

project no: doc no;

20011 RP-D-2125

Borne Project Services Ltd	File: 20011_Flow_P01_Existing Page 1									
11 Richardson Road	Network: Storm Network20011Ryan Harborne58 Maidstone Road									
Royal Tunbridge Wells Kent, TN4 9PB	15/12/20 Existing Storm Run-off Rates									
<u>D</u>	Design Settings									
Rainfall Methodology FSR	Maximum Time of Concentration (mins) 30.00									
Return Period (years) 100	Maximum Rainfall (mm/hr) 50.0									
Additional Flow (%) 0	Minimum Velocity (m/s) 1.00									
FSR Region England and Wales M5-60 (mm) 20.000	Connection Type Level Soffits Minimum Backdrop Height (m) 0.200									
Ratio-R 0.400	Preferred Cover Depth (m) 1.200									
CV 0.750	Include Intermediate Ground $\checkmark$									
Time of Entry (mins) 5.00	Enforce best practice design rules $\checkmark$									
	<u>Nodes</u>									
Name Area T of E Cover	r Diameter Easting Northing Depth									
(ha) (mins) Level (m)	l (mm) (m) (m) (m)									
MH01 0.080 5.00 16.61	0 1200 37.302 72.742 1.350									
MH02 16.55										
MH03 16.55	0 1200 34.794 29.097 1.390									
<u>sim</u>	ulation Settings									
Rainfall Methodology FSR	Drain Down Time (mins) 240									
FSR Region England an										
M5-60 (mm) 20.000	Check Discharge Rate(s) $$									
Ratio-R 0.400	1 year $(l/s)$ 0.0									
Summer CV 0.750 Winter CV 0.840	2 year (I/s) 0.0 30 year (I/s) 0.0									
Analysis Speed Normal	100 year (I/s) 0.0									
Skip Steady State x	Check Discharge Volume x									
Str	orm Durations									
15 30 60 120 180 240										
Return Period Climate Cha	-									
(years) (CC %)	(A %) (Q %)									
1 2	0 0 0 0 0 0									
30										
100	0 0 0									
Pre-develo	pment Discharge Rate									
Site Makeup Br	ownfield Growth Factor 1 year 0.85									
•	reenfield Growth Factor 30 year 1.95									
	124 Growth Factor 100 year 2.48									
	086 Betterment (%) 0									
SAAR (mm) 68										
Soil Index 5	Q 1 year (l/s)									
SPR 0.5										
Region 7	Q 100 year (l/s)									

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11 Richardson Road	Network: Storm Network	20011		
Royal Tunbridge Wells	Ryan Harborne	58 Maidstone Road		
Kent, TN4 9PB	15/12/20	Existing Storm Run-off Rates		

### Results for 1 year Critical Storm Duration. Lowest mass balance: 100.00%

Node Event		-	eak nins)	Level (m)	Dep (m			Flood (m³)	Status
15 minute win	ter Ml	H01	10	15.360	0.10	00 11	.3 0.2307	0.0000	OK
15 minute win	ter Ml	102	10	15.306	0.09	96 11	1 0.1084	0.0000	OK
15 minute win	ter Ml	103	10	15.245	0.08	35 11	0.0000	0.0000	OK
Link Event (Outflow)	US Node	Link	DS Nod			Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m <sup>3</sup> )
15 minute winter	MH01	1.000	MHC	)2 :	11.1	0.913	0.625	0.0608	
15 minute winter	MH02	1.001	MHC	)3 :	11.0	0.990	0.617	0.0554	5.2

3PS	Borne Project Services Ltd	File: 20011_Flow_P01_Existing	Page 3		
	11 Richardson Road	Network: Storm Network	20011		
	Royal Tunbridge Wells	Ryan Harborne	58 Maidstone Road		
	Kent, TN4 9PB	15/12/20	Existing Storm Run-off Rates		

### Results for 2 year Critical Storm Duration. Lowest mass balance: 100.00%

Node Event	-	-	eak nins)	Level (m)	Dept (m)			Flood (m³)	Status
15 minute win	ter MH	101	10	15.383	0.12	23 14.	6 0.2845	0.0000	OK
15 minute win	ter Mł	102	10	15.325	0.11	15 14.	3 0.1301	0.0000	OK
15 minute win	ter Mł	103	11	15.261	0.10	01 14.	1 0.0000	0.0000	OK
Link Event (Outflow)	US Node	Link	DS Nod			Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m <sup>3</sup> )
15 minute winter	MH01	1.000	MHC	)2 :	14.3	0.952	0.803	0.0748	
15 minute winter	MH02	1.001	MHC	)3	14.1	1.043	0.795	0.0675	6.7



Borne Project Services Ltd 11 Richardson Road Royal Tunbridge Wells Kent, TN4 9PB Page 4 20011 58 Maidstone Road Existing Storm Run-off Rates

