





Modelled Flood Outlines (Defended Fluvial). Centred BN18 0LE. Created 26/01/2023.

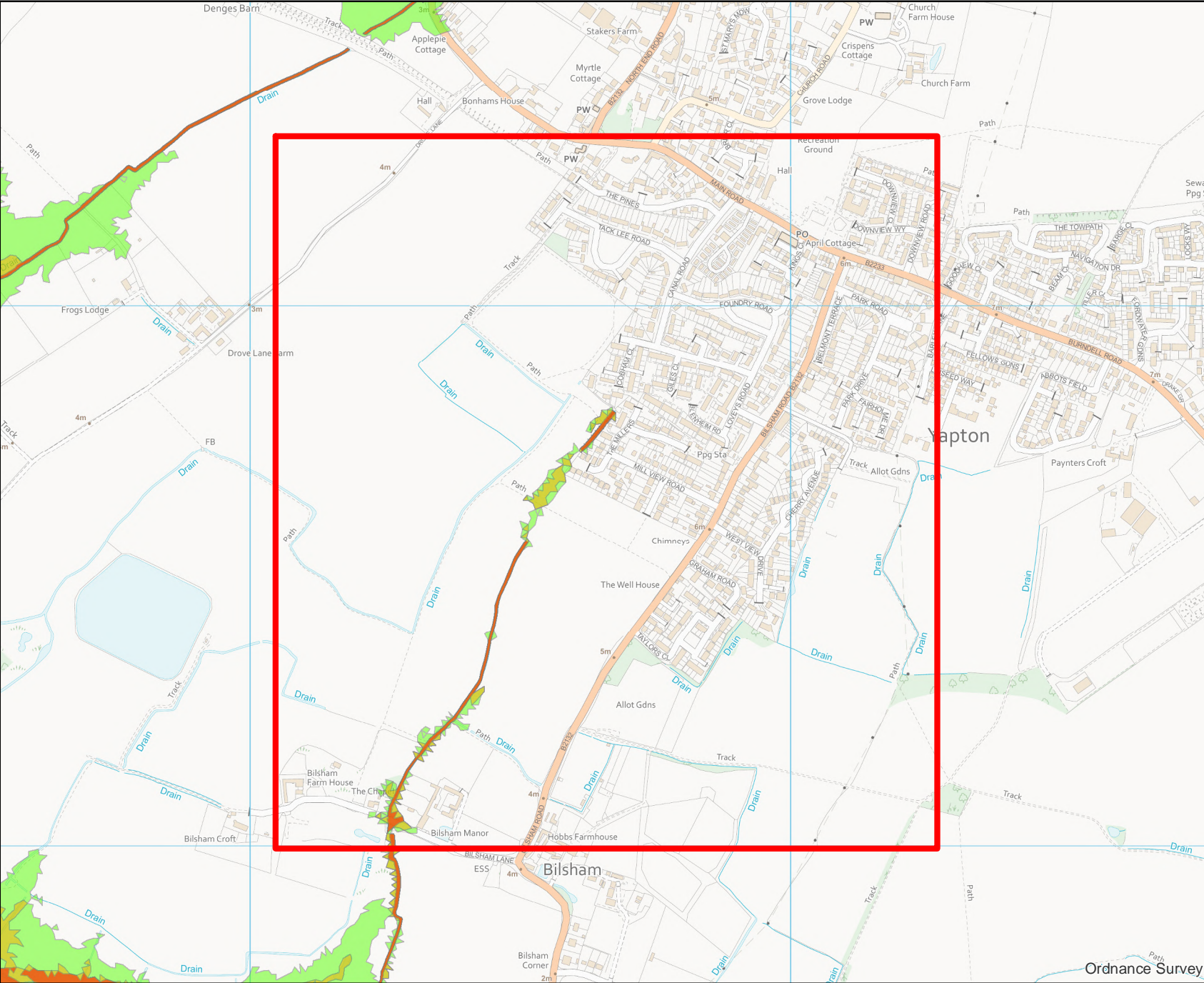
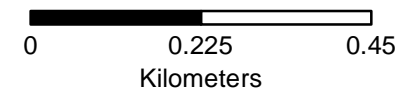


Legend

-  Site Boundary
-  5% AEP (Defended Fluvial)
-  1% AEP (Defended Fluvial)
-  0.1% AEP (Defended 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



Modelled Flood Outlines (Un defended Fluvial). Centred BN18 0LE. Created 26/01/2023.



