STEPHEN WILSON
PARTNERSHIP LTD

Chalvington Barn, Unit C Dittons Business Park, Dittons Road
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Flood Risk Assessment

for

The Watermill, Halfway Bridge, Petworth, West Sussex, GU28 9BP

E8017

STEPHEN WILSON PARTNERSHIP LTD

DOCUMENT CONTROL SHEET

Project Name: Land adjacent to the Watermill, Halfway Bridge, Lodsworth, GU28 9BP

Project Number: E8017

Client: Newman Developments

Report Title: Flood Risk Assessment

Reference: RE001

[redacted]

Signed by……
Craig Searle (BEng Hons)
Civil Engineer

[redacted]

Countersigned by……
Dean Giles (I.Eng. AMI Struct E)
Managing Director

FOR AND ON BEHALF OF STEPHEN WILSON PARTNERSHIP

Date: January 2024

Rev: F

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1 INTRODUCTION AND BRIEF

1.1 Introduction and Brief

1.1.1 This report has been produced to assess the flood risk to and the potential for increased flood risk from the proposed development situated Land adjacent to the Watermill, Halfway Bridge, Lodsworth, GU28 9BP.

1.1.2 This document has been produced in accordance with current best practice and recommendations and guidance set out in the Nation Planning Policy Framework (NPPF).

1.1.3 Stephen Wilson Partnership has no responsibility to any other parties to whom this report may be circulated, in part of in full, and any such parties rely on the contents of this report solely at their own risk.

1.1.4

2 EXISTING SITE CONDITIONS

2.1 Location

2.1.1 The site is located at Land adjacent to the Watermill, Halfway Bridge, Lodsworth, GU28 9BP. The figure below shows the site in its current context.

Figure 2.1 – Site Location – Approximate Site Boundary Shown in Red.

2.2 Site Topography

2.2.1 The centre of the site may be located by the National Grid Reference 493117, 121984.

2.2.2 The River Rother runs along the North-Eastern boundary, which runs from North to South.

2.2.3 A review of site photos identified the presence of positive drainage systems on site and it is believed that these are existing foul and surface water drains serving the existing building.

2.3 Site Geology

2.3.1 The British Geological Survey (BGS) map shows that the site is underlain by Sandstone (Easebourne Member). At the time of writing no intrusive ground investigation works had been carried out.

3 PROPOSED DEVELOPMENT

3.1.1 The proposed plans are for the construction of 7 dwellings with associated hard and soft landscaping. The figure below shows the current proposals.

Figure 3.1 – Proposed Plan

3.1.2 Development proposals can be found in Appendix 1.0.

3.1.3 The proposed impermeable areas are summarised as follows:

Development Site Area:	1284 m^2
Proposed Roof Area:	388 m^2
Proposed Hard Paved	386m^2
(Existing Car Park	186 m^2)
Total Impermeable Area:	774 m^2 (960 m^2)

3.1.4 The majority of the existing development area is impermeable. There are minimal differences between the total impermeable areas of the existing compared to the proposed.

3.1.5 A plan showing impermeable areas can be found in Appendix 3.0.

4 FLOOD RISK

Flooding can occur from a range of individual or a combination of sources that include fluvial (main river), tidal (sea), land, groundwater, sewers infrastructure, reservoirs, and other artificial sources.

The Environment Agency website includes Flood Maps which can be referred to for planning purposes in order to identify the flood risk from three different sources, for a particular development site. There are two different colours shown on the flood map.

Dark blue identifies areas that could be affected by flooding from either rivers or the sea if there were no defences. These are classified as flood zone 3. Flood Zone 3 comprises land assessed as having a 0.5% (1 in 200) or greater chance of flooding by the sea or a 1% (1 in 100) or greater chance of flooding from rivers, in any one year.

Light blue identifies areas that could be affected by flooding from either rivers or the sea. These are classified as Flood Zone 2. Flood Zone 2 comprises land assessed as having a 0.01% (1 in 1000) or greater chance of flooding, in any one year.

These two coloured areas show the extent of the natural flood plain in the absence of flood defence or other man-made structures. Areas outside of the blue areas are classified as Flood Zone 1. Flood Zone 1 comprises land assessed as having a <0.01% (1 in 1000) probability of river or sea flooding. Therefore, the risk of flooding from fluvial or tidal sources is considered to be negligible.

Each potential source of flooding has been considered in further details below.

4.1 Tidal and Fluvial Flooding

4.1.1 A flood map for planning was requested from the Environment Agency. The flood map identified that the development site is situated in Flood Zone 3.

Figure 4.1 – Extract of the Environment Agency's Flood Risk Map for planning.

4.1.2 The full requested flood map for planning can be found in Appendix 2.0.

4.1.3 Flood Zone 3 comprises land assessed as having a greater than 1% (1 in 100) probability of river or sea flooding. Therefore, the current risk of flooding from fluvial or tidal sources is considered to be high.

4.1.4 Flood modelling was also requested from the environment agency for the River Rother. The flood model summarised and shown in figure 4.2 and figure 4.3 that the 1% plus climate change flood level in the locality of the development is 16.49m. The information provided by the EA can be found in Appendix 5.0.

	NGR		Modelled Flood Levels in Metres AOD Undefended Annual Exceedance Probability			
Node Ref	Eastings	Northings	4%	1.3%	1%	1% +CC*
1	493074	122040	15.99	16.24	16.34	16.59
2	493127	122006	15.14	15.83	16.03	16.49
3	493149	121974	15.15	15.83	16.03	16.49

