

Appendix 4

Greenfield Runoff Calculation

Calculated by: Bava Sathan
Site name: Thornlea Park
Site location: Littlehampton

Site coordinates
Latitude: 50.82890° N
Longitude: 0.55089° W

This is an estimation of the greenfield runoff rate limits that are needed to meet normal best practice criteria in line with Environment Agency guidance "Preliminary rainfall runoff management for developments", WS-074/A/TR1/1 rev. E (2012) and the SuDS Manual, C753 (Ciria, 2015). This information on greenfield runoff rates may be the basis for setting consents for the drainage of surface water runoff from sites.

Reference: 6162247
Date: 2017-11-08T18:04:59

Methodology	IH124
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Site characteristics

Total site area (ha)	1
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Methodology

Qbar estimation method	Calculate from SPR and SAAR	
SPR estimation method	Calculate from SOIL type	
	Default	Edited
SOIL type	3	4
HOST class	---	---
SPR/SPRHOST	0.37	0.47

Hydrological characteristics

	Default	Edited
SAAR (mm)	740	740
Hydrological region	7	7
Growth curve factor: 1 year	0.85	0.85
Growth curve factor: 30 year	2.3	2.3
Growth curve factor: 100 year	3.19	3.19

Notes:

(1) Is $Q_{BAR} < 2.0$ l/s/ha?

(2) Are flow rates < 5.0 l/s?

Where flow rates are less than 5.0 l/s consents are usually set at 5.0 l/s if blockage from vegetation and other materials is possible. Lower consent flow rates may be set in which case blockage work must be addressed by using appropriate drainage elements

(3) Is $SPR/SPRHOST \leq 0.3$?

Greenfield runoff rates

	Default	Edited
Qbar (l/s)	3.07	5.15
1 in 1 year (l/s)	2.61	4.38
1 in 30 years (l/s)	7.05	11.85
1 in 100 years (l/s)	9.78	16.44

Appendix 5

Southern Water Infrastructure Map



The Civil Engineering Practice
11 Tungsten Building
George Street
Fishersgate
East Sussex
BN41 1RA

Your ref 22827
Our ref 267640
Date 09 November 2017
Contact 

Attention: Angela Waller

Dear Customer

Re: Provision of public sewer and water main record extract

Location: Thornlea Park, Old Mead Road Littlehampton West Sussex BN17 7PU

Thank you for your order regarding the provision of extracts of our sewer and/or water main records. Please find enclosed the extracts from Southern Water's records for the above location.

We confirm payment of your fee in the sum of £49.92 and enclose a VAT receipt for your records.

Customers should be aware that there are areas within our region in which there are neither sewers nor water mains. Similarly, whilst the enclosed extract may indicate the approximate location of our apparatus in the area of interest, it should not be relied upon as showing that further infrastructure does not exist and may subsequently be found following site investigation. Actual positions of the disclosed (and any undisclosed) infrastructure should therefore be determined on site, because Southern Water does not accept any responsibility for inaccuracy or omission regarding the enclosed plan. Accordingly it should not be considered to be a definitive document.

Should you require any further assistance regarding this matter, please contact the LandSearch team.

Yours faithfully

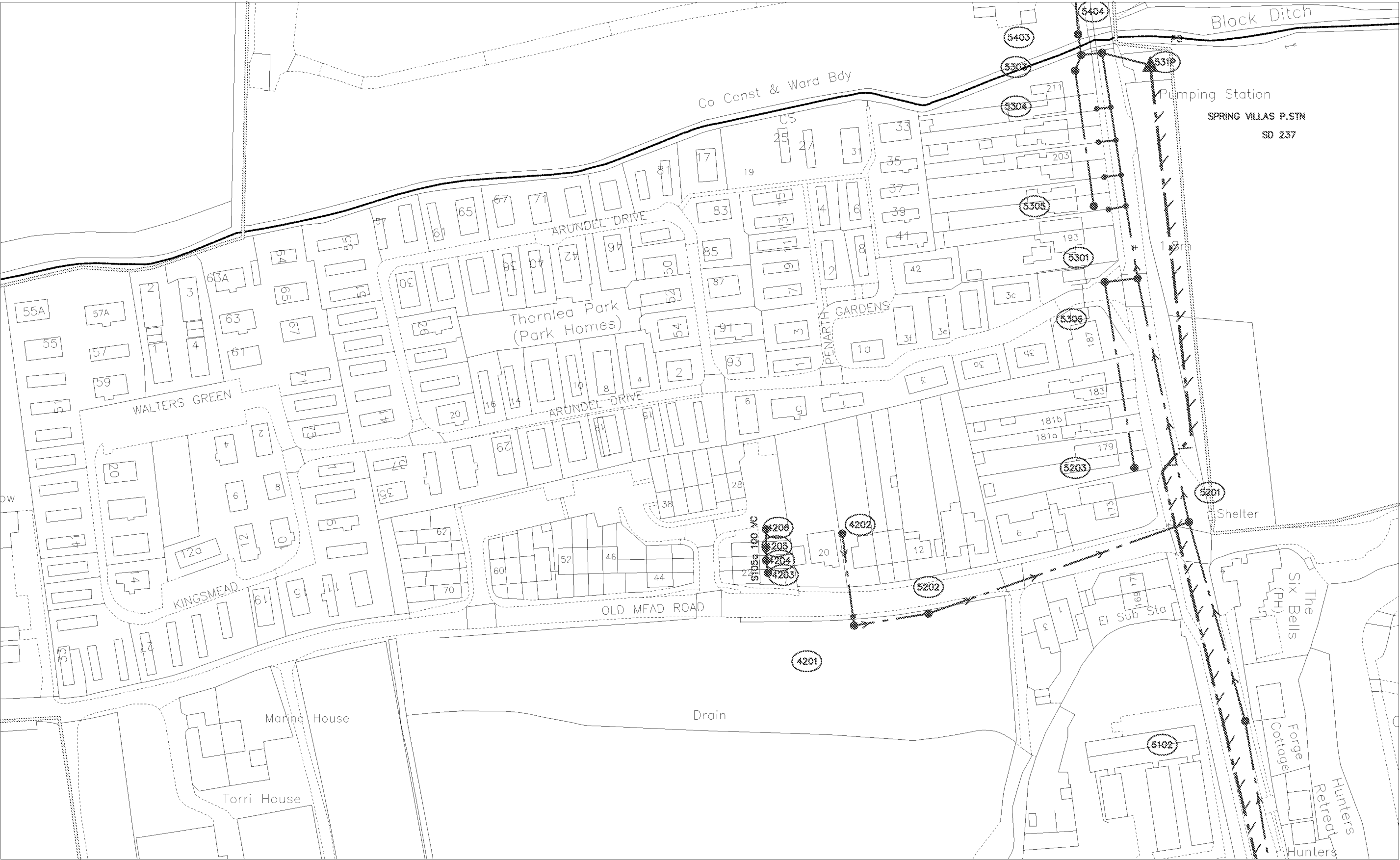
LandSearch

Southern Water Southern House Capstone Road Chatham Kent ME5 7QA 

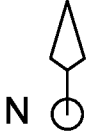
Southern Water Services Ltd Registered Office: Southern House Yeoman Road Worthing BN13 3NX Registered in England No. 2366670

SEWER RECORDS PAGE 1 OF 2

104417



104129

502192	O.S. REF. TQ0204SW	Drawn by: okuneyf	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. WARNING: BAC pipes are constructed of Bonded Asbestos Cement WARNING: Unknown (UNK) materials may include Bonded Asbestos Cement	 
		Scale: 1:1250		
	Title: 267640_Thornlea Park,Old Mead	Date: 09/11/2017	Based upon Ordnance Survey Digital Data with the permission of the controller of H.M.S.O. Crown Copyright Reserved Licence No. WU 298530.	