### Results for 30 year Critical Storm Duration. Lowest mass balance: 100.00%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (I/s)	Node Vol (m³)	Flood (m³)	Status
15 minute winter	MH01	11	15.642	0.382	27.7	0.8848	0.0000	SURCHARGED
15 minute winter	MH02	11	15.471	0.261	26.1	0.2947	0.0000	SURCHARGED
15 minute winter	MH03	11	15.300	0.140	26.0	0.0000	0.0000	ОК
Link Event (Outflow)	US Node	Link	DS Node	Outflow (I/s)	Velocity (m/s)	Flow/Ca	p Lin Vol (ı	
15 minute winter	MH01	1.000	MH02	26.1	1.480	1.46	58 0.08	380
15 minute winter	MH02	1.001	MH03	26.0	1.477	1.46	5 0.08	368 12.8

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Borne Project Services LtdFile11 Richardson RoadNeRoyal Tunbridge WellsRyaKent, TN4 9PB15,

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### Results for 100 year Critical Storm Duration. Lowest mass balance: 100.00%

Node Event	US Node	Peak (mins	Leve (m)		Inflow (I/s)	Node Vol (m³)	Flood (m³)	Status
15 minute winter	MH01	11	15.85	0.597	35.8	1.3818	0.0000	SURCHARGED
15 minute winter	MH02	11	. 15.57	6 0.366	33.3	0.4142	0.0000	SURCHARGED
15 minute summer	MH03	10	15.30	0.142	31.8	0.0000	0.0000	ОК
Link Event	US	Link	DS	Outflow	Velocity	Flow/Cap	Link	Discharge
(Outflow)	Node		Node	(I/s)	(m/s)		Vol (m <sup>ª</sup>	³) Vol (m³)
15 minute winter	MH01	1.000	MH02	33.3	1.892	1.876	0.088	0
15 minute winter	MH02	1.001	MH03	33.1	1.881	1.865	0.087	1 16.6

Borne Project Services Ltd	File: 20011_Flow_P01_Post De Page 1
11 Richardson Road	Network: Storm Network 20011
Royal Tunbridge Wells	Ryan Harborne   58 Maidstone Road
Kent, TN4 9PB	15/12/20 Post Development Run-off
Des	ign Settings
Rainfall Methodology FSR	Maximum Time of Concentration (mins) 30.00
Return Period (years) 100	Maximum Rainfall (mm/hr) 50.0
Additional Flow (%) 0	Minimum Velocity (m/s) 1.00
FSR Region England and Wales	Connection Type Level Soffits
M5-60 (mm) 20.000	Minimum Backdrop Height (m) 0.200
Ratio-R 0.400	Preferred Cover Depth (m) 1.200
CV 0.750	Include Intermediate Ground $\checkmark$
Time of Entry (mins) 5.00	Enforce best practice design rules $\checkmark$
	<u>Nodes</u>
Name Area T of E Cover	Diameter Easting Northing Depth
(ha) (mins) Level (m)	(mm) (m) (m) (m)
MH01 0.080 5.00 16.610	1200 37.302 72.742 1.350
MH02 16.550	1200 34.961 50.167 1.340
MH03 16.550	1200 34.794 29.097 1.390
Simu	ation Settings
Rainfall Methodology FSR	Drain Down Time (mins) 240
FSR Region England and	Wales Additional Storage (m <sup>3</sup> /ha) 20.0
M5-60 (mm) 20.000	Check Discharge Rate(s) √
Ratio-R 0.400	1 year (l/s) 0.0
Summer CV 0.750	2 year (l/s) 0.0
Winter CV 0.840	30 year (l/s) 0.0
Analysis Speed Normal	100 year (l/s) 0.0 Check Discharge Volume x
Skip Steady State x	Check Discharge Volume x
<b>Stor</b> 15 30 60 120 180 240	m Durations 360 480 600 720 960 1440
Return Period Climate Chang (years) (CC %)	ge Additional Area Additional Flow (A %) (Q %)
2	0 0 0
30	0 0 0
100	0 0
Pre-develop	ment Discharge Rate
Site Makeup Brow	vnfield Growth Factor 1 year 0.85
Brownfield Method Gree	enfield Growth Factor 30 year 1.95
Greenfield Method IH12	,
Positively Drained Area (ha) 0.08	. ,
SAAR (mm) 680 Soil Indox - E	QBar Q 1 year (1/s)

Soil Index 5

Region 7

SPR 0.53

Q 1 year (l/s)

Q 30 year (l/s)

Q 100 year (l/s)



0.000

15.0

0.0

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#### Node MH03 Online Hydro-Brake<sup>®</sup> Control

Flap Valve	х	Objective	(HE) Minimise upstream storage
Replaces Downstream Link	$\checkmark$	Sump Available	$\checkmark$
Invert Level (m)	15.160	Product Number	CTL-SHE-0146-1000-1000-1000
Design Depth (m)	1.000	Min Outlet Diameter (m)	0.225
Design Flow (I/s)	10.0	Min Node Diameter (mm)	1200

#### Node MH02 Depth/Area Storage Structure

Base Inf Coefficie Side Inf Coefficie				ty Facto Porosit	or 2.0 Sy 1.00	Time to h		Level (m) oty (mins)	
Depth	Area	Inf Area	Depth	Area	Inf Area	Depth	Area	Inf Area	
(m)	(m²)	(m²)	(m)	(m²)	(m²)	(m)	(m²)	(m²)	