N



Legend



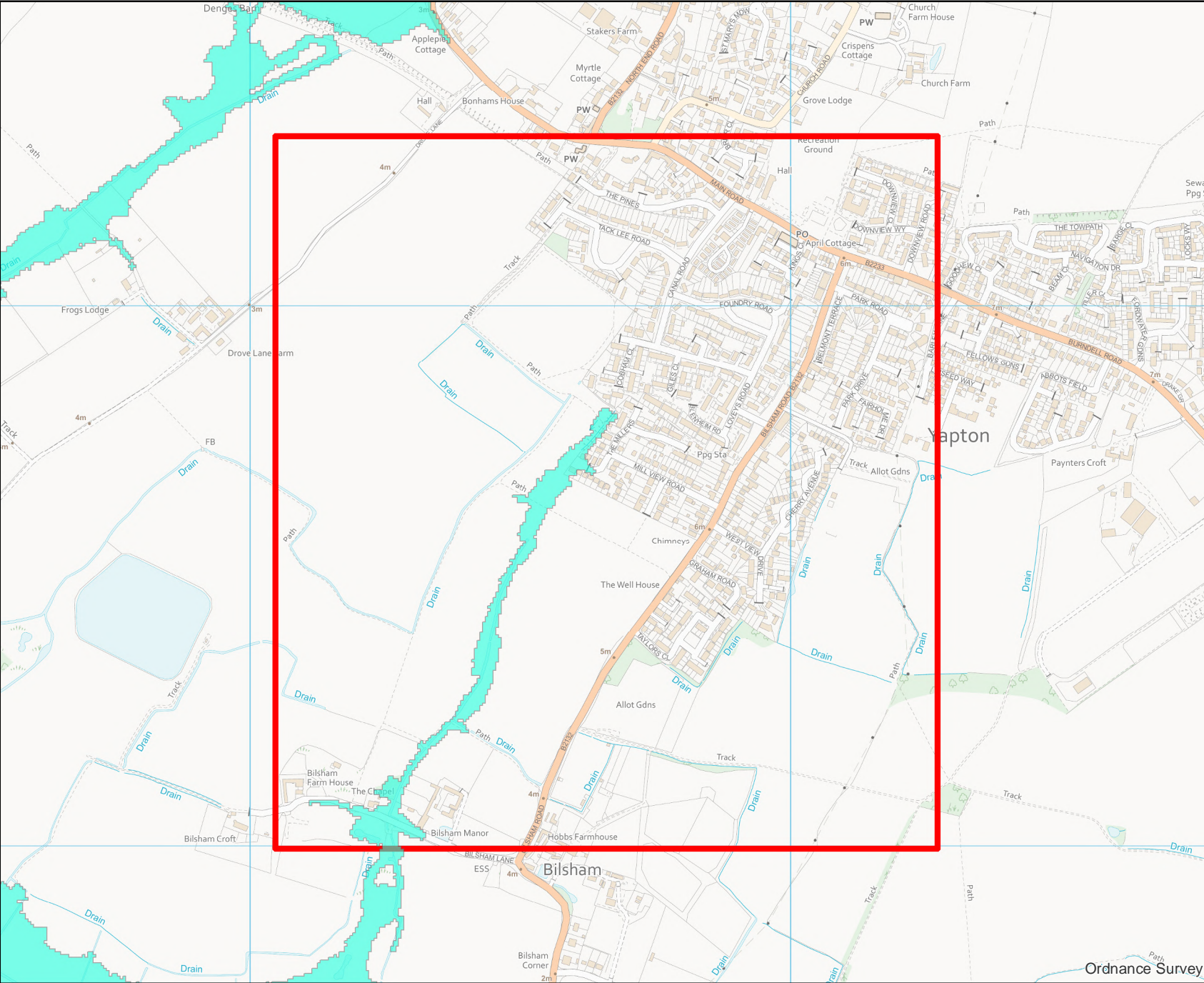
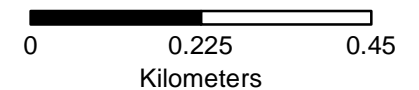
Site Boundary