502664

SEWER RECORDS PAGE 2 OF 2

Node	Cover	Invert	Size	Material	Shape	Node	Cover	Invert	Size	Material	Shape	Node	Cover	Invert	Size	Material	Shape	Node	Cover	Invert	Size	Material	Shape
4201X	2.19	-0.25	150	VC	CIRC																		
4202X	1.44	0.71	150	VC	CIRC																		
4203X			100	VC	CIRC																		
4204X			100	VC	CIRC																		
4205X			100	VC	CIRC																		
5201X	2.31	-1.2	200	PVC	CIRC																		
5202X	2.11	-0.54	150	VC	CIRC																		
5203X			UNK	UNK	CIRC																		
5301X	1.94	-1.9	200	PVC	CIRC																		
5303X		-2.87	225	CI	CIRC																		
5304X			UNK	UNK	CIRC																		
5305X			UNK	UNK	CIRC																		
5306X			UNK	UNK	CIRC																		
5308X			UNK	UNK	UNK																		
530DX			200	PVC	CIRC																		
531BX			UNK	UNK	UNK																		
531DX			UNK	UNK	UNK																		
531PX	1.82		150	CI	CIRC																		
532BX			200	PVC	CIRC																		
532DX			UNK	UNK	UNK																		
533DX			200	PVC	CIRC																		
534DX			200	PVC	CIRC																		
5403X	1.82	-2.22	225	CI	CIRC																		
5404X	1.9	-2.39	225	CI	CIRC																		
6102X	3.97	1.16	200	PVC	CIRC																		

LINE STYLES / COLOURS

Brown	----- Foul
	----- Foul Syphon Sewer
	----- Foul Vacuum Main
	----- Foul Rising Main
Red	----- Combined
	----- Combined Syphon Sewer
	----- Combined Rising Main
	----- Lateral Drain
Orange	----- Building Over Agreement Area
Dark Blue	----- Treated Effluent
Purple	----- Sludge
	----- Sewer Catchment
	----- Section 104 Area
Light Blue	----- Surface Water
	----- Surface Water Rising Main
Yellow	----- Private
Green	----- Access Shaft
	----- Decommissioned

MATERIALS

AK	Alkaline
BAC	Bonded Asbestos Cement
BRC	Brick (Common)
BRE	Brick (Engineering)
CC	Concrete Box Culvert
CI	Cast Iron
CO	Concrete (In-Situ)
CP	Concrete (Pre-Cast)
CSB	Concrete Segments (bolted)
CSU	Concrete Segments (unbolted)
DI	Ductile Iron
GRG	Glass Reinforced Concrete
GRP	Glass Reinforced Plastic
MAC	Masonry in regular Courses
MAR	Masonry in random Courses
PE	Polyethylene
PF	Pitch Fibre
PP	Polypropylene
PVC	Polyvinyl Chloride
RFM	Reinforced Plastic Matrix
SI	Spun Iron
ST	Steel
VC	Vertifed Clay
XXX	Other
ZZZ	Unknown

Manhole (SW)
Manhole (F&C)
Lamp hole (SW)
Lamp hole (F&C)
Pumping Station (SW)
Pumping Station (F&C)
Side entry manhole (SW)
Side entry manhole (F&C)
Blind shaft (SW)
Blind shaft (F&C)
Ejector station (SW)
Ejector station (F&C)
Watertight door (SW)
Watertight door (F&C)
Flushing ch. Min-e (SW)
Flushing ch. Min-e (F&C)
Flushing ch. No-e (SW)
Flushing ch. No-e (F&C)
Demonstration Chamber

LEGEND - SEWERS

Washout (SW)
Washout (F&C)
Rodding Eye (SW)
Rodding Eye (F&C)
Gauging point (SW)
Gauging point (F&C)
Intercept chamber (SW)
Intercept chamber (F&C)
Storm Tank (SW)
Storm Tank (F&C)
Vortex chamber (SW)
Vortex chamber (F&C)
Label ellipse
Dummy/S24 manhole
Outfall
Penstock chamber
Demiboards
Storm Overflow
Backdrop manhole

Other (s)
Other
Change In sewer (s)
Change In sewer
Rafflux valve
Flap valve
Cascade
Anode
Valve
Closed Valve
Air Valve
Hatch box (SW)
Hatch box (F&C)
Direction arrow
Emptying valve
Catchpitt
Soakaway
Inlet
Balancing Pond

Wastewater treatment works
Marine treatment works
Outfall headworks
Vent
Vent column
Tidal storage tank
Blank end
Head of Public Sewer
Micro Pumping Station
SHAPES (S)
A Arched
B Barrel
C Circular
E Egg
H Horseshoe
R Rectangular
S Square
T Trapezoidal
U U Shape
X Other
NODE REFERENCING SYSTEM
1st digit: hundred metre easting identifier
2nd digit: hundred metre northing identifier
3rd digit: sewer type identifier
4th digit: next sequential node

Drawn by:	okuneyf	
Title:	267640_Thornlea Park,Old Mead	
Date:	09/11/2017	



LEGEND - MAINS

- | | |
|--|---|
| — Distribution Main / Communication pipe | — Clockwise closing valve |
| — Trunk Main | — Fire Hydrant |
| — RAW Raw water main | — +WO Washout |
| — NP Non potable | — WOH Washout hydrant |
| — Abandoned main | — M Meter |
| — P Proposed Main | — Capped end |
| — FM Fire main | — EP Emptying plug |
| — Non SWS | — X Stopcock |
| — Sluice valve | — SP Leak Noise Correlator Survey Point |
| — Closed valve | — AN Anode |
| — AV Air valve | — TC Telemetry cable |
| — Butterfly valve | — AP Access point / hatchbox |
| — Pressure reducing valve | |
| — Reflux valve | |
| — mv Motorised valve | |

MATERIALS

- | | |
|------------------------------|------------------------------------|
| — Dialysis machine | Alkathene |
| — BPT Break pressure tank | Cast iron |
| — Change node | Spun (grey) iron |
| — Pumping station | Concrete |
| — Booster station | Ductile iron |
| — Insertion Flow Meter Point | Bonded Asbestos Cement |
| — Water tower | Glass reinforced plastic |
| — Service reservoir | Glass reinforced epoxy |
| — Water Supply Works | (Unplasticised) Polyvinyl chloride |
| — Bore hole / Well | Polyethylene |
| — Intake | Steel |
| — Customer site | Concrete segments bolted |
| — Swab insertion point | Concrete segments unbolted |
| | Galvanised iron |
| | Ductile sleeve |
| | Concrete pre-stressed |
| | High performance polyethylene |
| | Unknown |

- | |
|-----|
| AK |
| CI |
| SI |
| CO |
| DI |
| BAC |
| GRP |
| GRE |
| PVC |
| PE |
| ST |
| CSB |
| CSU |
| GI |
| DS |
| CPS |
| HPE |
| ?? |

Appendix 6

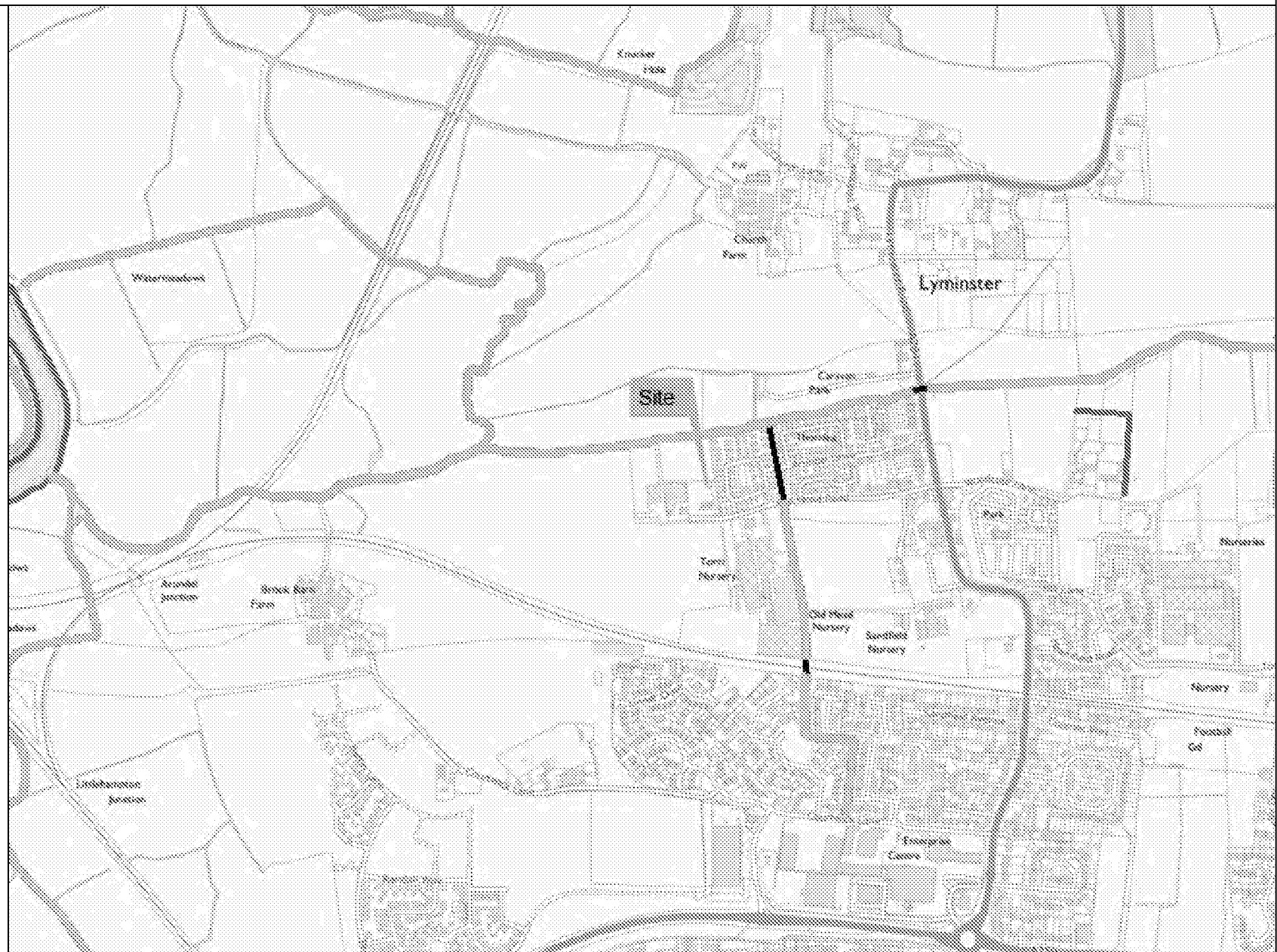
Environment Agency Flood Maps

Flood Defence Locations. Centred BN17 7PU. Created 08/03/2017.

