Crown Close
Crown Industrial Estate
Taunton
TA2 8RX

Flood Risk Assessment

S19-465/FRA
March 2019

Revision 2

Prepared by :

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On behalf of :

Cambridge Technology
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Somerset
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Crown Close
Crown Industrial Estate
Taunton
TA2 8RX

Flood Risk Assessment

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1.0 Introduction

Acting on instructions from Cambridge Technology a Flood Risk Assessment (FRA) is to be conducted in connection with a proposed development at Crown Close. The proposed site is situated within **Flood Zone 2**.

This FRA presents a review of the existing available flood-related information and sets out the requirements of The Planning Practice Guidance and those of the Environment Agency (EA) and the Local Planning Authority (LPA) in relation to flood risk and limited drainage.

2.0 Scope

This FRA is prepared for the purposes of providing a generalised indication of the potential flood risk to the site, and to identify whether there are any flooding or surface water management issues relating to the development site that may warrant further consideration.

The report is based on information including Strategic Flood Risk Assessments (SFRA), EA Flood Maps, and consultations with the EA and LPA. A third party data set (EA Corporate Services Data Pack) is also used.

March 2014 saw the introduction of The Planning Practice Guidance. Guidance specific to flood risk assessment first given in "Technical Guidance to the National Planning Policy Framework (TGPPG)", has now been transposed in to the html PPG pages that are published on gov.uk.

3.0 Site Summary

The site is formed part of a field enclosure at present set to pasture. There is a pond in the enclosure, and a river runs along the eastern boundary.

3.1 Site Location

Site Address	Crown Close Crown Industrial Estate Taunton TA2 8RX
Grid Reference	Easting = 324321 Northing = 125856

3.2 Proposed Development

The proposed development would see a newly built industrial unit with 1st floor offices being fitted out for use as an installation for the manufacture of precision optics.

4.0 National and Local Policy

4.1 Planning Practice Guidance

The Planning Practice Guidance (PPG) referred to in this report was issued in March 2014. Flood risk assessment is explained more fully in the Technical Guidance Document.

The stated aim of PPG is to ensure that flood risk is taken into account at all stages in the planning process to avoid inappropriate development in areas at risk of flooding, and to direct development away from areas at highest risk.

4.1.1 Flood Risk Vulnerability

The Flood Risk Vulnerability Classification for the proposed development has been determined in accordance with Table 2 in PPG. As a worst case it is considered "*Less Vulnerbale" (General Industry).*

4.1.2 Flood Risk Vulnerability and Flood Zone 'Compatibility'

Table 2 in TGPPG states that developments deemed as '*Less Vulnerable'* are appropriate for areas classified as within Flood Zone 2.

4.2 Environment Agency Flood Risk Standing Advice

Environment Agency Flood Risk Standing Advice is designed to help:

- Find out whether an application is lower risk;
- decide when to consult EA;
- determine what the consultation should contain;
- understand how to make a decision on lower-risk sites and
- know what information is required to make an assessment of flood risk.

4.3 SFRA Principals

The SFRA includes details of policy considerations and sets out flood risk management objectives.

i) The management of Surface Water via SUDs;

> *"The management of rainfall (surface water) is considered an essential element for reducing future flood risk to both the site and it surroundings, The Environment Agency expect attenuation of runoff from development sites to be restricted to green field rates and SUDs provide an opportunity for achieving this."*

ii) Improve Flood Awareness and Emergency Planning;

> *"Flood warnings are issued using a set of four codes, each indicating the level of risk with respect to flooding."*

In addition the SFRA includes guidance for the application of SUDS for new developments, and recommends that the future ownership and management is addressed at an early stage.

5.0 Climate Change

Additional considerations incorporated on the migration of policy from PPS25 to PPG includes quantitative considerations for the effects of climate change.

"In preparing . . . . a site-specific flood risk assessment, the allowances for the rates of relative sea level rise [should be] *shown*[1]*"*

The changing climate should be viewed in relation to the project's design life;

"*Category 1 – Temporary structures, not including structures or parts of structures that can be dismantled with a view to being re-used – 10 years*

Category 3 – Agricultural and similar buildings – 15 to 30 years

Category 4 – Building structures and other common structures – 50 years

Category 5 – Monumental building structures, bridges and other civil engineering structures – 100 years[2]"

5.1 Sea Level Change

FCDPAG3 - Flood and Coastal Defence Appraisal Guidance gives guidance on the application of sea level changes to projects. Forecasted rises over the project's design life are in the order of 382 mm. These projected sea level changes are accounted for in modelled data. This site is not mapped as influenced by tidal flooding.

Table 4: Recommended contingency allowances for net sea level rises

	Net sea level rise (mm per year) relative to 1990			
	1990 to 2025	2025 to 2055	2055 to 2085	2085 to 2115
East of England, east midlands, London, south-east England (south of Flamborough Head)	4.0	8.5	12.0	15.0
South-west England	3.5	8.0	11.5	14.5
North-west England, north-east England (north of Flamborough Head)	2.5	7.0	10.0	13.0

Figure 1 - Climate Change adaption for Sea Levels

5.2 Climatic Conditions

Climate change allowance for design of surface water drainage are sourced from the Environment Agency[3]. These climatic conditions have been taken in to account in Surface Water Management features, such as attenuation tanks and SUDs. Attenuation feature scaling (where applicable) should reflect the upper end allowance (i.e. 40%), unless this can be shown to make the development unfeasable.

[1] TGPPG - 11
[2] BS EN 1990, Eurocode - Basis of structural design
[3] https://www.gov.uk/guidance/flood-risk-assessments-climate-change-allowances

6.0 Flood Depths & Flood Zones

The site resides within flood zone 2. There is a railway embankment and "high ground" to the south which may provide some defence against flooding. The site is set above the 1:100 year flood level, but recent alterations to the flood model show that the site will flood during 1:100 years events that account for climate change flow volumes +30% and +40%. In these modelled scenarios flood depths on site will be a maximum of 1.88m above current ground levels.

