

Appendix G Site Specific Assessments

Key - Sheet 1





Panel 1 - Flood Map

-  Flood Zone 2
-  Flood Zone 3


Panel 2 - Functional Floodplain

-  Functional Floodplain

Panel 3 - Historical Flooding

-  Historic Flood Map
-  Historic Flooding (Fluvial / Tidal)
-  Historic Flooding (Pluvial)
-  Historic Flooding (Sewer)

Panel 4 - Flood Warning Areas

-  Flood Warning Areas






Panel 5 - Flood Defences

-  Raised Defences

Key - Sheet 2





Depth Mapping

Max Depth (m)

-  0 - 0.25
-  0.25 - 0.5
-  0.5 - 1
-  1.0 - 2
-  2+





Velocity Mapping

Max Velocity (m/s)

-  0 - 0.3
-  0.3 - 1
-  1.0 - 1.5
-  1.5 - 2.5
-  2.5+










Hazard Mapping

Max Hazard (Flood Risk to People : FD2320)

-  Less than 0.75 (Low Hazard)
-  Between 0.75 and 1.25 (Danger for Some)
-  Between 1.25 and 2 (Danger for Most)
-  Greater than 2 (Danger for All)

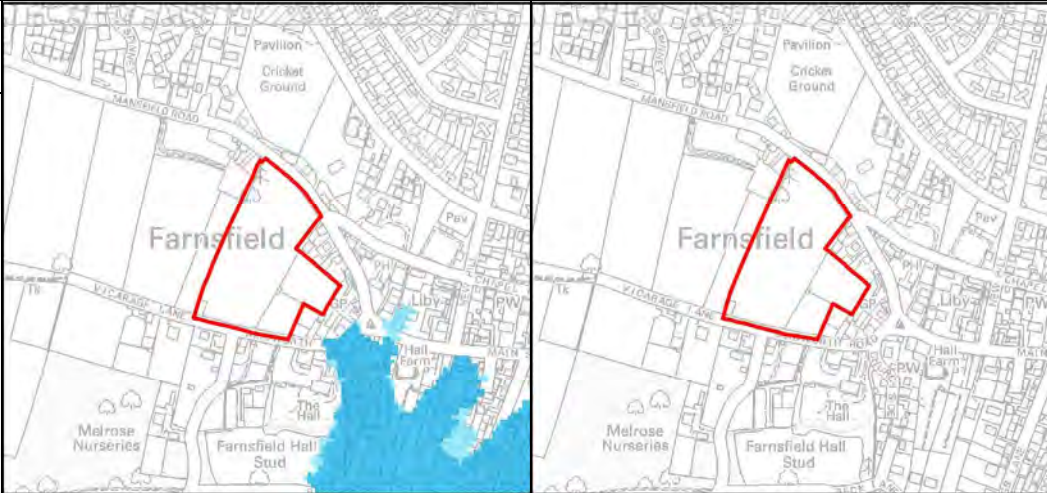

Time to Inundation Mapping

Time (hours)

-  0 - 5
-  5 - 10
-  10 - 15
-  15 - 20
-  20 - 25
-  25 - 30
-  30 - 35
-  35 - 40
-  40 - 45

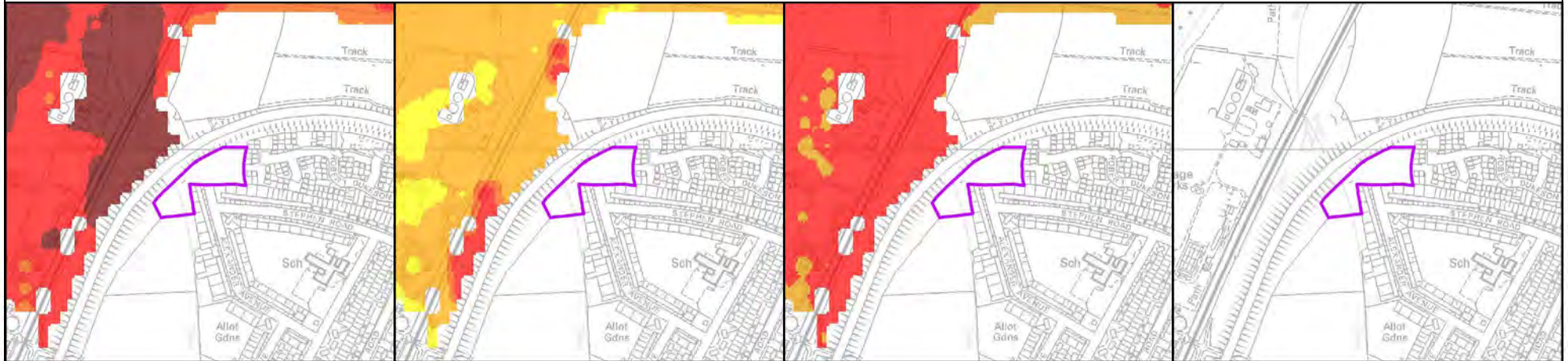
<p>Site Name: 1 - Palmer Road Location: Sutton on Trent (OS Grid Ref: 479705, 365500)</p>		
<p>Site Size: 1.88 hectares</p>	<p>Flood Risk Assessment Requirements: A Flood Risk Assessment (FRA) will be required by the Environment Agency for any site over 1 hectare in size.</p>	
<p>Existing Site Use: Greenfield</p>	<p>Climate change should be taken in to account when assessing flood risk from any source. The lifetime of the development will guide the allowance required for climate change, in accordance with the NPPF.</p>	
<p>Proposed Site Use: 53 Dwellings</p>	<p>Flood risk from surface water will need to be assessed as part of any FRA, with a drainage strategy provided to ensure that the development does not flood during low annual probability rainfall events or exacerbate the flood risk off site.</p>	
<p>Vulnerability Classification: More Vulnerable</p>	<p>The site is located within the Trent Valley Internal Drainage Board's (TVIDB) district and has a board maintained watercourse along its eastern boundary. The TVIDB will seek to establish an easement strip alongside this watercourse. The Board's consent will be required to any works in, over, under or within 9.0m of top, or, where the watercourse is culverted, the outside edge of the pipe. The IDB consent will be required prior to any increases in surface water discharge from the site being made to any increase in surface water discharge from the site being made to any watercourse, other than designated main river, which would require EA consent.</p>	
<p>Surface Water Flood Risk: The locally agreed surface water information maps indicate the site is located in an area susceptible to surface water flooding to an intermediate level. Therefore, further assessment of surface water flood risk should be included with the site specific flood risk assessment. Proposed surface water drainage is a key factor to the viability of the project and must not place extra pressure on the existing drainage regime. The drainage is subject to EA and IDB consent.</p>	<p>Flood Map Site is located in Flood Zone 1 – Low probability of flooding from fluvial and tidal sources.</p>	<p>Functional Floodplain The site is located out of the functional floodplain.</p>
<p>Safe Access and Egress: Not relevant to this site</p>		
<p>Minimum Finished Floor Levels: It is advisable for finished floor levels to be 150mm to 300mm above ground levels to ensure that any surface water flooding would not enter properties and cause damage.</p>	<p>Historical Flooding No records of historical flooding have been received for the site. Investigations into historical flooding of the area should be undertaken as part of a site specific FRA. NAIDB has records that 22 properties in Sutton on Trent reported flooding during the June 2007 event.</p>	<p>Flood Defences There are no flood defences close to the site. The IDB maintain a number of raised defences which developers should identify within a site specific FRA.</p>

<p>Site Name: 2 – Land at Nottingham Road Location: Southwell (OS Grid Ref: 469771, 353376)</p>		
<p>Site Size: 1.67 hectares</p>	<p>Flood Risk Assessment Requirements: Any sites located within Flood Zone 2 or 3 regardless of size will require an FRA. Climate change should be taken in to account when assessing flood risk from any source. The lifetime of the development will guide the allowance required for climate change, in accordance with the NPPF. Flood risk from surface water will need to be assessed as part of any FRA, with a drainage strategy provided to ensure that the development does not flood during low annual probability rainfall events or exacerbate the flood risk off-site. The sequential approach should be applied to the site to avoid development within any areas likely to flood. An easement free from development may also be required within the development layout for the adjacent watercourse. The easement should be agreed with NSDC, the EA and/or the LLFA or IDB. Approval will be required from either the LLFA or IDB if there is an increase in surface water discharge from the site to any watercourse other than a designated main river. Any discharge of surface water to a main river will require EA consent.</p>	
<p>Existing Site Use: Greenfield</p>	<p>Flood Map The site is located primarily within Flood Zone 1 – Low probability of flooding from fluvial and tidal sources, with a small area (<5% of the site area) located in Flood Zones 2 and 3 (medium and high probability respectively). The site will therefore need to be assessed based on Flood Zone 3 criteria.</p>	
<p>Proposed Site Use: 25 to 30 Dwellings</p>	<p>Functional Floodplain The site is located out of the functional floodplain.</p>	
<p>Vulnerability Classification: More Vulnerable</p>	<p>Safe Access and Egress: The approach should be taken whereby access to and from the site is away from the area shown as located within the flood extent. This area should be free from development.</p>	
<p>Surface Water Flood Risk: The locally agreed surface water information maps indicate the site is located within close proximity to an area susceptible to surface water flooding. Therefore, further assessment of surface water flood risk should be included with the site specific flood risk assessment. Proposed surface water drainage is a key factor to the viability of the project and must not place extra pressure on the existing drainage regime.</p>	<p>Minimum Finished Floor Levels: Finished floor levels must be set above the maximum flood depth, the EA general requirement is a 600mm freeboard for residential. If single storey dwellings are proposed this is essential. Where this is not possible then a range of measures including flood resilient construction must be considered. This is subject to EA approval and discussions.</p>	
<p>Safe Access and Egress: The approach should be taken whereby access to and from the site is away from the area shown as located within the flood extent. This area should be free from development.</p>	<p>Historical Flooding No records of historical flooding have been received for the site. This does not mean that flooding has not occurred as these events may not have been recorded. Investigations into historical flooding of the area should be undertaken as part of a site specific FRA.</p>	
<p>Minimum Finished Floor Levels: Finished floor levels must be set above the maximum flood depth, the EA general requirement is a 600mm freeboard for residential. If single storey dwellings are proposed this is essential. Where this is not possible then a range of measures including flood resilient construction must be considered. This is subject to EA approval and discussions.</p>	<p>Flood Warning Areas There is no flood warning area covering the site. A Flood Plan should be provided detailing what residents / occupants should do to prepare for flood events, and what to do if the development floods. Safe escape / safe refuge details should be provided as part of a Flood Plan along with information on the EA Flood Warning system.</p>	
<p>Minimum Finished Floor Levels: Finished floor levels must be set above the maximum flood depth, the EA general requirement is a 600mm freeboard for residential. If single storey dwellings are proposed this is essential. Where this is not possible then a range of measures including flood resilient construction must be considered. This is subject to EA approval and discussions.</p>	<p>Flood Defences There are no flood defences close to the site. The IDB maintain a number of raised defences which developers should identify in a site specific FRA.</p>	

<p>Site Name: 3 – Land South of Mansfield Road Location: Farnsfield (OS Grid Ref: 464426, 356685)</p>		
<p>Site Size: 2.59 hectares</p>	<p>Flood Risk Assessment Requirements: A Flood Risk Assessment (FRA) will be required by the Environment Agency for any site over 1 hectare in size.</p>	
<p>Existing Site Use: Greenfield</p>	<p>Climate change should be taken in to account when assessing flood risk from any source. The lifetime of the development will guide the allowance required for climate change, in accordance with the NPPF.</p>	
<p>Proposed Site Use: 12 Dwellings</p>	<p>Flood risk from surface water will need to be assessed as part of any FRA, with a drainage strategy provided to ensure that the development does not flood during low annual probability rainfall events or exacerbate the flood risk off site.</p>	
<p>Vulnerability Classification: More Vulnerable</p>	<p>Approval will be required from either the LLFA or the IDB if there is an increase in surface water discharge from the site to any watercourse other than a designated main river. Any discharge of surface water to a main river will require EA consent.</p>	
<p>Surface Water Flood Risk: The locally agreed surface water information maps indicate the site is located within close proximity to an area susceptible to surface water flooding. Therefore, further assessment of surface water flood risk should be included within any site specific flood risk assessment. Proposed surface water drainage is a key factor to the viability of any development that may be located on this land project and must not place extra pressure on the existing drainage regime.</p>	<p>Flood Map Site is located in Flood Zone 1 – Low probability of flooding from fluvial and tidal sources.</p>	
<p>Safe Access and Egress: Not relevant to this site</p>	<p>Functional Floodplain The site is located out of the functional floodplain.</p>	
<p>Minimum Finished Floor Levels: Finished floor levels must be set above the maximum flood depth, the EA general requirement is a 600mm freeboard for residential. If single storey dwellings are proposed this is essential. Where this is not possible then a range of measures including flood resilient construction must be considered. This is subject to EA approval and discussions.</p>		
	<p>Historical Flooding No records of historical flooding have been received for the site. This does not mean that flooding has not occurred as these events may not have been recorded. Investigations into historical flooding of the area should be undertaken as part of a site specific FRA.</p>	<p>Flood Warning Areas Not shown as being located within a Flood Warning Area.</p>
<p>Flood Defences There are no flood defences close to the site. The IDB maintain a number of raised defences which developers should identify in a site specific FRA.</p>		

<p>Site Name: 4 – North of Alexander Avenue Location: Newark on Trent (OS Grid Ref: 480520, 355948)</p>		
<p>Site Size: 0.813 hectares</p>	<p>Flood Risk Assessment Requirements: Any sites located within Flood Zone 2 or 3 regardless of size will require an FRA.</p> <p>Climate change should be taken in to account when assessing flood risk from any source. The lifetime of the development will guide the allowance required for climate change, in accordance with the NPPF.</p> <p>Flood risk from surface water will need to be assessed as part of any FRA, with a drainage strategy provided to ensure that the development does not flood during low annual probability rainfall events or exacerbate the flood risk off-site.</p> <p>The sequential approach should be applied to the site to avoid development within any areas likely to flood. Flood resilient construction should also be considered.</p> <p>Approval will be required from the LLFA or IDB if there is an increase in surface water discharge from the site to any watercourse other than a designated main river. Any discharge of surface water to a main river will require EA consent.</p> <p>Residual risk using hazard mapping should be included within the FRA.</p>	
<p>Existing Site Use: Greenfield</p>		
<p>Proposed Site Use: 17 Dwellings</p>		
<p>Vulnerability Classification: More Vulnerable</p>		
<p>Surface Water Flood Risk: The locally agreed surface water information maps indicate the site is located within close proximity to an area susceptible to surface water flooding. Therefore, further assessment of surface water flood risk should be included within any site specific flood risk assessment.</p> <p>Proposed surface water drainage is a key factor to the viability of any development that may occur on this site and must not place extra pressure on the existing drainage regime.</p>		
<p>Safe Access and Egress: The approach should be taken whereby access to and from the site is away from the area shown as located within the flood extent. This area should be free from development.</p> <p>Safe access looks viable to the east of the site based on hazard mapping within this SFRA.</p>		
<p>Minimum Finished Floor Levels: Finished floor levels must be set above the maximum flood depth, the EA general requirement is a 600mm freeboard for residential. If single storey dwellings are proposed this is essential. Where this is not possible then a range of measures including flood resilient construction must be considered.</p> <p>This is subject to EA approval and discussions.</p>		
	<p>Flood Map The site is located primarily within Flood Zone 1 – Low probability of flooding from fluvial and tidal sources, with approximately 40% of the western end of the site in Flood Zone 2 (medium probability).</p>	<p>Functional Floodplain The site is not located within functional floodplain.</p>
	<p>Historical Flooding The western end of the site is located in an area that has flooded historically, lining up with the Flood Zone 2 extent from the Flood Map.</p>	<p>Flood Warning Areas There is no flood warning area covering the site. A Flood Plan should be provided detailing what residents / occupants should do to prepare for flood events, and what to do if the development floods. Safe escape / safe refuge details should be provided as part of a Flood Plan along with information on the EA Flood Warning system.</p>
		<p>Flood Defences There are no flood defences close to the site. Embankments associated with the railway track do provide some form of informal protection of the site, this can be seen on the hazard mapping.</p> <p>The IDB maintain a number of raised defences which developers should identify in a site specific FRA.</p>

Site Name: 4 – North of Alexander Avenue
Location: Newark on Trent (OS Grid Ref: 480520, 355948)

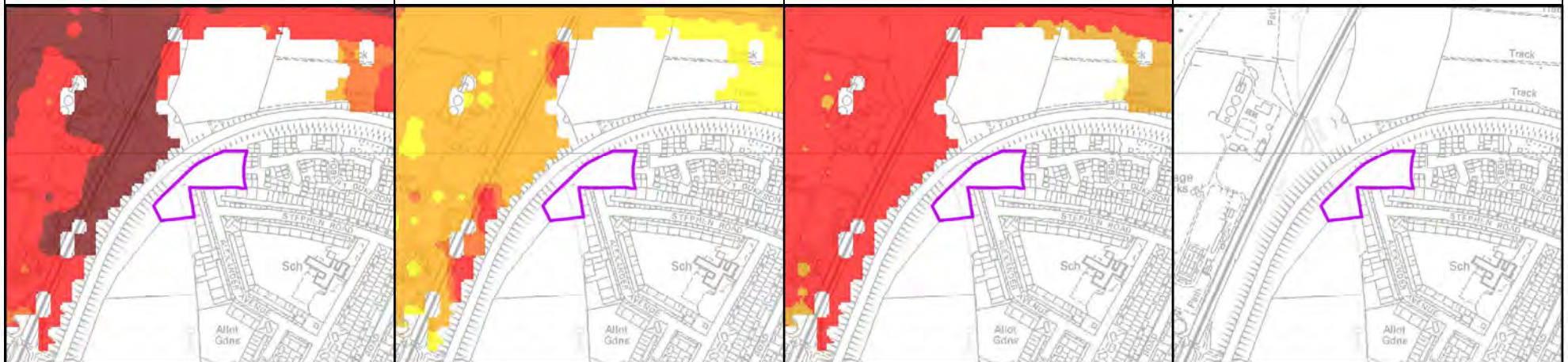


100CC - Depth
 It can be seen on Figure 1647-F-1.1 that the site is not located within a hazard extent therefore there are no flood depths associated with the site during the 1 in 100 year plus climate change event.

100CC - Velocity
 It can be seen on Figure 1647-F-2.1 that the site is not located within a hazard extent therefore there are no flood depths associated with the site during the 1 in 100 year plus climate change event.

100CC - Hazard
 It can be seen on Figure 1647-F-3.1 that the site is not located within a hazard extent therefore there are no flood depths associated with the site during the 1 in 100 year plus climate change event.

100CC - Time to Inundation
 TO BE MODELLED







1000 - Depth
 It can be seen on Figure 1647-F-1.2 that the site is not located within a hazard extent therefore there are no flood depths associated with the site during the 1 in 1000 year event.

1000 - Velocity
 It can be seen on Figure 1647-F-2.2 that the site is not located within a hazard extent therefore there are no flood depths associated with the site during the 1 in 1000 year event.

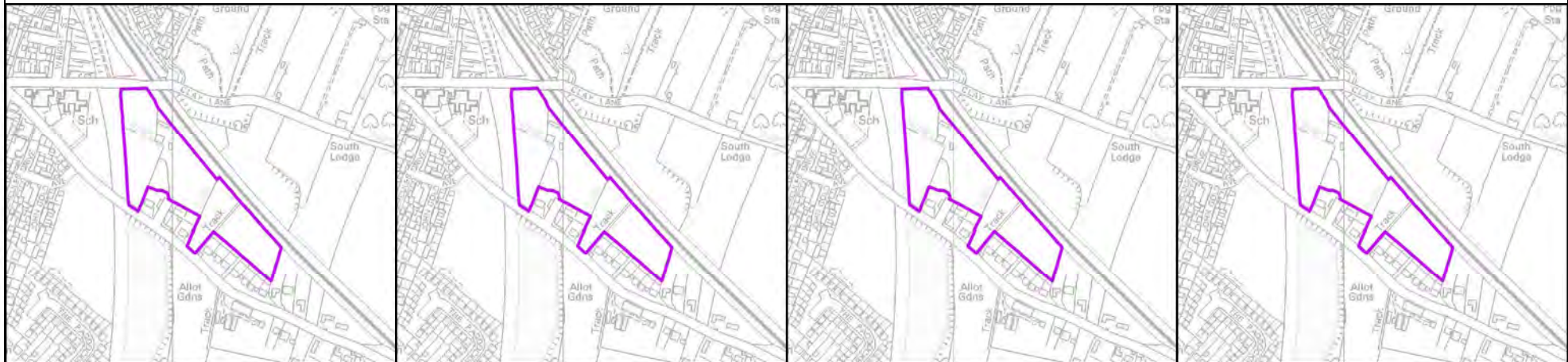
1000 - Hazard
 It can be seen on Figure 1647-F-3.2 that the site is not located within a hazard extent therefore there are no flood depths associated with the site during the 1 in 1000 year event.