Legend

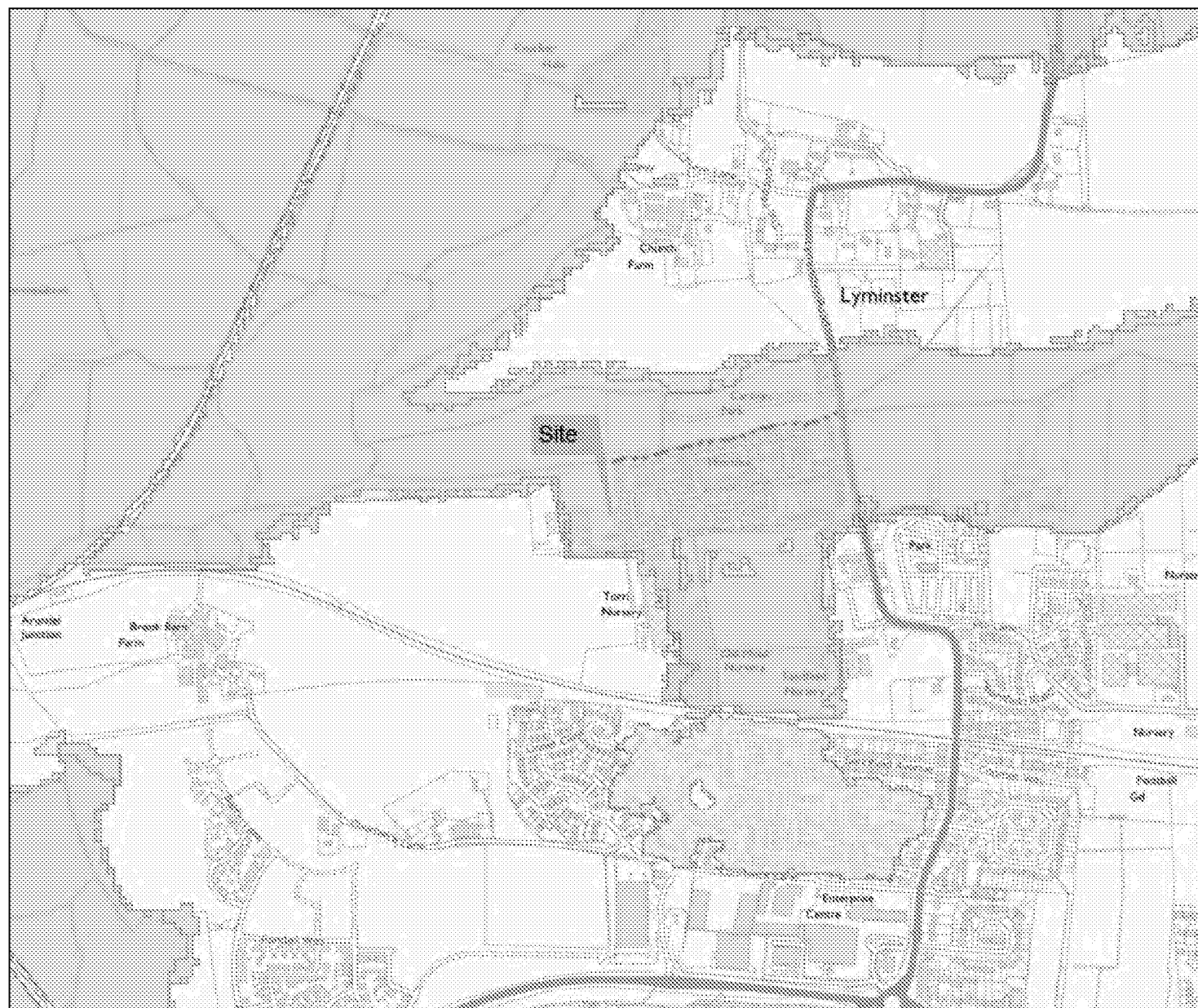
Defences

- | | |
|---|---------------------|
|  | Embankment |
|  | Wall |
|  | Flood Gate |
|  | Demountable Defence |
|  | Bridge Abutment |
|  | High Ground |
|  | Beach |
|  | Barrier Beach |
|  | Promenade |
|  | Quay |
|  | Cliff |
|  | Dunes |
|  | Culvert |



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Flood Map for Planning (Rivers and Sea). Centred BN17 7PU. Created 08/03/2017.



Scale 1: 10,000



Flood Map for Planning (Rivers & Sea)

- Defences
- Flood Storage Areas
- Areas benefiting from flood defences
- Flood Zone 3
- Flood Zone 2

Flood Map Areas (assuming no defences)

Flood Zone 3 shows the area that could be affected by flooding:

- from the sea with a 1 in 200 or greater chance of happening each year
- or from a river with a 1 in 100 or greater chance of happening each year.

Flood Zone 2 shows the extent of an extreme flood from rivers or the sea with up to a 1 in 1000 chance of occurring each year.



Environment
Agency

N



Legend

 Site Nodes

 Site Boundary

 Main River

Scale: 1:2,000

0

0.0375

0.075

Kilometers



Product 4 Flood Risk Data Requested by: Tom Zajac

Site: Site off Old Mead Road, Littlehampton, BN17 7PU

Table 1: Water Levels: Fluvial Undefended

Node Reference	NGR		Modelled Flood Levels in Metres			
	Eastings	Northings	Undefended Annual Exceedance Probability			
			5%	1%	1% Plus Climate Change	0.1%
1	502132	104282	2.16	2.21	2.90	2.47
2	502178	104284	2.16	2.21	2.90	2.47
3	502179	104220	2.16	2.21	2.90	2.47

Table 2: Water Levels: Fluvial Defended

Node Reference	NGR		Modelled Flood Levels in Metres					
	Eastings	Northings	Defended Annual Exceedance Probability					
			20%	5%	1.3%	1%	1% + CC	0.1%
1	502132	104282	-	-	1.57	1.57	1.72	2.38
2	502178	104284	-	-	-	-	1.72	2.38
3	502179	104220	-	-	-	-	1.72	2.38

Table 3: Water Levels: Tidal Undefended

Node Reference	NGR		Modelled Flood Levels in Metres			
	Eastings	Northings	Undefended Annual Exceedance Probability			
			5%	0.5%	0.5% (2110)	0.1%
1	502132	104282	2.34	2.48	2.99	2.51
2	502178	104284	2.34	2.48	2.99	2.51
3	502179	104220	2.34	2.48	2.99	2.51

Table 4: Water Levels: Tidal Defended

Node Reference	NGR		Modelled Flood Levels in Metres			
	Eastings	Northings	Defended Annual Exceedance Probability			
			5%	0.5%	0.5% (2110)	0.1%
1	502132	104282	-	-	3.13	-
2	502178	104284	-	-	3.13	-
3	502179	104220	-	-	3.13	-

Office Address: Guildhouse House, Chatsworth Road, Worthing BN11 1LD

Table 5: Water Depth: Fluvial Undefended

	NGR		Modelled Flood Depth in Metres			
			Undefended Annual Exceedance Probability			
Node Reference	Eastings	Northings	5%	1%	1% Plus Climate Change	0.1%
1	502132	104282	0.61	0.66	1.35	0.92
2	502178	104284	0.54	0.59	1.28	0.85
3	502179	104220	0.50	0.55	1.24	0.81

Table 6: Water Depth: Fluvial Defended

	NGR		Modelled Flood Depth in Metres					
			Defended Annual Exceedance Probability					
Node Reference	Eastings	Northings	20%	5%	1.3%	1%	1% + CC	0.1%
1	502132	104282	-	-	0.02	0.03	0.18	0.83
2	502178	104284	-	-	-	-	0.11	0.76
3	502179	104220	-	-	-	-	0.07	0.72

Table 7: Water Depth: Tidal Undefended

	NGR		Modelled Flood Depth in Metres			
			Undefended Annual Exceedance Probability			
Node Reference	Eastings	Northings	5%	0.5%	0.5% (2110)	0.1%
1	502132	104282	0.79	0.93	1.44	0.95
2	502178	104284	0.72	0.86	1.37	0.89
3	502179	104220	0.68	0.82	1.33	0.84

Table 8: Water Depth: Tidal Defended

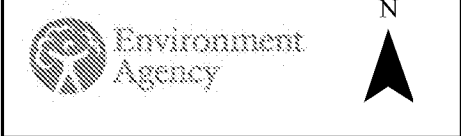
	NGR		Modelled Flood Depth in Metres			
			Defended Annual Exceedance Probability			
Node Reference	Eastings	Northings	5%	0.5%	0.5% (2110)	0.1%
1	502132	104282	-	-	1.58	-
2	502178	104284	-	-	1.51	-
3	502179	104220	-	-	1.47	-

All levels taken from: Lower Tidal River Arun Strategy Study, completed in 2010 by Atkins.