0.0

1.001

0.0

0.0

1.000 15.0

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11 Richardson Road	Network: Storm Network	20011		
Royal Tunbridge Wells	Ryan Harborne	58 Maidstone Road		
Kent, TN4 9PB	15/12/20	Post Development Run-off		

### Results for 1 year Critical Storm Duration. Lowest mass balance: 100.00%

Node E	vent	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (I/s)	Node Vol (m³)	Flood (m³)	Stat	us
15 minute	winter	MH01	11	15.356	0.096	11.3	0.2227	0.0000	ОК	
15 minute	winter	MH02	13	15.310	0.100	11.0	1.6138	0.0000	ОК	
15 minute	winter	MH03	13	15.301	0.141	8.3	0.1590	0.0000	ОК	
Link Event	US	Liı	nk	DS	Outflow	Velocity	Flow/Ca	ap Lin	k	Discharge
(Outflow)	Node			Node	(I/s)	(m/s)		Vol (	m³)	Vol (m³)
15 minute winter	MH01	1.000		MH02	11.0	1.126	0.62	21 0.0	588	
15 minute winter	MH02	1.001		MH03	8.3	0.574	0.46	55 0.0	741	
15 minute winter	MH03	Hydro-	Brake®		8.2					5.2

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11 Richardson Road	Network: Storm Network	20011
Royal Tunbridge Wells	Ryan Harborne	58 Maidstone Road
Kent, TN4 9PB	15/12/20	Post Development Run-off

### Results for 2 year Critical Storm Duration. Lowest mass balance: 100.00%

Node E	vent	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (I/s)	Node Vol (m³)	Flood (m³)	Stat	us
15 minute	winter	MH01	11	15.381	0.121	14.6	0.2799	0.0000	ОК	
15 minute	winter	MH02	13	15.347	0.137	14.1	2.2132	0.0000	OK	
15 minute	winter	MH03	13	15.327	0.167	9.5	0.1893	0.0000	ОК	
Link Event	US	Liı	nk	DS	Outflow	Velocity	Flow/Ca	ap Lin	k	Discharge
(Outflow)	Node			Node	(I/s)	(m/s)		Vol (	m³)	Vol (m³)
15 minute winter	MH01	1.000		MH02	14.1	1.158	0.79	96 0.0	772	
15 minute winter	MH02	1.001		MH03	9.5	0.584	0.53	33 0.0	862	
15 minute winter	MH03	Hydro-	Brake®		9.4					6.7



Borne Project Services LtdFile: 211 Richardson RoadNetwoRoyal Tunbridge WellsRyan IKent, TN4 9PB15/12

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## Results for 30 year Critical Storm Duration. Lowest mass balance: 100.00%

Node Event	U Na			Level (m)	Depth (m)	Inflo (I/s)		_	ood n³)	Stat	us
15 minute wint	er MH	101	12	15.627	0.367	27	.7 0.84	494 0.0	0000	SURCHA	RGED
15 minute wint	er MH	102	14	15.558	0.348	24	.9 5.62	108 0.0	0000	SURCHA	RGED
15 minute wint	er MH	103	15	15.534	0.374	10	.9 0.42	226 0.0	0000	ОК	
Link Event (Outflow)	US Node	Lin	k	DS Node	()	5)	Velocity (m/s)	Flow/C	•	Link Vol (m³)	Discharge Vol (m <sup>3</sup> )
15 minute winter	MH01	1.000		MH02	2 2	4.9	1.415	1.4	.03	0.0880	
15 minute winter	MH02	1.001		MH03	31	0.9	0.619	0.6	14	0.0880	
15 minute summer	MH03	Hydro-E	srake	®	1	0.0					11.4

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### Results for 100 year +40% CC Critical Storm Duration. Lowest mass balance: 100.00%

Node Event	U No		Level (m)	Depth (m)	Inflow (I/s)	Node Vol (m		Stat	us
15 minute wint	er MH	01 12		0.970	50.2	2.247	3 0.0000	SURCHA	RGED
30 minute wint	er MH	02 26	16.100	0.890	35.3	14.356	0.0000	SURCHA	RGED
30 minute wint	er MH	03 26	16.077	0.917	11.4	1.036	6 0.0000	ОК	
Link Event (Outflow)	US Node	Link	DS Node	Outfl (I/s	) (ı	m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
15 minute winter	MH01	1.000	MH02	4	3.8	2.486	2.465	0.0880	
15 minute winter	MH02	1.001	MH03	1	2.0	0.683	0.678	0.0880	
15 minute summer	MH03	Hydro-Brak	e®	1	0.0				20.6