6.1 Strategic Flood Risk Assessment (SFRA)

There is an SFRA is made available for viewing on the Taunton Dean Council Website[4].

6.2 Flood Risk Maps

Maps in Appendix 2 are based on the Flood Zone classifications given in TGNPPF. The available maps indicate that the proposed development at New Walk is within flood zone 2. Flood Zone 3a is defined in TGNPPF – Table 1.

"This zone comprises land assessed as having a 1 in 200 or greater annual probability of river flooding (>0.5%), or a 1 in 1000 or greater annual probability of flooding from the sea (>0.1%) in any year."

6.3 Flood Level Data

Flood depth data has been sourced from Envirocheck. A 1:1000 year return fluvial flood event shows a maximum modelled depth of 1.0mAGL.

Environment Agency Data give a 1:100 + 40% Year Level of 13.49mAOD. A site level survey using differential GPS proved FFL to be 11.61mAOD. This would indicate an undefended flood depth on site of 1.88mAOD.

6.4 Sources of Flood Risk

It is confirmed that the site is within flood zone 2, this can be seen on various flood risk maps from numerous sources. Flood Risk comes from fluvial, tidal and surface water surfaces; sewer flooding should also be taken in to account.

6.5 Location of Existing Flood Defences

There are flood defences in the form of "high ground" along the banks of the River Tone, to the south of site. Asset ID 264 is closest to site. No level data was available for this asset, as such a level survey was undertaken to ascertain levels. Crest height of the high ground is 12.82mAOD. There are no defences between site and the canal to the north.

6.6 Historic Flooding

The site was flooded in October 1960. Notes on the event state: *"Channel capacity exceeded (no raised defences)"*

7.0 Surface Water Management Plan

[4] https://www.middevon.gov.uk/media/103719/flood-risk-assessment.pdf

The industrial units are yet to have first occupation. There has been extensive surface water management system installed including attenuation volumes, and separate surface water drains. The proposals would be minimal exterior alterations, and as we can assume that no surface water management features would be required, as recently specified attenuation system is pre-existing.

8.0 The Sequential Test

A suitable site for this installation has been sought for 8 years. To our knowledge there are no alternative sites that meet a long list of requirements that are satisfied by this building.

9.0 Exceptions Test

The development represents a "*less vulnerable"* development situated in Flood Zone 2 and as such **is not** subject to the exceptions test. See Figure 3.

Table 3: Flood risk vulnerability and flood zone 'compatibility'

Flood risk vulnerability classification (see table 2)		Essential infrastructure	Water compatible	Highly vulnerable	More vulnerable	Less vulnerable
Flood zone (see table 1)	Zone 1	✓	✓	✓	✓	✓
	Zone 2	✓	✓	Exception Test required	✓	✓
	Zone 3a	Exception Test required	✓	×	Exception Test required	✓
	Zone 3b functional floodplain	Exception Test required	✓	×	×	×

Key: ✓ Development is appropriate.
× Development should not be permitted.

Figure 2 - Exception Test Required?

10.0 Building Design

A design flood depth of 1.88m indicated**.** The below options are provided for consideration on that basis.

10.1 Flood Barriers

It is unlikely that flood barriers can be provided that withstand 1.88m of flood water. It is generally considered that water of a depth over 0.6m should not be defended against as it external water pressures above this depth may cause structural damage.

However, it would be appropriate to install water resistant measure up to a level of 0.6mAGL. As a flood event may not reach a maximum modelled depth.

It is understood that the number of openings will be reduced. It may be pertinent to introduce flood boards (manually installed) or automated barrier on the remaining openings. A maintenance schedule should be adopted with periodic testing of these barrier systems.

10.2 Internal Sump

In support of the above flood barriers an internal sump might be provided with a pump to repel water in the event of barrier overtopping.

10.3 Bunding

The ETP and other complex systems could be bunded with up and over access. Bunding will likely be required for environmental controls and could be extended to provide flood protection. Pumps will have to be maintained ready for use in order to pump out these bunded areas if and when need arises. These systems could not be automated owing to primary use as environmental bunding.

10.4 Service Nodes

All services nodes such as HVAC Units, Boilers, and Consumer Units & Servers should be sited above maximum flood depth.

10.5 Resilient Materials

Any works to install walls or flooring should use flood resilient materials as per the table below.

Table 6.1 Flood resilience characteristics of building materials (based on laboratory testing)

Material	Resilience characteristics*		
	Water penetration	Drying ability	Retention of pre-flood dimensions, integrity
Bricks			
Engineering bricks (Classes A and B)	Good	Good	Good
Facing bricks (pressed)	Medium	Medium	Good
Facing bricks (handmade)	Poor	Poor	Poor
Blocks			
Concrete (3.5N, 7N)	Poor	Medium	Good
Aircrete	Medium	Poor	Good
Timber board			
OSB2, 11mm thick	Medium	Poor	Poor
OSB3, 18mm thick	Medium	Poor	Poor
Gypsum plasterboard			
Gypsum Plasterboard, 9mm thick	Poor	Not assessed	Poor
Mortars			
Below d.p.c. 1:3(cement:sand)	Good	Good	Good
Above d.p.c. 1:6(cement:sand)	Good	Good	Good

* Resilience characteristics are related to the testing carried out and exclude aspects such as ability to withstand freeze/thaw cycles, cleanability and mould growth

Figure 3 - Flood Resilience of Common Building Materials

10.6 Flood Warnings

The EA have a text message (SMS) alert service for flood warnings. Building managers should sign up to this service as it may provide valuable preparation time prior to a flood event.