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

Produced on 08/03/2017

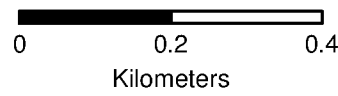
Office Address: Guildbourne House, Chatsworth Road, Worthing BN11 1LD.

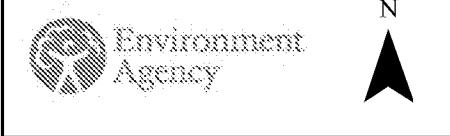


Legend

- Site Boundary
- Main River
- 20% AEP (Defended Fluvial)
- 5% AEP (Defended Fluvial)
- 1.3% AEP (Defended Fluvial)
- 1% AEP (Defended Fluvial)
- 0.1% AEP (Defended Fluvial)
- 1% AEP Plus Climate Change (Defended Fluvial)

Scale: 1:10,000

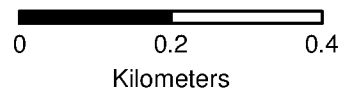




Legend

- Site Boundary
- Main River
- 5% AEP (Defended Tidal)
- 0.5% AEP (Defended Tidal)
- 0.1% AEP (Defended Tidal)
- 0.5% AEP (2110) (Defended Tidal)

Scale: 1:10,000



Appendix 7

Correspondence with Environment Agency,

Arun District Council and

West Sussex County Council

Tom Zajac
The Civil Engineering Practice
11 Tungsten Building
George Street
Fishersgate
West Sussex
BN41 1RA

Our ref: SSD/40092

Date: 08/03/2017

Dear Tom

Provision of Product 4 for address: Site off Old Mead Road, Littlehampton, BN17 7PU

Thank you for your request of 7th March 2017 to use Environment Agency data, Product 4. The information is attached.

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

The property is in an area located within Flood Zone 3 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.

Please find attached a copy of the Flood Map for Planning (Rivers and Sea) for the area relating to your address.

Further details about the Environment Agency information supplied can be found on the GOV.UK website:

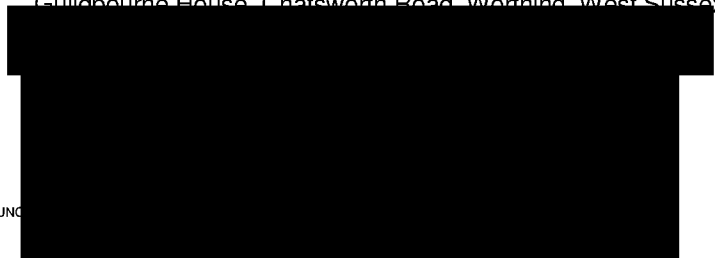
<https://www.gov.uk/browse/environment-countryside/flooding-extreme-weather>

If you have requested this information to help inform a development proposal, then you should note the information on GOV.UK on the use of Environment Agency Information for Flood Risk Assessments

<https://www.gov.uk/planning-applications-assessing-flood-risk>

<https://www.gov.uk/government/publications/pre-planning-application-enquiry-form-preliminary-opinion>

Guildbourne House, Chatsworth Road, Worthing, West Sussex, BN11 1LD



Supporting Information

Flood Defences

Concrete embankments to the West of the site reduce the risk of flooding to a standard of protection of a 1 in 200 year flood event.

Model Information

The flood outlines, depths and levels are taken from the Lower Tidal River Arun Strategy Study, completed in 2010 by Atkins.

Flood History

We do not have any records of previous flood events affecting this site. I would suggest contacting Arun District Council for a more comprehensive flood history check.

Please note our records are not comprehensive and may not include all events, you can contact your Local Authority to check if they hold any relevant information regarding your application.

You are encouraged to use and re-use this information freely and flexibly, with only a few conditions. Details of which can be found here:

<http://www.nationalarchives.gov.uk/doc/open-government-licence/version/3/>

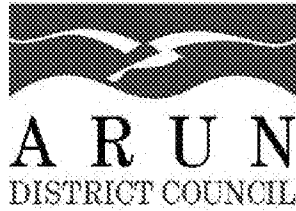
We respond to requests for recorded information that we hold under the Freedom of Information Act 2000 (FOIA) and the associated Environmental Information Regulations 2004 (EIR).

If you are not satisfied with our response to your request for information you can contact us within 2 calendar months to ask for our decision to be reviewed.

If you have any queries or would like to discuss the content of this letter further please call us on 03708 506506.

Yours faithfully
Freddie Fielding
PSO West Sussex

Enc. Flood Map for Planning (Rivers and Sea) / Node point locations / Flood levels/depths / Modelled flood outlines / Flood Defence Locations



Clare Bartlett
Batcheller Monkhouse
New Bartram House
3-5 Swan Court
Station Road
RH20 1RL

Arun District Council
Arun Civic Centre
Maltravers Road
Littlehampton
West Sussex BN17 5LF
Planning General Enquiries
Tel: (01903) 737756 Fax: (01903) 730442
Dx: 57406 Littlehampton
Minicom: 01903 732765
e-mail: planning@arun.gov.uk
website: www.arun.gov.uk/planning

Your Ref:

Our Ref: PAA/97/17/

Please ask for: Mrs A Gardner

01903 737529

5th July 2017

Dear Ms C Bartlett

Pre-Application Advice

Proposed residential mobile home park.
Land West of Thornlea Park Littlehampton

I write regarding the above matter and your enquiry received on 4th May 2017.

Description Of Proposed Development

From the details submitted I understand that you propose to provide 30 residential 2 bedroom mobile homes situated outside of the built up area boundary for permanent residential occupation by the over 55s. Each unit would have a parking space and small private garden. The proposal also includes a small visitor parking area and cycle store at the entrance and the internal road has a width of 4.5m.

Description Of Site

Agricultural site
The site comprises a bungalow, sheds and redundant nursery land. The site is generally flat and 1 hectare in size and there are no trees affected by your proposal.

Description Of Locality

Rural Locality

To the east of the site lies Thornlea Mobile Home Park, to the south lies Old Mead Road and farmland. West storage of caravans takes place and to the north is agricultural.

Planning Issues

The following issues have been identified for consideration.

Principle
Design
Neighbour Amenity
Bin Storage

decmaa

Highways, Transport and Parking
Sustainability
Sustainable Construction
Strategic Gap
Flooding/Drainage
Biodiversity
Tourism

Relevant Planning History

LU/162/03/CLE	Application for a Certificate of Lawfulness for an existing use - residential use for bungalow and land.	Approve 22-07-2003
LU/278/90	Outline application for residential development	Refused 21-11-1990

Appeal: Dismissed
25 07 1991

Comment On Site History

Relevant Policies - the following policies are considered relevant to your proposal:

Arun District Local Plan:	AREA10 AREA3 GEN3 GEN7 GEN9 GEN11 GEN15 GEN2	Strategic Gaps The Setting of Arundel Protection of the Countryside The Form of New Development Foul and Surface Water Drainage Inland Flooding Cycling and Walking Built-up Area Boundary
Publication Version of the Local Plan (October 2014):	C SP1 Countryside D DM1 Aspects of Form and Design Quality D SP1 Design W DM2 Flood Risk LAN DM2 The Setting of Arundel	
Littlehampton Neighbourhood Plan 2014 Policy 1	The Presumption in Favour of Sustainable Development	
Planning Policy Guidance	NPPF NPPG	National Planning Policy Framework National Planning Practice Guidance

Principle

The site is situated outside the built-up boundary where the principle of development is considered unacceptable. Development Plan policies seek to exert a strict control over new development in the countryside to protect it for its own sake. Development will only be permitted in exceptional circumstances or where there is a strong justification for a countryside location. The Government's planning advice indicates that planning authorities should continue to ensure that the quality and character of the wider countryside is protected, and where possible enhanced.

