# Interim Strategic Flood Risk Assessment (Level 1) Appendix 1: Small site allocations Flood Zone 1

Gosport Borough Local Plan 2038 (Consultation Draft) Town and Country Planning (Local Plan) (England) Regulations 2012 (as amended) Regulation 18

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## 1.0 Introduction

- 1.1 It was considered appropriate to assess smaller allocations in Flood Zone 1 for flooding. It is considered that in these instances the likely form of potential flood risk is from surface water either within the site itself or in the immediate vicinity of it. The Council used the Environment Agency's Long Term Flood Map service for surface water<sup>1</sup>. This mapping is only intended to be used at a strategic high level for the purposes of assisting in a strategic flood risk assessment. The purpose of this mapping is to provide an indication of whether the area may be affected by surface water flooding from a number of risk scenarios and to what extent, and is not suitable to be used in the context of individual properties. The different risk scenarios are explained in the paragraphs below.
- 1.2 A High risk scenario is defined as: each year, the area has a chance of flooding of greater than 1 in 30 (3.3%).
- 1.3 A Medium risk scenario is defined as: each year, the area has a chance of flooding of between 1 in 100 (1%) and 1 in 30 (3.3%).
- 1.4 A Low risk scenario is defined as: each year, the area has a chance of flooding of between 1 in 1000 (0.1%) and 1 in 100 (1%).
- 1.5 A Very Low risk scenario is defined as: each year, the area has a chance of flooding of less than 1 in 1000 (0.1%).<sup>2</sup>
- 1.6 The sites are set out in Tables 5(a) and 5(b) of the Main Report but are set out in Table 1 below for context. For those smaller allocations that were either in Flood Zones 2 and 3 (or a combination of Flood Zones) at 2021 or where such sites are within (or the immediate area around the site) is in Flood Zone 2 and/or 3 at 2115 these have been the subject of a iSFRA and the details of those assessments can be found in the Main Report.

<sup>&</sup>lt;sup>1</sup> The Environment Agency's Long Term Flood Map service for surface water can be found here: <u>https://flood-warning-information.service.gov.uk/long-term-flood-</u> risk/map?easting=457862&northing=104479

<sup>&</sup>lt;sup>2</sup> Further information can be found in: What is the Risk of Flooding from Surface Water map? Report, Environment Agency, April 2019 at:

https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment\_data/file/84 2485/What-is-the-Risk-of-Flooding-from-Surface-Water-Map.pdf

Table 1: Other allocation sites in GBLP 2038 (without planning permission) – Policies A1-2

| Ward             | Site name                   | Number of<br>dwellings |
|------------------|-----------------------------|------------------------|
|                  | Land at Stoners Close       | 8                      |
|                  | Land at Lapthorn Close      | 10                     |
|                  | Land at Prideaux Brune      | 5                      |
| Bridgemary North | Avenue                      | 5                      |
|                  | Land between Woodside and   | 5                      |
|                  | Wych Lane                   | 5                      |
|                  | Land at Bridgemary Road     | 6                      |
|                  | Land at Rowner Road Service | 20                     |
| Bridgemary South | Station                     | 20                     |
|                  | Land at Montgomery Road     | 8                      |
| Elson            | Land at Heritage Way and    | 55                     |
| EISON            | Frater Lane                 | 55                     |
| Forton           | Land at Wheeler Close       | 6                      |
| Leesland         | Land at Whitworth Close     | 18                     |
| Sub total        |                             | 141                    |

## 2.0 Land at Stoners Close

| Ward                | Site                        | Units | HA   | Flood zone(s)<br>present day<br>(2021) <sup>3</sup> | Flood<br>zone(s)<br>2115 <sup>4</sup> |
|---------------------|-----------------------------|-------|------|---|---------------------------------------|
| Bridgemary<br>North | Land at<br>Stoners<br>Close | 8     | 0.19 | 1   | 1                                     |

#### Comment

- 2.1 Site is located in Flood Zone 1 both for present day (2021) and at 2115.
- 2.2 The mapping for shows a low depth of less than 300 mm on adjacent land both east and west at the bottom of the site boundary but no areas vulnerable to surface water flooding on the site itself.
- 2.3 The velocity speed shown is less than 0.25m/s with the direction of the flow away from the site. Therefore the risk of surface water flooding at the present day is low. A 'Low risk' is defined as: each year, the area has a chance of flooding of between 1 in 1000 (0.1%) and 1 in 100 (1%). This does not mean that this will occur.