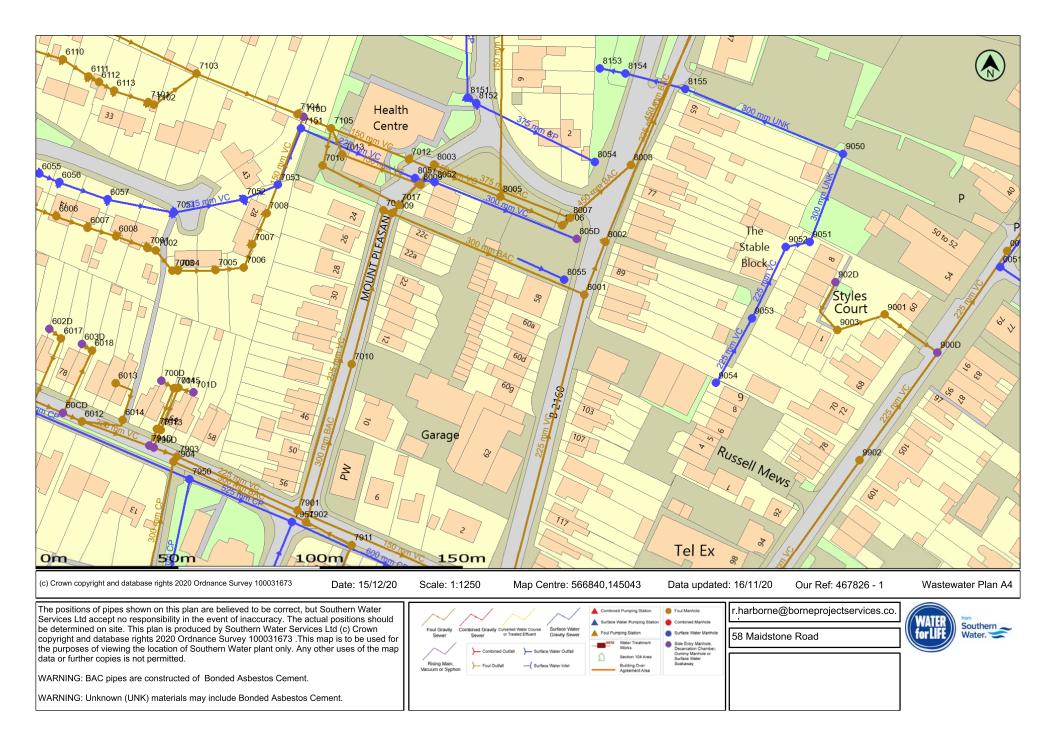
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Manhole Reference	Liquid Type	Cover Level	Invert Level	Depth to Invert	Manhole Reference	Liquid Type	Cover Level	Invert Level	Depth to Invert
0001	F	16.65	14.55	-	7016	F	0.00	0.00	-
6006	F	16.63	15.70	-	7017	F	0.00	0.00	-
6007	F	16.61	15.59	-	701D	F	0.00	0.00	-
6008	F	16.55	15.55	-	7101	F	16.43	15.39	-
6012	F	16.91	15.25	-	7102	F	16.35	15.22	-
6013	F	0.00	0.00	-	7103	F	16.16	14.32	-
6014	F	0.00	0.00	-	7104	F	16.15	14.21	-
6017	F	0.00	0.00	-	7105	F	0.00	0.00	-
6018	F	0.00	0.00	-	710D	F	0.00	0.00	-
602D	F	0.00	0.00	-	7901	F	16.93	14.87	-
603D	F	0.00	0.00	-	7902	F	16.92	14.32	-
60CD	F	0.00	0.00	-	7903	F	16.79	15.09	-
6110	F	16.76	15.73	-	7904	F	16.76	15.10	-
6111	F	16.62	15.62	-	790D	F	0.00	0.00	-
6112	F	16.45	0.00	-	7911	F	0.00	0.00	-
6113	F	16.38	15.49	-	7912	F	0.00	0.00	-
7001	F	16.55	15.41	-	7913	F	0.00	0.00	-
7002	F	16.55	15.40	-	791D	F	0.00	0.00	-
7003	F	16.46	15.34	-	8001	F	16.71	13.92	-
7004	F	16.48	15.34	-	8002	F	16.55	13.80	-
7005	F	16.48	15.25	-	8003	F	16.00	13.39	-
7006	F	16.40	15.08	-	8005	F	16.32	13.96	-
7007	F	16.31	14.97	-	8006	F	16.67	13.81	-
7008	F	16.32	14.80	-	8007	F	16.52	13.17	-
7009	F	15.98	13.54	-	8008	F	16.38	13.06	-
700D	F	0.00	0.00	-	8009	F	0.00	0.00	-
7010	F	16.21	13.95	-	9001	F	0.00	0.00	-
7011	F	16.01	14.38	-	9003	F	0.00	0.00	-
7012	F	16.16	14.09	-	900D	F	0.00	0.00	-
7013	F	0.00	0.00	-	902D	F	0.00	0.00	-
7014	F	0.00	0.00	-	9902	F	17.31	15.20	-
7015	F	0.00	0.00	-	0051	S	16.72	15.83	-

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Manhole Reference	Liquid Type	Cover Level	Invert Level	Depth to Invert
6055	S	16.86	15.93	-
6056	S	16.63	15.86	-
6057	S	16.51	15.73	-
7051	S	16.32	15.53	-
7052	S	16.22	15.26	-
7053	S	16.19	15.13	-
7151	S	15.97	15.33	-
7950	S	16.86	16.04	-
7951	S	16.93	15.72	-
8052	S	16.23	15.25	-
8054	S	16.66	14.83	-
8055	S	16.70	15.11	-
8057	S	16.08	15.25	-
805D	S	14.63	0.00	-
8151	S	15.86	14.88	-
8152	S	15.98	14.85	-
8153	S	16.90	14.25	-
8154	S	16.60	14.75	-
8155	S	16.00	14.89	-
9050	S	16.05	15.28	-
9051	S	16.51	15.55	-
9052	S	16.66	15.75	-
9053	S	16.69	16.03	-
9054	S	17.05	16.23	-