Policy GEN3 of the Arun District Local Plan states that development will not be permitted unless:

decpaa

"(i) it meets the operational needs of agriculture, forestry, the extraction of minerals or the deposit of waste; or

(ii) for quiet, informal recreation; or

(iii) for the diversification of the rural economy; or

(iv) for essential road schemes; or

(v) it is in accordance with policy in Sections 2 and 3 of the plan referring to specific use or type of development."

The principle of a residential caravan site in the location proposed is considered to conflict with policy GEN3 of the Arun District Local Plan. Given the permanent residential use of the site proposed it could not be considered as an exception in terms of tourism policies.

The site also lies within the Arundel and Littlehampton Strategic Gap. Policy AREA10 of Arun District Local Plan requires development to be consistent with other Development Plan policies, to not compromise the objectives or integrity of the strategic gap either individually or cumulatively and to provide long term enhancement of the landscape, amenity and conservation value. On this basis any submitted planning application should include landscape and conservation enhancements.

Further, with suitable planting to site boundaries the proposed development would potentially have a minimal visual impact upon the locality given the low profile of the homes. Similarly, the proposal will potentially have a minimal impact upon the views of Arundel and its setting in accordance with policy AREA3 of the Arun District Local Plan. Visually It would be perceived as an expansion of other similar structures in the vicinity.

The site is outside the built up area of Littlehampton in a location that is not allocated for housing in the Local Plan 2003. The site is similarly not identified in the emerging Arun District Local Plan, but is also not within a designated settlement gap. There are also no policies specifically relating to the site in Littlehampton Neighbourhood Plan, although Policy1: 'The Presumption in Favour of Sustainable Development ' is considered relevant.

However, the Local Planning Authority are unable to demonstrate a 5 year supply of housing land as required by paragraph 49 of the NPPF. Furthermore, the Examination into the emerging Local Plan was suspended by the Planning Inspector on the grounds that the Council's Objectively Assessed Housing Need (OAN) should be reviewed higher than that proposed 580 units p.a in the Emerging Local Plan. The Council will need to identify more suitable land supply to meet additional housing requirements. The OAN figure has now been increased to 919 units per annum as of October 2016. Additional strategic sites are currently being assessed and allocated in order to meet this higher figure.

The NPPG has provided clear guidance on the issue of the weight that can be given to both the adopted local plan and emerging or made Neighbourhood Plans where the Council cannot demonstrate the 5 year supply of deliverable housing sites. Therefore the adopted development plan policies relating to housing supply are out of date and the emerging Local Plan policies carry limited weight at this time.

Where the development plan is absent, silent or the relevant policies are out of date, paragraph 14 of the NPPF states that the presumption in favour of sustainable development requires the granting of planning permission, 'unless any adverse impacts of doing so would significantly and demonstrably outweigh the benefits'. Furthermore, paragraph 49 states that:

"Housing applications should be considered in the context of the presumption in favour of sustainable development. Relevant policies for the supply of housing should not be considered up-to-date if the local planning authority cannot demonstrate a five year supply of deliverable housing sites"

A written Ministerial Statement was published on the 13th December 2016 which stated that;

"relevant policies for the supply of housing in a neighbourhood plan, that is part of the development plan, should not be deemed to be 'out-of-date' under paragraph 49 of the National Planning Policy Framework where all of the following circumstances arise at the time the decision is made:

- this written ministerial statement is less than 2 years old, or the neighbourhood plan has been part of the development plan for 2 years or less;
- the neighbourhood plan allocates sites for housing; and
- the local planning authority can demonstrate a three-year supply of deliverable housing sites.

The statement applies to decisions made on planning applications and appeals from the date it was laid."

The Council are currently only able to demonstrate <2 year HLS and the Neighbourhood Plan is more than 2 years old and as such the policies relating to the supply of housing in the Littlehampton Neighbourhood Plan must be considered 'out-of-date' under para 49 of the NPPF in accordance with the written ministerial statement.

Therefore, as the Council are only able to identify a <2 year HLS the Littlehampton Neighbourhood Plan policies in relation to supply of housing are out of date in the determination of this application.

As set out in the sustainability paragraph the proposal is considered to constitute sustainable development in accordance with paragraph 7 of the National Planning Policy Framework (NPPF) and as such is supported by paragraph 28 of the NPPF.

A Housing Implementation Strategy has been produced (March 2017) to support the modifications to the Local Plan housing policies and this document identifies the current five year housing land supply situation. The current housing land supply (with a 'policy off' position) is 1.92 years. A report to the Local Plan Sub-Committee recommended to Full Council that planning applications should be invited on sites identified as being 'deliverable' by the HELAA where they are considered sustainable and will not prejudice the emerging local plan and/or infrastructure delivery. This was due to the shortfall in housing land supply since the start of the plan period in 2011. The emerging Plan must ensure that an adequate supply of sites to provide for a rolling five year land supply over the course of the Plan period once the Plan is in place.

Once the Local Plan is adopted and is able to carry significant weight, the policies will seek to exert a strict control over new development in the countryside to protect it for its own sake. Development will only be permitted in exceptional circumstances or where there is a strong justification for a countryside location. The Government's planning advice indicates that planning authorities should continue to ensure that the quality and character of the wider countryside is protected, and where possible enhanced.

However, it is now accepted that because housing policies only related to housing provision up to 2011, the weight afforded to them is significantly reduced. In recent appeal determinations Inspectors have confirmed that the principle of development on land outside the defined built up boundary can be accepted in certain cases. In relation to the sustainability of the location has previously been considered sustainable given the neighbouring residential sites under construction. This site has been included within the Arun District Housing and Economic Land

Availability Assessment as Deliverable since it is considered to be sustainable and would not prejudice the emerging local plan and/or infrastructure delivery .

In principle it is therefore considered that the provision of 30 mobile homes would be acceptable.

Design

Planning Policies and Central Government Advice support the efficient and effective use of land. Policy GEN7(ii) requires new developments to respond positively to the identified characteristics of a particular site to create developments which respect local characteristics. Central Government Advice further indicates that more intensive development is not always appropriate and that design which is inappropriate in its context should not be accepted. Furthermore new development should be well integrated with and complement the local area in terms of, for example, layout.

The character of the locality is mixed with a large mobile home park located to the north; greenhouses to the east; 5.2 hectares of solar panels to the west; and Old Mead House a two storey dwelling to the south. It is considered that the proposed mobile homes are in keeping with the established character of the locality and as such will not give rise to unacceptably adverse harm to the visual amenity of the area. The proposed development is considered to be enveloped on all sides by existing development and as such the proposal will not constitute an encroachment into the countryside.

Although the proposal is contrary to policy GEN3 of the Arun District Local Plan by virtue of its location outside of the built area boundary, it is considered that the proposed development does not give rise to any unacceptably adverse harm to character and appearance of the area and does not unacceptably encroach into the countryside or the strategic gap.

There is another mobile home site and caravan storage area in the locality and the proposal would not therefore be out of character in this location. Further, subject to appropriate landscaping, given their limited height the units would be considered to have an acceptable impact on visual amenity. They would not result in an isolated feature in open countryside and visually would be perceived as an expansion of other similar uses.

Neighbour Amenity

Arun District local Plan Policy GEN7 (iv) indicates that development will be permitted if it takes into account impact on adjoining occupiers, land, use or property. One of the 'core planning principles' of the NPPF is to secure high quality design and a good standard of amenity (paragraph 17). Both the adopted Local Plan Policy GEN7 and the emerging Local Plan policy require regard to be had to the amenity & living conditions of neighbouring properties.

Glenville residential dwelling is located adjacent to the western boundary of the site and Thornlea Park abuts the site to the east. 2m high close boarded fencing encloses Thornlea Park. Although the units and their limited garden areas are adjacent to the site boundaries, the access roads are located within the site and vehicular activity would not therefore take place immediately adjacent to residential units. The proposed layout is considered acceptable in terms of the impact on neighbouring residential amenity on this basis.

Therefore, it is considered that the proposed development does not give rise to any unacceptably adverse overbearing, overshadowing or overlooking impacts on neighbours and as such the proposed development is considered to accord with policy GEN7(iv) of the Arun District Local Plan.

Affordable Housing

The Supporting Statement includes a proposal to provide a commuted sum payable in lieu of on-

site affordable housing, in principle the Council's Affordable Housing Officer has advised this would be an acceptable outcome for the Council. The actual figure would need to be of a similar value required to replace 9 (30%) affordable homes elsewhere in the Arun district. The Council's current policy requirement is for a sum of £45,000 for each foregone affordable housing unit payable as commuted sum. However, as the development relates to mobile homes, which will provide for a lower overall Gross Development Value, this sum should be agreed with the Council's Housing Strategy and Enabling Manager prior to a full planning application being submitted.

Highways Transport And Parking

Planning policies allow for the safe movement of pedestrians and vehicles, giving priority to pedestrians, and car parking. I am not able to consult with West Sussex County Council on pre-application enquiries and so I am unable to provide any comments in relation to the proposed access or the suitability of visibility splays. However, you can contact them yourself for pre-application advice through their website at:

<https://www.westsussex.gov.uk/roads-and-travel/information-for-developers/pre-application-advice-for-roads-and-transport/>.