11.0 Conclusions

The development is considered as appropriate for the site within the current regulatory framework.

12.0 Certification

For the avoidance of doubt, the parties hereby expressly agree that the Consultant takes no liability for and gives not warranty against actual flooding of The Client's property or damages material or personal in relation to the performance of the service.

Guidance given on building flood resistance / resilience is given as example only. Responsibility for building design / services and resulting levels of resistance, resilience or drainage performance rests with the client and or developer. The consultant gives no assurance that planning permission will be forthcoming for the intended use.

This planning report is produced for the sole use of the Client, and no responsibility of any kind, whether for negligence or otherwise, can be accepted for any Third Party who may rely upon it.

The conclusions and recommendations given in this planning report are based on our understanding of the future plans for the site.

The scope of this FRA was discussed and agreed with the Client. No responsibility is accepted for conditions not encountered, which are outside of the agreed scope of work.

Prepared by:

William James Thorpe BSc PGD FGS MIAIA

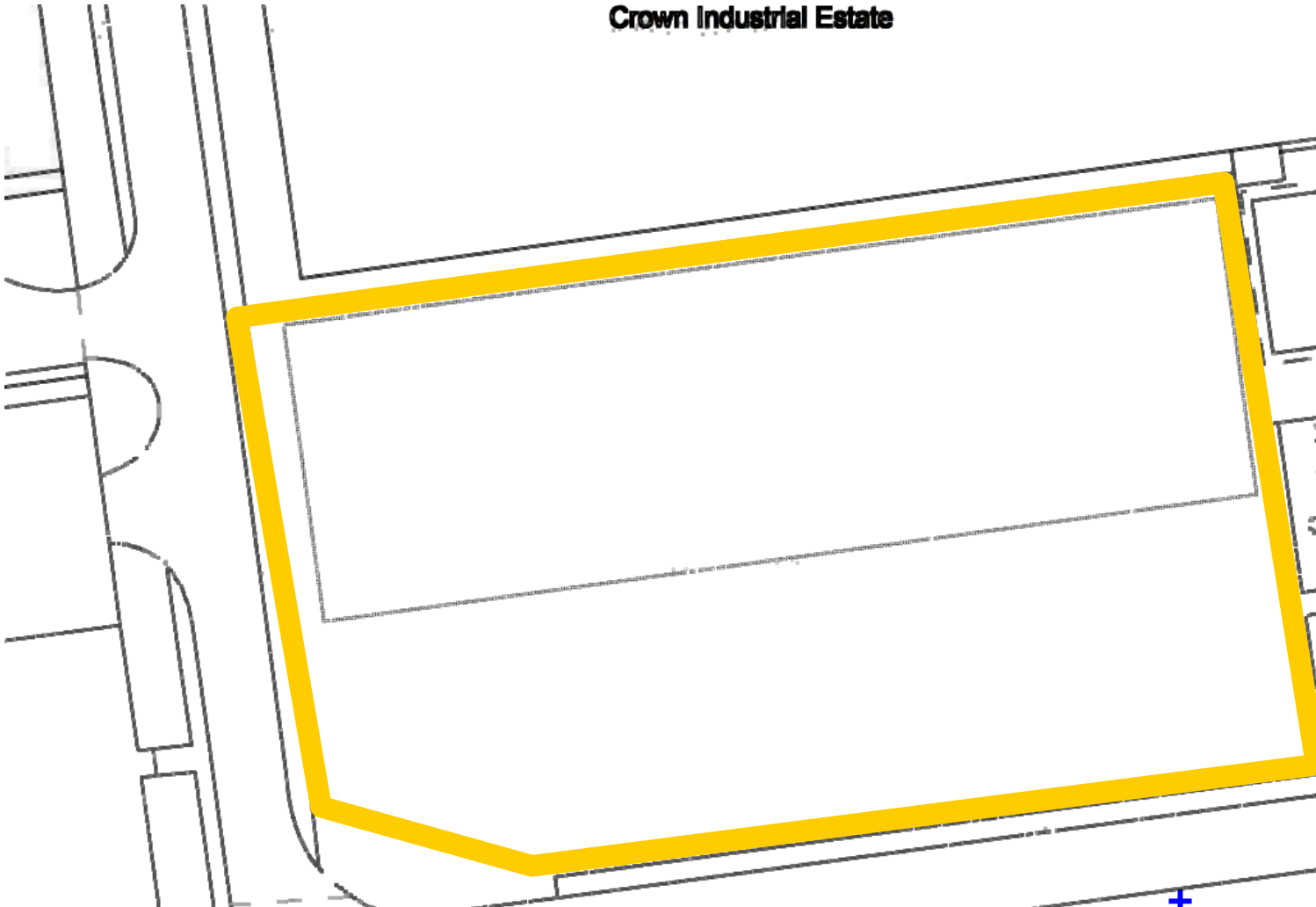
Managing Director

Flood Risk Consultants

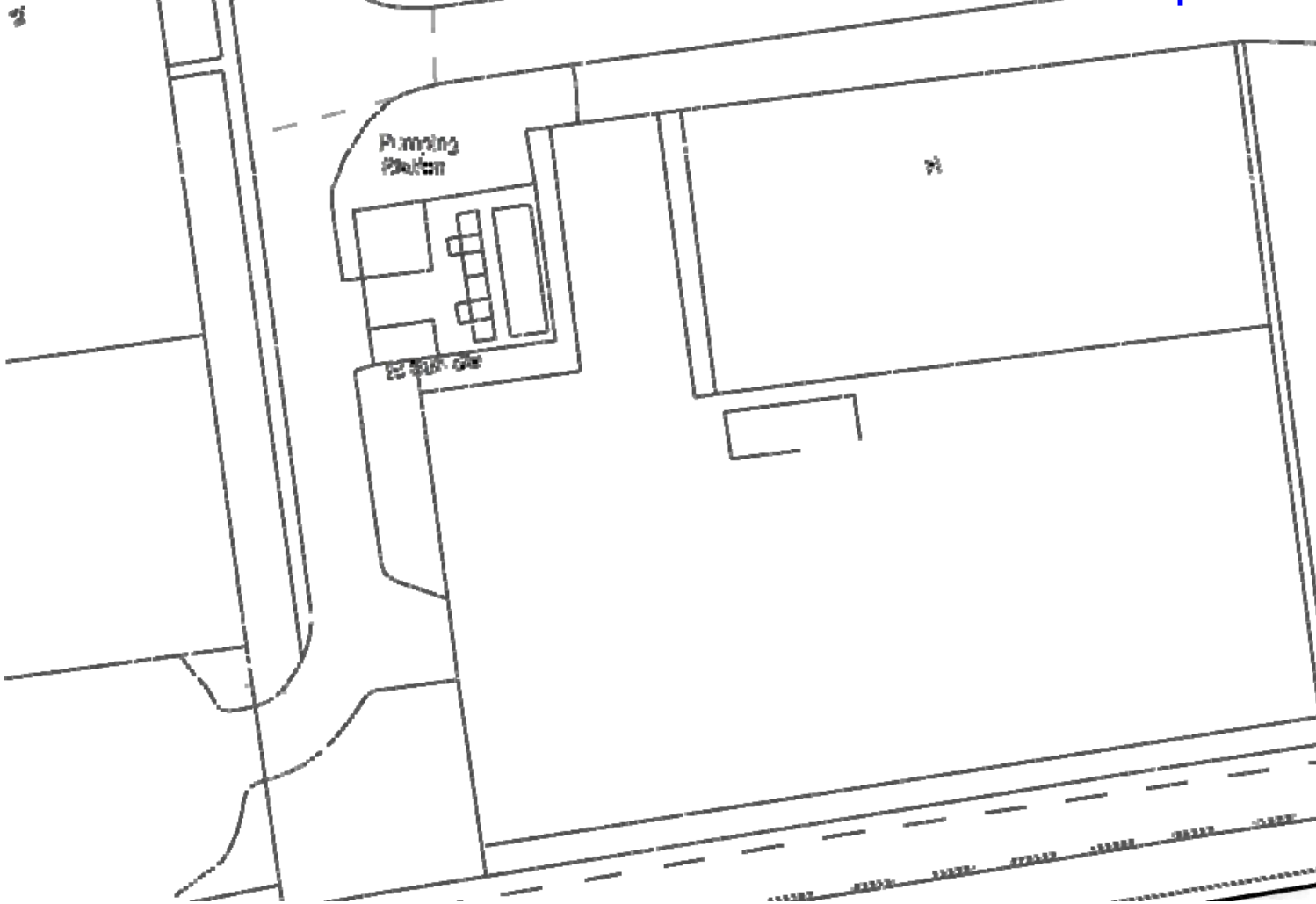
Flood Risk Report

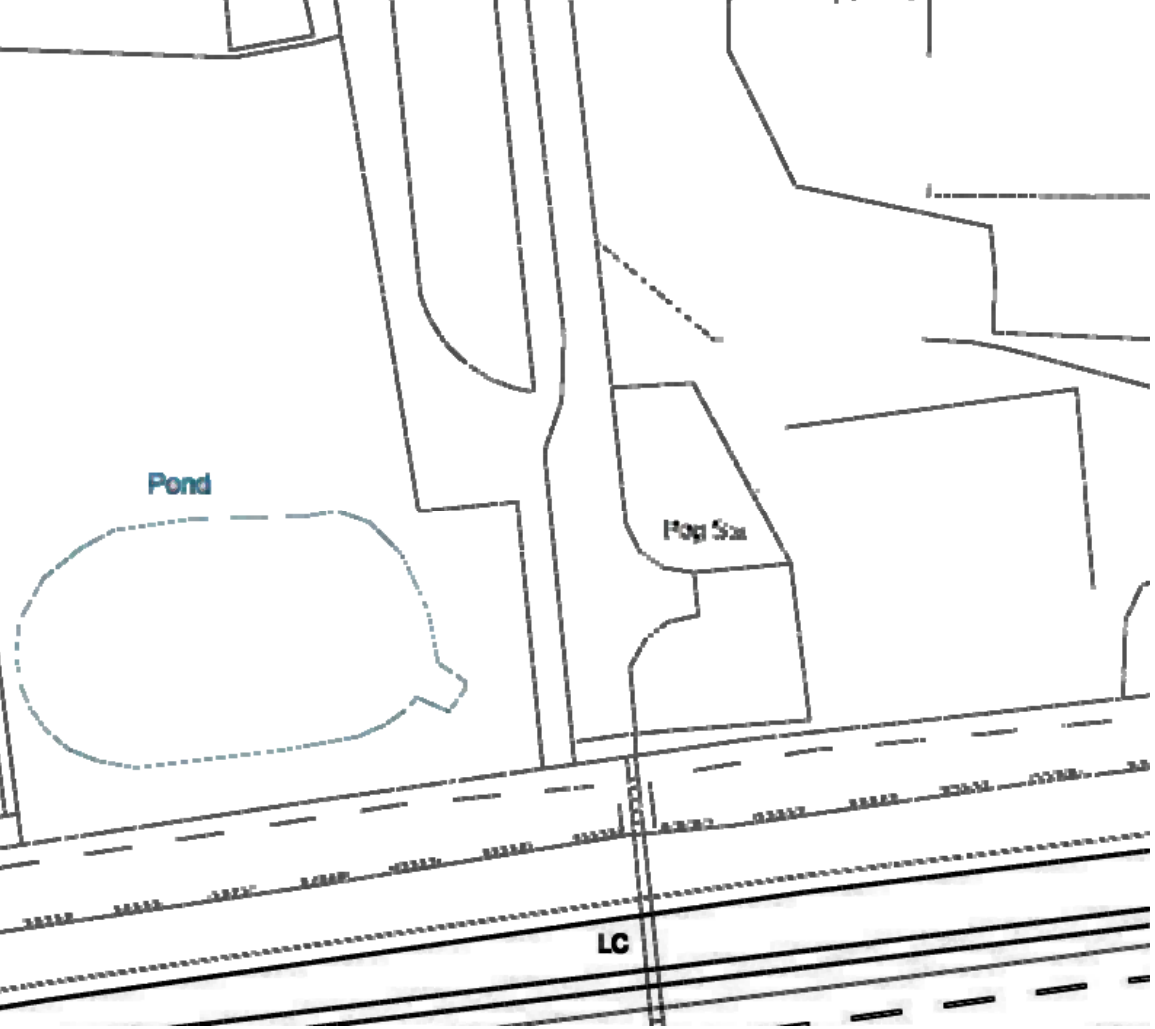
Appendix 1

Site Location


Crown Industrial Estate

Location Plan


Pumping
Station


Pond
LC

Appendix 2

Flood Data

Flood map for planning - ST 24324 25855 04/02/2019 Ref: 114011-WX

Environment Agency

Scale 1: 10,000

N
W E
S