Manhole Reference	Liquid Type	Cover Level	Invert Level	Depth to Invert





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Product 4 (Detailed Flood Risk) for: 58 Maidstone Road, Paddock Wood, Tonbridge, Kent, TN12 6AF Requested by: Ryan Harborne / Borne Project Services Reference: KSL 196669 AC Date: 09/12/2020

# Contents

- Flood Map Confirmation
- Flood Map Extract
- Model Output Data
- Data Point Location Map
- Modelled Flood Outlines Map
- Defence Details
- Historic Flood Data
- Historic Flood Event Map
- Additional Data
- Use of information for Flood Risk Assessment and Updated Climate Change Allowances (2016)

The information provided is based on the best data available as of the date of this letter.

You may feel it is appropriate to contact our office at regular intervals, to check whether any amendments/ improvements have been made to the data for this location. Should you re-contact us after a period of time, please quote the above reference in order to help us deal with your query.

Please refer to the <u>Open Government Licence</u> which explains the permitted use of this information.



# Flood Map Confirmation

## The Flood Map:

Our Flood Map shows the natural floodplain for areas at risk from river and tidal flooding. The floodplain is specifically mapped ignoring the presence and effect of defences. Although flood defences reduce the risk of flooding they cannot completely remove that risk as they may be over topped or breached during a flood event.

The Flood Map indicates areas with a 1% (0.5% in tidal areas), Annual Exceedance Probability (AEP) - the probability of a flood of a particular magnitude, or greater, occurring in any given year, and a 0.1% AEP of flooding from rivers and/or the sea in any given year. The map also shows the location of some flood defences and the areas that benefit from them.

The Flood Map is intended to act as a guide to indicate the potential risk of flooding. When producing it we use the best data available to us at the time, taking into account historic flooding and local knowledge. The Flood Map is updated on a quarterly basis to account for any amendments required. These amendments are then displayed on the internet at <a href="http://www.gov.uk/prepare-for-a-flood">www.gov.uk/prepare-for-a-flood</a>.

#### At this Site:

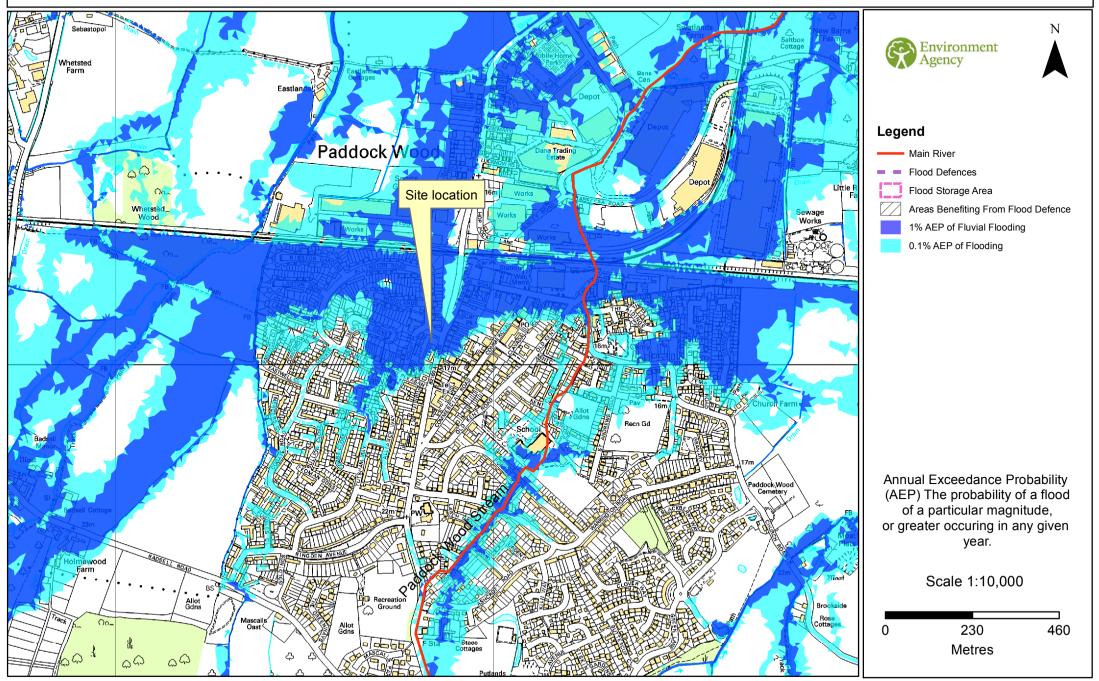
The Flood Map shows that this site lie(s) within the outline of the 1% (Flood Zone3) chance of flooding from rivers in any given year.