Sustainability

Government Planning policy is to encourage appropriate development in a location that will enable a reduction in the need to travel, particularly by private car and that planning should contribute to reduce emissions and reduce climatic change. The proposed development is considered to be sustainable due to the proximity to essential facilities, availability and close proximity of public transport. As stated in the supporting information all of the facilities within Littlehampton are accessible via a made footpath which starts approx. 140m from the site.

NPPF TEST ON SUSTAINABILITY

Paragraph 7 of the NPPF sets out the three dimensions to sustainable development - the economic, social and environmental roles. Below I set out the assessment in respect of the three roles of sustainability as identified in the NPPF.

Environmental Role -

Paragraph 55 of the NPPF advises that new isolated homes in the countryside should be avoided, unless there are special circumstances. It also states that housing in rural areas should be located where they will enhance or maintain the vitality of rural communities. Whilst, the proposed mobile homes are not dwelling houses they will provide permanent residential accommodation.

The site is located outside of the built up area boundary but within close proximity to other rural development as identified earlier in this report. The nearest bus stop is located approximately 160m to the east of the site, with The Six Bells public house located the same distance away adjacent to Old Mead Road. The nearest local convenience shop is located approximately 800m away. These are considered to be acceptable walking or cycling distances.

However, it must be considered that the first 140m of this journey is devoid of footpaths along Old Mead Road which is a shared surface. There is also limited street lighting available on Old Mead Road. There are also no dedicated cycle lanes on Lymminster Road although there are footpaths into Wick.

The nearest bus stop to the application site falls upon the 700 route with buses available approximately every 30mins between Arundel and Brighton. Therefore, it is considered that the proposed site benefits from adequate access to local facilities and public transport and as such would accord with Paragraph 55 of the NPPF.

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Social Role -

The proposed development would provide 30 no. residential mobile homes considered to represent lower cost accommodation which is in severe shortage in the district. Therefore this is considered to be in the schemes favour.

Economic Role -

It is considered that the proposed development will result in a not insignificant amount of Council Tax and Business Rate receipts as well as provide a small number of jobs during installation. Therefore, the proposed development would provide a small benefit to the local economy which is in favour of the proposed development.

It is deemed that the proposal constitutes sustainable development in accordance with the NPPF.

NATIONAL PLANNING POLICY FRAMEWORK

Paragraph 28 of the National Planning Policy Framework states that "the sustainable growth and expansion of all types of business and enterprise in rural areas, both through conversion of existing buildings and well designed new buildings" should be supported. It is deemed that the proposed office has been designed with the constraints of the site having been considered.

The proposed development the subject of this application is well designed and in keeping with the established character of the locality with the proposal constituting sustainable development and as such is deemed to accord with the NPPF.

Sustainable Construction

Sustainable Construction

Tackling climatic change is a key government priority for the planning system. Applicants for planning permission should consider how well their proposals for development contribute to the Governments ambition of a low carbon economy and how well adapted they are for expected effects of climatic change. Applicants should consider provision of renewable energy in the form high level insulation, rainwater harvesting a general minimal energy use, including Carbon Dioxide reduction.

Emerging Local Plan Policy ECC SP2 "Energy and Climate Change Mitigation" states that:

"All new residential and commercial development (including conversions, extensions and changes of use) will be expected to be energy efficient and to demonstrate how they will:

- a. Achieve energy efficiency measures that reflect the standards in the level of the Code for Sustainable Homes or appropriate BREEAM rating, applicable at the time of submission;
- b. Use design and layout to promote energy efficiency; and
- c. Incorporate decentralised, renewable and low carbon energy supply systems, for example small scale renewable energy systems such as solar panels."

And that:

"In assessing the achievement of these standards the Council will consider:

- * Site constraints;
- * Technical viability;
- * Financial viability; and
- * Delivery of additional benefits."

Please ensure that you have regard to this Policy if you prepare a planning application.

Flooding

Planning Policies and the National Planning Policy Framework require development not to give rise to an unacceptable risk of flooding detrimental to human health or property. There are

decpa

requirements regarding the submission of a Flood Risk Assessment and Sequential test documentation. The relevant requirements for these are dependent upon the designated flood zone that the site is located within.

The Environment Agency website details designated flood zones and it would appear that the proposed site falls within Flood Zone 3. I therefore consider that you will need to provide a Flood Risk Assessment which includes the application of the Sequential Test.

Further information regarding flood risk and the requirements can be found at the following website address: <https://www.gov.uk/guidance/flood-risk-assessment-for-planning-applications>

Biodiversity

Planning Policies and Central Government Advice advice Planning Policy Statement 9 Biodiversity and Geological Conservation indicate that developments should aim to maintain and enhance, restore or add to biodiversity and geological resources of the area. An ecological report will need to be submitted setting out the biodiversity present, how biodiversity impacts can be avoided, appropriate mitigation measures and if necessary, compensation measures in the absence of mitigation and how biodiversity gains can be made. All ecological surveys need to be undertaken by a suitably qualified ecologist and at the right time of year and for the right duration.

Environmental Health Comments

The Council's Environmental Health Officers have made the following comments:

No objection to the creation of an additional mobile home park in principle.

Any such park will need a site licence but a licence cannot be granted unless planning consent is in place. The design of the proposed site should comply in detail with the Licensing requirements, the relevant model standards and the Council's own site licensing determination policy should either accompany the proposal or, if this is not feasible, conditions would be attached to any permission such that the site cannot be developed until an agreed design is in place.

Conclusion

Although the proposal is situated outside of the built area boundary and within a strategic gap, development plan policies, as they apply to the supply of housing are out of date, and there are no significant adverse effects from granting planning permission. The proposal therefore accords with paragraph 14 of the NPPF and should be approved.

However any application should include appropriate landscaping and conservation enhancements to reduce the impact upon the visual amenity of the countryside. I conclude that were an application for planning permission to be submitted it would be likely to be approved subject to conditions relating to lighting, landscaping, ecological enhancements and drainage.

It should be noted that this response does not include the comments of County Highways or the Environment Agency. Both of these consultees could influence the final decision reached on any application submitted.

Making an Application

If you decide to proceed with making an application you will need to quote the reference number for this advice in the pre-application advice section of the relevant application form. This will ensure that the application receives priority and a speedy validation process.

You will need to submit the following documentation/information with your application to meet the National Validation Requirements:

decpaa

Fully completed and signed Application Form with full description of the proposal.
Ownership Certificate and Agricultural Land Declaration
Design and Access Statement
Correct Fee
Location Plan (1:1250)
Site / Block Plan (1:500)
Elevations (Existing and Proposed)
Floor Plans (Existing and Proposed)
Roof Plans

Additionally the following documents will need to be provided to meet the Local Validation Requirements:

Please note that the Council has a Local Validation Requirements List and you should refer to it before submitting your application. Failure to provide the required documentation and to complete the Validation Checklist and the Biodiversity Checklist will result in the application being treated as incomplete and delay the validation of the planning application.

Having looked though the Local Validation Requirements List, I would suggest that the following additional documents will be required:

Biodiversity Survey and Report
Flood Risk Assessment
Foul and Surface Water Drainage Statement
Lighting Assessment
Bin Storage and Collection Provision
Parking Plan

You should be aware that any advice given by the Council in relation to pre-application advice will be based on the case Officer's professional judgement and will not constitute a formal response or decision of the Council with regard to any future planning applications. Any views or opinions expressed are given without prejudice to the consideration by the Council of any formal planning application which will be subject to wider consultation and publicity. Although the case officer may indicate the likely outcome of a formal planning application, no guarantees can or will be given about the decision that will be made on any such application. Any further correspondence will be at the Case Officer's discretion depending on the nature of the further enquiry. It may be necessary to submit a further pre-application advice request. Please note this advice only relates to planning and does not relate to any other legislation which may or may not apply such as Building Regulations. You will need to carry out your own checks to determine whether any other consents or permissions are required.

I trust this is of assistance to you.

Yours sincerely



Neil Crowther
Group Head of Planning

decpa

From: [REDACTED]
To: [REDACTED]
Subject: RE: 22827 - Thornlea Park Flood History
Date: 14 September 2017 11:33:07

Dear Mr Shields,

Thank you for your email. I think this enquiry needs to be answered by the Environment Agency. We do not hold flooding information. I can only advise whether the application site is within a Flood Zone. This is something the Environment Agency can also help with.

Sorry I can't be of any more help,

Regards

Julie Grieves

From: Nathan Shields [REDACTED]
Sent: 13 September 2017 11:33:07
To: Planning [REDACTED]
Cc: [REDACTED]
Subject: 22827 - Thornlea Park Flood History

Good afternoon,

We are currently working on a proposed residential development at the above site.