0.1% AEP (Un defended 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



Modelled Flood Outlines (Undefended Fluvial). Centred BN18 0LE. Created 26/01/2023.

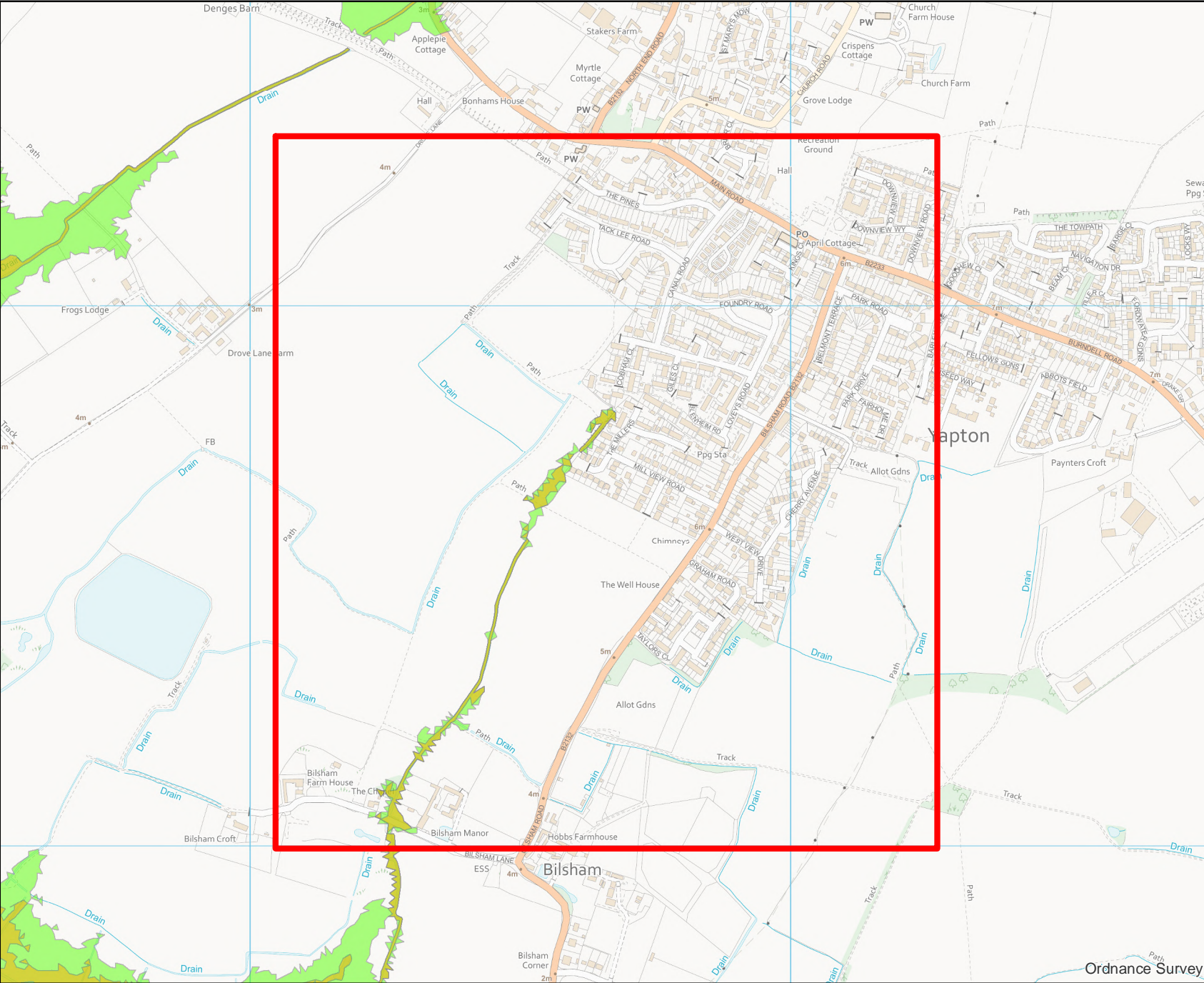
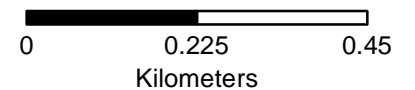