Figure 4.2 – Extract from the Environment Agency's Flood Model

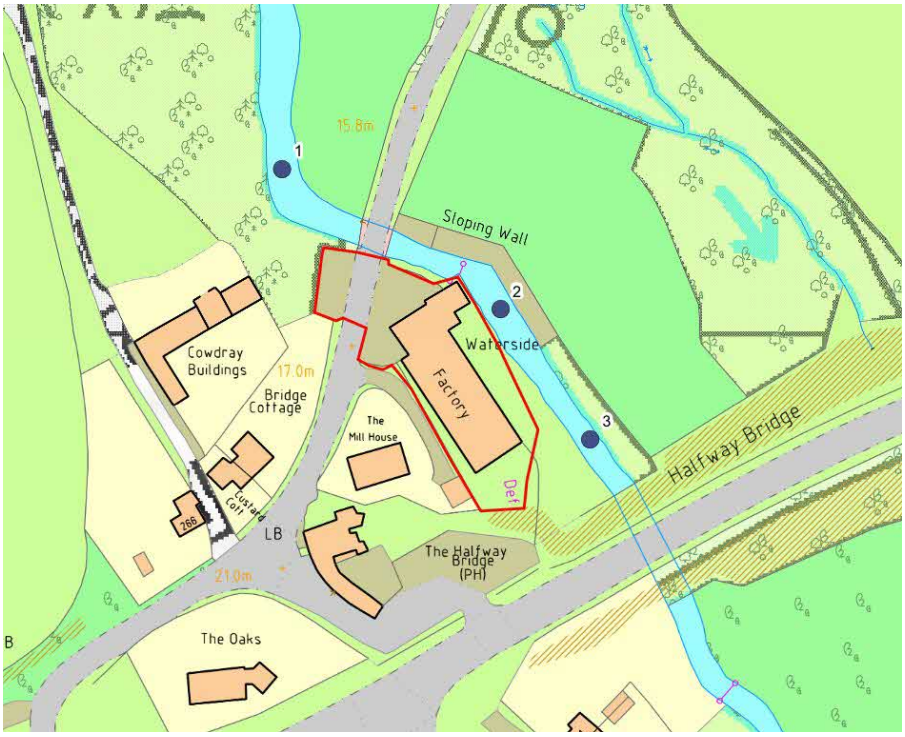

Figure 4.3 – Extract from the Environment Agency's Flood Model showing the flood node points

4.1.5 As discussed further in section 4.8, the proposed development's lowest floor level will be a minimum of 600mm above the 1% plus climate change flood level. Thus, the risk of flooding from fluvial or tidal sources would be considered to be low.

4.2 Flooding from the Land

4.2.1 Intense rainfall, often short duration, that is unable to soak into the ground or enter a drainage system can quickly run off the land and result in localised flooding. Local topography and buildings can influence the direction and depth of flow. It is inevitable that as a result of extreme rainfall, the capacities of existing sewers, surface water attenuation features and other drainage systems will be exceeded on occasion.

4.2.2 The Environment Agency website provides surface water flood risk information based on the information provided by the lead local flood authority. This highlights the areas at risk from surface water flooding from overland flows.

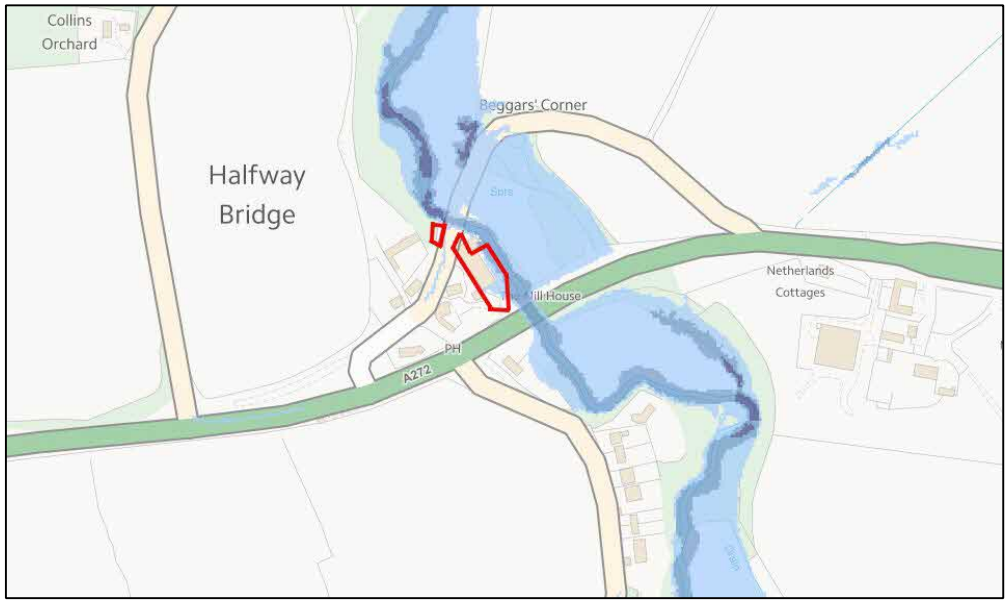

Figure 4.4 – Extract of the Environment Agency's online Flood Risk Map.

4.2.3 It can be seen from the figure above that the proposed development site is outside the areas identified to be at notable risk.Therefore, the risk of flooding from overland flows can be considered as low.

4.3 Flooding from Groundwater

4.3.1 Groundwater flooding occurs when water levels in the ground rise above surface level. It is most likely to occur in low lying areas underlain by aquifers. These may be extensive regional aquifers, such as chalk, or may be localised sands and gravels.

4.3.2 Water levels below the ground rise during the wet winter months and fall again in the summer as the water flows out towards rivers. In very wet winters, water level rise may lead to flooding or normally dry land. Groundwater flooding can sometimes take weeks or months to dissipate because groundwater flows are much slower than surface flows.

4.3.3 The existing site falls from the West to the East and should groundwater levels rise enough to cause flooding, flood waters would follow the existing topography of the site and flow towards the eastern boundary away from the development site.

4.3.4 Therefore, the risk of flooding from groundwater is considered to be low.

4.4 Flooding from Sewers, Highways and Private Drains

4.4.1 In urbanised areas, rainwater is frequently drained to surface water or combined water sewers. Flooding can occur when the sewer is overwhelmed by heavy rainfall, becomes blocked or has inadequate capacity. Flood waters will either follow overland exceedance routes or be stored at surface level until they are able to drain away. When this happens to combined sewers there is a risk of land or property being contaminated with raw sewerage.

4.4.2 A review of site photos has identified the presence of foul manhole covers. Should flooding occur from the existing drains, flood water will follow the existing topography and flow away from the development.

4.4.3 All foul manholes should be double sealed where they are below the 1 in 100 plus climate change flood level. This is to prevent foul sewer flooding in addition to the fluvial flooding should it occur.

4.4.4 A review of site photos has identified the presence of a surface water drainage system. As discussed previously should flooding occur, flood water will follow the existing topography and flow away from the development site.

4.4.5 The design of the surface water drainage system serving the proposed development should look to maintain the run-off from the developed site to pre-development levels so that flood risk is not increased.

4.4.6 Therefore, the risk of flooding from sewers, highway drainage and private drains is considered to be low.

4.4.7 Public Sewer Records can be found in Appendix 5.0.

4.5 Flooding from Reservoirs and other Artificial Sources

4.5.1 Non-natural or artificial sources of flooding can include reservoirs, canals, and lakes, where water is retained above natural ground level. Reservoir or canal flooding can occur as a result of the facility being overwhelmed and or as a result of dam or bank failure. The latter can happen suddenly resulting in rapidly flowing, deep water that can cause significant threat to life and major property damage.

Figure 4.5 – Extract of the Environment Agency's online Flood Risk Map.

4.5.2 There are multiple bodies of water in close proximity to the site and the online environment agency flood risk map shows the site is at risk from flooding from artificial sources. However, the chance of a reservoir failing in the UK and causing flooding is extremely low.