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 occuring each year.

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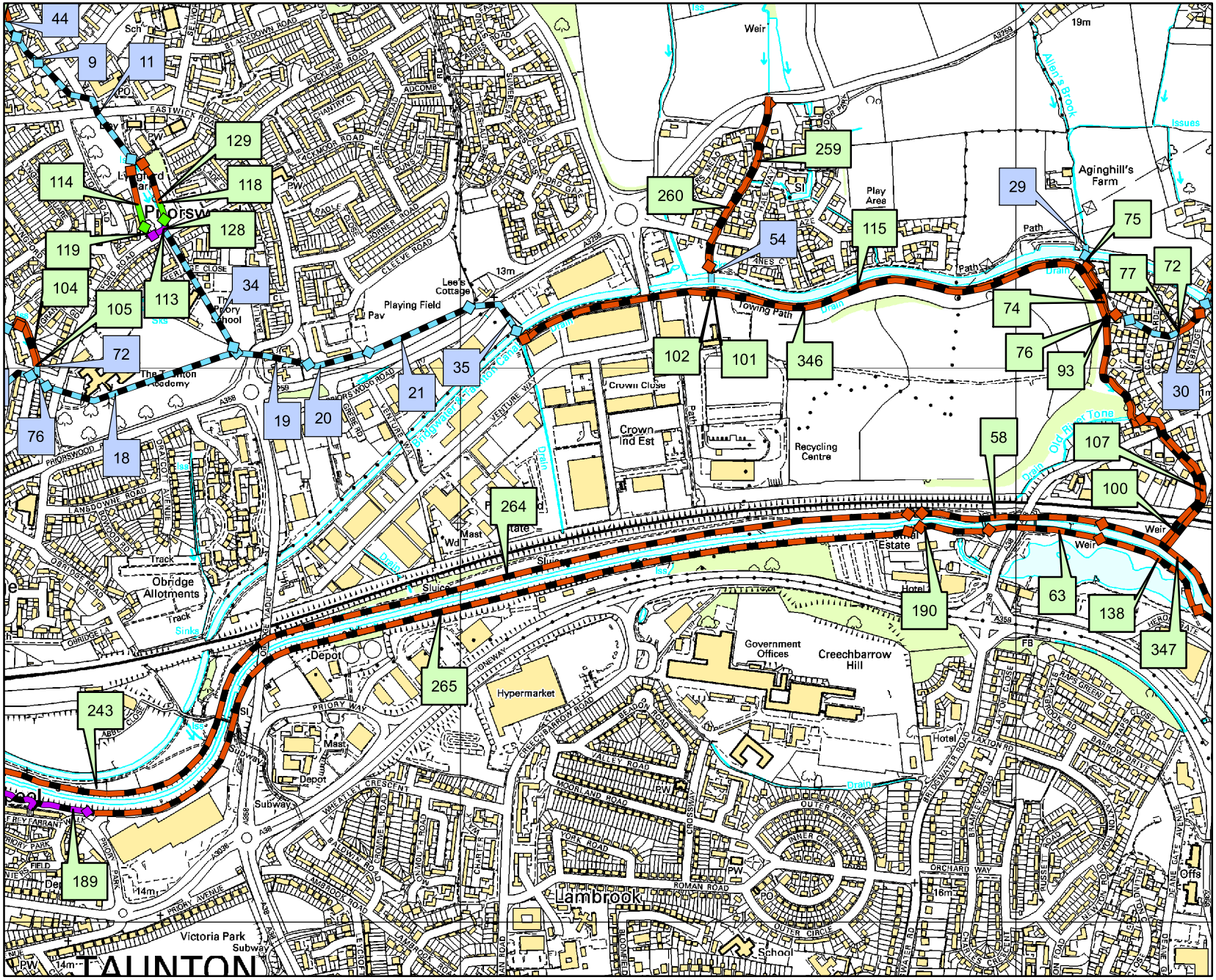
Contact Us: National Customer Contact Centre, PO Box 544, Rotherham, S60 1BY. Tel: 03708 506 506 (Mon-Fri 8-6). Email: enquiries@environment-agency.gov.uk

Current Flood Defences Centred on NGR: ST 24324 25979, Created 25/01/2019 Ref: WX_114011



Environment Agency

Scale: 1:10,000

N W E S

Legend

Defences

- bridge_abutment
- barrier_beach
- cliff
- demountable
- embankment
- flood_gate
- high_ground
- promenade
- quay
- wall
- beach
- dunes

Channels

- open_channel
- simple_culvert

This data has been extracted from the Asset Information Management System (AIMS) which was created to draw various data sources into one database and has been populated with information of varying quality.