1000 - Time to Inundation
 TO BE MODELLED

<p>Site Name: 5 – North of Lake View School Location: Rainworth (OS Grid Ref: 458735, 358161)</p>		
<p>Site Size: 0.84 hectares</p>	<p>Flood Risk Assessment Requirements:</p> <p>Any sites located within Flood Zone 2 or 3 regardless of size will require an FRA.</p> <p>Climate change should be taken in to account when assessing flood risk from any source. The lifetime of the development will guide the allowance required for climate change, in accordance with the NPPF.</p> <p>Flood risk from surface water will need to be assessed as part of any FRA, with a drainage strategy provided to ensure that the development does not flood during low annual probability rainfall events or exacerbate the flood risk off-site.</p> <p>The sequential approach should be applied to the site to avoid development within any areas likely to flood. An easement free from development may also be required within the development layout for the adjacent watercourse.</p> <p>Approval will be required from the LLFA or IDB if there is an increase in surface water discharge from the site to any watercourse other than a designated main river. Any discharge of surface water to a main river will require EA consent.</p>	
<p>Existing Site Use: Greenfield</p>		
<p>Proposed Site Use: Residential</p>		
<p>Vulnerability Classification: More Vulnerable</p>		
<p>Surface Water Flood Risk:</p> <p>The locally agreed surface water information maps indicate the site is located within close proximity to an area susceptible to surface water flooding. Therefore, further assessment of surface water flood risk should be included within any site specific flood risk assessment.</p> <p>Proposed surface water drainage is a key factor to the viability of the project and must not place extra pressure on the existing drainage regime.</p>	<p>Flood Map</p> <p>The site is located primarily within Flood Zone 1 – Low probability of flooding from fluvial and tidal sources, with approximately 20% of the site in Flood Zone 2 and 3 (medium and high probability respectively). The site will therefore need to be assessed based on Flood Zone 3 criteria.</p>	<p>Functional Floodplain</p> <p>The site is not located within functional floodplain.</p>
<p>Safe Access and Egress:</p> <p>The approach should be taken whereby access to and from the site is away from the area shown as located within the flood extent. This area should be free from development.</p> <p>Safe access looks viable to the east of the site based on hazard mapping within this SFRA.</p>		
<p>Minimum Finished Floor Levels:</p> <p>Hazard mapping included within this SFRA shows the site does not suffer from flooding therefore FFL should be at least 300mm above existing ground level.</p> <p>This is subject to EA approval and discussions.</p>	<p>Historical Flooding</p> <p>No records of historical flooding have been received for the site. This does not mean that flooding has not occurred as these events may not have been recorded. Investigations into historical flooding of the area should be undertaken as part of a site specific FRA.</p>	<p>Flood Warning Areas</p> <p>There is no flood warning area covering the site. A Flood Plan should be provided detailing what residents / occupants should do to prepare for flood events, and what to do if the development floods. Safe escape / safe refuge details should be provided as part of a Flood Plan along with information on the EA Flood Warning system.</p>
		<p>Flood Defences</p> <p>There are no flood defences close to the site.</p>

<p>Site Name: 6 – North of Barnby Road Location: Newark-on-Trent (OS Grid Ref: 481025, 353312)</p>		
<p>Site Size: 3.07 hectares</p>	<p>Flood Risk Assessment Requirements: A Flood Risk Assessment (FRA) will be required by the Environment Agency for any site over 1 hectare in size.</p>	
<p>Existing Site Use: Greenfield</p>	<p>Climate change should be taken in to account when assessing flood risk from any source. The lifetime of the development will guide the allowance required for climate change, in accordance with the NPPF.</p>	
<p>Proposed Site Use: Residential</p>	<p>Flood risk from surface water will need to be assessed as part of any FRA, with a drainage strategy provided to ensure that the development does not flood during low annual probability rainfall events or exacerbate the flood risk off site.</p>	
<p>Vulnerability Classification: More Vulnerable</p>	<p>Approval will be required from the LLFA or IDB if there is an increase in surface water discharge from the site to any watercourse other than a designated main river. Any discharge of surface water to a main river will require EA consent.</p>	
<p>Surface Water Flood Risk: The locally agreed surface water information maps indicate the site is located within close proximity to an area susceptible to surface water flooding. Therefore, further assessment of surface water flood risk should be included with the site specific flood risk assessment. Proposed surface water drainage is a key factor to the viability of the project and must not place extra pressure on the existing drainage regime.</p>		
<p>Safe Access and Egress: The site is located in Flood Zone 1 and is not affected by or surrounded by flooding, therefore safe access and egress is not applicable.</p>	<p>Flood Map Site is located in Flood Zone 1 – Low probability of flooding from fluvial and tidal sources.</p>	<p>Functional Floodplain The site is not located within functional floodplain.</p>
<p>Minimum Finished Floor Levels: It is advisable for finished floor levels to be 150mm to 300mm above ground levels to ensure that any surface water flooding would not enter properties and cause damage.</p>		
	<p>Historical Flooding No records of historical flooding have been received for the site. This does not mean that flooding has not occurred as these events may not have been recorded. Investigations into historical flooding of the area should be undertaken as part of a site specific FRA.</p>	<p>Flood Defences There are no flood defences close to the site. The IDB maintain a number of raised defences which developers should identify in a site specific FRA.</p>
		<p>Flood Warning Areas Not shown as being located within a Flood Warning Area.</p>

Site Name: 6 – North of Barnby Road
Location: Newark-on-Trent (OS Grid Ref: 481025, 353312)

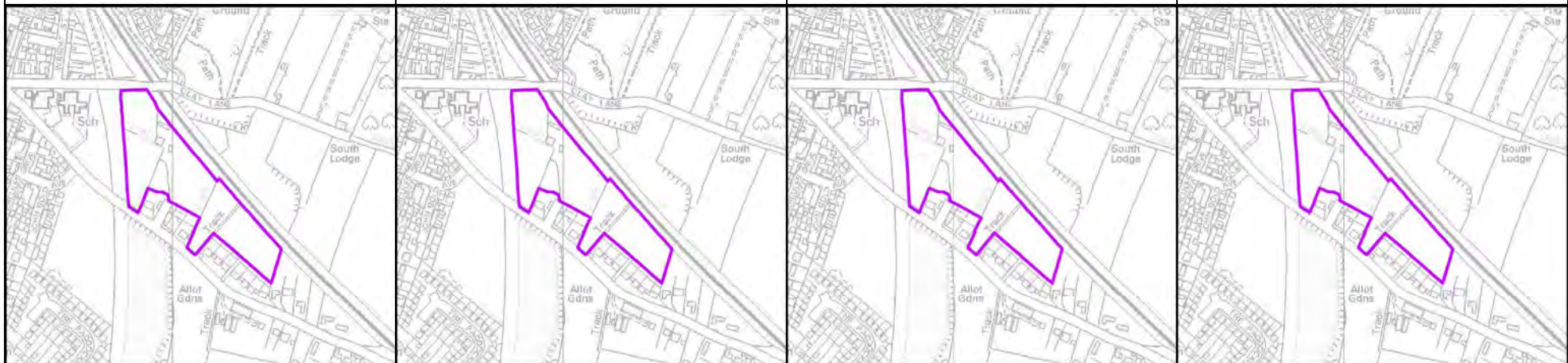


100CC - Depth
 It can be seen on Figure 1647-F-1.1 that the site is not located within a hazard extent therefore there are no flood depths associated with the site during the 1 in 100 year plus climate change event.

100CC - Velocity
 It can be seen on Figure 1647-F-2.1 that the site is not located within a hazard extent therefore there are no flood depths associated with the site during the 1 in 100 year plus climate change event.

100CC - Hazard
 It can be seen on Figure 1647-F-3.1 that the site is not located within a hazard extent therefore there are no flood depths associated with the site during the 1 in 100 year plus climate change event.

100CC - Time to Inundation
 TO BE MODELLED.



1000 - Depth
 It can be seen on Figure 1647-F-1.2 that the site is not located within a hazard extent therefore there are no flood depths associated with the site during the 1 in 1000 year event.

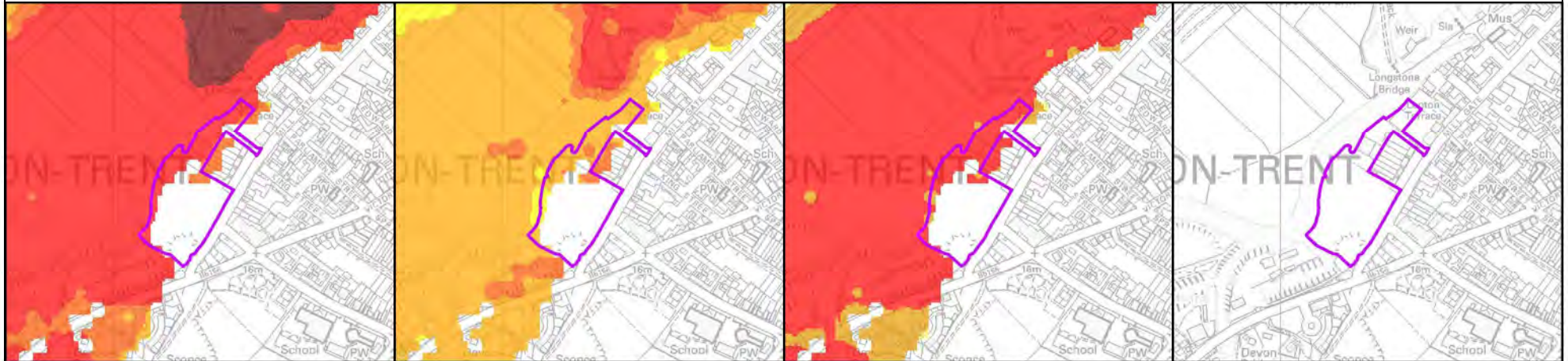
1000 - Velocity
 It can be seen on Figure 1647-F-2.2 that the site is not located within a hazard extent therefore there are no flood depths associated with the site during the 1 in 1000 year event.

1000 - Hazard
 It can be seen on Figure 1647-F-3.2 that the site is not located within a hazard extent therefore there are no flood depths associated with the site during the 1 in 1000 year event.

1000 - Time to Inundation
 TO BE MODELLED.

<p>Site Name: 7 – Millgate Location: Newark-on-Trent (OS Grid Ref: 479131, 353456)</p>		
<p>Site Size: 2.2 hectares</p>	<p>Flood Risk Assessment Requirements: Any sites located within Flood Zone 2 or 3 regardless of size will require an FRA.</p>	
<p>Existing Site Use: Greenfield</p>	<p>Climate change should be taken in to account when assessing flood risk from any source. The lifetime of the development will guide the allowance required for climate change, in accordance with the NPPF.</p>	
<p>Proposed Site Use: 69 Dwellings</p>	<p>Flood risk from surface water will need to be assessed as part of any FRA, with a drainage strategy provided to ensure that the development does not flood during low annual probability rainfall events or exacerbate the flood risk off-site.</p>	
<p>Vulnerability Classification: More Vulnerable</p>	<p>The sequential approach should be applied to the site whereby development is to be located in Zone 1 area of the site only and to avoid developing within any areas likely to flood. No development should be located within the functional floodplain. Flood resilient construction should be considered.</p>	
<p>Surface Water Flood Risk: The locally agreed surface water information maps indicate the site is located in an area susceptible to surface water flooding to an intermediate level. Therefore, further assessment of surface water flood risk should be included with the site specific flood risk assessment. Proposed surface water drainage is a key factor to the viability of the project and must not place extra pressure on the existing drainage regime.</p>	<p>Flood Map The site is located partly within Flood Zone 1 – Low probability of flooding from fluvial and tidal sources, with approximately 50% of the site to the north / west in Flood Zone 2 and 3 (medium and high probability respectively).</p>	
<p>Safe Access and Egress: Safe / dry access and egress should be provided for all future residents of the site. Residents should be directed away from offsite flood areas.</p>	<p>Functional Floodplain The north west of the site is located within functional floodplain.</p>	
<p>Safe access appears viable to the south-east of the site based on the hazard mapping for the site.</p>		
<p>Minimum Finished Floor Levels: Finished floor levels must be set above the maximum flood depth, the EA general requirement is a 600mm freeboard for residential. If single storey dwellings are proposed this is essential. Where this is not possible then a range of measures including flood resilient construction must be considered. This is subject to EA approval and discussions.</p>	<p>Historical Flooding Historic flood records show previous flooding occurring within the northern part of the site.</p> <p>Flood Warning Areas There is no flood warning area covering the site. A Flood Plan should be provided detailing what residents / occupants should do to prepare for flood events, and what to do if the development floods. Safe escape / safe refuge details should be provided as part of a Flood Plan along with information on the EA Flood Warning system.</p> <p>Flood Defences There are no flood defences close to the site.</p>	

Site Name: 7 – Millgate
Location: Newark-on-Trent (OS Grid Ref: 479131, 353456)

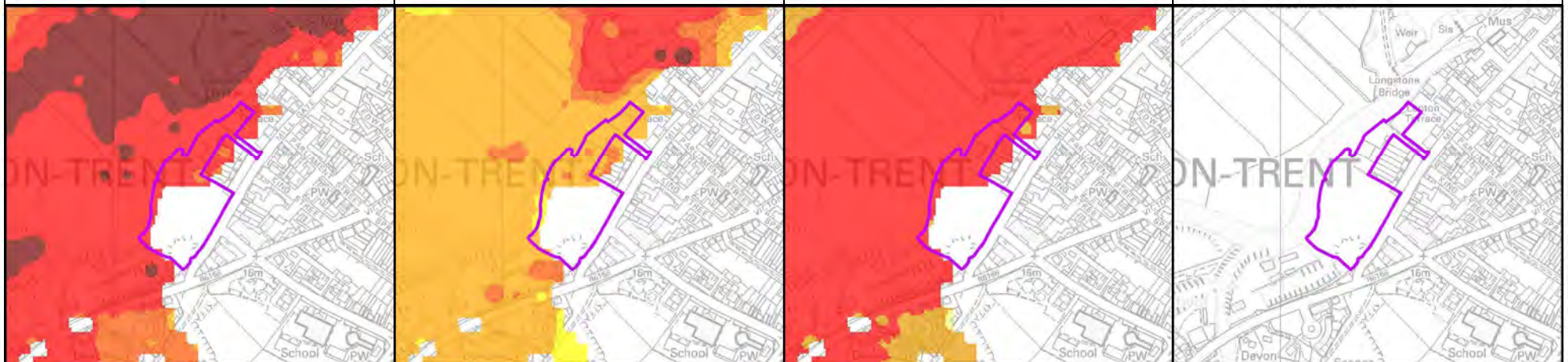


100CC - Depth
 It can be seen on Figure 1647-F-1.1 that the site is located within an area that would be inundated by water to a depth of between 0.5 and 2.0m.

100CC - Velocity
 When referencing Figure 1647-F-2.1 it can be seen that the site experiences velocities of flood water between 0.3 to 1.5 m/s.

100CC - Hazard
 With reference to Figure 1647-F-3.1 it can be seen that the site is located within an area of greater than 2m (Danger for All) as defined by FD2320 Flood Risk to People.

100CC - Time to Inundation
 TO BE MODELLED.

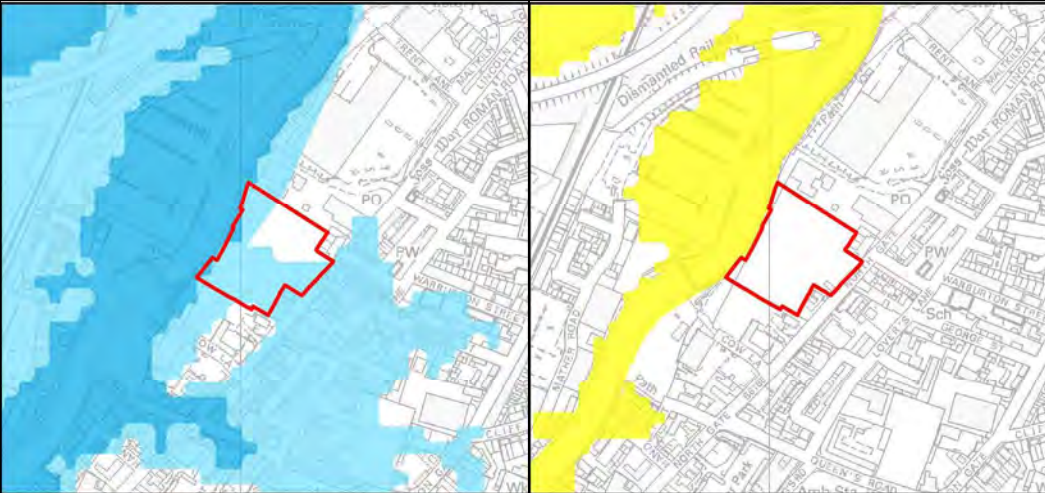
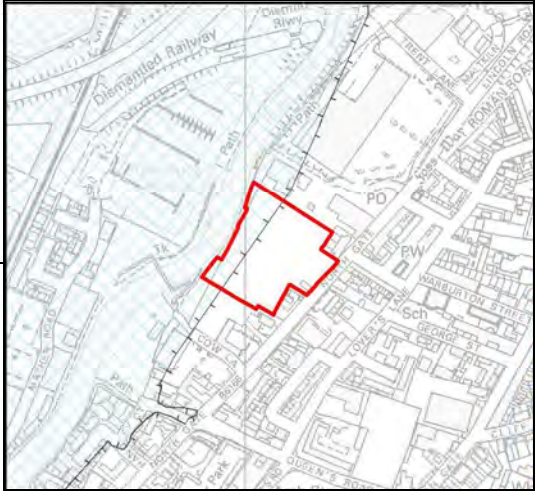
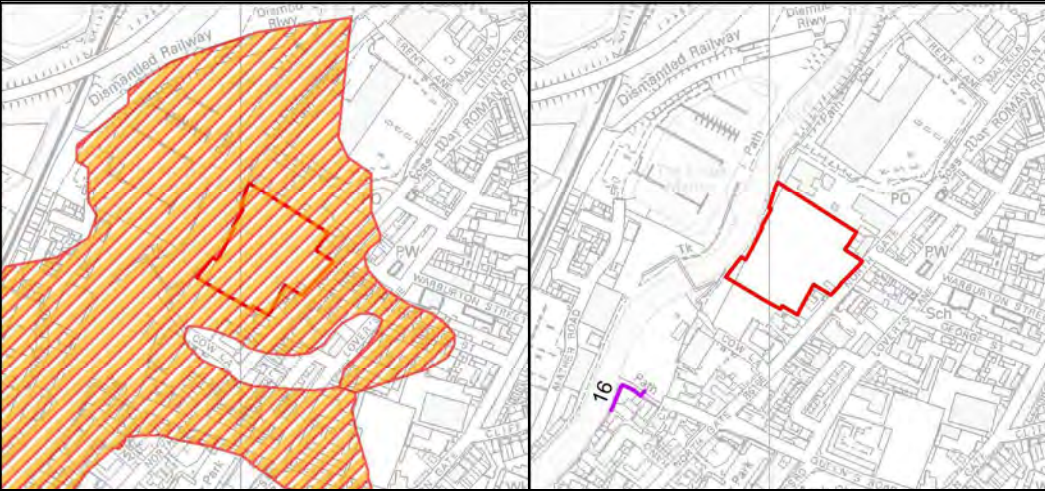


1000 - Depth
 It can be seen on Figure 1647-F-1.2 that the site is located within an area that would be inundated by water to a depth of between 0.5 and 2.0m.

1000 - Velocity
 When referencing Figure 1647-F-2.2 it can be seen that the site experiences velocities of flood water between 0.3 to 1.5 m/s.

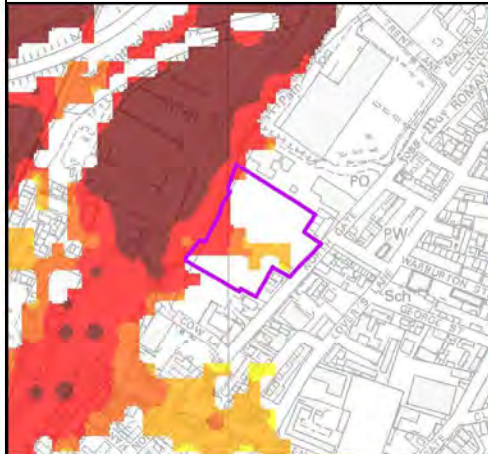
1000 - Hazard
 With reference to Figure 1647-F-3.2 it can be seen that the site is located within an area of greater than 2m (Danger for All) as defined by FD2320 Flood Risk to People.

1000 - Time to Inundation
 TO BE MODELLED.

<p>Site Name: 8 – North Gate Location: Newark-on-Trent (OS Grid Ref: 480034, 354494)</p>		
<p>Site Size: 1.65 hectares</p>	<p>Flood Risk Assessment Requirements: Any sites located within Flood Zone 2 or 3 regardless of size will require an FRA. Climate change should be taken in to account when assessing flood risk from any source. The lifetime of the development will guide the allowance required for climate change, in accordance with the NPPF. Flood risk from surface water will need to be assessed as part of any FRA, with a drainage strategy provided to ensure that the development does not flood during low annual probability rainfall events or exacerbate the flood risk off-site. The sequential approach should be applied to the site whereby development is to be located in areas not likely to flood and to avoid developing within any areas likely to flood. Flood resilient construction should also be considered. Approval will be required from the LLFA or IDB if there is an increase in surface water discharge from the site to any watercourse other than a designated main river. Any discharge of surface water to a main river will require EA consent.</p>	
<p>Existing Site Use: Greenfield</p>		
<p>Proposed Site Use: 53 Dwellings</p>		
<p>Vulnerability Classification: More Vulnerable</p>		
<p>Surface Water Flood Risk: The locally agreed surface water information maps indicate the site is located in an area susceptible to surface water flooding to an intermediate level. Therefore, further assessment of surface water flood risk should be included with the site specific flood risk assessment. Proposed surface water drainage is a key factor to the viability of the project and must not place extra pressure on the existing drainage regime.</p>	<p>Flood Map The site has approximately 5% of its site area within Flood Zone 3 and approximately 75% of the site area within Flood Zone 2.</p>	<p>Functional Floodplain The north west of the site borders on functional floodplain.</p>
<p>Safe Access and Egress: Safe / dry access and egress should be provided for all future residents of the site. Residents should be directed away from offsite flood areas. Safe access appears viable to the south-east of the site based on the hazard mapping for the site.</p>		
<p>Minimum Finished Floor Levels: Finished floor levels must be set above the maximum flood depth, the EA general requirement is a 600mm freeboard for residential. If single storey dwellings are proposed this is essential. Where this is not possible then a range of measures including flood resilient construction must be considered. This is subject to EA approval and discussions.</p>	<p>Historical Flooding Historic flood records show previous flooding occurring within the northern and western parts of the site.</p>	<p>Flood Defences There are no flood defences close to the site which have an impact on the flooding on site.</p>
		<p>Flood Warning Areas The site is located within a Flood Warning Area. There is no flood warning area covering the site. A Flood Plan should be provided detailing what residents / occupants should do to prepare for flood events, and what to do if the development floods. Safe escape / safe refuge details should be provided as part of a Flood Plan along with information on the EA Flood Warning system.</p>

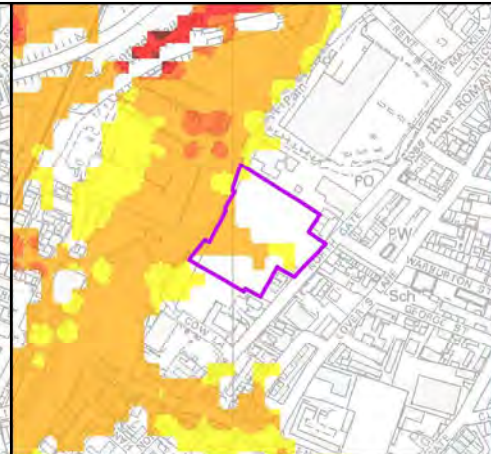
Site Name:
Location:

8 – North Gate
Newark-on-Trent (OS Grid Ref: 480034, 354494)



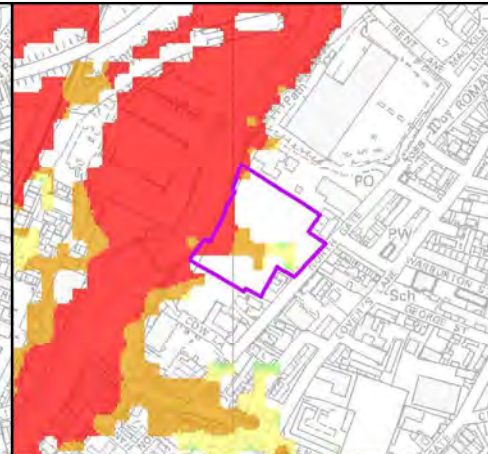
100CC - Depth

It can be seen on Figure 1647-F-1.1 that the site is located within an area that would be inundated by water to a depth of between 0.5 and 2.0m.



