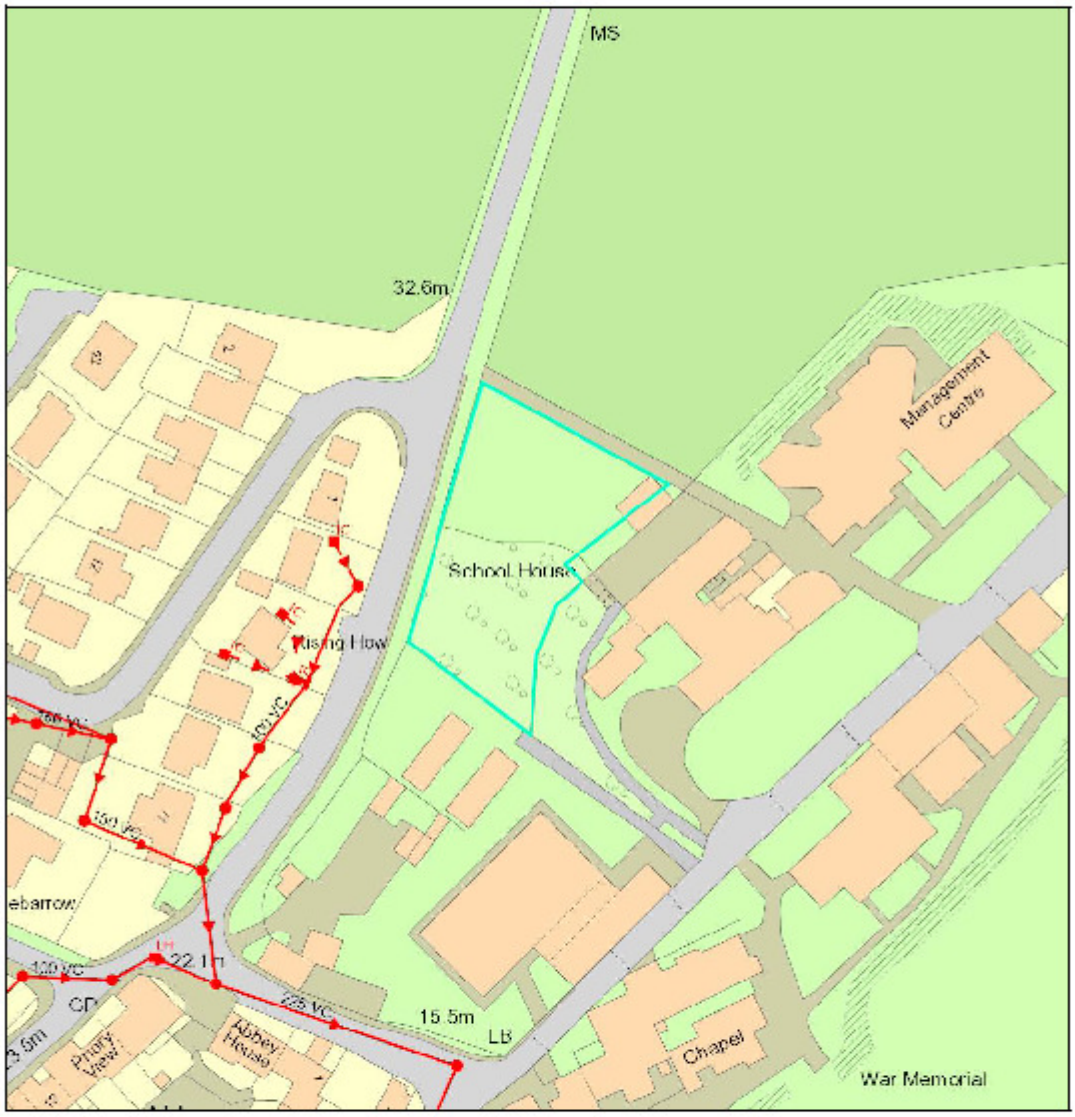
United Utilities Water Limited
Registered in England & Wales No. 2366678
Registered Office Haweswater House, Lingley Mere Business Park, Lingley Green Avenue, Great Sankey, Warrington, WA5 3LP

United Utilities
Water for the North West

COMMERCIALDW
DRAINAGE AND WATER ENQUIRY

SEWER RECORD

Land at St Bees St Bees, Cumbria, Ca27 0ds



The position of underground apparatus shown on this plan is approximate only and is given in accordance with the best information currently available. The actual positions may be different from those shown on the plan and private pipes, sewers or drains may not be recorded. United Utilities Water PLC will not accept any liability for any damage caused by the actual positions being different from those shown.