4.5.3 Should there be flooding from a failed reservoir, the lowest floor level of the proposed development is at a height that should be sufficiently above any flood level.

4.5.4 Therefore, the risk of flooding from reservoirs and other artificial sources is considered to be low.

4.5.5 In addition, should the need for evacuation occur, access to the proposed development is shown not to be at risk of flooding, providing a safe route of escape.

4.6 South Downs National Park Strategic Flood Risk Assessment

4.6.1 A Strategic Flood Risk Assessment (SFRA) has been produced by Amec Foster Wheeler, dated September 2017, for the South Downs National Park Authority. This SFRA provides details of the flood risk throughout the South Downs National Park.

4.6.2 A review of the SFRA and accompanying maps were undertaken and it was found that there was insufficient information provided that would affect the site.

4.7 West Sussex Preliminary Flood Risk Assessment

4.7.1 A Preliminary Flood Risk Assessment (PFRA) was produced by West Sussex County council dated May 2011. The PFRA provides a high level overview of flood risk from local sources within West Sussex.

4.7.2 The PFRA has shown that the area in which the site is located has been subjected to historical flooding. However, the PFRA does not go into detail on the type and extent of the recorded flooding. The location of the site is circled in the figure below.

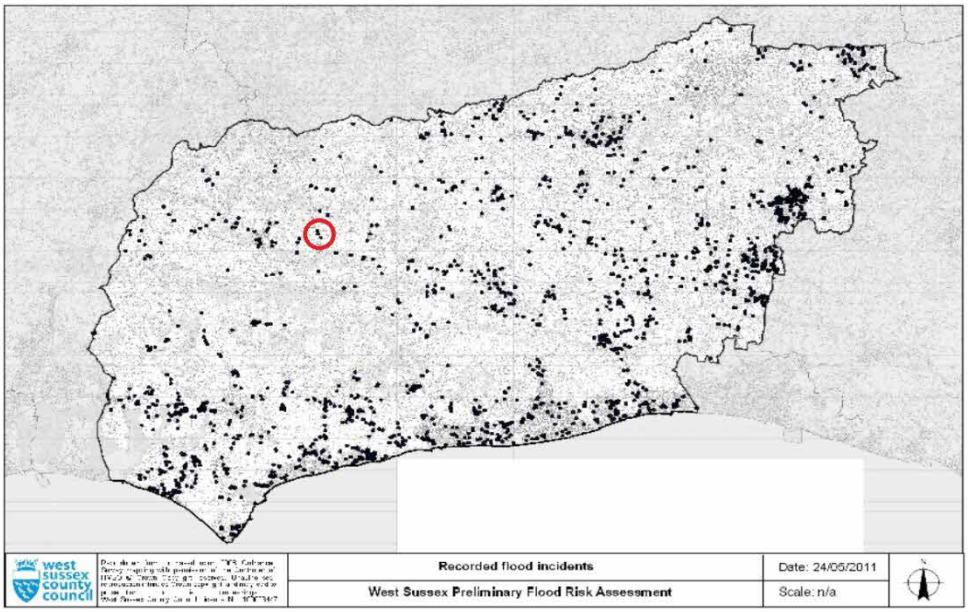

Figure 4.6 – Extract from PFRA showing historical flooding across West Sussex

4.8 Flood Risk Mitigation and Means of Escape

4.8.1 The proposed development needs to be proved how the occupants are kept safe from the effects of the flood.

4.8.2 The finished floor level (FFL) of the proposed dwellings needs to mean the Environment Agency requirements of being 600mm above the 1% plus climate change flood level of 16.49m. The required minimum level therefore is 17.09m. The proposed level of the ground FFL is 17.09m.

4.8.3 Should the need for evacuation to occur, the occupants can use the new pedestrian access as a means of safe egress. The access route is above the 1% plus climate change flood level.

4.8.4 Residents should also sign up to the Environment Agency's flood warning information service which will provide details of any storm events that may impact the development.

4.8.5 Therefore, it is believed that this development satisfies the requirements to show that the occupants will be kept safe from the effects of flooding and if there is the need for evacuation to occur, a safe escape route is available which is above the highest estimated flood level.

4.9 Flood Risk Summary

4.9.1 The potential flood risk to the proposed development has been summarised below:

Fluvial flood risk	Low Risk
Tidal flood risk	Low Risk
Flooding from the land	Low Risk
Flooding from groundwater	Low Risk
Flooding from sewers	Low Risk
Flooding from drainage	Low Risk
Flooding from artificial sources	Low Risk

4.9.2 Having considered the risk of flooding from all sources, the risk of flooding from all sources has been assessed and is considered to be low.

5 CONCLUSIONS

5.1.1 This report has concluded the following:

The proposed plans are for the construction of 7 dwellings with associated hard and soft landscaping.

A review of the Environment Agency online mapping tool has identified that the development site is situated in Flood Zone 3.

The finished floor level (FFL) of the proposed dwellings needs to mean the Environment Agency requirements of being 600mm above the 1% plus climate change flood level of 16.49m. The required minimum level therefore is 17.09m. The proposed level of the ground FFL is 17.09m.

Should the need for evacuation to occur, the occupants can use the new pedestrian access as a means of safe egress. The access route is above the 1% plus climate change flood level.

Residents should also sign up to the Environment Agency's flood warning information service which will provide details of any storm events that may impact the development.

It is believed that this development satisfies the requirements to show that the occupants will be kept safe from the effects of flooding and if there is the need for evacuation to occur, a safe escape route is available which is above the highest estimated flood level.

The risk of flooding from all sources has been assessed and is considered to be low.