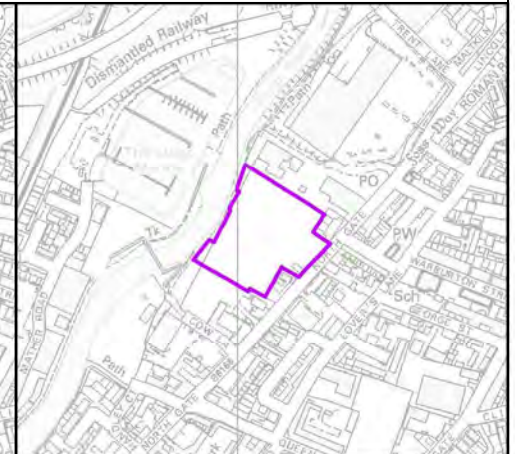
100CC - Velocity

When referencing Figure 1647-F-2.1 it can be seen that the site experiences velocities of flood water between 0 to 1 m/s.



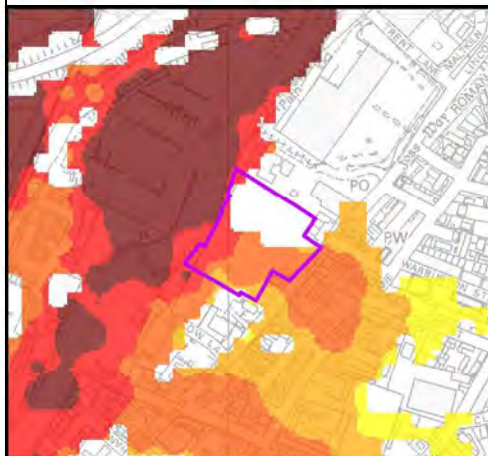
100CC - Hazard

With reference to Figure 1647-F-3.1 it can be seen that the site is located within an area which experiences a range of hazards from Less than 0.75 (Low Hazard) to Greater than 2 (Danger for All), as defined by FD2320 Flood Risk to People.



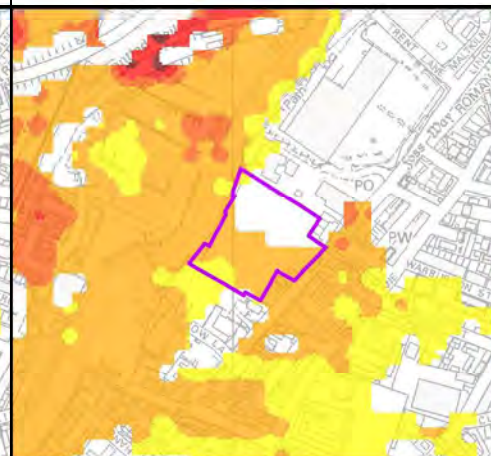
100CC - Time to Inundation

TO BE MODELLED.



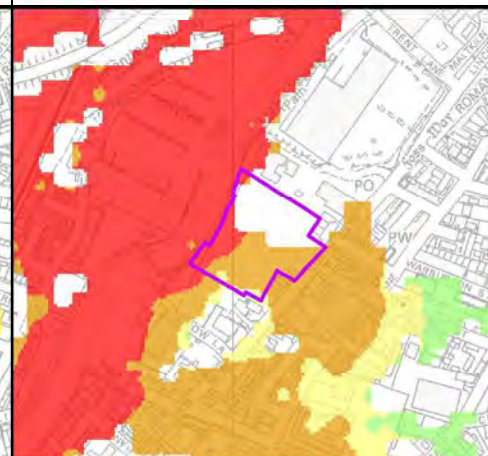
1000 - Depth

It can be seen on Figure 1647-F-1.2 that the site is located within an area that would be inundated by water to a depth of between 0.5 and 2.0m.



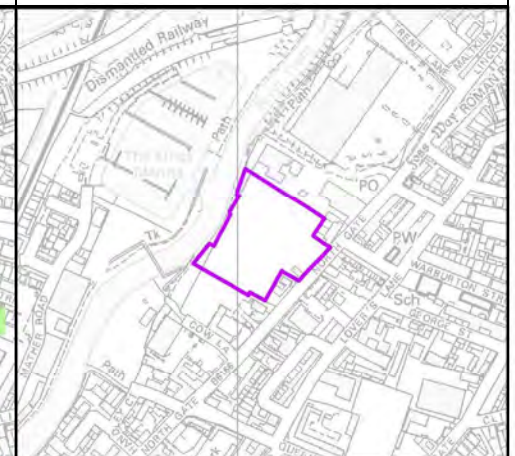
1000 - Velocity

When referencing Figure 1647-F-2.2 it can be seen that the site experiences velocities of flood water between 0 to 1 m/s.



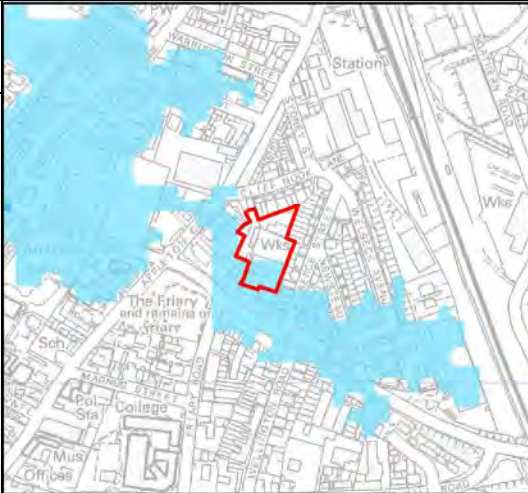
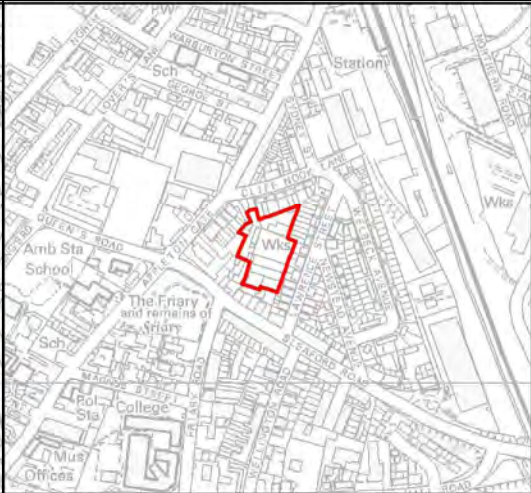
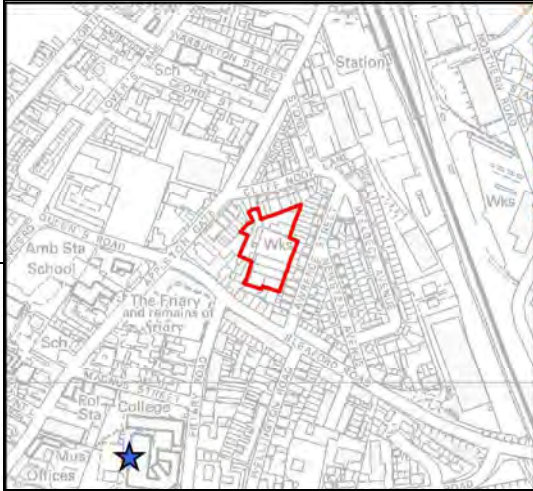
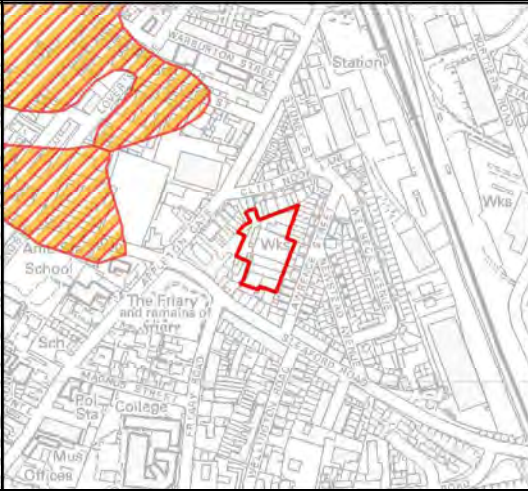
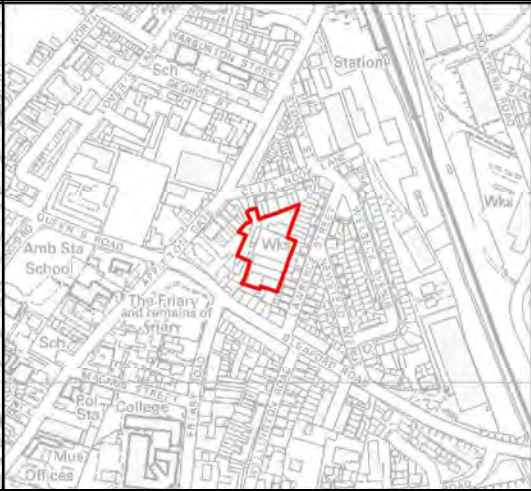
1000 - Hazard

With reference to Figure 1647-F-3.2 it can be seen that the site is located within an area which experiences a range of hazards from 0.75 (Danger to Some) to Greater than 2 (Danger for All), as defined by FD2320 Flood Risk to People.



1000 - Time to Inundation

TO BE MODELLED.

<p>Site Name: 9 – North of Sleaford Road Location: Newark-on-Trent (OS Grid Ref: 480359, 354179)</p>		
<p>Site Size: 0.69 hectares</p>	<p>Flood Risk Assessment Requirements: Any sites located within Flood Zone 2 or 3 regardless of size will require an FRA.</p>	
<p>Existing Site Use: Brownfield (currently in use)</p>	<p>Climate change should be taken in to account when assessing flood risk from any source. The lifetime of the development will guide the allowance required for climate change, in accordance with the NPPF.</p>	
<p>Proposed Site Use: Residential</p>	<p>Flood risk from surface water will need to be assessed as part of any FRA, with a drainage strategy provided to ensure that the development does not flood during low annual probability rainfall events or exacerbate the flood risk off-site.</p>	
<p>Vulnerability Classification: More Vulnerable</p>	<p>The sequential approach should be applied to the site whereby development is to be located in Zone 1 area of the site only and to avoid developing within any areas likely to flood. Flood resilient construction should also be considered.</p>	
<p>Surface Water Flood Risk: The locally agreed surface water information maps indicate the site is located within close proximity to an area susceptible to surface water flooding to a level classed as Less. Therefore, further assessment of surface water flood risk should be included with the site specific flood risk assessment. Proposed surface water drainage is a key factor to the viability of the project and must not place extra pressure on the existing drainage regime.</p>	<p>Approval will be required from the LLFA or IDB if there is an increase in surface water discharge from the site to any watercourse other than a designated main river. Any discharge of surface water to a main river will require EA consent.</p>	
<p>Safe Access and Egress: Safe / dry access and egress should be provided for all future residents of the site. Residents should be directed away from offsite flood areas. Safe access appears viable to the south-east of the site based on the hazard mapping for the site.</p>		
<p>Minimum Finished Floor Levels: Finished floor levels must be set above the maximum flood depth, the EA general requirement is a 600mm freeboard for residential. If single storey dwellings are proposed this is essential. Where this is not possible then a range of measures including flood resilient construction must be considered. This is subject to EA approval and discussions.</p>		
	<p>Historical Flooding No records of historical flooding have been received for the site. This does not mean that flooding has not occurred as these events may not have been recorded. Investigations into historical flooding of the area should be undertaken as part of a site specific FRA.</p>	<p>Flood Warning Areas There is no flood warning area covering the site. A Flood Plan should be provided detailing what residents / occupants should do to prepare for flood events, and what to do if the development floods. Safe escape / safe refuge details should be provided as part of a Flood Plan along with information on the EA Flood Warning system.</p>
	<p>Flood Defences There are no flood defences close to the site. The IDB maintain a number of raised defences which developers should identify in a site specific FRA.</p>	

Site Name: 9 – North of Sleaford Road
Location: Newark-on-Trent (OS Grid Ref: 480359, 354179)

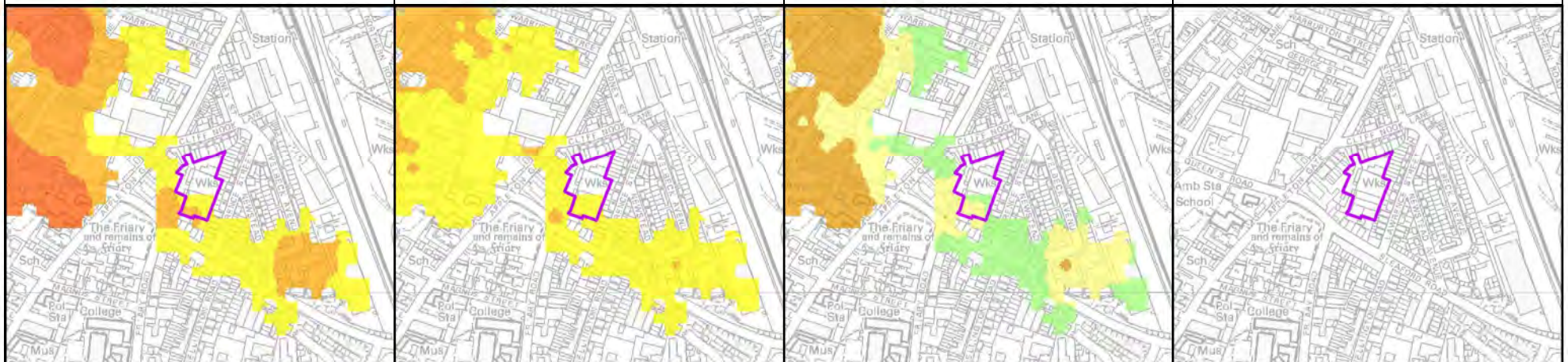


100CC - Depth
 It can be seen on Figure 1647-F-1.1 that the site is not located within a hazard extent therefore there are no flood depths associated with the site during the 1 in 100 year plus climate change event.

100CC - Velocity
 It can be seen on Figure 1647-F-2.1 that the site is not located within a hazard extent therefore there are no flood depths associated with the site during the 1 in 100 year plus climate change event.

100CC - Hazard
 It can be seen on Figure 1647-F-3.1 that the site is not located within a hazard extent therefore there are no flood depths associated with the site during the 1 in 100 year plus climate change event.

100CC - Time to Inundation
 TO BE MODELLED.



1000 - Depth
 It can be seen on Figure 1647-F-1.2 that the site is located within an area that would be inundated by water to a depth of between 0 and 0.5m.

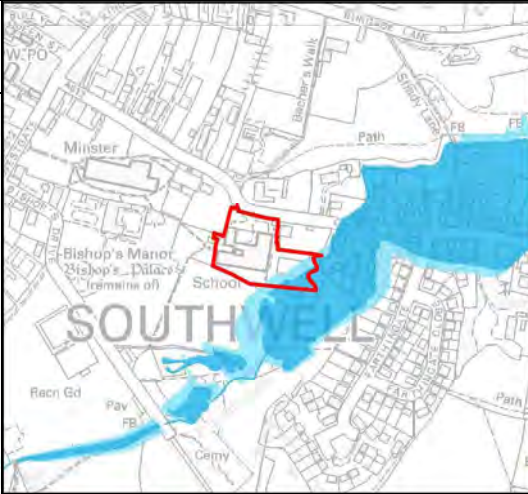
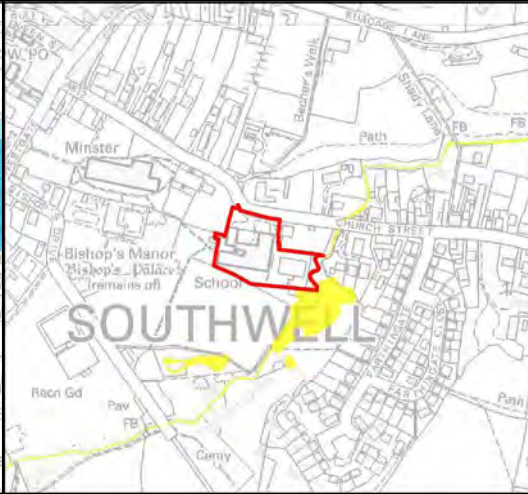
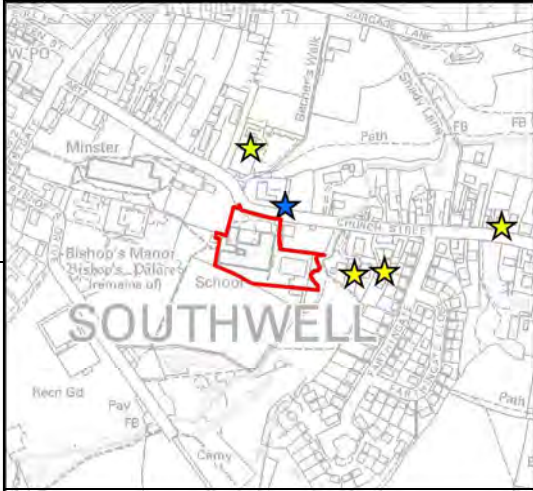
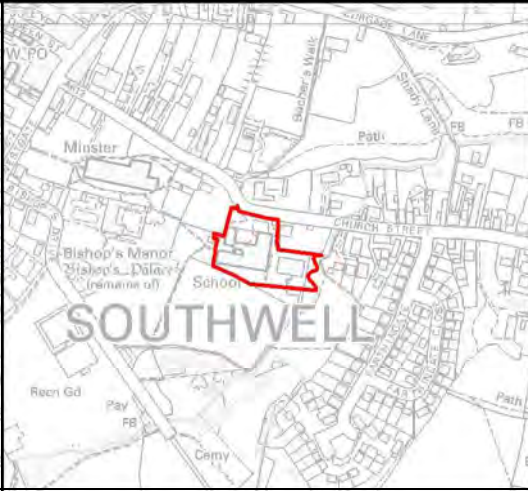
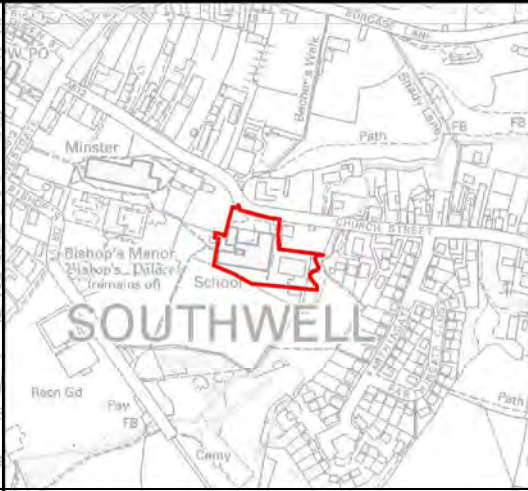
1000 - Velocity
 It can be seen on Figure 1647-F-2.2 that the site experiences velocities of flood water between 0 and 0.3m/s.

1000 - Hazard
 It can be seen on Figure 1647-F-3.2 that the site is located in an area between Less than 0.75 (Low Hazard) and 1.25 (Danger to Some) as defined by DF 2320 Flood Risk to People.

1000 - Time to Inundation
 TO BE MODELLED.