## Figure 1: Depth of water low risk



Source: Environment Agency Planning for Rivers and Seas - surface water

<sup>&</sup>lt;sup>3</sup> Present day flood zones are provided by the latest available information from the Environment Agency.

<sup>&</sup>lt;sup>4</sup> 2115 flood zones are taken from the PfSH SFRA (2016). PfSH have commissioned a new SFRA to take account of the UKCP018 climate change allowances. This work is expected to be completed by winter/spring 2022 and will inform a review of the Council's interim SFRA to support the Regulation 19 stage of plan preparation for the GBLP 2038.



Source: Environment Agency Planning for Rivers and Seas - surface water

2.4 No other flood risk considerations required.

## 3.0 Land at Lapthorn Close

| Ward                | Site                         | Units | HA   | Flood zone(s)<br>present day<br>(2021) <sup>5</sup> | Flood<br>zone(s)<br>2115 <sup>6</sup> |
|---------------------|------------------------------|-------|------|---|---------------------------------------|
| Bridgemary<br>North | Land at<br>Lapthorn<br>Close | 10    | 0.21 | 1   | 1                                     |

#### Comment

- 3.1 Site is located in Flood Zone 1 both for present day (2021) and at 2115.
- 3.2 The potential level of risk of flooding from surface water is the vicinity of the site but not on the site itself is shown as a 'Low' risk scenario the risk of flooding is identified on the road Lapthorn Close.
- 3.3 A low depth of less than 300 mm on land outside of the site boundary on the bottom south west land adjacent to the site boundary.
- 3.4 The velocity speed shown is less than 0.25m/s a=with the direction of the flow away from the site. Therefore the risk of surface water flooding at the present day is low.

## Figure 1: Depth of water low risk



<sup>&</sup>lt;sup>5</sup> Present day flood zones are provided by the latest available information from the Environment Agency.

<sup>&</sup>lt;sup>6</sup> 2115 flood zones are taken from the PfSH SFRA (2016). PfSH have commissioned a new SFRA to take account of the UKCP018 climate change allowances. This work is expected to be completed by winter/spring 2022 and will inform a review of the Council's interim SFRA to support the Regulation 19 stage of plan preparation for the GBLP 2038.



3.5 No other flood risk considerations required.

## 4.0 Land at Prideaux Brune Avenue

| Ward                | Site                                | Units | HA   | Flood zone(s)<br>present day<br>(2021) <sup>7</sup> | Flood<br>zone(s)<br>2115 <sup>8</sup> |
|---------------------|-------------------------------------|-------|------|---|---------------------------------------|
| Bridgemary<br>North | Land at<br>Prideaux<br>Brune Avenue | 5     | 0.14 | 1   | 1                                     |

#### Comment

- 4.1 Site is located in Flood Zone 1 both for present day (2021) and at 2115.
- 4.2 a low depth of less than 300 mm on land outside of the site boundary on the bottom south west land adjacent to the site boundary.
- 4.3 The velocity speed shown is less than 0.25m/s a=with the direction of the flow away from the site. Therefore the risk of surface water flooding at the present day is low.

## Figure 1: Depth of water low risk



<sup>&</sup>lt;sup>7</sup> Present day flood zones are provided by the latest available information from the Environment Agency.

<sup>&</sup>lt;sup>8</sup> 2115 flood zones are taken from the PfSH SFRA (2016). PfSH have commissioned a new SFRA to take account of the UKCP018 climate change allowances. This work is expected to be completed by winter/spring 2022 and will inform a review of the Council's interim SFRA to support the Regulation 19 stage of plan preparation for the GBLP 2038.