Legend

-  Site Boundary
-  1% AEP (Undefended Fluvial)
-  0.1% AEP (Undefended Fluvial)


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

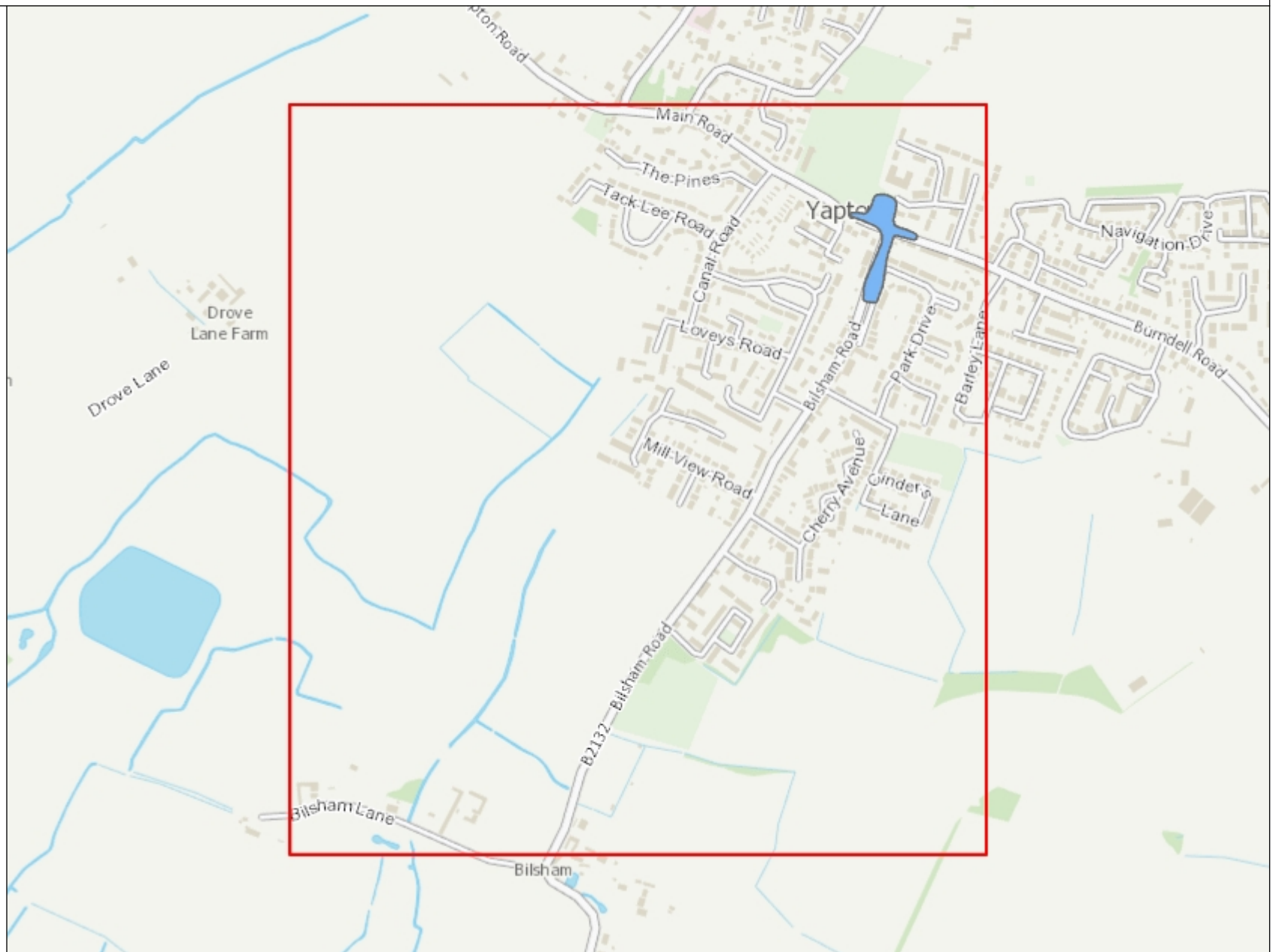
Scale: 1:10,000



Recorded Flood Outlines. Centred BN18 0LE. Created 26/01/2023.