<p>Site Name: 10 – Kirklington Road Location: Rainworth (OS Grid Ref: 459102, 358429)</p>		
<p>Site Size: 0.62 hectares</p>	<p>Flood Risk Assessment Requirements: A Flood Risk Assessment (FRA) will be required by the Environment Agency for the site due to the Flood Zone 2 extent and proximity to an existing culvert. Climate change should be taken in to account when assessing flood risk from any source. The lifetime of the development will guide the allowance required for climate change, in accordance with the NPPF. Flood risk from surface water will need to be assessed as part of any FRA, with a drainage strategy provided to ensure that the development does not flood during low annual probability rainfall events or exacerbate the flood risk off site. The sequential approach should be applied to the site whereby development is to be located in Zone 1 area of the site only and to avoid developing within any areas likely to flood. Flood resilient construction should also be considered. A Culvert which is located at the site needs to be investigated as part of the site specific FRA and flood risk associated to the site by this culvert. The EA should be consulted regarding this.</p>	
<p>Existing Site Use: Greenfield</p>		
<p>Proposed Site Use: 6 dwellings</p>		
<p>Vulnerability Classification: More Vulnerable</p>		
<p>Surface Water Flood Risk: The locally agreed surface water information maps indicate the site is located within an area susceptible to surface water flooding. Therefore, further assessment of surface water flood risk should be included with the site specific flood risk assessment. Proposed surface water drainage is a key factor to the viability of the project and must not place extra pressure on the existing drainage regime.</p>	<p>Flood Map The site is primarily located entirely within Flood Zone 1 based on the existing flood map with a marginal amount located in Zone 2 to the north.</p>	<p>Functional Floodplain The site is located away from the functional floodplain.</p>
<p>Safe Access and Egress: The approach should be taken whereby access to and from the site is away from the area shown as located within the flood extent. This area should be free from development.</p>		
<p>Minimum Finished Floor Levels: Finished floor levels must be set above the maximum flood depth, the EA general requirement is a 600mm freeboard for residential. If single storey dwellings are proposed this is essential. Where this is not possible then a range of measures including flood resilient construction must be considered. This is subject to EA approval and discussions.</p>	<p>Historical Flooding No records of historical flooding have been received for the site. This does not mean that flooding has not occurred as these events may not have been recorded. Investigations into historical flooding of the area should be undertaken as part of a site specific FRA.</p>	<p>Flood Warning Areas Not shown as being located within a Flood Warning Area.</p> <p>Flood Defences There are no flood defences close to the site.</p>

<p>Site Name: 11 – West of Rufford Colliery Location: Rainworth (OS Grid Ref: 459042, 358652)</p>			
<p>Site Size: 5.5 hectares</p>	<p>Flood Risk Assessment Requirements: Any sites located within Flood Zone 2 or 3 regardless of size will require an FRA.</p>		
<p>Existing Site Use: Greenfield</p>	<p>Climate change should be taken in to account when assessing flood risk from any source. The lifetime of the development will guide the allowance required for climate change, in accordance with the NPPF.</p>		
<p>Proposed Site Use: 125 dwellings</p>	<p>Flood risk from surface water will need to be assessed as part of any FRA, with a drainage strategy provided to ensure that the development does not flood during low annual probability rainfall events or exacerbate the flood risk off-site.</p>		
<p>Vulnerability Classification: More Vulnerable</p>	<p>The sequential approach should be applied to the site whereby development is to be located in Zone 1 area of the site only and to avoid developing within any areas likely to flood. Flood resilient construction should also be considered.</p>		
<p>Surface Water Flood Risk: The locally agreed surface water information maps indicate the site is located in an area susceptible to surface water flooding. Therefore, further assessment of surface water flood risk should be included with the site specific flood risk assessment. Proposed surface water drainage is a key factor to the viability of the project and must not place extra pressure on the existing drainage regime.</p>	<p>Approval will be required from the LLFA or IDB if there is an increase in surface water discharge from the site to any watercourse other than a designated main river. Any discharge of surface water to a main river will require EA consent.</p>		
<p>Safe Access and Egress: The approach should be taken whereby access to and from the site is away from the area shown as located within the flood extent. This area should be free from development.</p>	<p>Flood Map The site is predominantly located within Flood Zone 1 based on the existing flood map, with approximately 10% of the area of the site located in Flood Zone 2 and 3.</p>	<p>Functional Floodplain The site is located away from the functional floodplain.</p>	
<p>Minimum Finished Floor Levels: Finished floor levels must be set above the maximum flood depth, the EA general requirement is a 600mm freeboard for residential. If single storey dwellings are proposed this is essential. Where this is not possible then a range of measures including flood resilient construction must be considered. This is subject to EA approval and discussions.</p>			
	<p>Historical Flooding No records of historical flooding have been received for the site. This does not mean that flooding has not occurred as these events may not have been recorded. Investigations into historical flooding of the area should be undertaken as part of a site specific FRA.</p>	<p>Flood Warning Areas There is no flood warning area covering the site. A Flood Plan should be provided detailing what residents / occupants should do to prepare for flood events, and what to do if the development floods. Safe escape / safe refuge details should be provided as part of a Flood Plan along with information on the EA Flood Warning system. (EA to confirm).</p>	<p>Flood Defences There are no flood defences close to the site.</p>

<p>Site Name: 12 – Church Street Location: Southwell (OS Grid Ref: 470352, 353697)</p>		
<p>Site Size: 0.9 hectares</p>	<p>Flood Risk Assessment Requirements: Any sites located within Flood Zone 2 or 3 regardless of size will require an FRA.</p>	
<p>Existing Site Use: Greenfield</p>	<p>Climate change should be taken in to account when assessing flood risk from any source. The lifetime of the development will guide the allowance required for climate change, in accordance with the NPPF.</p>	
<p>Proposed Site Use: Permission Granted</p>	<p>Flood risk from surface water will need to be assessed as part of any FRA, with a drainage strategy provided to ensure that the development does not flood during low annual probability rainfall events or exacerbate the flood risk off site.</p>	
<p>Vulnerability Classification: More Vulnerable</p>	<p>The sequential approach should be applied to the site whereby development is to be located in Zone 1 area of the site only and to avoid developing within any areas likely to flood. Flood resilient construction should also be considered.</p>	
<p>Surface Water Flood Risk: The locally agreed surface water information maps indicate the site is located in an area susceptible to surface water flooding. Therefore, further assessment of surface water flood risk should be included with the site specific flood risk assessment. Proposed surface water drainage is a key factor to the viability of the project and must not place extra pressure on the existing drainage regime.</p>	<p>Approval will be required from the LLFA or IDB if there is an increase in surface water discharge from the site to any watercourse other than a designated main river. Any discharge of surface water to a main river will require EA consent.</p>	
<p>Safe Access and Egress: The approach should be taken whereby access to and from the site is away from the area shown as located within the flood extent. This area should be free from development.</p>		
<p>Minimum Finished Floor Levels: Finished floor levels must be set above the maximum flood depth, the EA general requirement is a 600mm freeboard for residential. If single storey dwellings are proposed this is essential. Where this is not possible then a range of measures including flood resilient construction must be considered. This is subject to EA approval and discussions.</p>		
	<p>Flood Map The site is predominantly located within Flood Zone 1 based on the existing flood map, with approximately 20% of the total site area located within Flood Zone 2, and 10% of the total site area located in Flood Zone 3.</p>	 <p>Functional Floodplain The site is not located within functional floodplain, however the south east of the site is located next to functional floodplain.</p>
 <p>Historical Flooding No records of historical flooding have been received for the site. However there is a fluvial flooding event and four sewer flooding events recorded close to the site within Southwell. Further investigation should be included within a site specific FRA.</p>	 <p>Flood Warning Areas There is no flood warning area covering the site. A Flood Plan should be provided detailing what residents / occupants should do to prepare for flood events, and what to do if the development floods. Safe escape / safe refuge details should be provided as part of a Flood Plan along with information on the EA Flood Warning system.</p>	 <p>Flood Defences There are no flood defences close to the site. The IDB maintain a number of raised defences which developers should identify in a site specific FRA.</p>

<p>Site Name: 13 – North of Maltkin Lane Location: Newark-on-Trent (OS Grid Ref: 480215, 355119)</p>		
<p>Site Size: 2.03 hectares</p>	<p>Flood Risk Assessment Requirements: Any sites located within Flood Zone 2 or 3 regardless of size will require an FRA. Climate change should be taken in to account when assessing flood risk from any source. The lifetime of the development will guide the allowance required for climate change, in accordance with the NPPF. Flood risk from surface water will need to be assessed as part of any FRA, with a drainage strategy provided to ensure that the development does not flood during low annual probability rainfall events or exacerbate the flood risk off-site. The sequential approach should be applied to the site whereby development is to be located in Zone 1 area of the site only and to avoid developing within any areas likely to flood. Flood resilient construction should also be considered. Approval will be required from the LLFA or IDB if there is an increase in surface water discharge from the site to any watercourse other than a designated main river. Any discharge of surface water to a main river will require EA consent.</p>	
<p>Existing Site Use: Brownfield (Scrap Yard)</p>	<p>Flood Map The site is predominantly located within Flood Zone 2 and 3 having 60% of its area located in Flood Zone 2 and 40% of its area located within Flood Zone 3 based on the existing flood map. The site will therefore need to be assessed based on Flood Zone 3 criteria.</p>	
<p>Proposed Site Use: 60 Dwellings</p>	<p>Functional Floodplain The western edge of the site is located within functional floodplain.</p>	
<p>Vulnerability Classification: More Vulnerable</p>	<p>Safe Access and Egress: Safe / dry access and egress should be provided for all future residents of the site. Residents should be directed away from off-site flood areas. Safe access appears viable to the south / east of the site based on the hazard mapping for the site.</p>	
<p>Surface Water Flood Risk: The locally agreed surface water information maps indicate the site is located in an area susceptible to surface water flooding to an intermediate level. Therefore, further assessment of surface water flood risk should be included with the site specific flood risk assessment. Proposed surface water drainage is a key factor to the viability of the project and must not place extra pressure on the existing drainage regime.</p>	<p>Historical Flooding The northern / western parts of the site are located within an area shown to have flooded historically. Investigations in to historical flooding should be carried out as part of a site specific FRA.</p>	
<p>Safe Access and Egress: Safe / dry access and egress should be provided for all future residents of the site. Residents should be directed away from off-site flood areas. Safe access appears viable to the south / east of the site based on the hazard mapping for the site.</p>	<p>Flood Warning Areas There is no flood warning area covering the site. A Flood Plan should be provided detailing what residents / occupants should do to prepare for flood events, and what to do if the development floods. Safe escape / safe refuge details should be provided as part of a Flood Plan along with information on the EA Flood Warning system.</p>	
<p>Minimum Finished Floor Levels: Finished floor levels must be set above the maximum flood depth, the EA general requirement is a 600mm freeboard for residential. If single storey dwellings are proposed this is essential. Where this is not possible then a range of measures including flood resilient construction must be considered. This is subject to EA approval and discussions.</p>	<p>Flood Defences There are no flood defences close to the site.</p>	

Site Name:
Location:

13 – North of Maltkin Lane
Newark-on-Trent (OS Grid Ref: 480215, 355119)



100CC - Depth

It can be seen on Figure 1647-F-1.1 that the site is located within an area that would be inundated by water to a depth of between 0.25 and 2.0m+.

100CC - Velocity

When referencing Figure 1647-F-2.1 it can be seen that the site experiences velocities of flood water between 0 to 1.0 m/s.

100CC - Hazard

With reference to Figure 1647-F-3.1 it can be seen that the site is located within an area of greater than 2m (Danger for All) as defined by FD2320 Flood Risk to People.

100CC - Time to Inundation

TO BE MODELLED.



1000 - Depth

It can be seen on Figure 1647-F-1.2 that the site is located within an area that would be inundated by water to a depth of between 0.5 and 2.0m+.

1000 - Velocity

When referencing Figure 1647-F-2.2 it can be seen that the site experiences velocities of flood water between 0 to 1 m/s.

1000 - Hazard



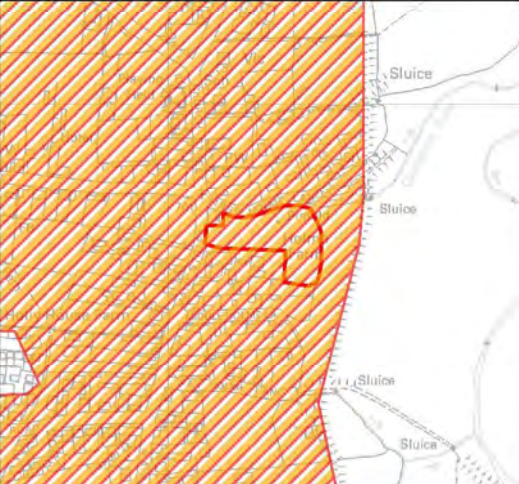
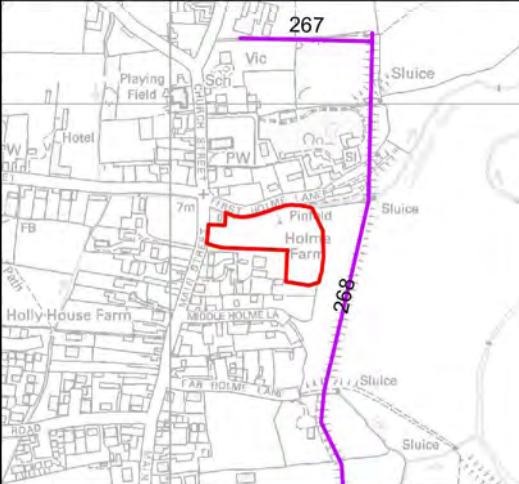
With reference to Figure 1647-F-3.2 it can be seen that the site is located within an area of greater than 2 (Danger for All) as defined by FD2320 Flood Risk to People.

1000 - Time to Inundation

TO BE MODELLED.






<p>Site Name: 14 – Land South of Lansbury Road Location: Edwinstowe (OS Grid Ref: 463067, 366630)</p>		
<p>Site Size: 8.31 hectares</p>	<p>Flood Risk Assessment Requirements: Any sites located within Flood Zone 2 or 3 regardless of size will require an FRA.</p>	
<p>Existing Site Use: Greenfield</p>	<p>Climate change should be taken in to account when assessing flood risk from any source. The lifetime of the development will guide the allowance required for climate change, in accordance with the NPPF.</p>	
<p>Proposed Site Use: 150-250 Dwellings</p>	<p>Flood risk from surface water will need to be assessed as part of any FRA, with a drainage strategy provided to ensure that the development does not flood during low annual probability rainfall events or exacerbate the flood risk off-site.</p>	
<p>Vulnerability Classification: More Vulnerable</p>	<p>The sequential approach should be applied to the site whereby development is to be located in Zone 1 area of the site only and to avoid developing within any areas likely to flood. Flood resilient construction should also be considered.</p>	
<p>Surface Water Flood Risk: The locally agreed surface water information maps indicate the site is located in an area susceptible to surface water flooding. Therefore, further assessment of surface water flood risk should be included with the site specific flood risk assessment. Proposed surface water drainage is a key factor to the viability of the project and must not place extra pressure on the existing drainage regime.</p>	<p>Approval will be required from the LLFA or IDB if there is an increase in surface water discharge from the site to any watercourse other than a designated main river. Any discharge of surface water to a main river will require EA consent.</p>	
<p>Safe Access and Egress: The approach should be taken whereby access to and from the site is away from the area shown as located within the flood extent. This area should be free from development.</p>	<p>Flood Map The majority of the site is located within Flood Zone 1, with the southern edge of the site (approximately 7.5% of the total area) located within Flood Zone 2.</p>	<p>Functional Floodplain The site is located outside the functional floodplain.</p>
<p>Minimum Finished Floor Levels: Finished floor levels must be set above the maximum flood depth, the EA general requirement is a 600mm freeboard for residential. If single storey dwellings are proposed this is essential. Where this is not possible then a range of measures including flood resilient construction must be considered. This is subject to EA approval and discussions.</p>		
	<p>Historical Flooding The southern edge of the site is located within an area shown to have flooded historically. Investigations in to historical flooding should be included within any site specific FRA.</p>	<p>Flood Defences There are no flood defences close to the site.</p>
	<p>Flood Warning Areas The southern edge of the site is shown as being located within a Flood Warning Area. A Flood Plan should be provided detailing what residents / occupants should do to prepare for flood events, and what to do if the site floods. Safe escape / safe refuge details should be provided as part of a Flood Plan with information on the EA Flood Warning system.</p>	

<p>Site Name: 15 – Land between Barrel Hill Road and Great North Road Location: Sutton-on-Trent (OS Grid Ref: 479475, 365605)</p>		
<p>Site Size: 0.69 hectares</p>	<p>Flood Risk Assessment Requirements:</p> <p>As the site is less than 1ha in size the EA will not require an FRA, however Newark and Sherwood DC may require an assessment on the impacts from surface water, with a drainage strategy provided to ensure that the development does not flood during low annual probability rainfall events or exacerbate the flood risk off site.</p> <p>The LLFA or IDB consent will be required prior to any increases in surface water discharge from the site being made to any increase in surface water discharge from the site being made to any watercourse, other than designated main river, which would require EA consent.</p>	
<p>Existing Site Use: Greenfield</p>		
<p>Proposed Site Use: Residential</p>		
<p>Vulnerability Classification: More Vulnerable</p>		
<p>Surface Water Flood Risk:</p> <p>The locally agreed surface water information maps indicate the site is located in an area susceptible to surface water flooding to an intermediate level. Therefore, further assessment of surface water flood risk should be included with the site specific flood risk assessment.</p> <p>Proposed surface water drainage is a key factor to the viability of the project and must not place extra pressure on the existing drainage regime.</p>	<p>Flood Map</p> <p>The site is located entirely within Flood Zone 1.</p>	<p>Functional Floodplain</p> <p>The site is located outside the functional floodplain.</p>
<p>Safe Access and Egress:</p> <p>Not relevant to this site.</p>		
<p>Minimum Finished Floor Levels:</p> <p>It is advisable for finished floor levels to be 150-300mm above ground levels to ensure that any surface water flooding would not enter properties and cause damage.</p>	<p>Historical Flooding</p> <p>No records of historical flooding have been received for the site. This does not mean that flooding has not occurred as these events may not have been recorded. Investigations into historical flooding of the area should be undertaken as part of a site specific FRA. NAIDB has records that 22 properties in Sutton on Trent reported flooding during the June 2007 event.</p>	<p>Flood Warning Areas</p> <p>The eastern edge of the site is shown as being located within a Flood Warning Area.</p> <p>Flood Defences</p> <p>There are no flood defences close to the site. The IDB maintain a number of raised defences which developers should identify in a site specific FRA.</p>

<p>Site Name: 16 – Land off First Holme Lane Location: Sutton-on-Trent (OS Grid Ref: 480142, 365821)</p>	<p>Flood Risk Assessment Requirements:</p> <p>Any sites located within Flood Zone 2 or 3 regardless of size will require an FRA. Climate change should be taken in to account when assessing flood risk from any source. The lifetime of the development will guide the allowance required for climate change, in accordance with the NPPF.</p> <p>Flood risk from surface water will need to be assessed as part of any FRA, with a drainage strategy provided to ensure that the development does not flood during low annual probability rainfall events or exacerbate the flood risk off site. The sequential Approach will need to be applied with no development located within the Zone 3 extent.</p> <p>The site is located within the TVIDB district and has a board maintained watercourse along its eastern boundary. The TVIDB will seek to establish an easement strip alongside this watercourse. The Board's consent will be required to any works in, over, under or within 9.0m of top, or, where the watercourse is culverted, the outside edge of the pipe. The LLFA or IDB consent will be required prior to any increases in surface water discharge from the site being made to any watercourse, other than designated main river, which would require EA consent.</p>		
<p>Site Size: 0.92 hectares</p>	<p>Surface Water Flood Risk:</p> <p>The locally agreed surface water information maps indicate the site is located in an area susceptible to surface water flooding to an intermediate level. Therefore, further assessment of surface water flood risk should be included with the site specific flood risk assessment.</p> <p>Proposed surface water drainage is a key factor to the viability of the project and must not place extra pressure on the existing drainage regime.</p>	<p>Flood Map</p> <p>The site is located entirely within Flood Zone 2 and 3. Approximately 45% of the site is located within Flood Zone 3.</p>	<p>Functional Floodplain</p> <p>The site is located outside the functional floodplain.</p>
<p>Existing Site Use: Greenfield</p>	<p>Safe Access and Egress:</p> <p>Safe / dry access and egress should be provided for all future residents of the site. Residents should be directed away from off-site flood areas.</p> <p>It is likely land raising will be required to levels above the associated flood depth to provide safe refuge during times of flood (should safe access and egress not be possible).</p> <p>Hazard Mapping is not available for the site therefore flood depths, velocities and time to inundation is not available. Should the site be put forward for development hazard mapping will be required for safe access and egress to be assessed.</p>		
<p>Proposed Site Use: 17 Dwellings</p>	<p>Minimum Finished Floor Levels:</p> <p>Finished floor levels must be set above the maximum flood depth, the EA general requirement is a 600mm freeboard for residential. If single storey dwellings are proposed this is essential. Where this is not possible then a range of measures including flood resilient construction must be considered.</p> <p>This is subject to EA approval and discussions.</p>	<p>Historical Flooding</p> <p>No records of historical flooding have been received for the site. This does not mean that flooding has not occurred as these events may not have been recorded. Investigations into historical flooding of the area should be undertaken as part of a site specific FRA. NAIDB has records that 22 properties in Sutton on Trent reported flooding during the June 2007 event</p>	<p>Flood Defences</p> <p>Flood defences are located to the east and north of the site. The IDB maintain a number of raised defences which developers should identify in a site specific FRA.</p>