4.4 No other flood risk considerations required.

## 5.0 Land between Woodside and Wych Lane

| Ward                | Site                                      | Units | HA   | Flood<br>zone(s)<br>present day<br>(2021) <sup>9</sup> | Flood<br>zone(s)<br>2115 <sup>10</sup> |
|---------------------|---|-------|------|--|--|
| Bridgemary<br>North | Land between<br>Woodside and<br>Wych Lane | 5     | 0.04 | 1  | 1                                      |

#### Comment

- 5.1 Site is located in Flood Zone 1 both for present day (2021) and at 2115.
- 5.2 EA's surface water maps shows the potential level of risk of flooding from surface water in the vicinity of the site but not on the site itself is shown as having a 'Low' risk scenario, the risk of flooding is identified on the south eastern edge of the site and largely on Wych Lane itself.
- 5.3 A depth of between 300 900 mm is shown on Wych Lane to the south east of the site.
- 5.4 The velocity speed shown is more than 0.25m/s a=with the direction of flow along Wych Lane although not flowing into the site itself. Therefore the risk of surface water flooding at the present day is considered low and whilst the risk to the site itself is low there appears to be a greater extent of depth of water and velocity along Wych Lane in this location.

<sup>&</sup>lt;sup>9</sup> Present day flood zones are provided by the latest available information from the Environment Agency.

<sup>&</sup>lt;sup>10</sup> 2115 flood zones are taken from the PfSH SFRA (2016). PfSH have commissioned a new SFRA to take account of the UKCP018 climate change allowances. This work is expected to be completed by winter/spring 2022 and will inform a review of the Council's interim SFRA to support the Regulation 19 stage of plan preparation for the GBLP 2038.

## Figure 1: Depth of water low risk



Source: Environment Agency Planning from Rivers and Seas - surface water



## Figure 2: Velocity of water low risk

Source: Environment Agency Planning from Rivers and Seas – surface water

5.5 No other flood risk considerations required.

## 6.0 Land at Bridgemary Road

| Ward                | Site                          | Units | HA   | Flood zone(s)<br>present day<br>(2021) <sup>11</sup> | Flood<br>zone(s)<br>2115 <sup>12</sup> |
|---------------------|-------------------------------|-------|------|--|--|
| Bridgemary<br>North | Land at<br>Bridgemary<br>Road | 5     | 0.09 | 1  | 1                                      |

#### Comment

- 6.1 EA's surface water maps (2013 latest published available data) shows a low depth of less than 300 mm at the top northern border of the site boundary.
- 6.2 The velocity speed shown is less than 0.25m/s a=with the direction of the flow away from the site. Therefore the risk scenario for surface water flooding at the present day is low.

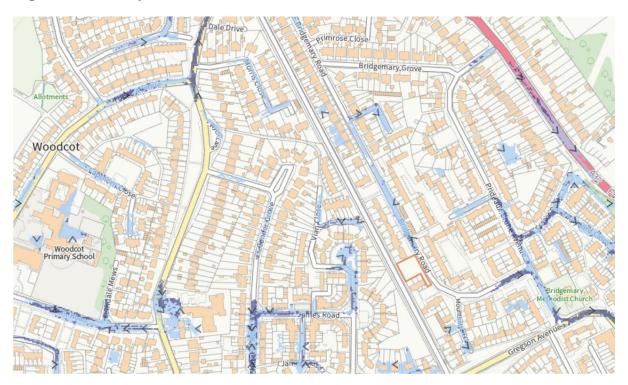
## Figure 1: Depth of water low risk



Source: Environment Agency Planning from Rivers and Seas - surface water

<sup>&</sup>lt;sup>11</sup> Present day flood zones are provided by the latest available information from the Environment Agency.

<sup>&</sup>lt;sup>12</sup> 2115 flood zones are taken from the PfSH SFRA (2016). PfSH have commissioned a new SFRA to take account of the UKCP018 climate change allowances. This work is expected to be completed by winter/spring 2022 and will inform a review of the Council's interim SFRA to support the Regulation 19 stage of plan preparation for the GBLP 2038.



Source: Environment Agency Planning from Rivers and Seas - surface water

6.3 No other flood risk considerations required.

## 7.0 Land at Rowner Road Service Station

| Ward                | Site   | Units | HA   | Flood zone(s)<br>present day<br>(2021) <sup>13</sup> | Flood<br>zone(s)<br>2115 <sup>14</sup> |
|---------------------|--|-------|------|--|--|
| Bridgemary<br>South | Land at<br>Rowner Road<br>Service<br>Station | 20    | 0.19 | 1  | 1                                      |

#### Comment

- 7.1 Site is located in Flood Zone 1 both for present day (2021) and at 2115.
- 7.2 EA's surface water maps shows the potential level of risk of flooding from surface water in the vicinity of the site but not on the site itself is shown as a 'Low' risk scenario. The risk of flooding is identified on the Rowner Road but not in the site itself. A Low risk is defined as: each year, the area has a chance of flooding of between 1 in 1000 (0.1%) and 1 in 100 (1%). This does not mean that this will occur.
- 7.3 The EA mapping shows a flooding depth of less than 300 mm on Rowner Road and this is only in small pockets on the road in the vicinity of the site and not on the site itself.
- 7.4 The velocity speed shown in a low risk scenario is greater than 0.25m/s with the direction of the surface water flowing along Rowner Road but not into the site itself. Therefore the risk of surface water flooding at the present day is considered low.