Enclosed is an extract of our Flood Map which shows this information for your area. (Please note the Flood map for planning is in the process of being updated with the latest modelling. There may be a differentiation between the flood zones and the modelled flood extents until the updates have been completed).

### Method of production

The Flood Map at this location has been derived using detailed fluvial modelling of River Medway completed in 2015 by JBA.

# Flood map centred on 58 Maidstone Road, Paddock Wood, Tonbridge, Kent, TN12 6AF Created 08/12/2020 (Ref KSL 196669 AC)



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# Model Output Data

You have requested flood levels for various return periods at this location.

The modelled flood levels for the closest most appropriate model grid cells, any additional information you may need to know about the modelling from which they are derived and/or any specific use or health warning for their use are set out below.

Using a 2D TuFLOW model the floodplain has been represented as a grid. The flood water levels have been calculated for each grid cell.

A map showing the location of the points from which the data is taken is enclosed. Please refer to the <u>Open Government Licence</u> which explains the permitted use of this information.

	Modelled Flood levels for Annual Exceedance Probability shown in mAOD											
Node Location	National	Grid Ref										
ID	Easting	Northing	5% AEP	1% AEP	1% AEP + 35CC	1% AEP + 70CC	0.1% AEP					
1	566844	145035	0.00	0.00	0.00	17.05	17.09					
2	566854	145035	0.00	16.89	16.98	17.04	17.07					
3	566824	145045	0.00	16.95	17.04	17.10	17.13					
4	566834	145045	0.00	16.94	17.02	17.08	17.12					
5	566844	145045	0.00	16.92	17.02	17.07	17.10					
6	566854	145045	0.00	16.90	16.99	17.05	17.08					
7	566834	145055	16.70	16.94	17.03	17.09	17.12					
8	566844	145055	16.70	16.93	17.02	17.08	17.11					
9	566854	145055	0.00	16.92	17.01	17.06	17.10					

## Table 1: Modelled Levels in mAOD

Orchard House, Endeavour Park, London Road, Addington, West Malling, Kent, ME19 5SH. Email: kslenquiries@environment-agency.gov.uk



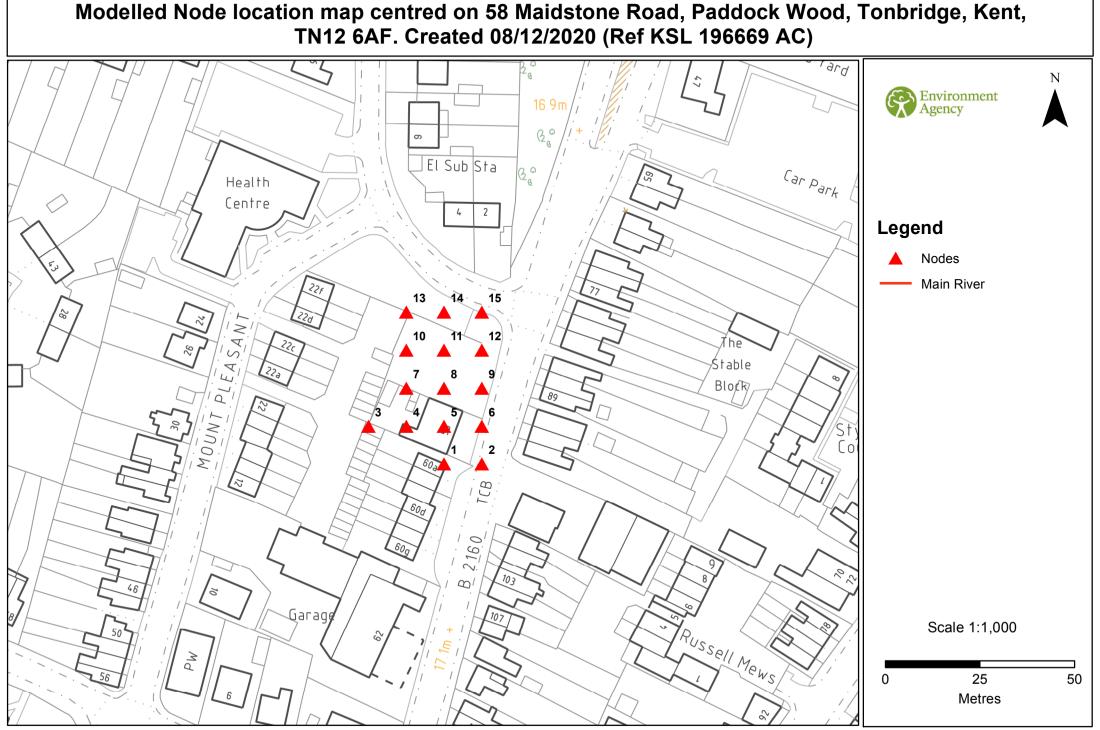
10	566834	145065	16.70	16.94	17.03	17.09	17.12
11	566844	145065	16.70	16.94	17.03	17.09	17.12
12	566854	145065	0.00	16.93	17.02	17.08	17.09
13	566834	145075	16.70	16.95	17.04	17.10	17.13
14	566844	145075	16.70	16.95	17.03	17.09	17.12
15	566854	145075	0.00	16.94	17.02	17.08	17.11

Values of 0.00 indicate locations at which the selected points lie outside of a particular modelled flood extent.