<p>Site Name: 17 – North Brooklands Close Location: Collingham (OS Grid Ref: 483072, 362488)</p>			
<p>Site Size: 0.54 hectares</p>	<p>Flood Risk Assessment Requirements: Any sites located within Flood Zone 2 or 3 regardless of size will require an FRA. Climate change should be taken in to account when assessing flood risk from any source. The lifetime of the development will guide the allowance required for climate change, in accordance with the NPPF.</p> <p>Flood risk from surface water will need to be assessed as part of any FRA, with a drainage strategy provided to ensure that the development does not flood during low annual probability rainfall events or exacerbate the flood risk off site. The sequential Approach will need to be applied with no development located within the Zone 3 extent.</p> <p>The site is located within Trent Valley Internal Drainage Board's (TVIDB) district and has a board maintained watercourse along its eastern boundary. The TVIDB will seek to establish an easement strip alongside this watercourse. The Board's consent will be required to any works in, over, under or within 9.0m of top, or, where the watercourse is culverted, the outside edge of the pipe. The LLFA or IDB consent will be required prior to any increases in surface water discharge from the site being made to any watercourse, other than a designated main river, which would require EA consent.</p>		
<p>Existing Site Use: Greenfield</p>			
<p>Proposed Site Use: Residential</p>			
<p>Vulnerability Classification: More Vulnerable</p>			
<p>Surface Water Flood Risk: The locally agreed surface water information maps indicate the site is located in an area susceptible to surface water flooding between intermediate to more level. Therefore, further assessment of surface water flood risk should be included with the site specific flood risk assessment.</p> <p>Proposed surface water drainage is a key factor to the viability of the project and must not place extra pressure on the existing drainage regime.</p>	<p>Flood Map The site is located entirely within Flood Zone 2 and 3. Approximately 45% of the site is located within Flood Zone 3.</p>	<p>Functional Floodplain The site is located outside the functional floodplain.</p>	
<p>Safe Access and Egress: Safe / dry access and egress should be provided for all future residents of the site. Residents should be directed away from off-site flood areas.</p>			
<p>It is likely land raising will be required to levels above the associated flood depth to provide safe refuge during times of flood (should safe access and egress not be possible). Hazard Mapping is not available for the site therefore flood depths, velocities and time to inundation is not available. Should the site be put forward for development hazard mapping will be required for safe access and egress to be assessed.</p>			
<p>Minimum Finished Floor Levels: Finished floor levels must be set above the maximum flood depth, the EA general requirement is a 600mm freeboard for residential. If single storey dwellings are proposed this is essential. Where this is not possible then a range of measures including flood resilient construction must be considered.</p> <p>This is subject to EA approval and discussions.</p>	<p>Historical Flooding The entire site is located within areas recorded as flooding historically. Investigations of historical flooding will be required as part of a site specific FRA.</p>	<p>Flood Warning Areas The eastern end of the site is located within a Flood Warning Area. A Flood Plan should be provided detailing what residents / occupants should do to prepare for flood events, and what to do if the development floods. Safe escape / safe refuge details should be provided as part of a Flood Plan along with information on the EA Flood Warning system.</p>	<p>Flood Defences No flood defences are located close to the site. The IDB maintain a number of raised defences which developers should identify in a site specific FRA.</p>

<p>Site Name: 18 – North of Boy Lane Location: Edwinstowe (OS Grid Ref: 462888, 366404)</p>		
<p>Site Size: 1.62 hectares</p>	<p>Flood Risk Assessment Requirements: Any sites located within Flood Zone 2 or 3 regardless of size will require an FRA.</p>	
<p>Existing Site Use: Greenfield</p>	<p>Climate change should be taken in to account when assessing flood risk from any source. The lifetime of the development will guide the allowance required for climate change, in accordance with the NPPF.</p>	
<p>Proposed Site Use: 39 Dwellings</p>	<p>Flood risk from surface water will need to be assessed as part of any FRA, with a drainage strategy provided to ensure that the development does not flood during low annual probability rainfall events or exacerbate the flood risk off-site.</p>	
<p>Vulnerability Classification: More Vulnerable</p>	<p>The sequential approach should be applied to the site whereby development is to be located in Zone 1 area of the site only and to avoid developing within any areas likely to flood. Flood resilient construction should also be considered.</p>	
<p>Surface Water Flood Risk: The locally agreed surface water information maps indicate the site is located in an area susceptible to surface water flooding to an intermediate level. Therefore, further assessment of surface water flood risk should be included with the site specific flood risk assessment incorporating SuDS. Proposed surface water drainage is a key factor to the viability of the project and must not place extra pressure on the existing drainage regime.</p>	<p>Approval will be required from the LLFA or IDB if there is an increase in surface water discharge from the site to any watercourse other than a designated main river. Any discharge of surface water to a main river will require EA consent.</p>	
<p>Safe Access and Egress: Safe / dry access and egress should be provided for all future residents of the site. Residents should be directed away from off-site flood areas.</p>	<p>Flood Map The site is located primarily within Flood Zone 1, with approximately 25% of the site within Flood Zone 2 and 3.</p>	<p>Functional Floodplain The north west end of the site is located within functional floodplain.</p>
<p>Minimum Finished Floor Levels: Finished floor levels must be set above the maximum flood depth, the EA general requirement is a 600mm freeboard for residential. If single storey dwellings are proposed this is essential. Where this is not possible then a range of measures including flood resilient construction must be considered. This is subject to EA approval and discussions.</p>		
<p>Historical Flooding The north western end of the site is located within an area historically recorded as at risk from flooding.</p>	<p>Flood Defences No flood defences are located close to the site.</p>	<p>Flood Defences No flood defences are located close to the site.</p>
	<p>Flood Warning Areas The north-eastern end of the site is located within a Flood Warning Area. A Flood Plan should be provided detailing what residents / occupants should do to prepare for flood events, and what to do if the development floods. Safe escape / safe refuge details should be provided as part of a Flood Plan along with information on the EA Flood Warning system.</p>	

<p>Site Name: 19 – Land East of A1133, North of Collingham / East of Rio Drive Location: Collingham (OS Grid Ref: 483105,361179)</p>		
<p>Site Size: 1.62 hectares</p>	<p>Flood Risk Assessment Requirements:</p>	
<p>Existing Site Use: Greenfield</p>	<p>Any sites located within Flood Zone 2 or 3 regardless of size will require an FRA. Climate change should be taken in to account when assessing flood risk from any source. The lifetime of the development will guide the allowance required for climate change, in accordance with the NPPF.</p>	
<p>Proposed Site Use: Residential</p>	<p>Flood risk from surface water will need to be assessed as part of any FRA, with a drainage strategy provided to ensure that the development does not flood during low annual probability rainfall events or exacerbate the flood risk off site. The sequential Approach will need to be applied with no development located within the Zone 3 extent.</p>	
<p>Vulnerability Classification: More Vulnerable</p>	<p>The site is located within Trent Valley Internal Drainage Board's (TVIDB) district and has a board maintained watercourse along its eastern boundary. The TVIDB will seek to establish an easement strip alongside this watercourse. The Board's consent will be required to any works in, over, under or within 9.0m of top, or, where the watercourse is culverted, the outside edge of the pipe. The LLFA or IDB consent will be required prior to any increases in surface water discharge from the site being made to any watercourse, other than designated main river, which would require EA consent.</p>	
<p>Surface Water Flood Risk:</p> <p>The locally agreed surface water information maps indicate the site is located in an area susceptible to surface water flooding to an intermediate level. Therefore, further assessment of surface water flood risk should be included with the site specific flood risk assessment.</p> <p>Proposed surface water drainage is a key factor to the viability of the project and must not place extra pressure on the existing drainage regime.</p>		
<p>Safe Access and Egress:</p>	<p>Flood Map</p> <p>The site is located partly within Flood Zone 1, with approximately 40% of the site within Flood Zone 2 and 20% of the site within Flood Zone 3.</p>	<p>Functional Floodplain</p> <p>The site is not located within functional floodplain.</p>
<p>Safe / dry access and egress should be provided for all future residents of the site. Residents should be directed away from off-site flood areas.</p> <p>Hazard Mapping is not available for the site therefore flood depths, velocities and time to inundation is not available. Should the site be put forward for development hazard mapping will required for safe access and egress to be assessed.</p>		
<p>Minimum Finished Floor Levels:</p> <p>Finished floor levels must be set above the maximum flood depth, the EA general requirement is a 600mm freeboard for residential. If single storey dwellings are proposed this is essential. Where this is not possible then a range of measures including flood resilient construction must be considered.</p> <p>This is subject to EA approval and discussions.</p>	<p>Historical Flooding</p> <p>Records of historical flooding show flooding within the western half of the site. Investigations in to historical flooding are required as part of a site specific FRA.</p>	<p>Flood Defences</p> <p>No flood defences are located close to the site. The IDB maintain a number of raised defences which developers should identify in a site specific FRA.</p>
	<p>Flood Warning Areas</p> <p>There is no flood warning area covering the site. A Flood Plan should be provided detailing what residents / occupants should do to prepare for flood events, and what to do if the development floods. Safe escape / safe refuge details should be provided as part of a Flood Plan along with information on the EA Flood Warning system.</p>	

<p>Site Name: 20 – Field to South of South End, Collingham / West of Cottage Lane Location: Collingham (OS Grid Ref: 482514, 361088)</p>		
<p>Site Size: 2.03 hectares</p>	<p>Flood Risk Assessment Requirements:</p> <p>Any sites located within Flood Zone 2 or 3 regardless of size will require an FRA. Climate change should be taken in to account when assessing flood risk from any source. The lifetime of the development will guide the allowance required for climate change, in accordance with the NPPF.</p> <p>Flood risk from surface water will need to be assessed as part of any FRA, with a drainage strategy provided to ensure that the development does not flood during low annual probability rainfall events or exacerbate the flood risk off site. The sequential Approach will need to be applied with no development located within the Zone 3 extent.</p> <p>The site is located within Trent Valley Internal Drainage Board's (TVIDB) district and has a board maintained watercourse along its eastern boundary. The TVIDB will seek to establish an easement strip alongside this watercourse. The Board's consent will be required to any works in, over, under or within 9.0m of top, or, where the watercourse is culverted, the outside edge of the pipe. The LLFA or IDB consent will be required prior to any increases in surface water discharge from the site being made to any watercourse, other than designated main river, which would require EA consent.</p>	
<p>Existing Site Use: Greenfield</p>		
<p>Proposed Site Use: Residential</p>		
<p>Vulnerability Classification: More Vulnerable</p>		
<p>Surface Water Flood Risk:</p> <p>The locally agreed surface water information maps indicate the site is in close proximity to an area susceptible to surface water flooding to an intermediate level. Therefore, further assessment of surface water flood risk should be included with the site specific flood risk assessment.</p> <p>Proposed surface water drainage is a key factor to the viability of the project and must not place extra pressure on the existing drainage regime.</p>	<p>Flood Map</p> <p>The site is located partly within Flood Zone 1, with approximately 50% of the site within Flood Zone 2 and 15% of the site within Flood Zone 3.</p>	<p>Functional Floodplain</p> <p>The western end of the site is located within functional floodplain.</p>
<p>Safe Access and Egress:</p> <p>Safe / dry access and egress should be provided for all future residents of the site. Residents should be directed away from off-site flood areas.</p> <p>Safe access appears viable to the south-east of the site based on the hazard mapping for the site.</p>		
<p>Minimum Finished Floor Levels:</p> <p>Finished floor levels must be set above the maximum flood depth, the EA general requirement is a 600mm freeboard for residential. If single storey dwellings are proposed this is essential. Where this is not possible then a range of measures including flood resilient construction must be considered.</p> <p>This is subject to EA approval and discussions.</p>	<p>Historical Flooding</p> <p>Records of historical flooding show flooding within the western half of the site.</p>	<p>Flood Defences</p> <p>No flood defences are located close to the site. The IDB maintain a number of raised defences which developers should identify in a site specific FRA.</p>
	<p>Flood Warning Areas</p> <p>There is no flood warning area covering the site. A Flood Plan should be provided detailing what residents / occupants should do to prepare for flood events, and what to do if the development floods. Safe escape / safe refuge details should be provided as part of a Flood Plan along with information on the EA Flood Warning system.</p>	

Site Name:
Location:

20 – Field to South of South End, Collingham / West of Cottage Lane
Collingham (OS Grid Ref: 482514, 361088)



100CC - Depth

It can be seen on Figure 1647-F-1.1 that the site is located within an area that would be inundated by water to a depth of between 1 and 2m+.

100CC - Velocity

When referencing Figure 1647-F-2.1 it can be seen that the site experiences velocities of flood water between 0.3 to 1.0 m/s.

100CC - Hazard

With reference to Figure 1647-F-3.1 it can be seen that the site is located within an area of greater than 2m (Danger for All) as defined by FD2320 Flood Risk to People.

100CC - Time to Inundation

TO BE MODELLED.



1000 - Depth

It can be seen on Figure 1647-F-1.2 that the site is located within an area that would be inundated by water to a depth of between 1 and 2m+.

1000 - Velocity

When referencing Figure 1647-F-2.2 it can be seen that the site experiences velocities of flood water between 0.3 to 2.5 m/s.

1000 - Hazard

With reference to Figure 1647-F-3.2 it can be seen that the site is located within an area of greater than 2m (Danger for All) as defined by FD2320 Flood Risk to People.

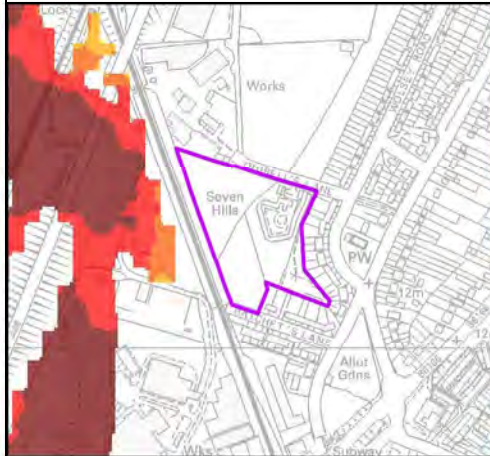
1000 - Time to Inundation

TO BE MODELLED.

<p>Site Name: 21 – Seven Hills / Quibells Lane Location: Newark-on-Trent (OS Grid Ref: 480343,355158)</p>			
<p>Site Size: 2.33 hectares</p>	<p>Flood Risk Assessment Requirements: Any sites located within Flood Zone 2 or 3 regardless of size will require an FRA.</p>		
<p>Existing Site Use: Brownfield</p>	<p>Climate change should be taken in to account when assessing flood risk from any source. The lifetime of the development will guide the allowance required for climate change, in accordance with the NPPF.</p>		
<p>Proposed Site Use: 37 / 49 Dwellings</p>	<p>Flood risk from surface water will need to be assessed as part of any FRA, with a drainage strategy provided to ensure that the development does not flood during low annual probability rainfall events or exacerbate the flood risk off-site.</p>		
<p>Vulnerability Classification: More Vulnerable</p>	<p>The sequential approach should be applied to the site whereby more vulnerable development is to be located in lower risk flood areas and to avoid developing within any areas likely to flood. Flood resilient construction should also be considered.</p>		
<p>Surface Water Flood Risk: The locally agreed surface water information maps indicate the site is located in proximity to an area susceptible to surface water flooding to an intermediate level. Therefore, further assessment of surface water flood risk should be included with the site specific flood risk assessment. Proposed surface water drainage is a key factor to the viability of the project and must not place extra pressure on the existing drainage regime.</p>	<p>Approval will be required from the LLFA or IDB if there is an increase in surface water discharge from the site to any watercourse other than a designated main river. Any discharge of surface water to a main river will require EA consent.</p>		
<p>Safe Access and Egress: The approach should be taken whereby access to and from the site is away from the area shown as located within the flood extent. This area should be free from development. Safe access appears viable to the south-east of the site based on the hazard mapping for the site.</p>	<p>Flood Map The site is primarily located (approximately 80%) within Flood Zone 2, with a small portion of the site within Flood Zone 1. The site will therefore need to be assessed based on Flood Zone 2 criteria.</p> <p>Functional Floodplain The site is located outside the functional floodplain.</p>		
<p>Minimum Finished Floor Levels: Finished floor levels must be set above the maximum flood depth, the EA general requirement is a 600mm freeboard for residential. If single storey dwellings are proposed this is essential. Where this is not possible then a range of measures including flood resilient construction must be considered. This is subject to EA approval and discussions.</p>			
	<p>Historical Flooding Records of historical flooding show flooding within the northern part of the site.</p>	<p>Flood Warning Areas There is no flood warning area covering the site. A Flood Plan should be provided detailing what residents / occupants should do to prepare for flood events, and what to do if the development floods. Safe escape / safe refuge details should be provided as part of a Flood Plan along with information on the EA Flood Warning system.</p>	<p>Flood Defences No flood defences are located close to the site.</p>

Site Name:
Location:

21 – Seven Hills / Quibells Lane
Newark-on-Trent (OS Grid Ref: 480343,355158)



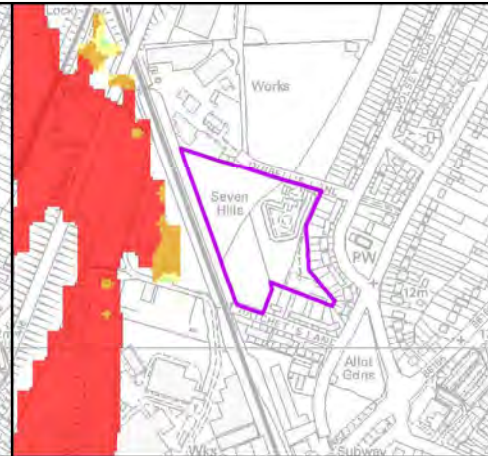
100CC - Depth

It can be seen on Figure 1647-F-1.1 that the site is not located within a hazard extent therefore there are no flood depths associated with the site during the 1 in 100 year plus climate change event.



100CC - Velocity

It can be seen on Figure 1647-F-2.1 that the site is not located within a hazard extent therefore there are no flood depths associated with the site during the 1 in 100 year plus climate change event.



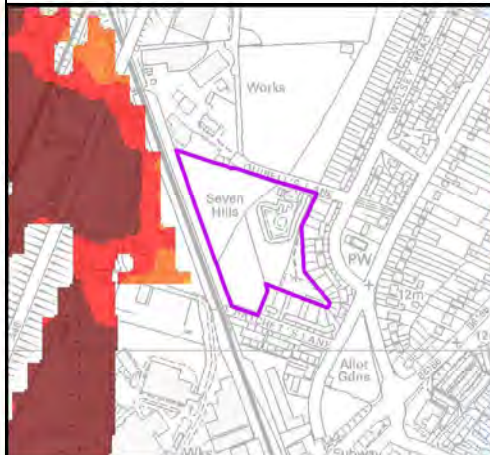
100CC - Hazard

It can be seen on Figure 1647-F-3.1 that the site is not located within a hazard extent therefore there are no flood depths associated with the site during the 1 in 100 year plus climate change event.



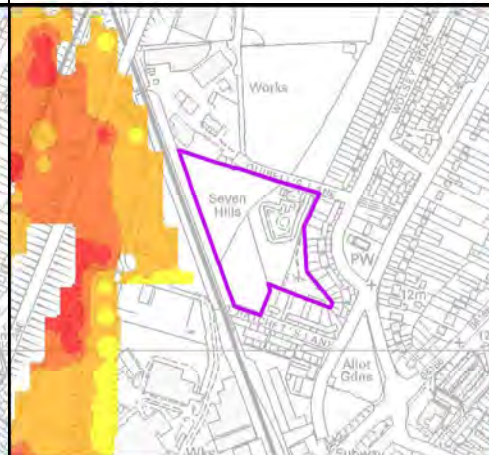
100CC - Time to Inundation

TO BE MODELLED.



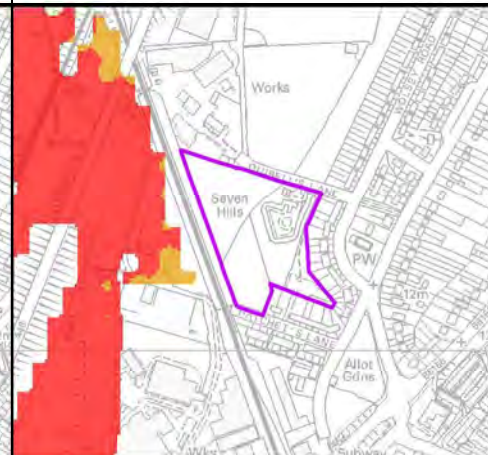
1000 - Depth

It can be seen on Figure 1647-F-1.2 that the site is not located within a hazard extent therefore there are no flood depths associated with the site during the 1 in 1000 year event.



1000 - Velocity

It can be seen on Figure 1647-F-2.2 that the site is not located within a hazard extent therefore there are no flood depths associated with the site during the 1 in 1000 year event.



1000 - Hazard

It can be seen on Figure 1647-F-3.2 that the site is not located within a hazard extent therefore there are no flood depths associated with the site during the 1 in 1000 year event.



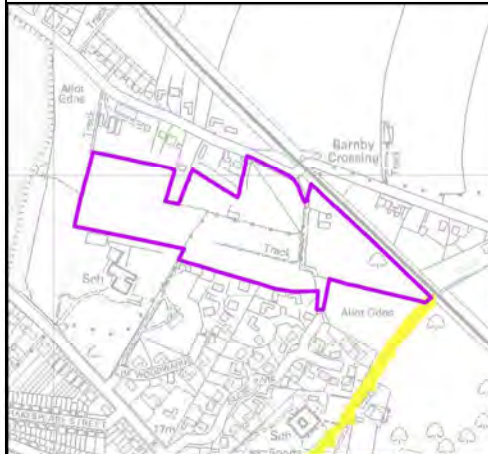
1000 - Time to Inundation

TO BE MODELLED.