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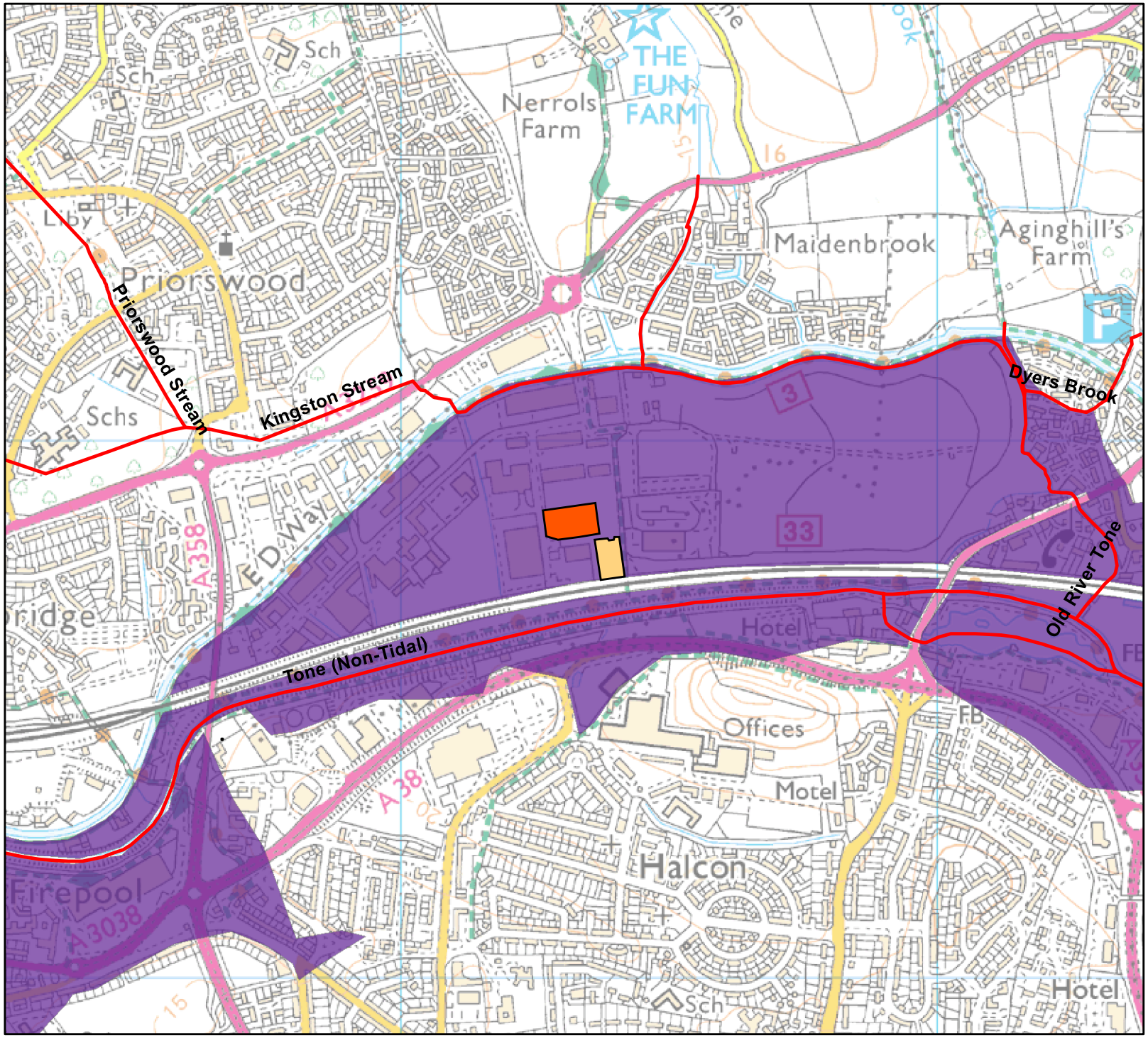
Contact Us: National Customer Contact Centre, PO Box 544, Rotherham, S60 1BY. Tel: 08708 506 506 (Mon-Fri 8-6). Email: enquiries@environment-agency.gov.uk

Historic flood events centred on ST 24324 25855 - created 04/02/2019 [Ref: 114011-WX]



Environment Agency

Scale at A4: 1:10,000

Meters

0 50 100 200 300 400 500 600

N

Legend

- 114011-WX_site_boundary1
- 114011-WX_site_boundary2
- Main River

Recorded_flood_outlines

START_DATE

- 27/10/1960

Historic Flood Events

Please see the attached sheet for more information on the individual flood events, such as: dates, source and cause of flooding.

These events and outlines are taken from our Historic Flood Records. We cannot guarantee that it is an exhaustative list of all past flood events in this location.

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creating a better place

Environment Agency

Will Thorpe
Southwest Environmental Limited
swenviro@gmail.com

Our ref: 114011-WX
Your ref:
Date: 08 February 2019

Dear Will

Thank you for your enquiry which was received on 23 January 2019.

Abstract

Name	Product 4
Description	Detailed Flood Risk Assessment Map for **Crown Close, Crown Industrial Estate, Taunton, TA2 8RX**
Information Warnings	*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.*
Attribution	Contains Environment Agency information © Environment Agency and/or database rights. Contains Ordnance Survey data © Crown copyright 2017 Ordnance Survey 100024198.