<sup>&</sup>lt;sup>13</sup> Present day flood zones are provided by the latest available information from the Environment Agency.

<sup>&</sup>lt;sup>14</sup> 2115 flood zones are taken from the PfSH SFRA (2016). PfSH have commissioned a new SFRA to take account of the UKCP018 climate change allowances. This work is expected to be completed by winter/spring 2022 and will inform a review of the Council's interim SFRA to support the Regulation 19 stage of plan preparation for the GBLP 2038.

Figure 1: Depth of water low risk



Source: Environment Agency Planning from Rivers and Seas - surface water



Source: Environment Agency Planning from Rivers and Seas - surface water

7.5 No other flood risk considerations required.

## 8.0 Land at Montgomery Road

| Ward                | Site                          | Units | HA   | Flood zone(s)<br>present day<br>(2021) <sup>15</sup> | Flood<br>zone(s)<br>2115 <sup>16</sup> |
|---------------------|-------------------------------|-------|------|--|--|
| Bridgemary<br>South | Land at<br>Montgomery<br>Road | 8     | 0.16 | 1  | 1                                      |

#### Comment

- 8.1 Site is located in Flood Zone 1 both for present day (2021) and at 2115.
- 8.2 EA's surface water maps (2013 latest published available data) shows the potential level of risk of flooding from surface water in the vicinity of the site but not on the site itself is shown as a 'Low' risk scenario. The risk of flooding is identified on the eastern edge of the site at Montgomery Road. A Low risk is defined as: each year, the area has a chance of flooding of between 1 in 1000 (0.1%) and 1 in 100 (1%). This does not mean that this will occur.
- 8.3 The EA mapping shows a flooding depth of less than 300 mm on Montgomery Road but not the site itself.
- 8.4 The velocity speed shown is less than 0.25m/s with the direction of the surface water flowing away from is away from the site. Therefore the risk of surface water flooding at the present day is considered low.

<sup>&</sup>lt;sup>15</sup> Present day flood zones are provided by the latest available information from the Environment Agency.

<sup>&</sup>lt;sup>16</sup> 2115 flood zones are taken from the PfSH SFRA (2016). PfSH have commissioned a new SFRA to take account of the UKCP018 climate change allowances. This work is expected to be completed by winter/spring 2022 and will inform a review of the Council's interim SFRA to support the Regulation 19 stage of plan preparation for the GBLP 2038.

## Figure 1: Depth of water low risk

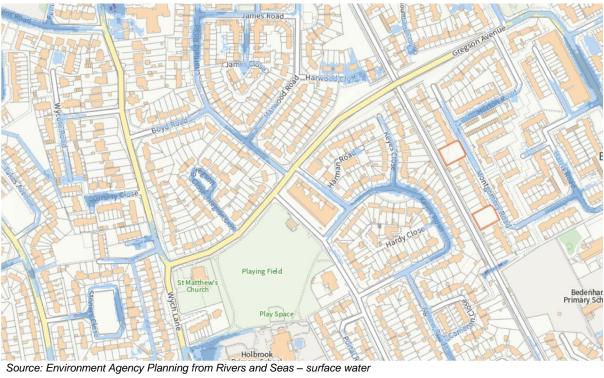


Figure 2: Velocity of water low risk



Source: Environment Agency Planning from Rivers and Seas - surface water

8.5 No other flood risk considerations required.

## 9.0 Land at Heritage Way/Frater Lane

| Ward  | Site                                       | Units | HA   | Flood zone(s)<br>present day<br>(2021) <sup>17</sup> | Flood<br>zone(s)<br>2115 <sup>18</sup> |
|-------|--|-------|------|--|--|
| Elson | Land at Heritage<br>Way and Frater<br>Lane | 55    | 0.77 | 1  | 1                                      |

#### Comment

- 9.1 Site is located in Flood Zone 1 both for present day (2021) and at 2115.
- 9.2 EA's surface water maps show the potential level of risk of flooding from surface water in the vicinity of the site but not on the site itself. There is a small amount of 'medium' risk areas to the south of the site in Blackthorn Drive but the depth of the flow is less than 300mm and a small pocket to land adjacent to the site boundary in the top north eastern corner of the site. The depths here for the medium risk scenario are shown as a small pocket of between 300 900 mm and other small pockets of less than 300mm. A Medium risk scenario is defined as: the area has a chance of flooding of between 1 in 100 (1%) and 1 in 30 (3.3%).