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Appendix 1.0

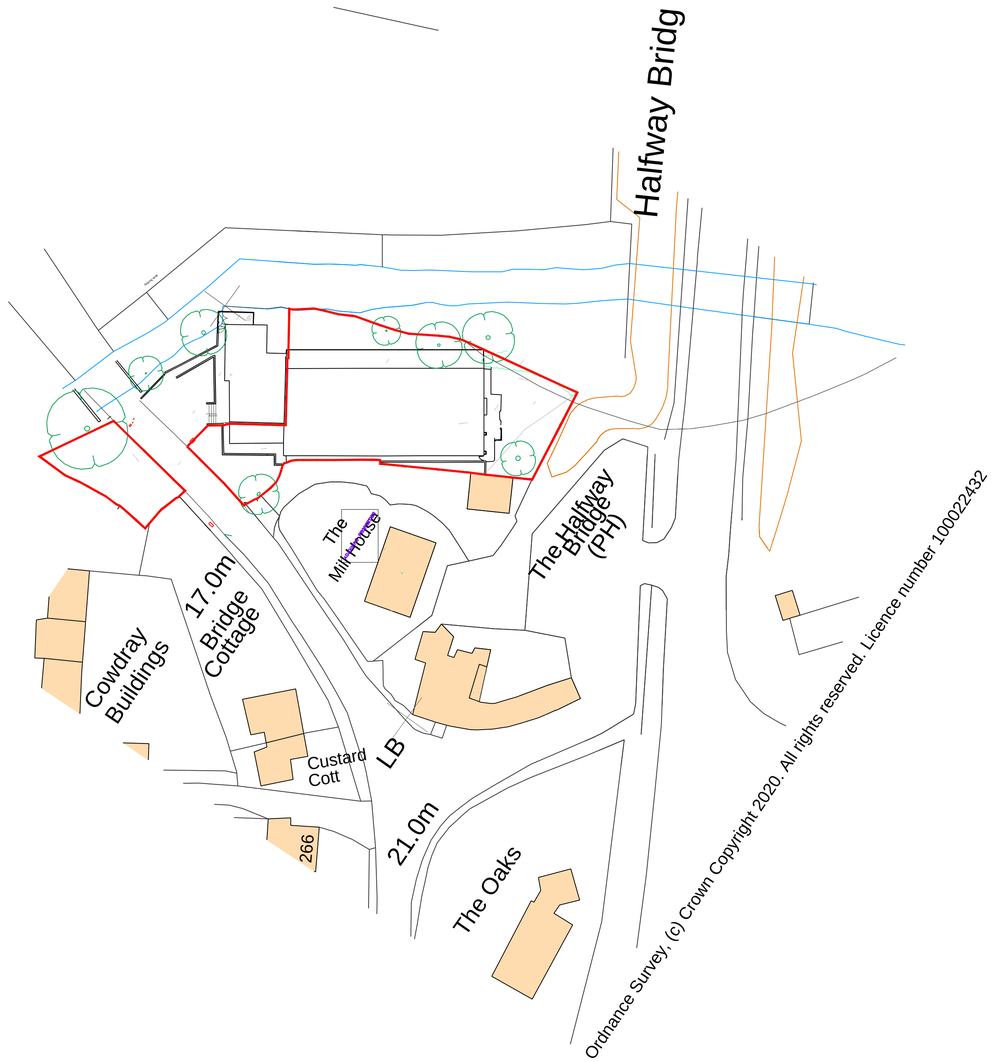
Development Proposals

DO NOT SCALE FROM THIS DRAWING EXCEPT FOR PLANNING PURPOSES ONLY.

ALL DIMENSIONS RELATING TO SUB-CONTRACTOR OR SUPPLIERS WORK MUST BE CHECKED ON SITE AND AGREED BETWEEN THE GENERAL CONTRACTOR & THE SUB-CONTRACTORS \ SUPPLIERS. ALL DIMENSIONS ARE IN MILLIMETERS. IF IN DOUBT ASK.

ALL WORKS OR MATERIALS INDICATED ON THE DRAWING ARE TO BE TO THE LATEST BRITISH STANDARDS AND ARE TO BE CARRIED OUT IN ACCORDANCE WITH THE RELEVANT CODES OF PRACTICE OR RECOGNISED TRADE ASSOCIATIONS RECOMMENDATIONS & PUBLICATIONS

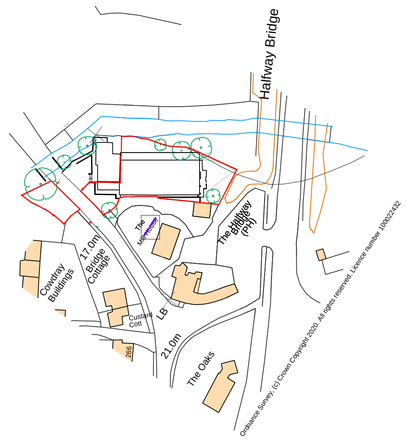
REV.	AMENDMENT	BY	DATE



Block Plan

5 0 5 10 15 20 25 30 35 40 45 50

1:500



Location Plan

10 0 10 20 30 40 50 60 70 80 90 100

1:1250

Project

The Watermill,
Halfway Bridge, Lodsworth.

Drawing

Location + Block Plans

Date	Drawn by
october 2023	
Scales	**Suitability**
1:500/1250 @ A1	planning
Doc No	**Revision**
DLS-068-PL-01	

DLS ARCH

David Seaman - DLS: ARCH
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REV.	AMENDMENT	BY	DATE

Project
The Watermill,
Halfway Bridge, Lodsworth.

Drawing
Proposed Site Plan

Date: october 2023
Drawn by:
Scales: 1:125/250 @ A1/A3
Suitability: planning
Doc No: DLS-068-PL-02-C
Revision:

DLS ARCH

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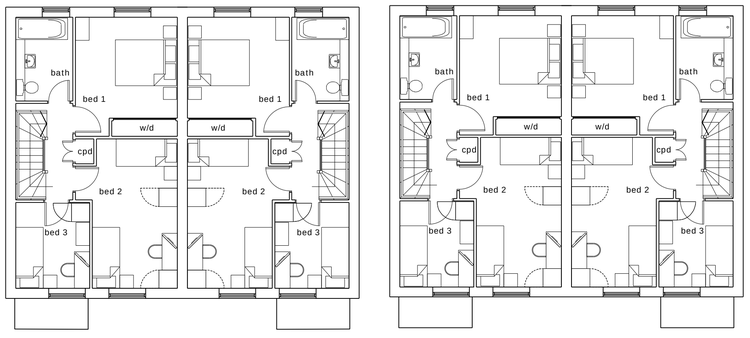
REV.	AMENDMENT	BY	DATE

Accommodation Schedule

Units 1-4 - 3b/5p - 93.4sq.m / 1005sq.ft
Units 5-7 - 2b/4p - 79.4sq.m / 852.5sq.ft



First Floor Plan

Ground Floor Plan

1:100

Project
The Watermill,
Halfway Bridge, Lodsworth.

Drawing
Proposed Floor Plans

Date october 2023
Drawn by
Scales 1:100/200 @ A1/A3
Suitability planning
Doc No DLS-068-PL-03-B
Revision

DLS ARCH
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Appendix 2.0

Flood Map for Planning

Flood map for planning

Your reference	Location (easting/northing)	Created
The Watermill	**493117/121996**	**21 Sep 2020 10:07**

Your selected location is in flood zone 3, an area with a high probability of flooding.

This means:

- you must complete a flood risk assessment for development in this area
- you should follow the Environment Agency's standing advice for carrying out a flood risk assessment (see www.gov.uk/guidance/flood-risk-assessment-standing-advice)

Notes

The flood map for planning shows river and sea flooding data only. It doesn't include other sources of flooding. It is for use in development planning and flood risk assessments.

This information relates to the selected location and is not specific to any property within it. The map is updated regularly and is correct at the time of printing.