<p>Site Name: 22 – Land South of Barnby Road / South of Barnby Road Location: Newark-on-Trent (OS Grid Ref: 481297, 352917)</p>		
<p>Site Size: 6.7 hectares</p>	<p>Flood Risk Assessment Requirements: Any sites located within Flood Zone 2 or 3 regardless of size will require an FRA. Climate change should be taken in to account when assessing flood risk from any source. The lifetime of the development will guide the allowance required for climate change, in accordance with the NPPF. Flood risk from surface water will need to be assessed as part of any FRA, with a drainage strategy provided to ensure that the development does not flood during low annual probability rainfall events or exacerbate the flood risk off-site. The sequential approach should be applied to the site whereby more vulnerable development is to be located in lower risk flood areas and to avoid developing within any areas likely to flood. Flood resilient construction should also be considered. Approval will be required from the LLFA or IDB if there is an increase in surface water discharge from the site to any watercourse other than a designated main river. Any discharge of surface water to a main river will require EA consent.</p>	
<p>Existing Site Use: Greenfield</p>	<p>Flood Map The site is predominantly located within Flood Zone 1, with a small eastern corner of the site within Flood Zone 3.</p>	<p>Functional Floodplain The site is located outside the functional floodplain.</p>
<p>Proposed Site Use: 37 / 49 Dwellings</p>		
<p>Vulnerability Classification: More Vulnerable</p>	<p>Historical Flooding Records of historical flooding show flooding within the northern part of the site.</p>	
<p>Surface Water Flood Risk: The locally agreed surface water information maps indicate the site is located in an area susceptible to surface water flooding to an intermediate level. Therefore, further assessment of surface water flood risk should be included with the site specific flood risk assessment incorporating SuDS. Proposed surface water drainage is a key factor to the viability of the project and must not place extra pressure on the existing drainage regime.</p>	<p>Flood Warning Areas There is no flood warning area covering the site. A Flood Plan should be provided detailing what residents / occupants should do to prepare for flood events, and what to do if the development floods. Safe escape / safe refuge details should be provided as part of a Flood Plan along with information on the EA Flood Warning system.</p>	<p>Flood Defences No flood defences are located close to the site.</p>
<p>Safe Access and Egress: Safe / dry access and egress should be provided for future residents of the site. Residents should be directed away from off-site flood areas. Safe access appears viable to the west / north / south of the site based on the hazard mapping for the site.</p>	<p>Minimum Finished Floor Levels: Finished floor levels must be set above the maximum flood depth, the EA general requirement is a 600mm freeboard for residential. If single storey dwellings are proposed this is essential. Where this is not possible then a range of measures including flood resilient construction must be considered. This is subject to EA approval and discussions.</p>	

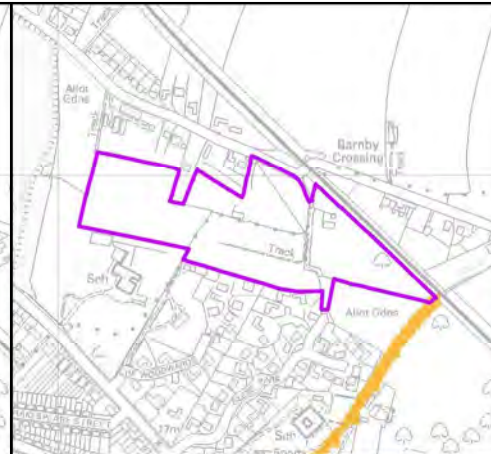
Site Name:
Location:

22 – Land South of Barnby Road / South of Barnby Road
Newark-on-Trent (OS Grid Ref: 481297, 352917)



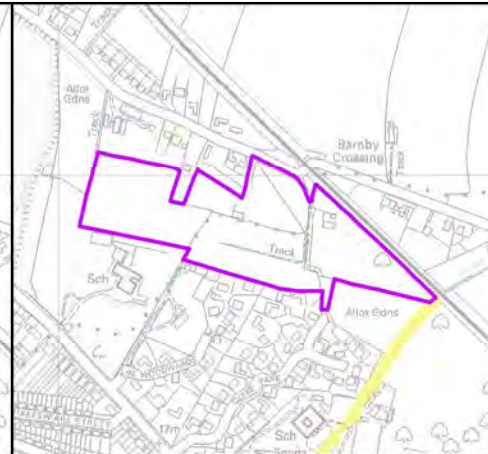
100CC - Depth

The depth mapping shows minimal impact on the site, with a very small element to the east being affected to a maximum depth of 0.25m.



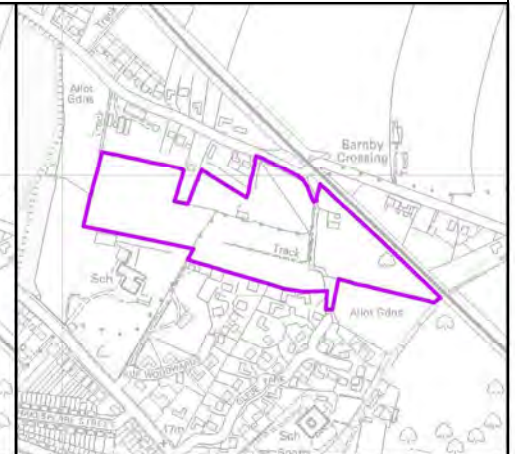
100CC - Velocity

The velocity mapping shows minimal impact on the site, with a very small element to the east being affected to a maximum velocity of 1m/s.



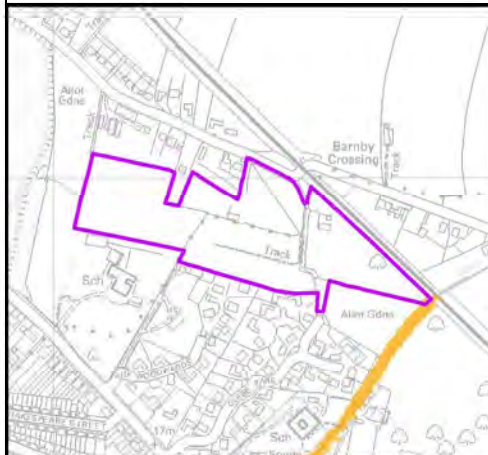
100CC - Hazard

The hazard mapping shows minimal impact on the site, with a very small element to the east being affected to a maximum standard of Danger for Some.



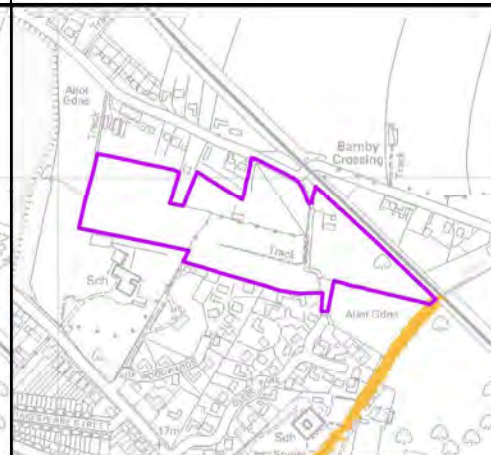
100CC - Time to Inundation

TO BE MODELLED.



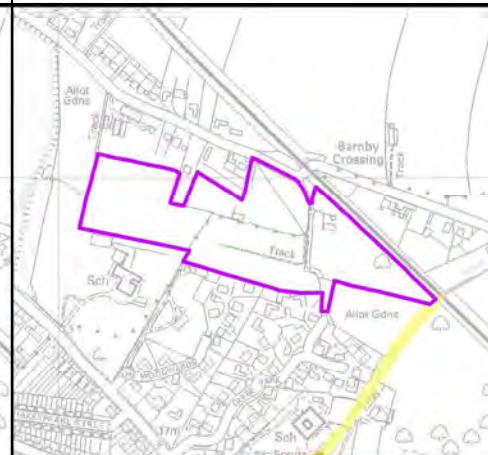
1000 - Depth

The depth mapping shows minimal impact on the site, with a very small element to the east being affected to a maximum depth of 0.5m.



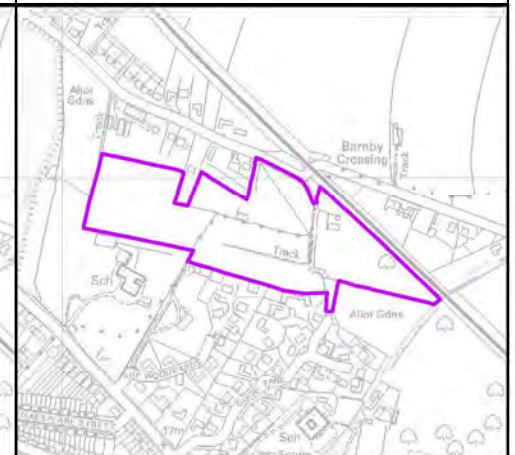
1000 - Velocity

The velocity mapping shows minimal impact on the site, with a very small element to the east being affected to a maximum velocity of 1.0m/s.



1000 - Hazard

The hazard mapping shows minimal impact on the site, with a very small element to the east being affected to a maximum standard of Danger for Some.



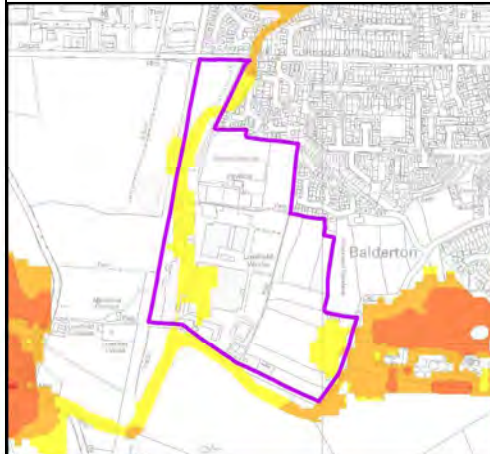
1000 - Time to Inundation

TO BE MODELLED.

<p>Site Name: 23 – Flowserve, Hauton Lane / West of Lowfield Lane Location: Newark-on-Trent (OS Grid Ref: 480801, 351244)</p>		
<p>Site Size: 26.80 hectares</p>	<p>Flood Risk Assessment Requirements: Any sites located within Flood Zone 2 or 3 regardless of size will require an FRA. Climate change should be taken in to account when assessing flood risk from any source. The lifetime of the development will guide the allowance required for climate change, in accordance with the NPPF.</p>	
<p>Existing Site Use: Greenfield</p>	<p>Flood risk from surface water will need to be assessed as part of any FRA, with a drainage strategy provided to ensure that the development does not flood during low annual probability rainfall events or exacerbate the flood risk off site. The sequential Approach will need to be applied with no development located within the Zone 3 extent.</p>	
<p>Proposed Site Use: 210 Dwellings & Employment</p>	<p>The site is located within Trent Valley Internal Drainage Board's (TVIDB) district and has a board maintained watercourse along its eastern boundary. The TVIDB will seek to establish an easement strip alongside this watercourse. The Board's consent will be required to any works in, over, under or within 9.0m of top, or, where the watercourse is culverted, the outside edge of the pipe. The LLFA or IDB consent will be required prior to any increases in surface water discharge from the site being made to any watercourse, other than designated main river, which would require EA consent.</p>	
<p>Vulnerability Classification: More Vulnerable and Less Vulnerable</p>	<p>The site is located within Flood Zone 1, with approximately 30% of the site within Flood Zone 2 and 5% of the site within Flood Zone 3. The site will therefore need to be assessed based on Flood Zone 3 criteria.</p>	
<p>Surface Water Flood Risk: The locally agreed surface water information maps indicate the site is located in an area susceptible to surface water flooding to an intermediate level. Therefore, further assessment of surface water flood risk should be included with the site specific flood risk assessment. Proposed surface water drainage is a key factor to the viability of the project and must not place extra pressure on the existing drainage regime.</p>	<p>Functional Floodplain Functional floodplain runs through the western side of the site.</p>	
<p>Safe Access and Egress: Safe / dry access and egress should be provided for future residents of the site. Residents should be directed away from off-site flood areas. Safe access appears viable to the north-east of the site based on the hazard mapping for the site.</p>		
<p>Minimum Finished Floor Levels: Finished floor levels must be set above the maximum flood depth, the EA general requirement is a 600mm freeboard for residential and 300mm for commercial. If single storey dwellings are proposed this is essential. Where this is not possible then a range of measures including flood resilient construction must be considered. This is subject to EA approval and discussions.</p>	<p>Historical Flooding Records of historical flooding show flooding within the northern part of the site.</p>	
	<p>Flood Warning Areas There is no flood warning area covering the site. A Flood Plan should be provided detailing what residents / occupants should do to prepare for flood events, and what to do if the development floods. Safe escape / safe refuge details should be provided as part of a Flood Plan along with information on the EA Flood Warning system.</p>	<p>Flood Defences No flood defences are located close to the site. The IDB maintain a number of raised defences which developers should identify in a site specific FRA.</p>

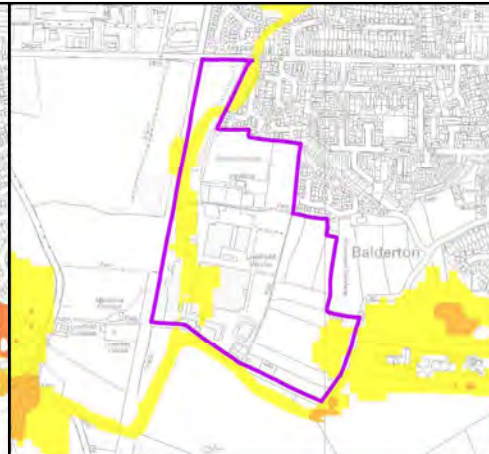
Site Name:
Location:

23 – Flowserve, Houton Lane / West of Lowfield Lane
Newark-on-Trent (OS Grid Ref: 480801, 351244)



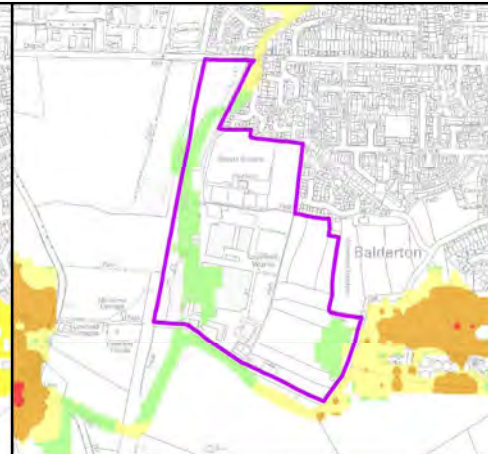
100CC - Depth

It can be seen on Figure 1647-F-1.1 that the site is located within an area that would be inundated by water to a depth of 0.25m apart from a small area to the east which is affected up to 0.5m depth of water.



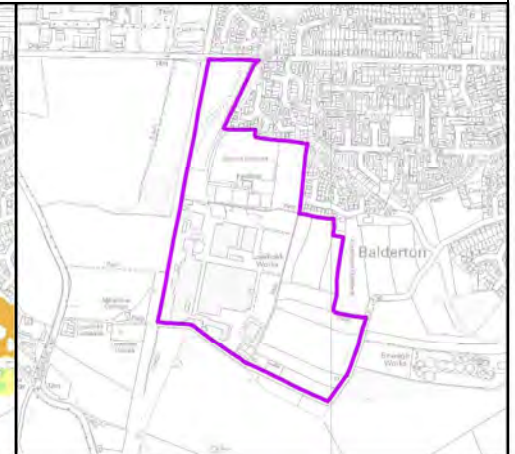
100CC - Velocity

When referencing Figure 1647-F-2.1 it can be seen that the site experiences velocities of flood water between 0 to 0.3 m/s.



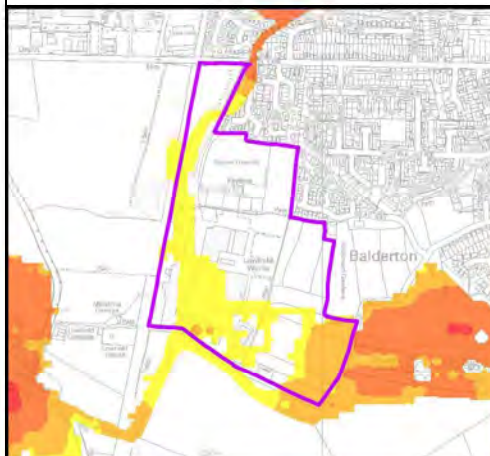
100CC - Hazard

With reference to Figure 1647-F-3.1 it can be seen that the site is located within an area with a hazard rating of up to 1.25 (Danger for Some) as defined by FD2320 Flood Risk to People.



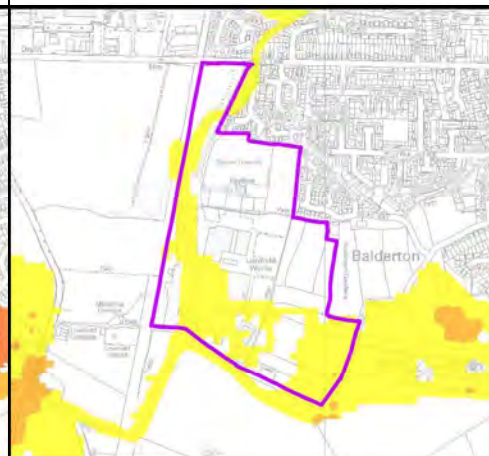
100CC - Time to Inundation

TO BE MODELLED.



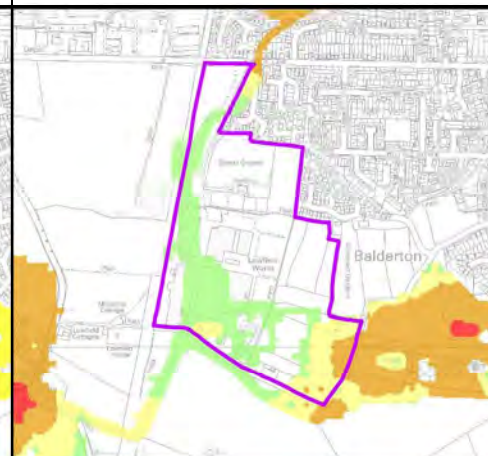
1000 - Depth

It can be seen on Figure 1647-F-1.2 that the site is located within an area that would be inundated by water to a depth of up to 0.5m.



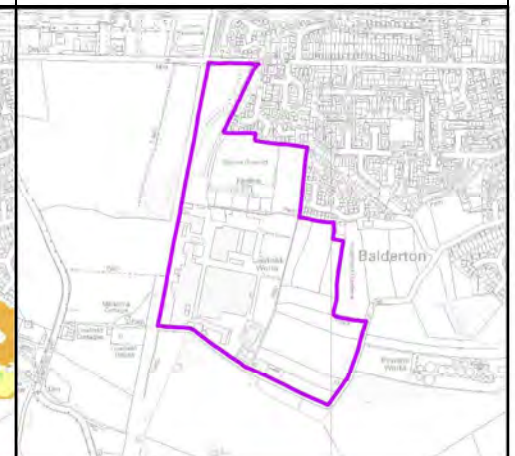
1000 - Velocity

When referencing Figure 1647-F-2.2 it can be seen that the site experiences velocities of flood water between 0 to 0.3 m/s.



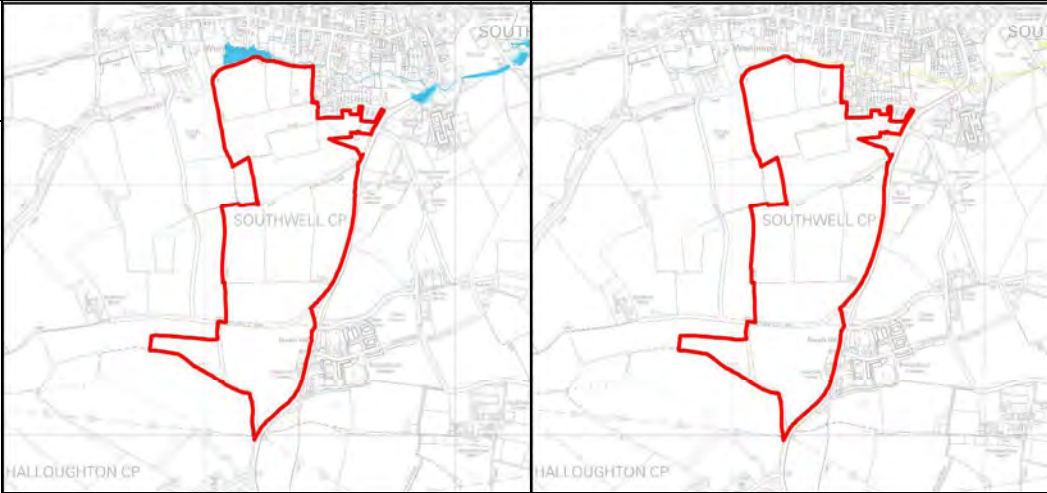
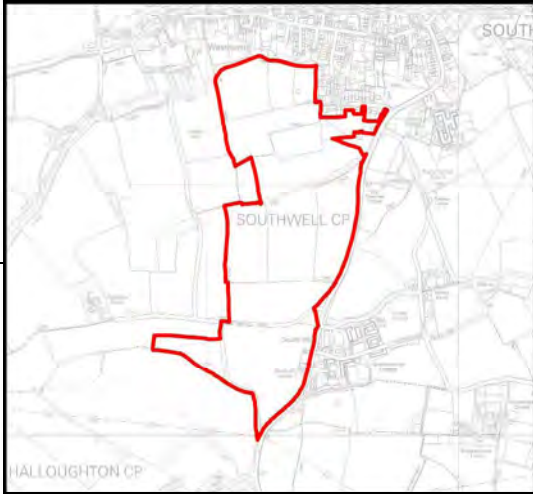

1000 - Hazard

With reference to Figure 1647-F-3.2 it can be seen that the site is located within an area with a hazard rating of up to than 2 (Danger for All) as defined by FD2320 Flood Risk to People.