Legend

 All recorded flood outlines



1: 10,000









0 250

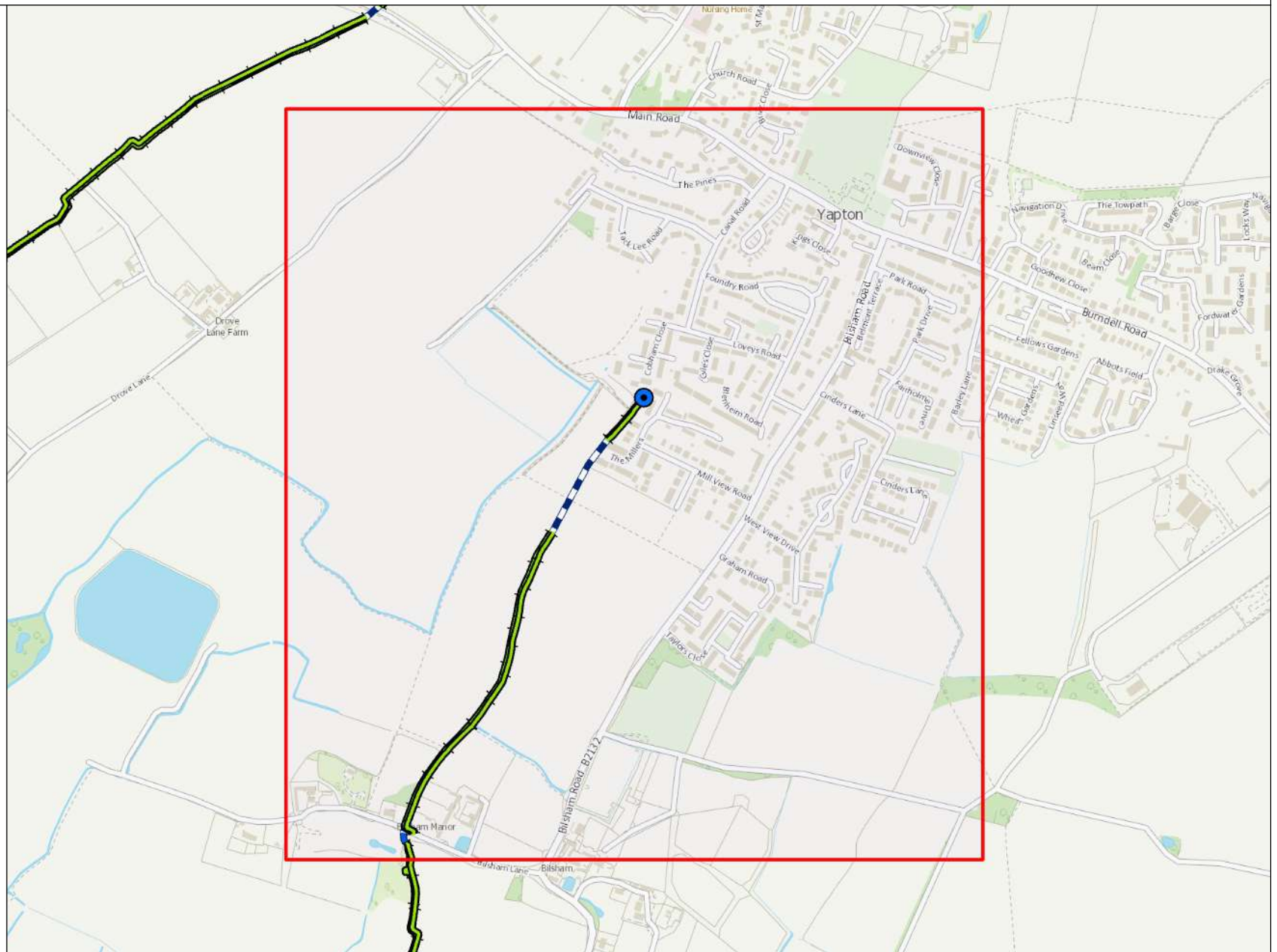
Metres



Legend

Please see page 2 for asset symbology

-  Stilling Well
-  Water Baffles
-  Water Distribution Pipeline
-  Well
-  Stilling Well
-  Water Baffles
-  Water Distribution Pipeline
-  Well



1: 10,000



Point Structures

- Borehole
- Central Pier
- Control Gate
- Debris Screen
- Draw Off Tower
- Fish or Eel Barrier
- Fish Pass
- Inspection Chamber
- Outfall
- Ramp
- Security Screen
- Slipway
- Steps
- Stilling Basin
- Vortex Flow Control

Linear Structures

- Debris Boom
- In Channel Stoplogs
- Pier
- Weir
- Other type or not defined

Defences

- Embankment
- Wall
- Flood Gate
- Demountable Defence
- Bridge Abutment
- Engineered High Ground
- Natural High Ground
- Cliff
- Promenade
- Quay
- Beach
- Barrier Beach
- Dunes
- Spillway

Channels

- Open Channel
- Complex Culvert
- Simple Culvert

Instruments

- CCTV Camera System
- Flood Warning System
- Gauge Board
- Instrumentation
- Piezometer
- Rain Gauge
- Telemetry System
- Other type or not defined

Buildings and Compounds

- Control Building
- Gauging Station Building
- Pump House
- Storage Location
- Other type or not defined

Channel Crossings

- Bridge
- Utility Services Crossing
- Other type or not defined

Beach Structures

- Breakwater
- Groyne

Land

- Water Storage Area
- Other type or not defined

Point Aids to Navigation

- Beacon
- Buoy
- Dolphin
- Navigation Signage
- Other type or not defined

Linear Aids to Navigation

- Navigation Boom
- Other type or not defined

Sajjad Zalaki
Odyssey Consult
Tuscany House
White Hart Lane
Basingstoke
Hampshire
RG21 4AF

Our ref: SSD294386
Date: 26/01/2023

Dear Sajjad Zalaki,

Enquiry Regarding Product 4 for Flood Risk Assessment for Bilsham Road, Yapton, BN18 0LE.

Thank you for your enquiry which was received on 03 January 2023.

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 Zones 1, 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

The only flood defence raised in the vicinity of the site is Natural High Ground (Asset ID: 80133 and 87638), which is maintained by a private third party.

Model Information

The model used was the Aldingbourne Modelling Study (Defended Only) which was completed by JBA Consulting in 2015, plus updated climate change allowances (2016).