Data taken from Paddock Wood Mapping and Modelling Study, completed by JBA, in 2018

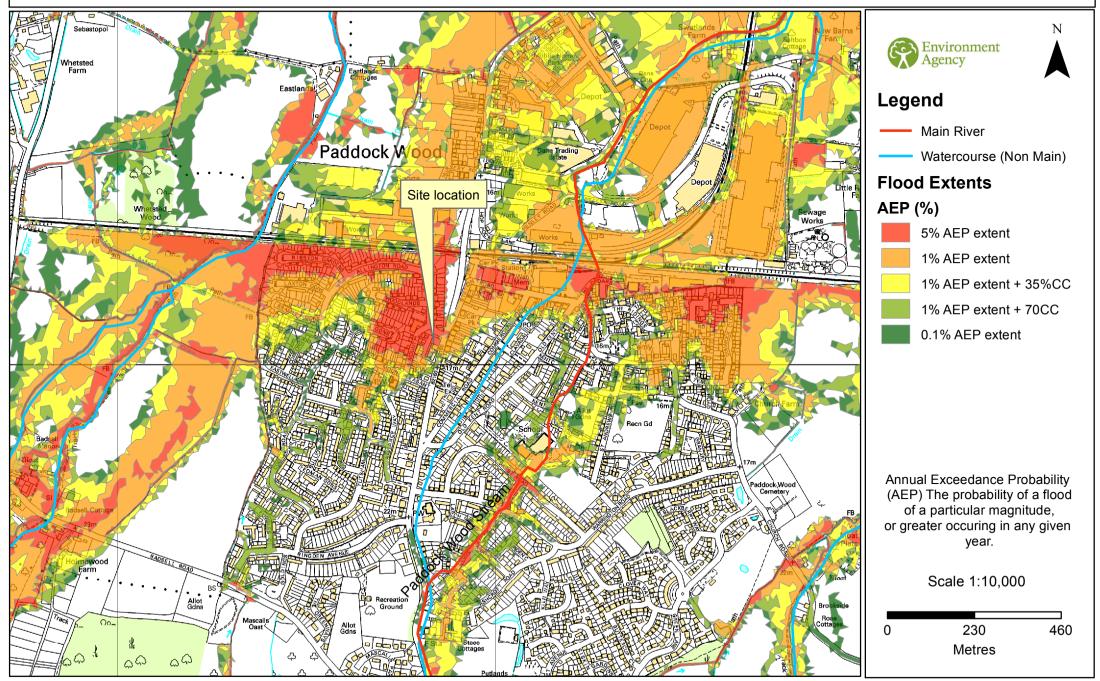
There are no health warnings or additional information for these levels, or the model from which they were produced.

It should also be noted that climate change allowances have changed since 2004. In 2016 new allowances for climate change were published on gov.uk. The fluvial climate factors are now more complex and are based on a regional river basin district. You can view the new allowances at 'Flood risk assessments: climate change allowances'. The data provided in this product does incorporate the new allowances. We will incorporate the new allowances into future modelling studies.



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# Modelled Flood event extent map centred on 58 Maidstone Road, Paddock Wood, Tonbridge, Kent, TN12 6AF. Created 08/12/2020 (Ref KSL 196669 AC)



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## **Defence Details**

There are no formal flood defences owned or maintained by the Environment Agency in the area of this site/ property.



## Historic Flood Data

We hold records of historic flood events from rivers and the sea. Information on the floods that may have affected the area local to your site are provided on the enclosed map (if relevant).

#### Flood Event Data

Dates of historic flood events in this area – November 1960, September 1968.

Please note that our records are not comprehensive. We would therefore advise that you make further enquiries locally with specific reference to flooding at this location. You should consider contacting the relevant Local Planning Authority and/or water/sewerage undertaker for the area.