Environment Agency

Flood map for planning

Your reference
The Watermill

Location (easting/northing)
493117/121996

Scale
1:2500

Created
21 Sep 2020 10:07

- Selected point
- Flood zone 3
- Flood zone 3: areas benefitting from flood defences
- Flood zone 2
- Flood zone 1
- Flood defence
- Main river
- Flood storage area

0 20 40 60m

Appendix 3.0

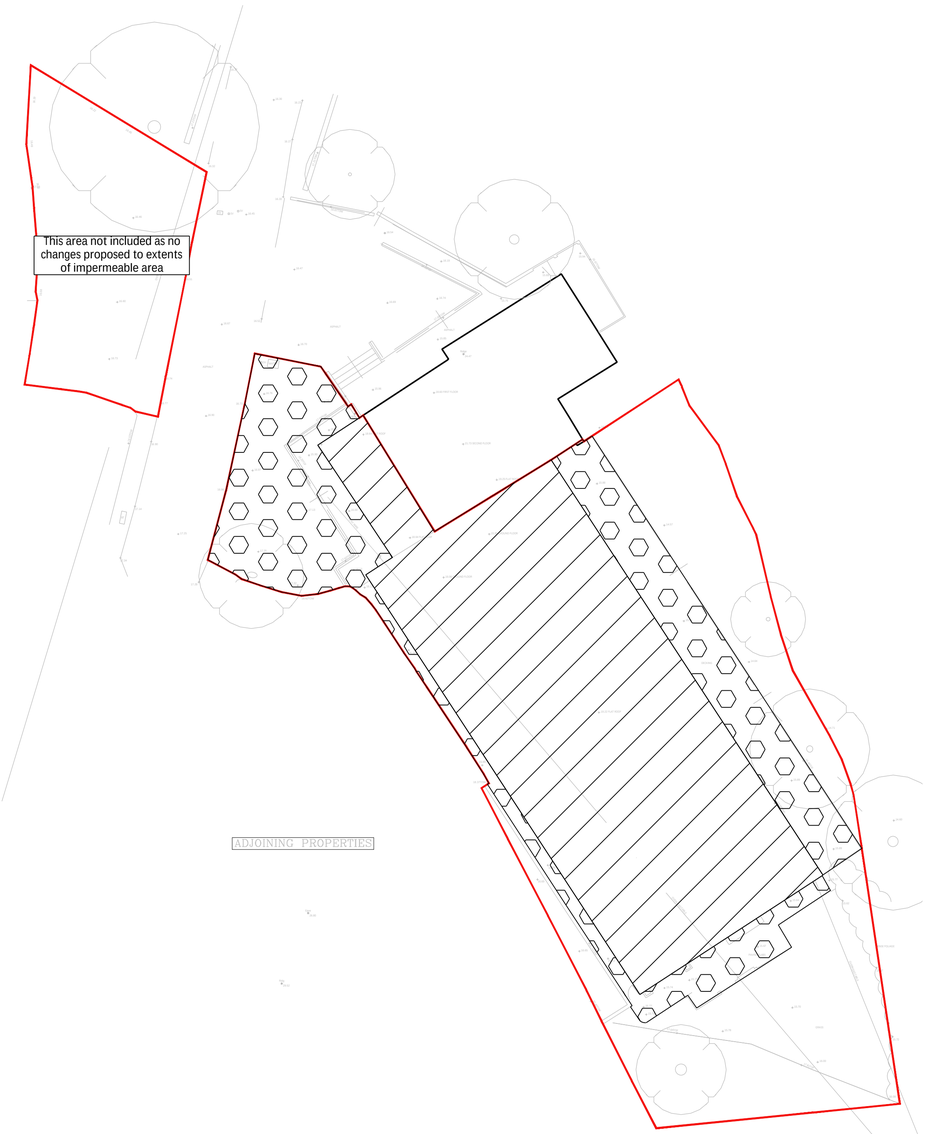
Impermeable Areas

Proposed Impermeable Areas

Total Site Area = 1098m² (Car Park Excluded)
Proposed Roof Area = 388m²
Proposed Hard Paving = 386m²

Existing Impermeable Areas

Total Site Area = 1098m² (Car Park excluded)
Existing Roof Area = 495m²
Existing Hard Paving = 272m²



Drawing Legend

Impermeable Areas	
	Roofed Areas
	Hard Paved Areas
	Development Boundary

1m 2m 3m 4m 5m 10m 15m 20m
SCALE 1-200

NOTES:

1. This drawing is to be read in conjunction with all other SWP drawings, and with all relevant architect's and engineer's drawings and specification and any discrepancies found are to be reported immediately to the engineer.
2. No dimensions are to be scaled from this drawing. unless noted otherwise all dimensions are in millimeters and all levels are in metres from the site datum.
3. All dimensions to be checked on site. All details and dimensions relating to sub-contractors work must be checked and agreed between the sub-contractor or supplier and the general contractor.
4. The electronic information from this drawing can not be guaranteed as dimensionally drawn exact. figured dimensions must be used for setting out and detailing. swp logos and company information must be removed from copies if information is re-used.
5. The main contractor is responsible for the design of all temporary works, and is also responsible for the safe maintenance and stability of existing buildings at all times.
6. The main contractor is responsible for all occurrences of ground water during the construction period.
7. Any information given regarding existing underground services is given in good faith after consultation with the relevant authority, however accuracy is not certain. The main contractor is responsible for checking all information on site prior to work commencing and taking due care and attention whilst undertaking the works.
8. The contractor must comply with all current legislation relating to health & safety.
9. All products specified shall be installed in strict accordance with the manufacturers recommendations and instructions. If there are discrepancies between that information and the details on any swp drawings, the manufacturers instructions must be used.

REV.	DATE	DESCRIPTION
P01	17.01.2024	PRELIMINARY ISSUE

PRELIMINARY

STEPHEN WILSON PARTNERSHIP LTD
Chalvington Barn, Dittons Business Park, Dittons Road,
POLEGATE, BN26 6HY Telephone: 01323 412020
E-mail: info@swpeast.co.uk • Website: www.swpeast.co.uk

CLIENT: NEWMAN DEVELOPMENTS

ARCHITECT: DLS: ARCH

JOB TITLE: LAND ADJACENT THE WATERMILL HALFWAY BRIDGE, GU28 9BP

DRAWING TITLE: IMPERMEABLE AREAS

SCALE AT A1	DATE	DRAWN
1-200	JAN 2024	CRS
	ENG. CRS	CHECKED DG

RIBA STATUS: STAGE 3 - SPATIAL COORDINATION

DRAWING STATUS	DRAWING SUITABILITY
S3	FOR REVIEW AND COMMENT

JOB No.	DRAWING No. (PROJECT • ORIGINATOR • VOLUME • LEVEL • FORM • DISCIPLINE • NUMBER)	REV.
E8017	8017-SWP-XX-XX-PL-C-1102	P01

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Appendix 4.0

Environment Agency Fluvial Flood Model

Craig Searle,
SWP
Chalvington Barn,
Unit C Dittons Business Park,
Ditton Road,
Polegate,
BN26 6HY

Our ref: SSD188728
Date: 20/10/2020

Dear Mr Searle,

Enquiry Regarding a Product 4 for Flood Risk Assessment for Waterside, Halfway Bridge, Petworth, West Sussex, GU28 9BP.