Flood History

An area within this site experienced flooding in November 1974 (Flood Event ID: 2359). The source of this flooding event is unknown.

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, **Arun District Council** for a more comprehensive flood history check.

[FRA advisory text](#)

Name	Product 4
Description	Detailed Flood Risk Assessment Map for Bilsham Road, Yapton, BN18 0LE.
Licence	Open Government Licence
Information Warnings	<p>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/floodrisk-assessments-climate-change-allowances.</p> <p>The flood risk data provided is based on existing EA hydraulic models with an allowance for climate change. Please note the climate change allowances provided are not up to date. These were updated on 27 July 2021.</p> <p>You should refer to 'Flood risk assessments: climate change allowances' for the most up to date allowances. You will need to undertake further assessment of future flood risk using different allowances to ensure your assessment of future flood risk is based on best available evidence.</p>
Information Warning - OS background mapping	<i>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.</i>
Attribution	<p>Contains Environment Agency information © Environment Agency and/or database rights.</p> <p>Contains Ordnance Survey data © Crown copyright 2020 Ordnance Survey 100024198.</p>

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,

Amy O'Donnell

Partnership and Strategic Overview West Sussex, Solent and South Downs
Environment Agency | Guildbourne House, Chatsworth Road, Worthing, West Sussex, BN11 1LD

APPENDIX I

SuDS Operation and Maintenance Requirements

TABLE 22.1 Operation and maintenance requirements for detention basins

Maintenance schedule	Required action	Typical frequency
Regular maintenance	Remove litter and debris	Monthly
	Cut grass – for spillways and access routes	Monthly (during growing season), or as required
	Cut grass – meadow grass in and around basin	Half yearly (spring – before nesting season, and autumn)
	Manage other vegetation and remove nuisance plants	Monthly (at start, then as required)
	Inspect inlets, outlets and overflows for blockages, and clear if required.	Monthly
	Inspect banksides, structures, pipework etc for evidence of physical damage	Monthly
	Inspect inlets and facility surface for silt accumulation. Establish appropriate silt removal frequencies.	Monthly (for first year), then annually or as required
	Check any penstocks and other mechanical devices	Annually
	Tidy all dead growth before start of growing season	Annually
	Remove sediment from inlets, outlet and forebay	Annually (or as required)
	Manage wetland plants in outlet pool – where provided	Annually (as set out in Chapter 23)
Occasional maintenance	Reseed areas of poor vegetation growth	As required
	Prune and trim any trees and remove cuttings	Every 2 years, or as required
	Remove sediment from inlets, outlets, forebay and main basin when required	Every 5 years, or as required (likely to be minimal requirements where effective upstream source control is provided)
Remedial actions	Repair erosion or other damage by reseeding or re-turfing	As required
	Realignment of rip-rap	As required
	Repair/rehabilitation of inlets, outlets and overflows	As required
	Relevel uneven surfaces and reinstate design levels	As required

22.13 REFERENCE

KENNARD, M F, HOSKINS, C G and FLETCHER, M (1996) *Small embankment reservoirs*, R161, CIRIA, London, UK (ISBN: 978-0-86017-461-5). Go to: www.ciria.org

Statutes

Reservoir Act 1975 (c.23)

Health and Safety at Work (etc) Act 1974 (c.37)

Building Act 1984 (c.55)

Flood and Water Management Act 2010 (c.29)