Flood Map for Planning
A Flood Map for Planning (Rivers and the Sea) is attached for spatial planning purposes. This map contains Flood Zones that show the areas of natural floodplain that would flood if there were no raised flood defences. Please be aware this information is also available for download on the 'Open Data' link below.

Flooding history
Our historic records indicate the area flooded on the following dates:
1960 1978 1995 1999 2000 2012 2014
Please see the attached Historic Map for the approximate outline of the event(s). We also attached a sheet providing further information regarding these flood events, such as dates, source and cause of flooding.
Please note: we cannot guarantee that it is an exhaustive list of all past flood events in this location. The extent of the flooded area was mapped and validated from the best available on-the-ground evidence collated by the authorities at the time of the event. It is not always possible to be able to validate the accuracy of the extent of a given flooded area. For this reason we advise the historic flooding information should be used as a guide only. All reasonable care has been taken to ensure

the historical flood event outline is as accurate as possible, but the Environment Agency will update the outline if new evidence emerges.

Open Data
Please note these and the following Environment Agency published datasets are now available on the weblink below as part of the Government's 'Open Data' project and are available for you to download free of charge.

Environment Agency published datasets:
https://data.gov.uk/dataset/bed63fc1-dd26-4685-b143-2941088923b3/flood-map-for-planning-rivers-and-sea-flood-zone-3

NB. The above link also has the weblink for other related datasets such as Flood map for Planning Flood Zone 2, Areas Benefiting from Defences and Flood Storage Areas.

You will need to search and select the name of the following datasets to take you directly to the weblink to enable you to download the data:

- Flood Map for Planning (Rivers and Sea) Spatial Flood Defences
- Risk of Flooding (Rivers and Sea)
- Recorded Flood Outlines
- Historic Flood Map
- Risk of Flooding from Surface Water Extent for:
  - → 3 percent annual chance
  - → 1 percent annual chance
  - → 0.1 percent annual chance

If you have requested this information to help inform a development proposal, then you should also note the detail in the attached advisory text on the use of Environment Agency Information and Further Guidance for FRAs.

Strategic Flood Risk Assessment (SFRA)
When preparing a FRA to support a development proposal in this location you should refer to Taunton Deane Borough Council's SFRA Report, which is available to download via the following link:
https://www.tauntondeane.gov.uk/planning-policy/taunton-deane-core-strategy/

Planning
If you have questions regarding the planning nature of your enquiry, or require advice on floor levels, please contact our Sustainable Places team on NWX.SP@environment-agency.gov.uk. Please be aware that we now charge for planning advice when consulted on pre-application enquiries. This new approach provides advice to developers in two ways. Firstly there is the provision of 'free' advice available to everyone where we give a preliminary opinion on a proposed development. This sets out the environmental constraints together with any issues this raises for us. Should you wish us to review in detail any of these issues then we can do this through a chargeable scheme aimed at recovering our costs.

Flood Levels

Fluvial flood levels and depths
The attached map contains a set of modelled fluvial flood level node locations/unique identifiers, for the main river , taken from our Taunton Northern Tribs (2018) model. A sheet is also attached providing the associated flood levels, NGRs and further information for the river channel relating to

each of these nodes. Please note that the labels annotated to the Node Location Map are unique node identifiers and not the associated flood levels.

Node type information:

- 1D_fluvial
  - In channel nodes, no 2D element to the modelling
- 2D_fluvial
  - In channel nodes, 2D data available from the modelling
- Interpolated sections
  - Calculated weighted averages of the river or conduit section properties upstream and downstream to produce a hybrid section according to the location of the interpolated section. They are used to ensure a smooth gradation or transition between cross sections to avoid sudden variations which can cause instability in a model. This may be where the distance between surveyed cross sections is large and there is a steep gradient to the channel or other distinct changes between the two sections.
- Replicate sections
  - Used to copy the preceding river or conduit section at a distance further along the reach and at a lower level. The Replicated Section is a quick method for adding a cross-section which has exactly the same dimensions as the cross-section immediately upstream.
- Reservoir
  - Modelled measurements outside the boundary of the river channel

Interpolated and Replicate sections are not surveyed sections, however they are based on surveyed section data and the results from them can be used as long as their limitations are understood.

Please see the table below for maximum 2D depth and level information for your site for a range of return periods. Please note that the maximum flood depths include all low points within your site of interest, which include watercourses, ditches, rhynes and low ground spots.

Please be aware that models of this type could have climate change allowances of 30% and 40% applied to the current day 1% AEP (1 in 100 year) flood flow estimates. However, not all models are run for all climate change allowances. We have supplied the data that is available to us at this time.

If you intend undertaking a FRA for a planning application using climate change flood level information supplied in this letter, you should consider whether it is appropriate in light of a range of potential allowances for fluvial flood flow now advised in curent planning guidance on 'Flood risk assessments: climate change allowances'. The relevant guidance is available at the following website address: https://www.gov.uk/guidance/flood-risk-assessments-climate-change-allowances

DEFENDED – Site Boundary 2

5% (1 in 20) AEP Fluvial Depth	0.00m
1% (1 in 100) AEP Fluvial Depth	0.45m
1% (1 in 100) AEP +30%CC Fluvial Depth	2.31m
1% (1 in 100) AEP +40%CC Fluvial Depth	2.49m
0.1% (1 in 1000) AEP Fluvial Depth	2.62m

5% (1 in 20) AEP Fluvial Level	0.00mAOD
1% (1 in 100) AEP Fluvial Level	11.44mAOD
1% (1 in 100) AEP +30%CC Fluvial Level	13.30mAOD
1% (1 in 100) AEP +40%CC Fluvial Level	13.49mAOD