Thank you for your enquiry which was received on 13 October 2020.

We respond to requests under the Freedom of Information Act 2000 and Environmental Information Regulations 2004. The information is attached.

The information on Flood Zones in the area relating to this address is as follows:

The site is in an area located within Flood Zone 2 and 3 as shown on our Flood Map for Planning (Rivers and Sea).

Note - This information relates to the area that the above named property is in and is not specific to the property itself as it is influenced by factors such as the height of door steps, air bricks or the height of surrounding walls. We do not have access to this information and is not currently used in our flood modelling.

Flood Zone definitions can be found at www.gov.uk/guidance/flood-risk-and-coastal-change#Table-1-Flood-Zones

Flood Defences
There are no formal raised flood defences in the vicinity of the site.

Model Information
The model used was the The River Rother Flood Study which was completed by Peter Brett Associates in 2007.

Flood History
We hold no record of previous flooding events affecting this site.

Please note our records are not comprehensive and may not include all events. I recommend contacting the Lead Local Flood Authority, **West Sussex County Council** or the Local Authority, **Chichester District Council** for a more comprehensive flood history check.

FRA advisory text

Name	Product 4
Description	Detailed Flood Risk Assessment Map for **Waterside, Halfway Bridge, West Sussex, Petworth, GU28 9BP.**
Licence	Open Government Licence
Information Warning - OS background mapping	*The mapping of features provided as a background in this product is © Ordnance Survey. It is provided to give context to this product. The Open Government Licence does not apply to this background mapping. You are granted a non-exclusive, royalty free, revocable licence solely to view the Licensed Data for non-commercial purposes for the period during which the Environment Agency makes it available. You are not permitted to copy, sub-license, distribute, sell or otherwise make available the Licensed Data to third parties in any form. Third party rights to enforce the terms of this licence shall be reserved to OS.*
Attribution	Contains Environment Agency information © Environment Agency and/or database rights. Contains Ordnance Survey data © Crown copyright 2020 Ordnance Survey 100024198.

Data Available Online

Many of our flood datasets are available online:

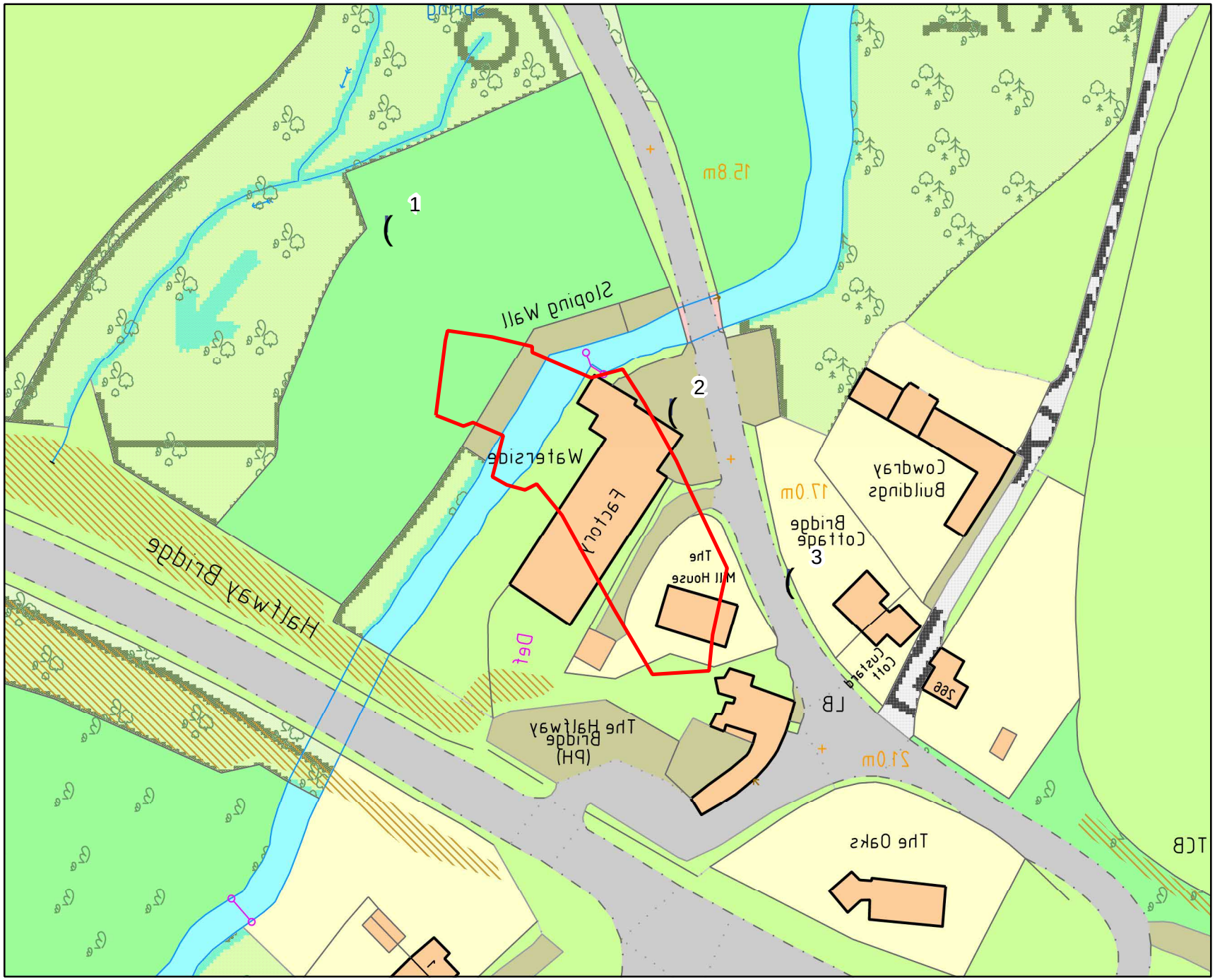
- Flood Map For Planning (Flood Zone 2, Flood Zone 3 ,Flood Storage Areas, Flood Defences, Areas Benefiting from Defences)
- Risk of Flooding from Rivers and Sea
- Historic Flood Map
- Current Flood Warnings

Please get in touch if you have any further queries or contact us within two months if you'd like us to review the information we have sent.