1000 - Time to Inundation

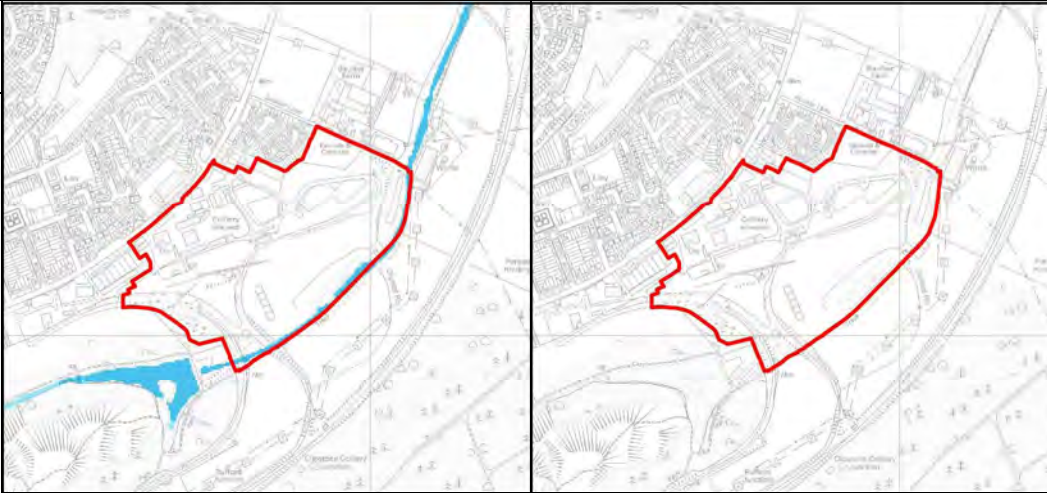

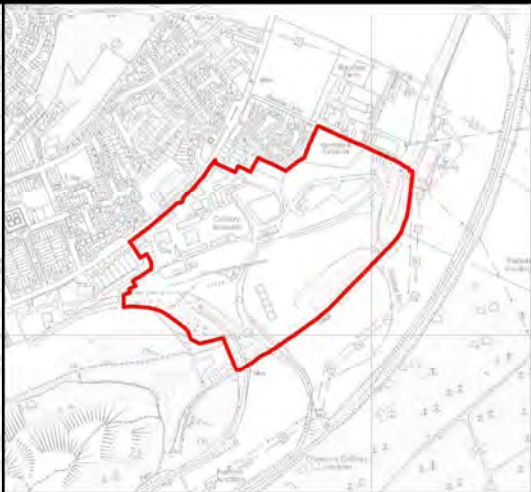
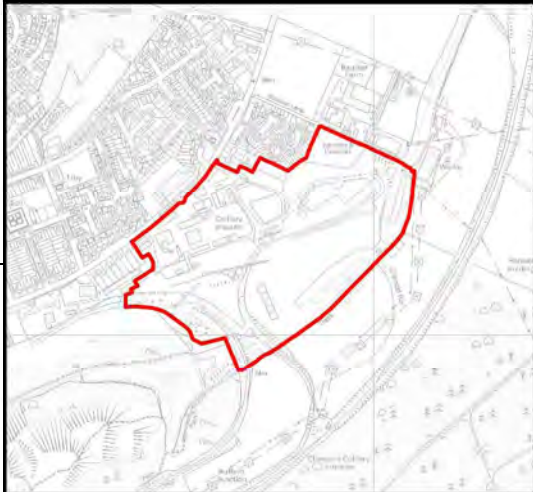

TO BE MODELLED.

<p>Site Name: 24 – Brackenhurst Campus, Nottingham Road / Land off Halloughton Road / South Westthorpe</p> <p>Location: Southwell (OS Grid Ref: 469291, 352813)</p>		
<p>Site Size: 59.72 hectares</p>	<p>Flood Risk Assessment Requirements:</p> <p>A Flood Risk Assessment (FRA) will be required by the Environment Agency for any site over 1 hectare in size. Climate change should be taken in to account when assessing flood risk from any source. The lifetime of the development will guide the allowance required for climate change, in accordance with the NPPF.</p>	
<p>Existing Site Use: Greenfield</p>	<p>Flood risk from surface water will need to be assessed as part of any FRA, with a drainage strategy provided to ensure that the development does not flood during low annual probability rainfall events or exacerbate the flood risk off site.</p>	
<p>Proposed Site Use: Residential</p>	<p>Groundwater flooding has been reported an issue at the site and therefore the proposed FRA must incorporate detail investigations and mitigation to allow for development of the site.</p>	
<p>Vulnerability Classification: More Vulnerable</p>	<p>The site is located within Trent Valley Internal Drainage Board's (TVIDB) district. The LLFA or IDB consent will be required prior to any increases in surface water discharge from the site being made to any increase in surface water discharge from the site being made to any watercourse, other than designated main river, which would require EA consent.</p>	
<p>Surface Water Flood Risk:</p> <p>The locally agreed surface water information maps indicate the site is located adjacent to an area susceptible to surface water flooding to an intermediate level. Therefore, further assessment of surface water flood risk should be included with the site specific flood risk assessment.</p> <p>Proposed surface water drainage is a key factor to the viability of the project and must not place extra pressure on the existing drainage regime.</p>	<p>Flood Map</p> <p>The site is located entirely within Flood Zone 1.</p>	<p>Functional Floodplain</p> <p>There is no functional floodplain located within this site.</p>
<p>Safe Access and Egress:</p> <p>Not relevant to this site.</p>		
<p>Minimum Finished Floor Levels:</p> <p>It is advisable for finished floor levels to be 150 to 300mm above ground levels to ensure that any surface water flooding would not enter properties and cause damage. This is subject to the results from groundwater investigations to the site and agreement with the EA.</p>	<p>Historical Flooding</p> <p>No records of historical flooding are shown for this site. This does not mean that flooding has not occurred as these events may not have been recorded. Investigations into historical flooding of the area should be undertaken as part of a site specific FRA.</p>	<p>Flood Warning Areas</p> <p>There is no flood warning area covering the site.</p> <p>Flood Defences</p> <p>No flood defences are located close to the site. The IDB maintain a number of raised defences which developers should identify in a site specific FRA.</p>

<p>Site Name: 25 – Land between Bulham Lane & High Street / Land to rear of “Newlands” Location: Sutton-on-Trent (OS Grid Ref: 479660, 366105)</p>		
<p>Site Size: 7.83 hectares</p>	<p>Flood Risk Assessment Requirements:</p> <p>Any sites located within Flood Zone 2 or 3 regardless of size will require an FRA. Climate change should be taken in to account when assessing flood risk from any source. The lifetime of the development will guide the allowance required for climate change, in accordance with the NPPF.</p> <p>Flood risk from surface water will need to be assessed as part of any FRA, with a drainage strategy provided to ensure that the development does not flood during low annual probability rainfall events or exacerbate the flood risk off site. The sequential Approach will need to be applied with development located within the Zone 1 extent only.</p> <p>The site is located within Trent Valley Internal Drainage Board's (TVIDB) district and has a board maintained watercourse along its eastern boundary. The TVIDB will seek to establish an easement strip alongside this watercourse. The Board's consent will be required to any works in, over, under or within 9.0m of top, or, where the watercourse is culverted, the outside edge of the pipe. The LLFA or IDB consent will be required prior to any increases in surface water discharge from the site being made to any watercourse, other than designated main river, which would require EA consent.</p>	
<p>Existing Site Use: Greenfield</p>		
<p>Proposed Site Use: 154 / 15 Dwellings</p>		
<p>Vulnerability Classification: More Vulnerable</p>		
<p>Surface Water Flood Risk:</p> <p>The locally agreed surface water information maps indicate the site is located in an area susceptible to surface water flooding to an intermediate level. Therefore, further assessment of surface water flood risk should be included with the site specific flood risk assessment incorporating SuDS.</p> <p>Proposed surface water drainage is a key factor to the viability of the project and must not place extra pressure on the existing drainage regime. The drainage is subject to EA and IDB consent.</p>	<p>Flood Map</p> <p>The site is primarily located within Flood Zone 1, with the eastern 5% of the site being located within Flood Zone 2.</p>	<p>Functional Floodplain</p> <p>There is no functional floodplain located within this site.</p>
<p>Safe Access and Egress:</p> <p>The approach should be taken whereby access to and from the site is away from the area shown as located within the flood extent. This area should be free from development.</p>		
<p>Minimum Finished Floor Levels:</p> <p>Finished floor levels must be set above the maximum flood depth, the EA general requirement is a 600mm freeboard for residential. If single storey dwellings are proposed this is essential. Where this is not possible then a range of measures including flood resilient construction must be considered.</p> <p>This is subject to EA approval and discussions.</p>	<p>Historical Flooding</p> <p>Records of historical flooding show flooding within the western part of the site. Investigations into historical flooding of the area should be undertaken as part of a site specific FRA. NAIDB has records that 22 properties in Sutton on Trent reported flooding during the June 2007 event</p>	<p>Flood Warning Areas</p> <p>Most of the site is located within a Flood Warning Area. A Flood Plan should be provided detailing what residents / occupants should do to prepare for flood events, and what to do if the development floods. Safe escape / safe refuge details should be provided as part of a Flood Plan along with information on the EA Flood Warning system.</p>
		<p>Flood Defences</p> <p>No flood defences are located close to the site. The IDB maintain a number of raised defences which developers should identify in a site specific FRA.</p>

<p>Site Name: 26 – Land Rear of Holme View / Hemplands Land, Land off Great North Rd Location: Sutton on Trent (OS Grid Ref: 479676, 365745)</p>			
<p>Site Size: 5.96 hectares</p>	<p>Flood Risk Assessment Requirements:</p>		
<p>Existing Site Use: Greenfield</p>	<p>Any sites located within Flood Zone 2 or 3 regardless of size will require an FRA. Climate change should be taken in to account when assessing flood risk from any source. The lifetime of the development will guide the allowance required for climate change, in accordance with the NPPF.</p>		
<p>Proposed Site Use: Residential</p>	<p>Flood risk from surface water will need to be assessed as part of any FRA, with a drainage strategy provided to ensure that the development does not flood during low annual probability rainfall events or exacerbate the flood risk off site. The sequential Approach will need to be applied with development located within the Zone 1 extent only.</p>		
<p>Vulnerability Classification: More Vulnerable</p>	<p>The site is located within Trent Valley Internal Drainage Board's (TVIDB) district and has a board maintained watercourse along its eastern boundary. The TVIDB will seek to establish an easement strip alongside this watercourse. The Board's consent will be required to any works in, over, under or within 9.0m of top, or, where the watercourse is culverted, the outside edge of the pipe. The LLFA or IDB consent will be required prior to any increases in surface water discharge from the site being made to any watercourse, other than designated main river, which would require EA consent.</p>		
<p>Surface Water Flood Risk:</p> <p>The locally agreed surface water information maps indicate the site is located in an area susceptible to surface water flooding to an intermediate level. Therefore, further assessment of surface water flood risk should be included with the site specific flood risk assessment.</p> <p>Proposed surface water drainage is a key factor to the viability of the project and must not place extra pressure on the existing drainage regime. The drainage is subject to EA and IDB consent.</p>			
<p>Safe Access and Egress:</p> <p>The approach should be taken whereby access to and from the site is away from the area shown as located within the flood extent. This area should be free from development.</p>	<p>Flood Map</p> <p>The site is primarily located within Flood Zone 1, with less than 1% of the western edge of the site being located within Flood Zone 2.</p> <p>Functional Floodplain</p> <p>There is no functional floodplain located within this site.</p>		
<p>Minimum Finished Floor Levels:</p> <p>Finished floor levels must be set above the maximum flood depth, the EA general requirement is a 600mm freeboard for residential. If single storey dwellings are proposed this is essential. Where this is not possible then a range of measures including flood resilient construction must be considered.</p> <p>This is subject to EA approval and discussions.</p>			
<p>Historical Flooding</p> <p>Records of historical flooding show flooding within the western part of the site. A full investigation of these fluvial flood records should be carried out within a site specific FRA. NAIDB has records that 22 properties in Sutton on Trent reported flooding during the June 2007 event</p>			
<p>Flood Defences</p> <p>No flood defences are located close to the site. The IDB maintain a number of raised defences which developers should identify in a site specific FRA.</p>	<p>Flood Warning Areas</p> <p>Most of the site is located within a Flood Warning Area. A Flood Plan should be provided detailing what residents / occupants should do to prepare for flood events, and what to do if the development floods. Safe escape / safe refuge details should be provided as part of a Flood Plan along with information on the EA Flood Warning system.</p>		

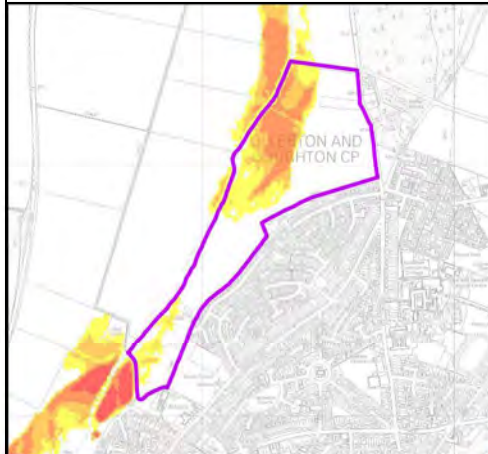
<p>Site Name: 27 – Millfield, Main Street / Land at Rear of 24 Main Street Location: Sutton-on-Trent (OS Grid Ref: 479858, 365383)</p>		
<p>Site Size: 4.84 hectares</p>	<p>Flood Risk Assessment Requirements:</p> <p>Any sites located within Flood Zone 2 or 3 regardless of size will require an FRA. Climate change should be taken in to account when assessing flood risk from any source. The lifetime of the development will guide the allowance required for climate change, in accordance with the NPPF.</p> <p>Flood risk from surface water will need to be assessed as part of any FRA, with a drainage strategy provided to ensure that the development does not flood during low annual probability rainfall events or exacerbate the flood risk off site. The sequential Approach will need to be applied with development located within the Zone 1 extent only.</p> <p>The site is located within Trent Valley Internal Drainage Board's (TVIDB) district and has a board maintained watercourse along its eastern boundary. The TVIDB will seek to establish an easement strip alongside this watercourse. The Board's consent will be required to any works in, over, under or within 9.0m of top, or, where the watercourse is culverted, the outside edge of the pipe. The LLFA or IDB consent will be required prior to any increases in surface water discharge from the site being made to any watercourse, other than designated main river, which would require EA consent.</p>	
<p>Existing Site Use: Greenfield</p>		
<p>Proposed Site Use: Residential</p>		
<p>Vulnerability Classification: More Vulnerable</p>		
<p>Surface Water Flood Risk:</p> <p>The locally agreed surface water information maps indicate the site is located in an area susceptible to surface water flooding to an intermediate level. Therefore, further assessment of surface water flood risk should be included with the site specific flood risk assessment.</p> <p>Proposed surface water drainage is a key factor to the viability of the project and must not place extra pressure on the existing drainage regime. The drainage is subject to EA and IDB consent.</p>	<p>Flood Map</p> <p>The site is primarily located within Flood Zone 1, with approximately 10% of the site being located within Flood Zone 2.</p>	<p>Functional Floodplain</p> <p>There is no functional floodplain located within this site.</p>
<p>Safe Access and Egress:</p> <p>The approach should be taken whereby access to and from the site is away from the area shown as located within the flood extent. This area should be free from development.</p>		
<p>Minimum Finished Floor Levels:</p> <p>Finished floor levels must be set above the maximum flood depth, the EA general requirement is a 600mm freeboard for residential. If single storey dwellings are proposed this is essential. Where this is not possible then a range of measures including flood resilient construction must be considered.</p> <p>This is subject to EA approval and discussions.</p>	<p>Historical Flooding</p> <p>Records of historical flooding show flooding within the eastern part of the site. A fluvial flood event has also been recorded to the north of the site. A full investigation of this fluvial flood records should be carried out within a site specific FRA. NAIDB has records that 22 properties in Sutton on Trent reported flooding during the June 2007 event</p>	<p>Flood Defences</p> <p>No flood defences are located close to the site. The IDB maintain a number of raised defences which developers should identify in a site specific FRA.</p>

<p>Site Name: 28 – Former Clipstone Colliery Location: Clipstone (OS Grid Ref: 459735, 363241)</p>		
<p>Site Size: 28.03 hectares</p>	<p>Flood Risk Assessment Requirements: Any sites located within Flood Zone 2 or 3 regardless of size will require an FRA. Climate change should be taken in to account when assessing flood risk from any source. The lifetime of the development will guide the allowance required for climate change, in accordance with the NPPF. Flood risk from surface water will need to be assessed as part of any FRA, with a drainage strategy provided to ensure that the development does not flood during low annual probability rainfall events or exacerbate the flood risk off-site. The sequential approach should be applied to the site whereby development is to be located in Zone 1 area of the site only and to avoid developing within any areas likely to flood. Flood resilient construction should also be considered. Approval will be required from the LLFA or IDB if there is an increase in surface water discharge from the site to any watercourse other than a designated main river. Any discharge of surface water to a main river will require EA consent.</p>	
<p>Existing Site Use: Greenfield</p>	<p>Flood Map The site is primarily located within Flood Zone 1, with approximately 3% of the site along the eastern edge being located within Flood Zone 2 and 3.</p>	<p>Functional Floodplain There is no functional floodplain located within this site.</p>
<p>Proposed Site Use: 800 Dwellings</p>	<p>Safe Access and Egress: The approach should be taken whereby access to and from the site is away from the area shown as located within the flood extent. This area should be free from development.</p>	
<p>Vulnerability Classification: More Vulnerable</p>		
<p>Surface Water Flood Risk: Proposed surface water drainage is a key factor to the viability of the project and must not place extra pressure on the existing drainage regime. The drainage is subject to EA consent.</p>	<p>Historical Flooding No records of historical flooding have been received for the site. This does not mean that flooding has not occurred as these events may not have been recorded. Investigations into historical flooding of the area should be undertaken as part of a site specific FRA.</p>	<p>Flood Warning Areas The site is not covered by a Flood Warning Area. A flood Plan should be provided detailing what residents / occupants should do to prepare for flood events, and what to do if the development floods. Safe escape / safe refuge details should be provided as part of a Flood Plan.</p>
<p>Minimum Finished Floor Levels: Finished floor levels must be set above the maximum flood depth, the EA general requirement is a 600mm freeboard for residential. If single storey dwellings are proposed this is essential. Where this is not possible then a range of measures including flood resilient construction must be considered. This is subject to EA approval and discussions.</p>	<p>Flood Defences No flood defences are located close to the site.</p>	

<p>Site Name: 29 – Land off Whitney Lane Location: Ollerton and Boughton (OS Grid Ref: 466256, 368875)</p>		
<p>Site Size: 37.75 hectares</p>	<p>Flood Risk Assessment Requirements: Any sites located within Flood Zone 2 or 3 regardless of size will require an FRA. Climate change should be taken in to account when assessing flood risk from any source. The lifetime of the development will guide the allowance required for climate change, in accordance with the NPPF. Flood risk from surface water will need to be assessed as part of any FRA, with a drainage strategy provided to ensure that the development does not flood during low annual probability rainfall events or exacerbate the flood risk off-site. The sequential approach should be applied to the site whereby development is to be located in Zone 1 area of the site only and to avoid developing within any areas likely to flood. Flood resilient construction should also be considered. Approval will be required from the LLFA or IDB if there is an increase in surface water discharge from the site to any watercourse other than a designated main river. Any discharge of surface water to a main river will require EA consent.</p>	
<p>Existing Site Use: Greenfield</p>	<p>Flood Map The site is partly located within Flood Zone 1, with approximately 50% of the site being located within Flood Zone 2 and 40% of the site being located within Flood Zone 3.</p>	<p>Functional Floodplain A large part of the northern half of the site is located within functional floodplain. This area should be kept free from development.</p>
<p>Proposed Site Use: 900-1500 Dwellings</p>	<p>Safe Access and Egress: The approach should be taken whereby access to and from the site is away from the area shown as located within the flood extent. This area should be free from development. Safe Access and Egress should be directed to the east of the site.</p>	
<p>Vulnerability Classification: More Vulnerable</p>	<p>Historical Flooding Historical flooding is indicated along the western side of the site, with a historical sewer flooding record located just to the east of the site.</p>	<p>Flood Warning Areas The site is covered by a Flood Warning Area. A Flood Plan should be provided detailing what residents / occupants should do to prepare for flood events, and what to do if the development floods. Safe escape / safe refuge details should be provided as part of a Flood Plan along with information on the EA Flood Warning system.</p>
<p>Surface Water Flood Risk: The locally agreed surface water information maps indicate the site is located in an area that has suffered from surface water flooding. Therefore, further assessment of surface water flood risk should be included with the site specific flood risk assessment. Proposed surface water drainage is a key factor to the viability of the project and must not place extra pressure on the existing drainage regime. The drainage is subject to EA consent.</p>	<p>Minimum Finished Floor Levels: Finished floor levels must be set above maximum flood depth (100cc) with an allowance of 600mm freeboard for residential (see following page for further information). If single storey dwellings are proposed this is essential. Where this is not possible then a range of measures including flood resilient construction must be considered. This is subject to EA approval and discussions.</p>	<p>Flood Defences No flood defences are located close to the site.</p>
<p>Safe Access and Egress: The approach should be taken whereby access to and from the site is away from the area shown as located within the flood extent. This area should be free from development. Safe Access and Egress should be directed to the east of the site.</p>		
<p>Minimum Finished Floor Levels: Finished floor levels must be set above maximum flood depth (100cc) with an allowance of 600mm freeboard for residential (see following page for further information). If single storey dwellings are proposed this is essential. Where this is not possible then a range of measures including flood resilient construction must be considered. This is subject to EA approval and discussions.</p>	<p>Historical Flooding Historical flooding is indicated along the western side of the site, with a historical sewer flooding record located just to the east of the site.</p>	<p>Flood Defences No flood defences are located close to the site.</p>

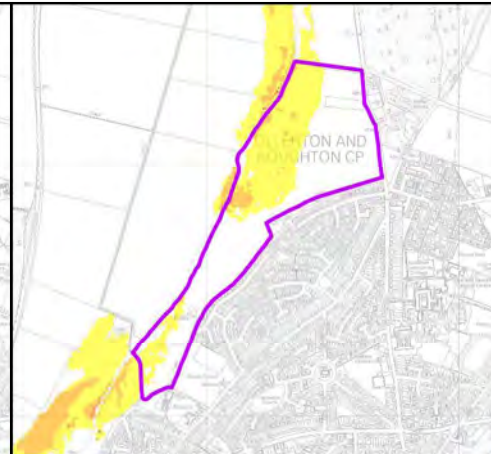
Site Name:
Location:

29 – Land off Whitney Lane
Ollerton and Boughton (OS Grid Ref: 466256, 368875)



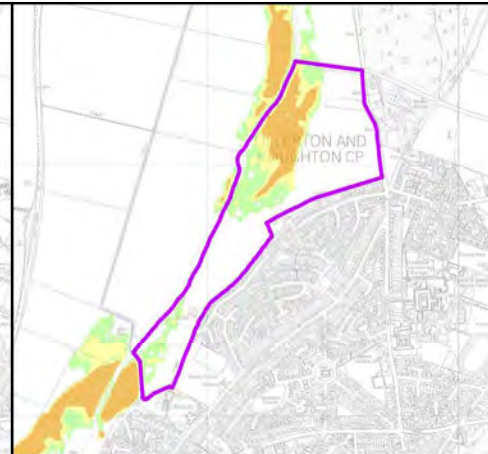
100CC - Depth

It can be seen on figure F1.1 that the north-western end of the site is shown as being inundated by water to a depth of up to 1.0m during the 1 in 100 year plus climate change flood event. The southern end of the site is less affected, with flood waters up to 0.5m depth experienced.