## Figure 1: Depth of water medium risk



Source: Environment Agency Planning from Rivers and Seas - surface water

<sup>&</sup>lt;sup>17</sup> Present day flood zones are provided by the latest available information from the Environment Agency.

<sup>&</sup>lt;sup>18</sup> 2115 flood zones are taken from the PfSH SFRA (2016). PfSH have commissioned a new SFRA to take account of the UKCP018 climate change allowances. This work is expected to be completed by winter/spring 2022 and will inform a review of the Council's interim SFRA to support the Regulation 19 stage of plan preparation for the GBLP 2038.

## Figure 2: Velocity of water medium risk



Source: Environment Agency Planning from Rivers and Seas - surface water

- 9.3 The surface water maps also show how surface water flooding needs to be considered in a **Low** risk scenario in this case. This defined as: each year, the area has a chance of flooding of between 1 in 1000 (0.1%) and 1 in 100 (1%). This does not mean that this will occur.
- 9.4 The mapping shows there are more areas susceptible to flooding from a low risk scenario in this location with flood depths of less than 300mm along both Blackthorn Drive and Frater Lane and a small pocket of between 300-900mm on land adjacent to the site in the top north eastern corner but not in the allocation site itself.
- 9.5 The velocity speed shown in the medium risk scenario is shown as less than 25/m/s with the directional flow unidentified. The velocity shown in the low risk scenario is less than 0.25m/s and the direction of the water flow is away from the site in Blackthorn Drive not shown on the maps. In Frater Lane the velocity is shown as more than 25 m/s and a small pocket of land to the north eastern corner on land adjacent to the site. Therefore the risk of surface water flooding at the present day to the site is considered low.

## Figure 1: Depth of water low risk



Source: Environment Agency Planning from Rivers and Seas - surface water



## Figure 2: Velocity of water low risk

Source: Environment Agency Planning from Rivers and Seas - surface water

9.6 No other flood risk considerations required.

## 10.0 Land at Wheeler Close

| Ward   | Site                        | Units | HA   | Flood zone(s)<br>present day<br>(2021) <sup>19</sup> | Flood<br>zone(s) 2115 |
|--------|-----------------------------|-------|------|--|-----------------------|
| Forton | Land at<br>Wheeler<br>Close | 6     | 0.22 | 1  | 1                     |

#### Comment

- 10.1 Site is located in Flood Zone 1 both for present day (2021) and at 2115.
- 10.2 The EA's surface water maps shows the potential level of risk of flooding from surface water in the vicinity of the site at Rogers Close for high, medium and low scenarios but not on the site itself or in Wheeler Close. The depths of flooding are low for all three scenarios with less than 300mm (for the low risk scenario the depth is slightly higher at Rogers Close of between 300 900mm). The depth and velocity for each of the scenarios are shown in Figures 1 6 below.

## Figure 1: Depth of water high risk



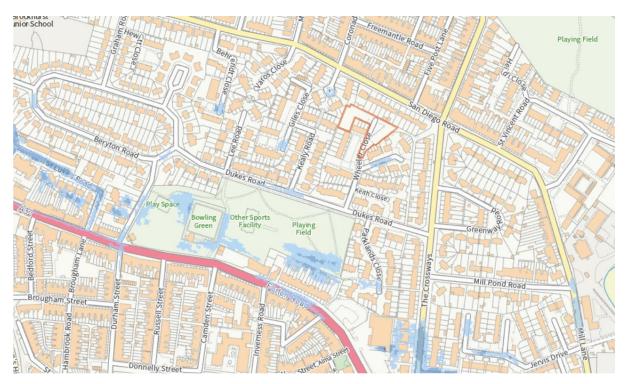
Source: Environment Agency Planning from Rivers and Seas - surface water

<sup>&</sup>lt;sup>19</sup> Present day flood zones are provided by the latest available information from the Environment Agency.