Can you please provide us with any flooding information (including historic flooding) you may hold?

I attach a location plan for your reference.

The site is at OS reference TQ 021 042 and the nearest post code is BN17 7PU.

Please do not hesitate to contact me if you require any additional information.

Many thanks

Nathan Shields

[REDACTED]
The Civil Engineering Practice
11 Tungsten Building
George Street
Fishergate
West Sussex
BN41 1RA

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department.

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<http://www.arun.gov.uk>

NLPG UPRN 100062237016

DX 57406 Littlehampton

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From: [REDACTED]
To: [REDACTED]
Subject: RE: 22827 - Thornlea Park, Littlehampton, Flood History
Date: 26 September 2017 16:23:33

Dear Mandy

Many thanks for your email.

Yes, we do hold a record of historic flooding for this location. The description for this record states 'Southdown Nursey and gardens (6) flooded due to insufficient fall from land to the Black Ditch, the north end of Eel Springs Ditch is culverted (see IDD file) and possibly the IL should have been 300mm lower - pumping station could remedy the situation'. Unfortunately we do not have an accurate date or any other information for this record as I believe this data was obtained from the Environment Agency. Please contact them direct for further information on this and potentially other incidences of flooding relating to the Black Ditch.

Kind Regards

Kevin Brook
Flood Risk Management Engineer
Economy, Infrastructure and Environment
Highways and Transport
West Sussex County Council

From: Mandy Wickenden [REDACTED]
Sent: 20 September 2017 15:00
To: Flood Risk Management
Cc: Nathan Shields; reception@civil.co.uk
Subject: FW: 22827 - Thornlea Park, Littlehampton, Flood History

Good afternoon

With reference to our enquiry below dated 13 September 2017.

Please provide a reference number as confirmation of receipt.

Kind regards

Mandy

Mandy Wickenden
The Civil Engineering Practice
[REDACTED]

From: Nathan Shields [REDACTED]
Sent: 13 September 2017 12:41
[REDACTED]

Subject: 22827 - Thornlea Park, Littlehampton, Flood History

Good afternoon,

We are currently working on a proposed residential development at the above site.

Can you please provide us with any flooding information (including historic flooding) you may hold?

I attach a location plan for your reference.

The site is at OS reference TQ 021 042 and the nearest post code is BN17 7PU.

Please do not hesitate to contact me if you require any additional information.

Many thanks

Nathan Shields



The Civil Engineering Practice
11 Tungsten Building
George Street
Fishersgate
West Sussex
BN41 1RA

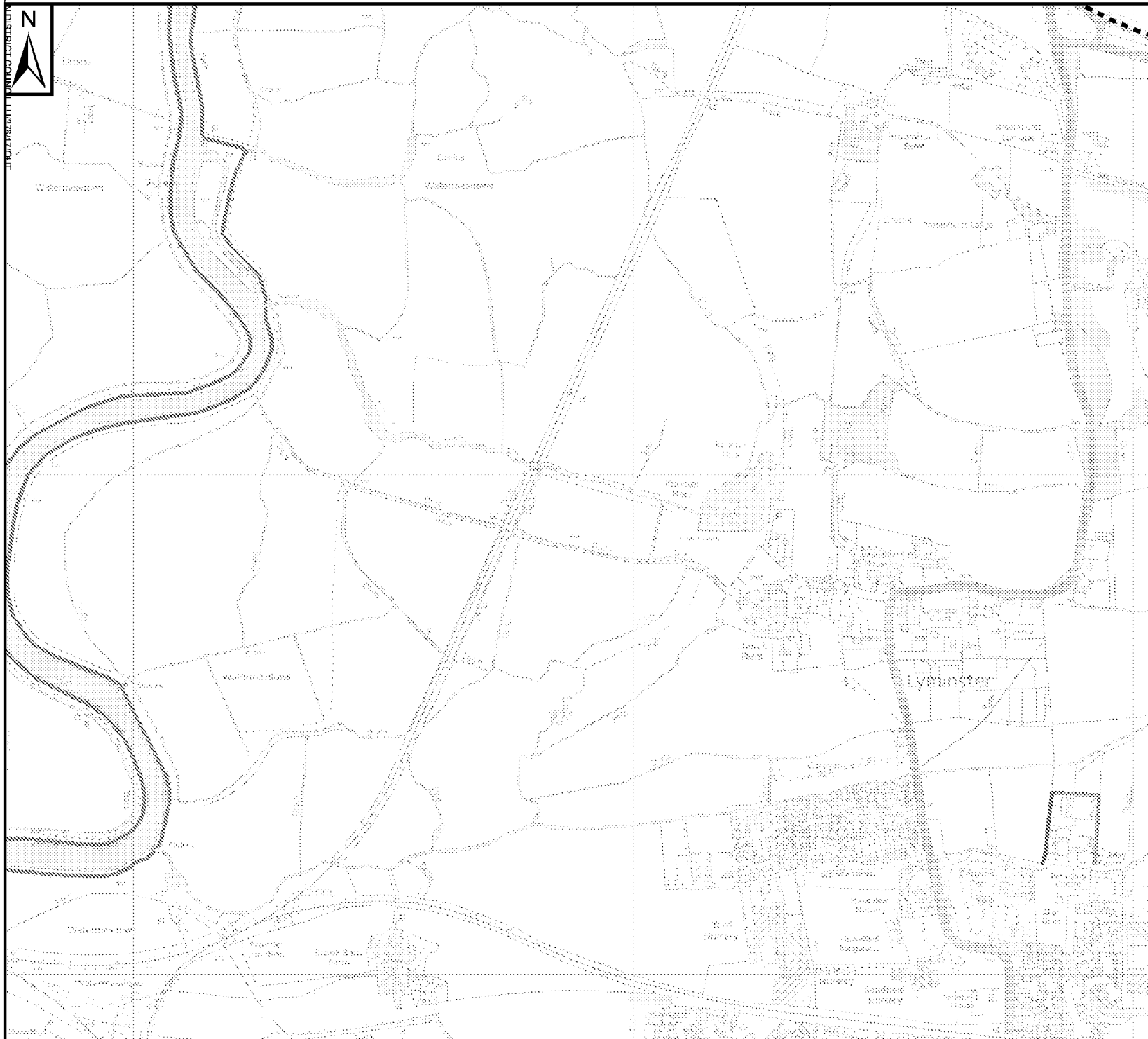
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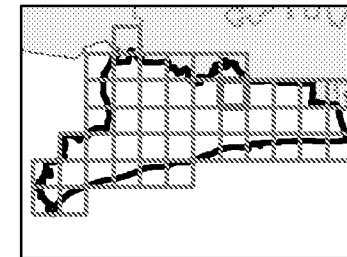
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Appendix 8
Extracts from SFRA
and Flow Paths



Key Plan



Legend



Arun District L1 SFRA Boundary



Capin Littlehampton reference

Defence type and maintenance

Embankment, Environment Agency

Embankment, Private

Embankment, Unknown

Wall, Environment Agency

Wall, Local Authority

Wall, Private

Single beach, Environment Agency

Single beach, Local Authority

Single beach, Littlehampton Harbour

Single beach, Private

Single beach, Worthing Borough

Unknown

0 0.125 0.25 0.5 km

REF	Date	Comments
A	June 2017	
B		
C		

This map is based upon Ordnance Survey data with the permission of Ordnance Survey, available at the location of the property's Boundary. Copyright Ordnance Survey, 1920-1946.

ARUN DISTRICT COUNCIL

LEVEL 1 SFRA: APPENDIX 1
DEFENCES

Sheet No: 05 of 48

Index Number: ARUN_05

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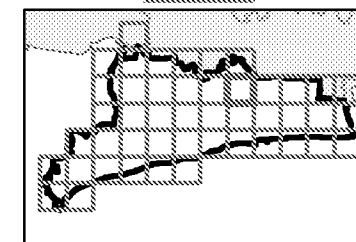
Notes

The Areas Susceptible to Groundwater Flooding (ASGWFF) is a strategic scale map showing groundwater flood areas on a 1km square grid. The data was produced to anticipate indicative Flood Risk Areas for Preliminary Flood Risk Assessment (PFRA) studies and allow the Lead Local Flood Authorities (LLFAs) to determine whether there may be a risk of flooding from groundwater.

This data shows the proportion of each 1km grid square where geological and hydrogeological conditions show that groundwater might emerge. It does not show the likelihood of groundwater flooding occurring. It does not take account of the chance of flooding from groundwater recharge. This dataset covers a large area of land, and only isolated locations within the overall susceptible area are actually likely to suffer the consequences of groundwater flooding.

The ASGWFF data should be used only in combination with other information, for example local data or historic data. It should not be used as sole evidence for any specific flood risk management, land use planning or other decisions at any scale. However, the data can help to identify areas for assessment of a local scale where finer resolution datasets exist.