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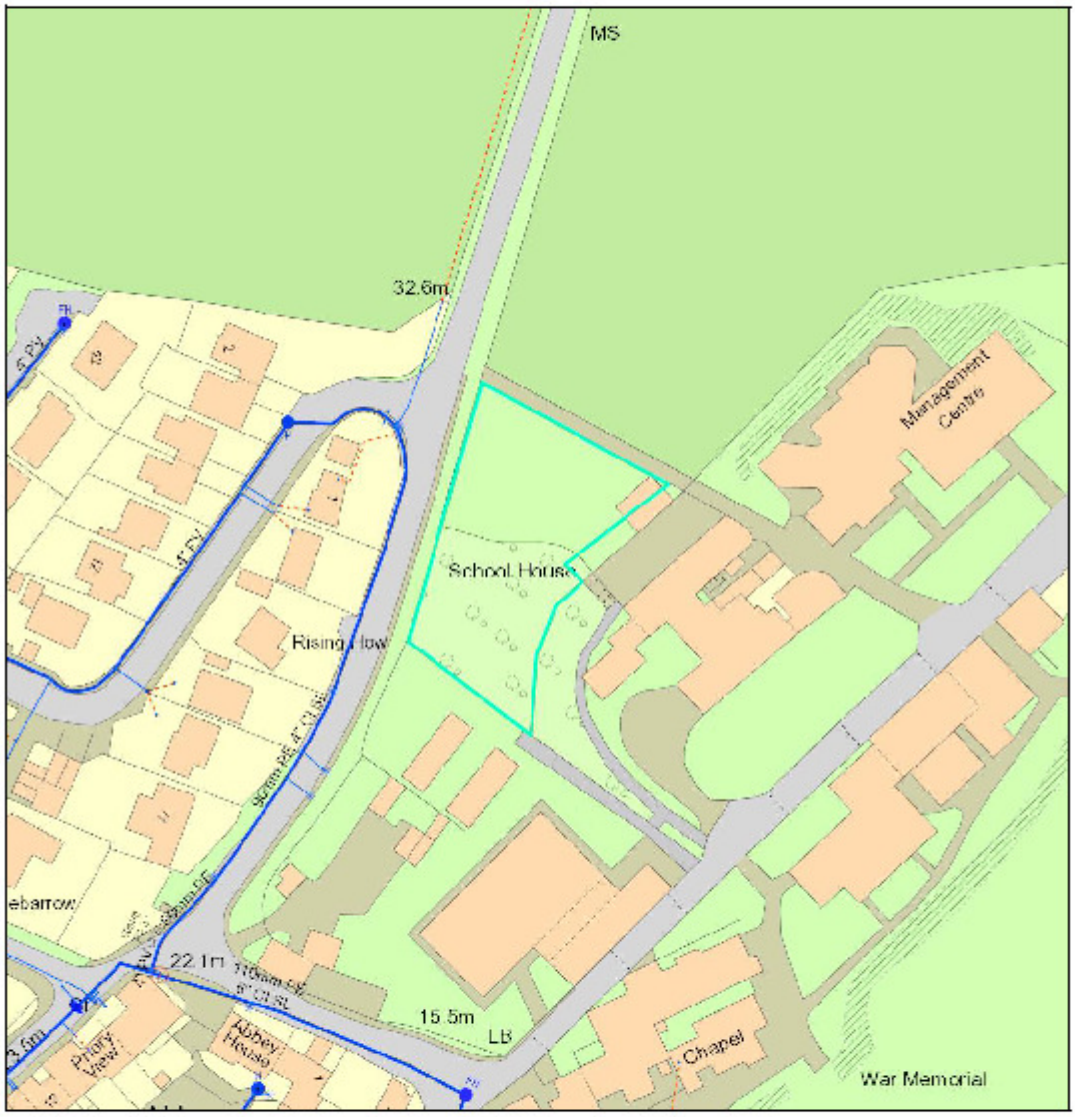
United Utilities
Water for the North West

COMMERCIALDW
DRAINAGE AND WATER ENQUIRY

WATER RECORD

Land at St Bees St Bees, Cumbria, Ca27 0ds



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Appendix E – Location Plan of the existing culvert