Yours sincerely,

Oli Haydon
FCRM Officer, PSO East Sussex | Solent and South Downs
Environment Agency | Guildbourne House, Chatsworth Road, Worthing, West Sussex, BN11 1LD

FRA Site Boundary & Node Points Map. Centred GU28 9BP. Created 20/10/2020.



Legend

Site_Boundary

Site_Nodes

Annual Exceedance Probability (AEP) The probability of a flood of a particular magnitude, or greater occurring in any given year.

Scale: 1:1,000

0 0.0225 0.045

Kilometers

Product 4 Flood Risk Data Requested by: Craig Searle, SWP

Site: Waterside, Halfway Bridge, Petworth, West Sussex, GU28 9BP

Table 1: Water Levels: Fluvial Undefended

	NGR		Modelled Flood Levels in Metres AOD			
			Undefended Annual Exceedance Probability			
Node Ref	**Eastings**	**Northings**	**4%**	**1.3%**	**1%**	**1% +CC***
1	493074	122040	15.99	16.24	16.34	16.59
2	493127	122006	15.14	15.83	16.03	16.49
3	493149	121974	15.15	15.83	16.03	16.49

All levels taken from: The River Rother Flood Study (2007)

Produced on: 20/10/2020

***Climate Change allowances for this model only show the superseded 20% increase in flows. The current allowances should be checked here: https://www.gov.uk/guidance/flood-risk-assessments-climate-change-allowances.**

There is no additional information or health warnings for these levels/depths or the model from which they have been produced.

Office Address: Guildbourne House, Chatsworth Road, Worthing BN11 1LD.
Customer services line: 03708 506 506. Email: enquiries@environment-agency.gov.uk
www.gov.uk/government/organisations/environment-agency

Product 4 Flood Risk Data Requested by: &UDLJ6HDUV6:3

Site: : DWHUVLGH, Halfway Bridge, Petworth, West Sussex, GU28 9BP

Table 1: Water Levels: Fluvial Undefended

	NGR		Modelled Flood Levels in Metres AOD Undefended Annual Exceedance Probability			
Node Ref	**Eastings**	**Northings**	**4%**	**1.3%**	**1%**	**1% +CC***
1	493074	122040	15.99	16.24	16.34	16.59
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3	493149	121974	15.15	15.83	16.03	16.49

All levels taken from: The River Rother Flood Study (2007)

Produced on:

***Climate Change allowances for this model only show the superseded 20% increase in flows. The current allowances should be checked here: https://www.gov.uk/guidance/flood-risk-assessments-climate-change-allowances.**

There is no additional information or health warnings for these levels/depths or the model from which they have been produced.

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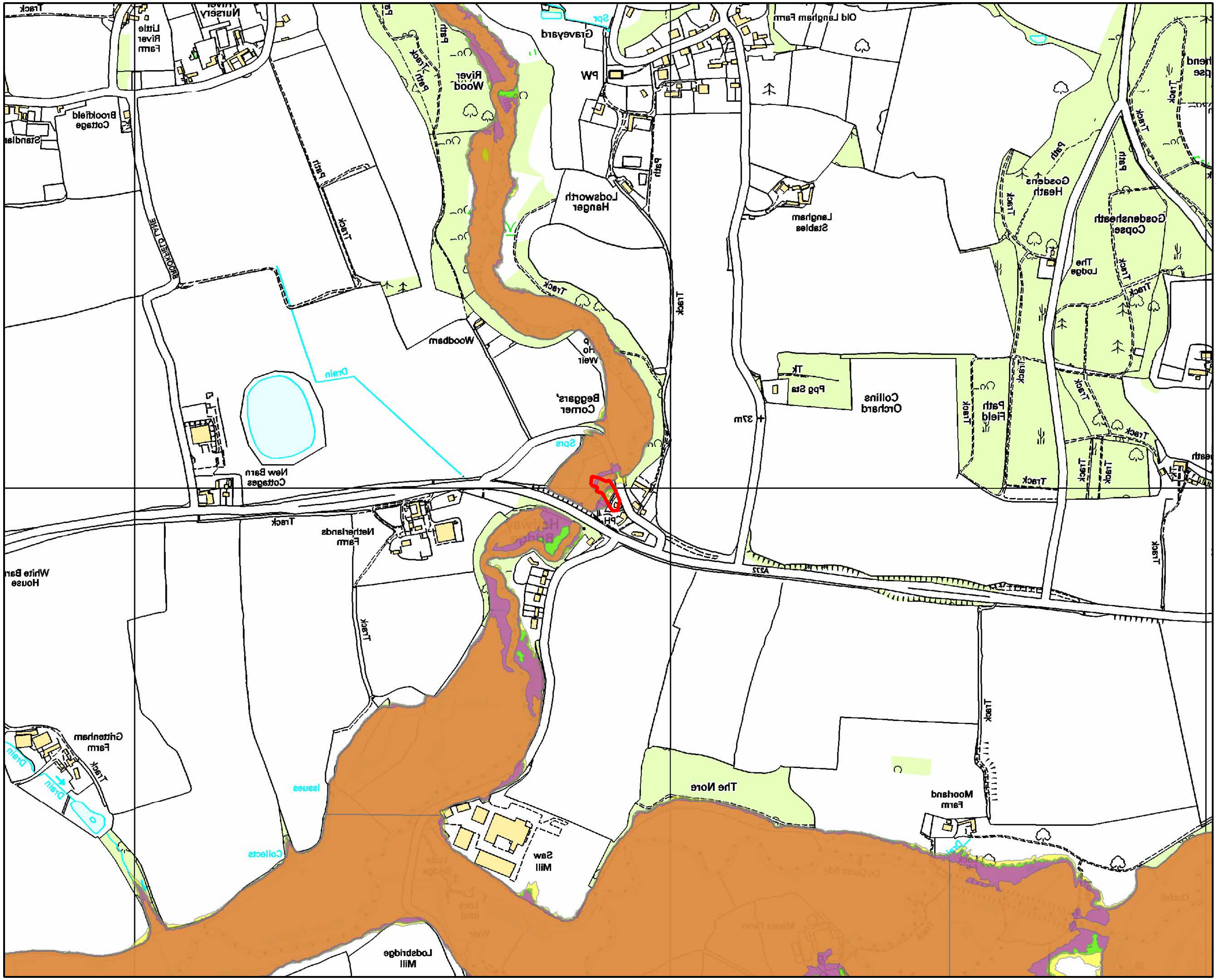
Modelled Flood Outlines (Undefended Fluvial) - Centred GU28 9BP. Created 20/10/2020.



Environment Agency

Legend

- Site_Boundary
- 4% AEP (Undefended Fluvial)
- 1.3% AEP (Undefended Fluvial)
- 1% AEP (Undefended Fluvial)
- 1% AEP Plus Climate Change (Undefended Fluvial)

Annual Exceedance Probability (AEP) The probability of a flood of a particular magnitude, or greater occurring in any given year.