<sup>&</sup>lt;sup>20</sup> 2115 flood zones are taken from the PfSH SFRA (2016). PfSH have commissioned a new SFRA to take account of the UKCP018 climate change allowances. This work is expected to be completed by winter/spring 2022 and will inform a review of the Council's interim SFRA to support the Regulation 19 stage of plan preparation for the GBLP 2038.



Source: Environment Agency Planning from Rivers and Seas - surface water



## Figure 3: Depth of water medium risk

Source: Environment Agency Planning from Rivers and Seas - surface water



## Figure 4: Velocity of water medium risk

Source: Environment Agency Planning from Rivers and Seas - surface water



## Figure 5: Depth of water low risk

Source: Environment Agency Planning from Rivers and Seas - surface water



Source: Environment Agency Planning from Rivers and Seas - surface water

10.4 No other flood risk considerations required.

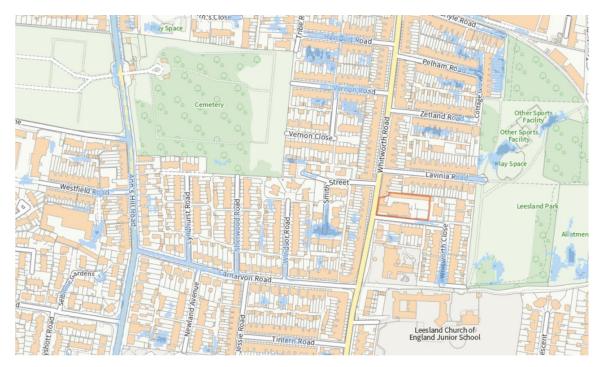
## 11.0 Land at Whitworth Close

| Ward     | Site                          | Units | HA   | Flood zone(s)<br>present day<br>(2021) <sup>21</sup> | Flood<br>zone(s)<br>2115 <sup>22</sup> |
|----------|-------------------------------|-------|------|--|--|
| Leesland | Land at<br>Whitworth<br>Close | 18    | 0.24 | 1  | 1                                      |

#### Comment

- 11.1 Site is located in Flood Zone 1 both for present day (2021) and at 2115.
- 11.2 EA's surface water maps show the potential level of risk of flooding from surface water in the vicinity of the site but not on the site itself as a 'Low' risk scenario. The risk of flooding is identified in a small area of Whitworth Close to the east of the site with a depth of less than 300mm. A **Low** risk scenario is defined as: each year, the area has a chance of flooding of between 1 in 1000 (0.1%) and 1 in 100 (1%). This does not mean that this will occur.
- 11.3 The velocity speed shown in a low risk scenario in this location is less than 0.25m/s with the direction of the surface water flowing away from the allocation site.

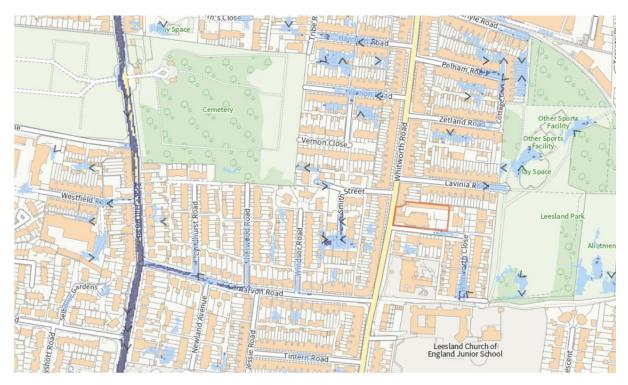
## Figure 1: Depth of water low risk



Source: Environment Agency Planning from Rivers and Seas - surface water

<sup>&</sup>lt;sup>21</sup> Present day flood zones are provided by the latest available information from the Environment Agency.

<sup>&</sup>lt;sup>22</sup> 2115 flood zones are taken from the PfSH SFRA (2016). PfSH have commissioned a new SFRA to take account of the UKCP018 climate change allowances. This work is expected to be completed by winter/spring 2022 and will inform a review of the Council's interim SFRA to support the Regulation 19 stage of plan preparation for the GBLP 2038.



Source: Environment Agency Planning from Rivers and Seas - surface water

11.4 No other flood risk considerations required.