Customer & Engagement, Wessex
Rivers House, East Quay, Bridgwater, Somerset, TA6 4YS
Phone: 02030 250 376
Email: wessexenquiries@environment-agency.gov.uk
www.environment-agency.gov.uk

0.1% (1 in 1000) AEP Fluvial Level	13.62mAOD

DEFENDED – Site Boundary 2

5% (1 in 20) AEP Fluvial Depth	0.00m
1% (1 in 100) AEP Fluvial Depth	0.47m
1% (1 in 100) AEP +30%CC Fluvial Depth	2.33m
1% (1 in 100) AEP +40%CC Fluvial Depth	2.51m
0.1% (1 in 1000) AEP Fluvial Depth	2.65m

5% (1 in 20) AEP Fluvial Level	0.00mAOD
1% (1 in 100) AEP Fluvial Level	11.44mAOD
1% (1 in 100) AEP +30%CC Fluvial Depth	13.31mAOD
1% (1 in 100) AEP +40%CC Fluvial Level	13.49mAOD
0.1% (1 in 1000) AEP Fluvial Level	13.62mAOD

NB 0.00 (m or mAOD) indicates the data does not reach the site

Levels and depths have been extracted based upon the site boundary plan provided.

Environmental Permit for Flood Risk Activities
In addition to any other permission(s) that you may have already obtained e.g. planning permission, you may need an environmental permit for flood risk activities (formerly known as Flood Defence Consent prior to 06 April 2016) if you want to do work:

- in, under, over or near a main river (including where the river is in a culvert)
- on or near a flood defence on a main river
- in the flood plain of a main river
- on or near a sea defence

For further information and to check whether a permit is required please visit: https://www.gov.uk/guidance/flood-risk-activities-environmental-permits.

For any further advice, please contact your local Environment Agency Office, at bridgwater.frap@environment-agency.gov.uk.

Further Information
We advise that you also contact the Flood Risk Management Team, by email flooding@somerset.gov.uk, or by telephone, 0300 123 2224 at Somerset County Council, County Hall, Taunton, Somerset as they may be able to provide further advice with respect to localised flooding and drainage issues.

Further details about the Environment Agency information supplied can be found on our 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 FRAs:
https://www.gov.uk/planning-applications-assessing-flood-risk
https://www.gov.uk/government/publications/pre-planning-application-enquiry-form-preliminary-opinion

Customer & Engagement, Wessex
Rivers House, East Quay, Bridgwater, Somerset, TA6 4YS
Phone: 02030 250 376
Email: wessexenquiries@environment-agency.gov.uk
www.environment-agency.gov.uk
VAT No: **662 4901 34**

We hope you find this information helpful and it is provided subject to the guidance below, which we strongly recommend you read.

Yours sincerely

Corinne Moyse

Customer & Engagement, Wessex
Rivers House, East Quay, Bridgwater, Somerset, TA6 4YS
Telephone number: 02030 250 376
Email: wessexenquiries@environment-agency.gov.uk

Enc: Use of Environment Agency Information for Flood Risk Assessments (below)
114011-WX Flood Map for Planning
114011-WX Historic Flood Map and data table
114011-WX Node Location Map
114011-WX Node Data
114011-WX Defence Map
114011-WX Defence Data

Use of Environment Agency Information for Flood Risk Assessments (FRAs)

Important
Use of Environment Agency data: you should note that

1. Information supplied by the Environment Agency may be used to assist in producing a Flood Risk Assessment (FRA) where one is required, but the use of Environment Agency information does not constitute such an assessment on its own.

2. As part of your data request, we have provided all of the modelled data we hold for your location. Please note that some of our modelled information may have been produced for purposes other than for flood zone generation. This may mean that some of the modelled data you have been provided with has a lower confidence level, and has not been used in producing our flood map, nor definitively reflects the predicted flood water level at the property/development site scale. To check the suitability of the use of this information in your FRA please contact your local Partnership & Strategic Overview (PSO) team.

3. 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 surface water runoff. The information produced by the Local Planning Authority and the Lead Local Flood Authority (LLFA) may assist in assessing other sources of flood risk.

4. Where a planning application requires a FRA and this is not submitted or deficient, the Environment Agency may well raise an objection.

5. For more significant proposals in higher flood risk areas, we would be pleased to discuss details with you ahead of making any planning application, and you should also discuss the matter with your Local Planning Authority.

Pre-Planning Advice from the Environment Agency
If you have requested this information to help inform a development proposal, then we recommend that you undertake a formal pre-application enquiry using the form available from our website:

Pre-application Preliminary Opinion:
https://www.gov.uk/government/publications/pre-planning-application-enquiry-form-preliminary-opinion

Pre-application Charged Service:
https://www.gov.uk/government/publications/planning-advice-environment-agency-standard-terms-and-conditions

Depending on the enquiry we may also provide advice on other issues related to our responsibilities, including flooding, waste, land contamination, water quality, biodiversity, navigation, pollution, water resources, foul drainage or Environmental Impact Assessment.

Flood Risk Assessment (FRA) Guidance
You should refer to the Planning Practice Guidance of the National Planning Policy Framework (NPPF) and the Environment Agency's Flood Risk Standing Advice for information about Flood Risk Assessment (FRA) for new development in the different Flood Zones. These documents can be accessed via:

National Planning Policy Framework Planning Practice Guidance:
http://planningguidance.planningportal.gov.uk/

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Rivers House, East Quay, Bridgwater, Somerset, TA6 4YS
Phone: 02030 250 376
Email: wessexenquiries@environment-agency.gov.uk
www.environment-agency.gov.uk

Environment Agency advice on FRAs:
https://www.gov.uk/flood-risk-assessment-for-planning-applications#when-to-follow-standing-advice

https://www.gov.uk/government/publications/planning-applications-assessing-flood-risk

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