Scale: 1:10,000

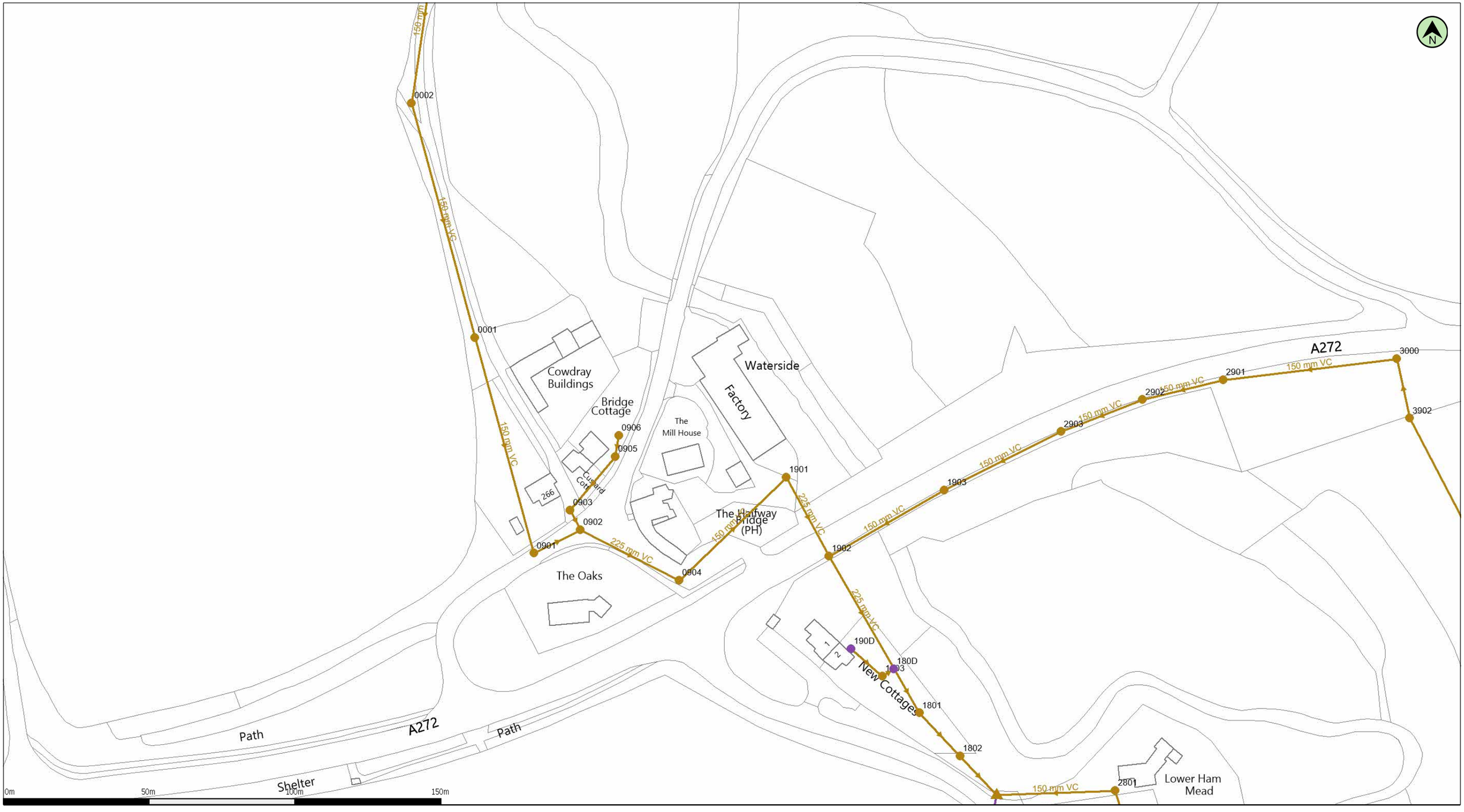
0 0.225 0.45

Kilometers

Contact us: National Customer Contact Centre, PO Box 544, Rotherham, S60 1BY. Tel: 03708 506 506. Email:enquiries@environment-agency.gov.uk

Appendix 5.0

Public Sewer Records

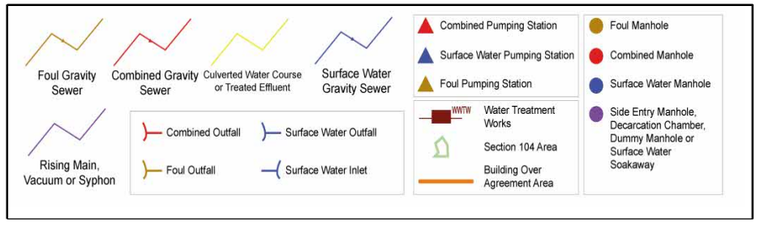


Date: 08/10/20 | Scale: 1:1250 | Map Centre: 493114,121985 | Data updated: 21/09/20 | Our Ref: 446284 - 1 | Wastewater Plan A3

The positions of pipes shown on this plan are believed to be correct, but Southern Water Services Ltd accept no responsibility in the event of inaccuracy. The actual positions should be determined on site. This plan is produced by Southern Water Services Ltd (c) Crown copyright and database rights 2020 Ordnance Survey 100031673 .This map is to be used for the purposes of viewing the location of Southern Water plant only. Any other uses of the map data or further copies is not permitted.

WARNING: BAC pipes are constructed of Bonded Asbestos Cement.

WARNING: Unknown (UNK) materials may include Bonded Asbestos Cement.



craig@swphove.co.uk

E8017

WATER for LIFE from Southern Water

Manhole Reference	Liquid Type	Cover Level	Invert Level	Depth to Invert
0001	F	25.08	23.23	
0002	F	26.66	24.67	
0901	F	21.50	19.77	
0902	F	21.08	19.27	
0903	F	21.05	19.66	
0904	F	20.47	18.86	
0905	F	19.19	19.19	
0906	F	21.10	0.00	
1801	F	16.05	0.00	
1802	F	15.09	0.00	
1803	F	0.00	0.00	
180D	F	0.00	0.00	
1901	F	15.77	14.05	
1902	F	19.47	13.97	
1903	F	19.11	17.72	
190D	F	0.00	0.00	
2801	F	17.59	0.00	
2901	F	21.02	19.45	
2902	F	20.18	18.84	
2903	F	19.34	18.02	
3000	F	23.52	20.85	
3902	F	22.66	21.08	

Manhole Reference	Liquid Type	Cover Level	Invert Level	Depth to Invert

Manhole Reference	Liquid Type	Cover Level	Invert Level	Depth to Invert