Key Plan



Legend

Arun District SPRA boundary

< 25%

>= 25% < 50%

>= 50% < 75%

>= 75%

0 0.125 0.25 0.5
km

REF	Date	Comments
A	June 2015	
B		
C		

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ARUN DISTRICT COUNCIL LEVEL 1 SPRA: APPENDIX F AREAS SUSCEPTIBLE TO GROUNDWATER

Sheet No: 05 of 48

Index Number: ARUN_05

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Notes:

The Arun SFRA is a strategic assessment of flooding. Users of the SFRA should be aware of this when interpreting the information presented. The user is directed to the SFRA reports which outline the uncertainties associated with the studies. Particular attention is drawn to the following:

- Flood extent boundaries are not considered definitive. Land adjacent to these areas may also be at risk.
- Some flooding mechanisms have not been included in the assessment. The 'coastal risk area' is based on advice from LA Engineers and requires further assessment.

Arun District Council SFRA

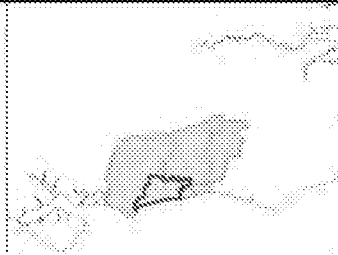
Map B - Residual Risk from Breach



CAPITA SYMONDS

Legend

- Arun District Boundary
- Main River
- Modelled Fluvial Breach Extents - Residual Risk
- Modelled Tidal Breach Extents - Residual Risk
- Proposed Breach Locations

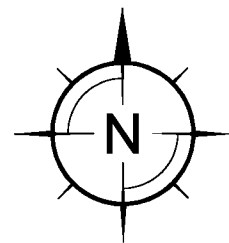


Scale at A3: 1:80,000

Date: 31/01/2008

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Map_B.doc



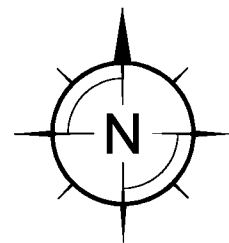
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Thornlea Park, Littlehampton
Existing Contours With Fall Arrows

SCALE
Not to Scale @ A3

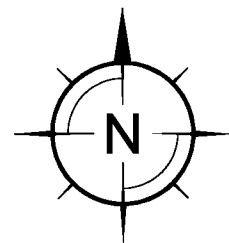
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Appendix 9

Proposed Site Layout



Appendix 10
Preliminary Drainage Strategy
Layout and Calculations



Impermeable Areas
=3995m²

Storage Calculation

Project Name:	Thornlea Park, Littlehampton - Housing
Project Number:	22827

Impermeable Area	
Impermeable Area	4,395 m ²
Equivalent Greenfield Runoff	5.15 l/s/ha
Outflow Restriction	2.3 l/s
(Minimum Practical = 5l/s)	

Return Storm Period Assessments available are: 1, 2, 5, 10, 20, 25, 50, 100 years.

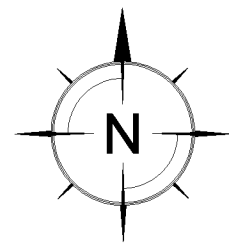
Ratio r1 in the range 0.12, 0.15, 0.18, 0.21, 0.24, 0.27, 0.30-0.45

40% Additional Rainfall to account for Climate Change (Where Appropriate)

Storm Profiles	
Return Period	100 years
M5-60	20 mm
Ratio r1	0.35
Consider Storms Beyond 6 hour duration?	Yes ☐

Storm Duration (mins)	Z1	R M5-D (mm)	Z2	R M(x)-D (mm)	I	Outflow	Storage Required
5	0.36	7.20	1.84	18.55	81.51	0.69	80.82 m ³
10	0.51	10.20	1.91	27.27	119.86	1.38	118.48 m ³
15	0.62	12.40	1.95	33.85	148.76	2.07	146.69 m ³
30	0.79	15.80	1.99	44.02	193.44	4.14	189.30 m ³
60	1.00	20.00	2.03	56.84	249.78	8.28	241.50 m ³
120	1.23	24.60	2.01	69.22	304.21	16.56	287.65 m ³
180	1.37	27.40	1.99	76.34	335.46	24.84	310.62 m ³
240	1.51	30.20	1.97	83.29	366.02	33.12	332.90 m ³
300	1.60	32.00	1.96	87.58	384.89	41.40	343.49 m ³
360	1.69	33.80	1.94	91.80	403.42	49.68	353.74 m ³
480	1.82	36.30	1.93	97.83	429.91	66.24	363.67 m ³
600	1.94	38.80	1.91	103.75	455.93	82.80	373.13 m ³
840	2.09	41.89	1.88	110.49	485.57	115.92	369.65 m ³
1140	2.29	45.74	1.85	118.61	521.24	157.32	363.92 m ³
1440	2.48	49.60	1.82	126.38	555.38	198.72	356.66 m ³

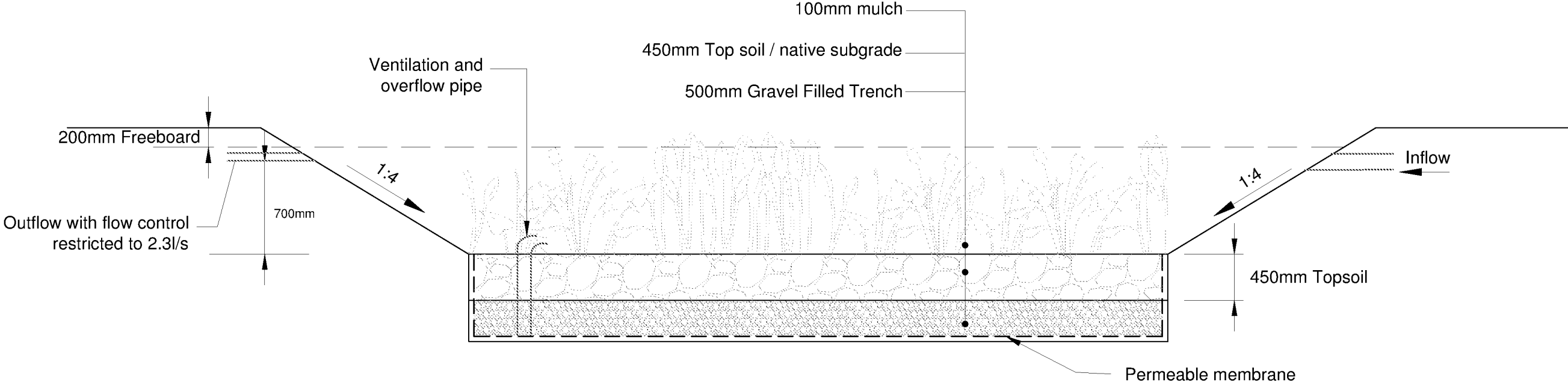
Peak Storage
373.1 m ³



DRAINAGE KEY:

- Inspection chamber and storm water sewer
- Rain Garden/ Basin





TYPICAL RAIN GARDEN
ILLUSTRATIVE DETAIL
(NTS)

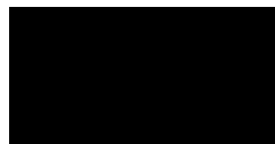
TITLE	
Thornlea Park, Littlehampton Rain Garden Construction Detail	
SCALE	DWG. No.
Not to Scale @ A3	8

Appendix 11

Outline Maintenance Schedule

Project Thornlea Park, Littlehampton
Project Number 22827
By Bava Sathan
Date 9 November 2017

The Civil Engineering Practice
 11 Tungsten Building
 George Street
 Fishersgate
 Sussex BN41 1RA



Indicative Schedule of maintenance for the proposed surface water drainage system:

Maintenance Schedule	Required Action	Frequency
Regular Maintenance	Remove sediment and debris from silt trap chambers, swales, bioretention units, gullies and inlet chambers	6 monthly
	Litter and debris removal – above ground	Monthly or as required
	Litter and debris removal – catch pits and gullies	Monthly or as required
	Manage other vegetation and remove nuisance plants – aesthetics	As required
Irregular Maintenance	Remove debris / blockages to silt traps/ gullies	As required
	Inspect pipe network and jetting	Every 2 years
Corrective Maintenance	Repairs to access chambers / MH covers	As required
	Inspect inlet, outlet from downpipe and gullies for blockages, standing water and clear	As required
	Replace planted vegetation within swale/bioretention units	As required



Thornlea Park, Littlehampton
Surface Water Maintenance Summary Sheet:
For Maintenance Management Company and Homeowners

Inspection/ Action Required	Gutters	Gullies	Catchpits / Silt Traps/ Manholes	Swales/ Bioretention Units	Surface Water Pipework
After leaf fall in Autumn	✓	✓	✓	✓	
6 Months	✓	✓	✓	✓	
1 Year				✓	
2 Years					✓