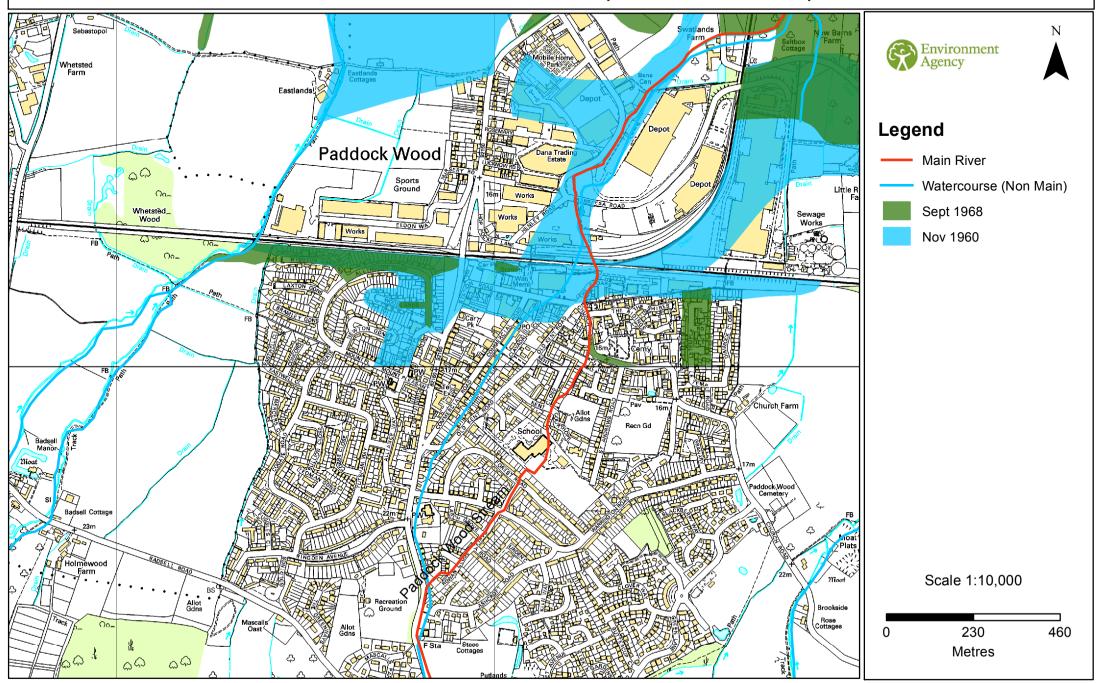
We map flooding to land, not individual properties. Our historic flood event record outlines are an indication of the geographical extent of an observed flood event. Our historic flood event outlines do not give any indication of flood levels for individual properties. They also do not imply that any property within the outline has flooded internally.

Please be aware that flooding can come from different sources. Examples of these are:

- from rivers or the sea;
- surface water (i.e. rainwater flowing over or accumulating on the ground before it is able to enter rivers or the drainage system);
- overflowing or backing up of sewer or drainage systems which have been overwhelmed,
- groundwater rising up from underground aquifers

Currently the Environment Agency can only supply flood risk data relating to the chance of flooding from rivers or the sea. However you should be aware that in recent years, there has been an increase in flood damage caused by surface water flooding or drainage systems that have been overwhelmed.

# Historic Flood event extent map centred on 58 Maidstone Road, Paddock Wood, Tonbridge, Kent, TN12 6AF. Created 08/12/2020 (Ref KSL 196669 AC)



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## Additional Information

### 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.

### Planning advice and guidance

The Environment Agency are keen to work with partners to enable development which is resilient to flooding for its lifetime and provides wider benefits to communities. If you have requested this information to help inform a development proposal, then we recommend engaging with us as early as possible by using the pre-application form available from our website: https://www.gov.uk/government/publications/pre-planning-application-enguiry-form-preliminary-opinion

Complete the form in the link and email back to kslplanning@environment-agency.gov.uk

We recognise the value of early engagement in development planning decisions. This allows complex issues to be discussed, innovative solutions to be developed that both enables new development and protects existing communities. Such engagement can often avoid delays in the planning process following planning application submission, by reaching agreements up-front. We offer a charged pre-application advice service for applicants who wish to discuss a development proposal.

We can also provide a preliminary opinion for free which will identify environmental constraints related to our responsibilities including flooding, waste, land contamination, water quality, biodiversity, navigation, pollution, water resources, foul drainage or Environmental Impact Assessment.



### Flood Risk Assessments guidance

### Flood risk standing advice for applicants

In preparing your planning application submission, you should refer to the Environment Agency's Flood Risk Standing Advice and the Planning Practice Guidance for information about what flood risk assessment is needed for new development in the different Flood Zones. This information can be accessed via:

https://www.gov.uk/flood-risk-assessment-standing-advice

http://planningguidance.planningportal.gov.uk/

https://www.gov.uk/guidance/flood-risk-assessment-for-planning-applications

### https://www.gov.uk/guidance/flood-risk-and-coastal-change

You should also consult the Strategic Flood Risk Assessment and flood risk local plan policies produced by your local planning authority.

You should note that:

- 1. Information supplied by the Environment Agency may be used to assist in producing a Flood Risk Assessment where one is required, but does not constitute such an assessment on its own.
- 2. This information covers flood risk from main rivers and the sea, and you will need to consider other potential sources of flooding, such as groundwater or overland runoff. You should discuss surface water management with your Lead Local Flood Authority.
- 3. Where a planning application requires a FRA and this is not submitted or deficient, the Environment Agency may well raise an objection due to insufficient information



### Surface Water

We have provided two national Surface Water maps, under our Strategic Overview for flooding, to your Lead Local Flood Authority who are responsible for local flood risk (i.e. surface runoff, ground water and ordinary watercourse), which alongside their existing local information will help them in determining what best represents surface water flood risk in your area.

Your Lead Local Flood Authority have reviewed these and determined what it believes best represents surface water flood risk. You should therefore contact this authority so they can provide you with the most up to date information about surface water flood risk in your area.

You may also wish to consider contacting the appropriate relevant Local Planning Authority and/or water/sewerage undertaker for the area. They may be able to provide some knowledge on the risk of flooding from other sources. We are working with these organisations to improve knowledge and understanding of surface water flooding.