Construction (Design and Management) Regulations (CDM) 2015

TABLE 20.15 Operation and maintenance requirements for pervious pavements

Maintenance schedule	Required action	Typical frequency
Regular maintenance	Brushing and vacuuming (standard cosmetic sweep over whole surface)	Once a year, after autumn leaf fall, or reduced frequency as required, based on site-specific observations of clogging or manufacturer's recommendations – pay particular attention to areas where water runs onto pervious surface from adjacent impermeable areas as this area is most likely to collect the most sediment
Occasional maintenance	Stabilise and mow contributing and adjacent areas	As required
	Removal of weeds or management using glyphosate applied directly into the weeds by an applicator rather than spraying	As required – once per year on less frequently used pavements
Remedial Actions	Remediate any landscaping which, through vegetation maintenance or soil slip, has been raised to within 50 mm of the level of the paving	As required
	Remedial work to any depressions, rutting and cracked or broken blocks considered detrimental to the structural performance or a hazard to users, and replace lost jointing material	As required
	Rehabilitation of surface and upper substructure by remedial sweeping	Every 10 to 15 years or as required (if infiltration performance is reduced due to significant clogging)
Monitoring	Initial inspection	Monthly for three months after installation
	Inspect for evidence of poor operation and/or weed growth – if required, take remedial action	Three-monthly, 48 h after large storms in first six months
	Inspect silt accumulation rates and establish appropriate brushing frequencies	Annually
	Monitor inspection chambers	Annually

Many of the specific maintenance activities for pervious pavements can be undertaken as part of a general site cleaning contract (many car parks or roads are swept to remove litter and for visual reasons to keep them tidy) and therefore, if litter management is already required at site, this should have marginal cost implications.

Generally, pervious pavements require less frequent gritting in winter to prevent ice formation. There is also less risk of ice formation after snow melt, as the melt water drains directly into the underlying sub-base and does not have chance to refreeze. A slight frost may occur more frequently on the surface of pervious pavements compared to adjacent impermeable surfaces, but this is only likely to last for a few hours. It does not happen in all installations and, if necessary, this can be dealt with by application of salt. It is not likely to pose a hazard to vehicle movements.

► Generic health and safety guidance is presented in **Chapter 36**.

CDM 2015 requires designers to ensure that all maintenance risks have been identified, eliminated, reduced and/or controlled where appropriate. This information will be required as part of the health and safety file.

TABLE 21.3 Operation and maintenance requirements for attenuation storage tanks

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

21.14 REFERENCES

- BARNES, G E (2010) *Soil mechanics: principles and practice, third edition*, Palgrave Macmillan, Hampshire, UK (ISBN: 978-0-23057-980-4)
- BCA (2014) *Design standards for box culverts*, BCA Technical Advice Note, Box Culvert Association, Leicester, UK. Go to: <http://tinyurl.com/qy6bmfX>
- BETTESS, R (1996) *Infiltration drainage – manual of good practice*, R156, CIRIA, London, UK (ISBN: 978-0-86017-457-8). Go to: www.ciria.org
- BRE (1991) *Soakaway design*, BRE Digest 365, Buildings Research Establishment, Bracknell, UK (ISBN: 0-85125-502-7)
- CPSA (2013) *Technical design guide*, Concrete Pipeline Systems Association, Leicester, UK. Go to: www.concretepipes.co.uk/page/technical-guide
- D'ARCY, B, ELLIS, J, FERNER, R, JENKINS, A and DILS, R (2000) *Diffuse pollution impacts, the environmental and economic impacts of diffuse pollution in the UK*, Terence Dalton Publishers, Suffolk, UK (ISBN: 978-1-87075-246-6)
- DECC (2012) *Government response to "Home insulation. A report on the call for evidence carried out by OFT"*, Department of Energy and Climate Change, London, UK. Go to: <http://tinyurl.com/n9I4psx>
- DfT (1998) *Manual of contract documents for highway works. Volume 1: Specification for highway works*, HMSO, London, UK (ISBN: 978-0-11552-705-0). Go to: <http://tinyurl.com/nuhk8c3>
- DfT (2001) *Manual of contract documents for highway works. Volume 1: Series 2500 Special structures*, HMSO, London, UK. Go to: <http://tinyurl.com/l3tap4z>
- DfT (2009) *Manual of contract documents for highway works. Volume 1: Series 600 Earthworks*, HMSO, London, UK. Go to: <http://tinyurl.com/phx5yj>