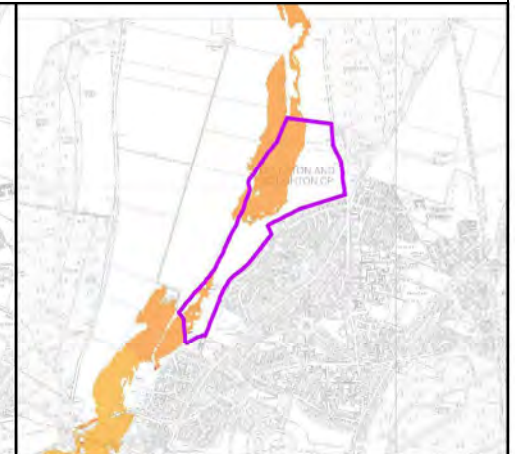
100CC - Velocity

When referencing figure F2.1 it can be seen that the velocities of flood waters within the site are low. Within the southern part of the site the flood waters reach a maximum velocity of 0.3m/s, and in the northern part of the site the flood waters reach a maximum velocity of 1.0m/s



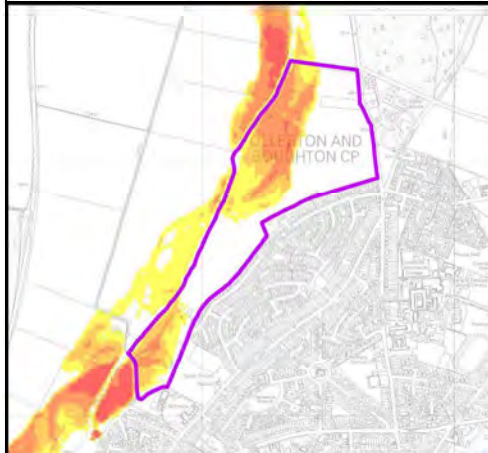
100CC - Hazard

With reference to figure F3.1 it can be seen that the site experiences a medium flood hazard, with hazard ratings from FD2320 of up to 2.0 (Danger for Most) in the northern part of the site and hazards up to 1.25 (Danger for Some) in the southern part of the site.



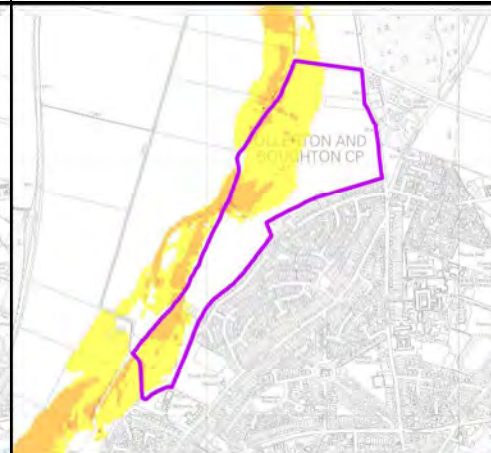
100CC - Time to Inundation

This time to inundation mapping shows the time it takes for flooding to occur at the site from the start of the critical storm event. The time to inundation for the site is approximately 20 to 21 hours from the beginning of the flood event, with both the southern and northern parts of the site being inundated at similar times.



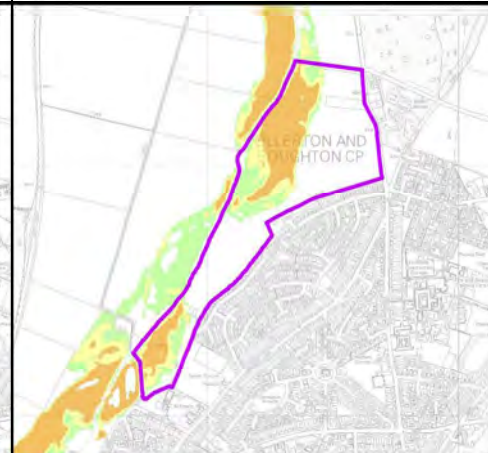
1000 - Depth

It can be seen on figure F1.2 that the north-western end of the site is shown as being inundated by water to a depth of up to 1.5m during the 1 in 1000 year flood event. The southern end of the site is less affected, with flood waters up to 1.0m depth experienced.



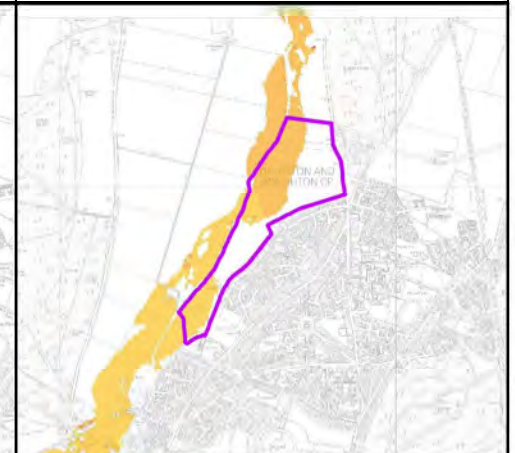
1000 - Velocity

When referencing figure F2.2 it can be seen that the velocities of flood waters within the site are low. Within the southern part of the site the flood waters reach a maximum velocity of 1.0m/s, and in the northern part of the site the flood waters reach a maximum velocity of 1.0m/s



1000 - Hazard


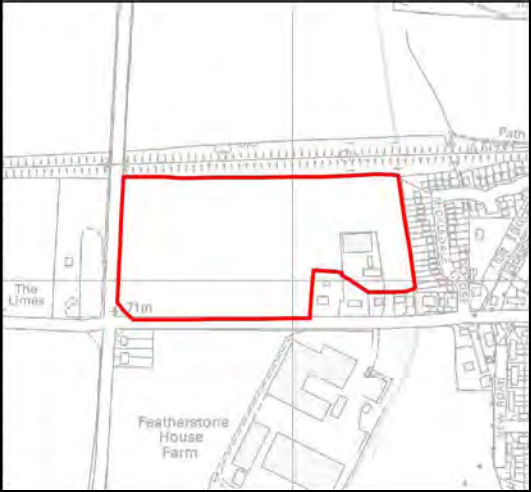








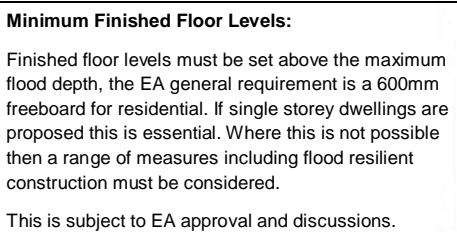

With reference to figure F3.2 it can be seen that the site experiences a medium flood hazard, with hazard ratings from FD2320 of up to 2.0 (Danger for Most) in the northern part of the site and hazards up to 2.0 (Danger for Most) in the southern part of the site.

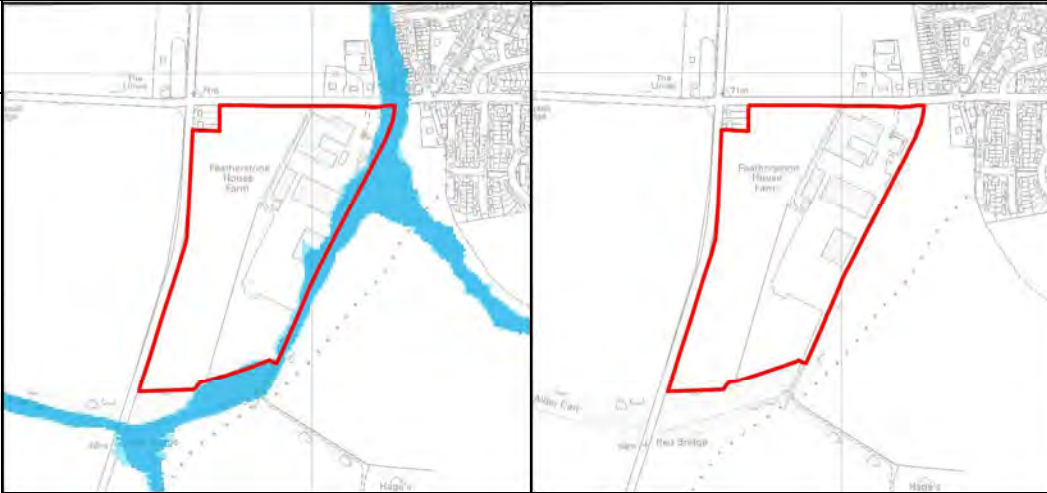






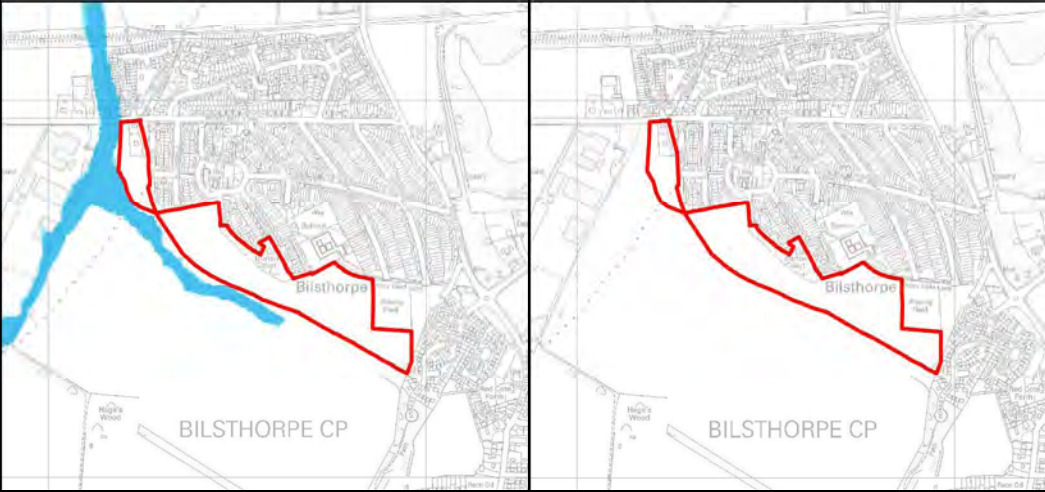



1000 - Time to Inundation

This time to inundation mapping shows the time it takes for flooding to occur at the site from the start of the critical storm event. The time to inundation for the site is approximately 19 to 20 hours from the beginning of the flood event, with both the southern and northern parts of the site being inundated at similar times.

<p>Site Name: 30 – Land east of Harrow Lane Location: Ollerton and Boughton (OS Grid Ref: 467876, 367961)</p>		
<p>Site Size: 14.79 hectares</p>	<p>Flood Risk Assessment Requirements: Any sites located within Flood Zone 2 or 3 regardless of size will require an FRA.</p>	
<p>Existing Site Use: Greenfield</p>	<p>Climate change should be taken in to account when assessing flood risk from any source. The lifetime of the development will guide the allowance required for climate change, in accordance with the NPPF.</p>	
<p>Proposed Site Use: 400 Dwellings</p>	<p>Flood risk from surface water will need to be assessed as part of any FRA, with a drainage strategy provided to ensure that the development does not flood during low annual probability rainfall events or exacerbate the flood risk off-site.</p>	
<p>Vulnerability Classification: More Vulnerable</p>	<p>The sequential approach should be applied to the site whereby development is to be located in Zone 1 area of the site only and to avoid developing within any areas likely to flood. Flood resilient construction should also be considered.</p>	
<p>Surface Water Flood Risk: Proposed surface water drainage is a key factor to the viability of the project and must not place extra pressure on the existing drainage regime. The drainage is subject to EA consent.</p>	<p>Approval will be required from the LLFA or IDB if there is an increase in surface water discharge from the site to any watercourse other than a designated main river. Any discharge of surface water to a main river will require EA consent.</p>	
<p>Safe Access and Egress: The approach should be taken whereby access to and from the site is away from the area shown as located within the flood extent. This area should be free from development.</p>	<p>Flood Map The site is primarily located within Flood Zone 1, with approximately 5% of the site at the eastern edge being located within Flood Zone 2 and 3.</p>	<p>Functional Floodplain The site is not located within functional floodplain.</p>
<p>Minimum Finished Floor Levels: Finished floor levels must be set above the maximum flood depth, the EA general requirement is a 600mm freeboard for residential. If single storey dwellings are proposed this is essential. Where this is not possible then a range of measures including flood resilient construction must be considered. This is subject to EA approval and discussions.</p>		
<p>Historical Flooding No records of historical flooding have been received for the site. This does not mean that flooding has not occurred as these events may not have been recorded. Investigations into historical flooding of the area should be undertaken as part of a site specific FRA.</p>	<p>Flood Warning Areas The site is not located within a Flood Warning Area. A Flood Plan should be provided detailing what residents / occupants should do to prepare for flood events, and what to do if the development floods. Safe escape / safe refuge details should be provided as part of a Flood Plan along with information on the EA Flood Warning system.</p>	<p>Flood Defences No flood defences are located close to the site.</p>

<p>Site Name: 31 – North of Mickledale Lane Location: Bilsthorpe (OS Grid Ref: 463951, 361049)</p>			
<p>Site Size: 6.5 hectares</p>	<p>Flood Risk Assessment Requirements:</p>	<p>Flood Map</p>	<p>Functional Floodplain</p>
<p>Existing Site Use: Greenfield</p>	<p>Any sites located within Flood Zone 2 or 3 regardless of size will require an FRA.</p>		
<p>Proposed Site Use: 140 Dwellings</p>	<p>Climate change should be taken in to account when assessing flood risk from any source. The lifetime of the development will guide the allowance required for climate change, in accordance with the NPPF.</p>		
<p>Vulnerability Classification: More Vulnerable</p>	<p>Flood risk from surface water will need to be assessed as part of any FRA, with a drainage strategy provided to ensure that the development does not flood during low annual probability rainfall events or exacerbate the flood risk off-site.</p>	<p>Historical Flooding</p>	<p>Flood Defences</p>
<p>Surface Water Flood Risk:</p> <p>Proposed surface water drainage is a key factor to the viability of the project and must not place extra pressure on the existing drainage regime. The drainage is subject to EA consent.</p>	<p>The sequential approach should be applied to the site whereby development is to be located in Zone 1 area of the site only and to avoid developing within any areas likely to flood. Flood resilient construction should also be considered.</p>	<p>The site is primarily located within Flood Zone 1, with approximately 7.5% of the site along the eastern edge being located within Flood Zone 2 and 3.</p>	<p>The site is not located within functional floodplain.</p>
<p>Safe Access and Egress:</p> <p>The approach should be taken whereby access to and from the site is away from the area shown as located within the flood extent. This area should be free from development.</p>	<p>Approval will be required from the LLFA or IDB if there is an increase in surface water discharge from the site to any watercourse other than a designated main river. Any discharge of surface water to a main river will require EA consent.</p>		
<p>Minimum Finished Floor Levels:</p> <p>Finished floor levels must be set above the maximum flood depth, the EA general requirement is a 600mm freeboard for residential. If single storey dwellings are proposed this is essential. Where this is not possible then a range of measures including flood resilient construction must be considered.</p> <p>This is subject to EA approval and discussions.</p>		<p>Flood Warning Areas</p>	
		<p>The site is not located within a Flood Warning Area. A Flood Plan should be provided detailing what residents / occupants should do to prepare for flood events, and what to do if the development floods. Safe escape / safe refuge details should be provided as part of a Flood Plan along with information on the EA Flood Warning system.</p>	<p>No flood defences are located close to the site.</p>

<p>Site Name: 32 – South of Mickledale Lane / Hawton Road Location: Bilthorpe (OS Grid Ref: 463893, 360681)</p>		
<p>Site Size: 6.5 hectares</p>	<p>Flood Risk Assessment Requirements: Any sites located within Flood Zone 2 or 3 regardless of size will require an FRA. Climate change should be taken in to account when assessing flood risk from any source. The lifetime of the development will guide the allowance required for climate change, in accordance with the NPPF. Flood risk from surface water will need to be assessed as part of any FRA, with a drainage strategy provided to ensure that the development does not flood during low annual probability rainfall events or exacerbate the flood risk off-site. The sequential approach should be applied to the site whereby development is to be located in Zone 1 area of the site only and to avoid developing within any areas likely to flood. Flood resilient construction should also be considered. Approval will be required from the LLFA or IDB if there is an increase in surface water discharge from the site to any watercourse other than a designated main river. Any discharge of surface water to a main river will require EA consent.</p>	
<p>Existing Site Use: Greenfield and Brownfield</p>	<p>Flood Map The site is primarily located within Flood Zone 1, with approximately 7.5% of the site along the eastern edge being located within Flood Zone 2 and 5% of the site being located within Flood Zone 3. The site will therefore need to be assessed based on Flood Zone 3 criteria.</p>	<p>Functional Floodplain The site is not located within functional floodplain.</p>
<p>Proposed Site Use: 354 Dwellings</p>	<p>Surface Water Flood Risk: Proposed surface water drainage is a key factor to the viability of the project and must not place extra pressure on the existing drainage regime. The drainage is subject to EA consent.</p>	
<p>Vulnerability Classification: More Vulnerable</p>	<p>Safe Access and Egress: The approach should be taken whereby access to and from the site is away from the area shown as located within the flood extent. This area should be free from development.</p>	
<p>Safe Access and Egress: The approach should be taken whereby access to and from the site is away from the area shown as located within the flood extent. This area should be free from development.</p>		
<p>Minimum Finished Floor Levels: Finished floor levels must be set above the maximum flood depth, the EA general requirement is a 600mm freeboard for residential. If single storey dwellings are proposed this is essential. Where this is not possible then a range of measures including flood resilient construction must be considered. This is subject to EA approval and discussions.</p>	<p>Historical Flooding No records of historical flooding have been received for the site. This does not mean that flooding has not occurred as these events may not have been recorded. Investigations into historical flooding of the area should be undertaken as part of a site specific FRA.</p>	<p>Flood Warning Areas The site is not located within a Flood Warning Area. A Flood Plan should be provided detailing what residents / occupants should do to prepare for flood events, and what to do if the development floods. Safe escape / safe refuge details should be provided as part of a Flood Plan along with information on the EA Flood Warning system.</p>
<p>Minimum Finished Floor Levels: Finished floor levels must be set above the maximum flood depth, the EA general requirement is a 600mm freeboard for residential. If single storey dwellings are proposed this is essential. Where this is not possible then a range of measures including flood resilient construction must be considered. This is subject to EA approval and discussions.</p>	<p>Flood Defences No flood defences are located close to the site.</p>	<p>Flood Defences No flood defences are located close to the site.</p>

<p>Site Name: 33 – Land South of Bilsthorpe / Land off Scarborough Rd / West of New Rd Location: Bilsthorpe (OS Grid Ref: 464573, 360562)</p>		
<p>Site Size: 10.43 hectares</p>	<p>Flood Risk Assessment Requirements: Any sites located within Flood Zone 2 or 3 regardless of size will require an FRA. Climate change should be taken in to account when assessing flood risk from any source. The lifetime of the development will guide the allowance required for climate change, in accordance with the NPPF. Flood risk from surface water will need to be assessed as part of any FRA, with a drainage strategy provided to ensure that the development does not flood during low annual probability rainfall events or exacerbate the flood risk off-site. The sequential approach should be applied to the site whereby development is to be located in Zone 1 area of the site only and to avoid developing within any areas likely to flood. Flood resilient construction should also be considered. Approval will be required from the LLFA or IDB if there is an increase in surface water discharge from the site to any watercourse other than a designated main river. Any discharge of surface water to a main river will require EA consent.</p>	
<p>Existing Site Use: Greenfield and Brownfield</p>	<p>Flood Map The site is primarily located within Flood Zone 1, with less than 1% of the site along the western edge being located within Flood Zone 2 and 3.</p>	
<p>Proposed Site Use: Residential</p>	<p>Functional Floodplain The site is not located within functional floodplain.</p>	
<p>Vulnerability Classification: More Vulnerable</p>	<p>Safe Access and Egress: The approach should be taken whereby access to and from the site is away from the area shown as located within the flood extent. This area should be free from development.</p>	
<p>Surface Water Flood Risk: The locally agreed surface water information maps indicate the site is located in an area susceptible to surface water flooding. Therefore, further assessment of surface water flood risk should be included with the site specific flood risk assessment. Proposed surface water drainage is a key factor to the viability of the project and must not place extra pressure on the existing drainage regime. The drainage is subject to EA consent.</p>		
<p>Safe Access and Egress: The approach should be taken whereby access to and from the site is away from the area shown as located within the flood extent. This area should be free from development.</p>		
<p>Minimum Finished Floor Levels: Finished floor levels must be set above the maximum flood depth, the EA general requirement is a 600mm freeboard for residential. If single storey dwellings are proposed this is essential. Where this is not possible then a range of measures including flood resilient construction must be considered. This is subject to EA approval and discussions.</p>		
<p>Historical Flooding No records of historical flooding have been received for the site. This does not mean that flooding has not occurred as these events may not have been recorded. Investigations into historical flooding of the area should be undertaken as part of a site specific FRA.</p>	<p>Flood Warning Areas The site is not located within a Flood Warning Area. Where sites are within Flood Zone 3, a Flood Plan should be provided detailing what residents / occupants should do to prepare for flood events, and what to do if the development floods. Safe escape / safe refuge details should be provided as part of a Flood Plan.</p> <p>Flood Defences No flood defences are located close to the site.</p>	

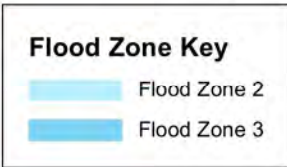
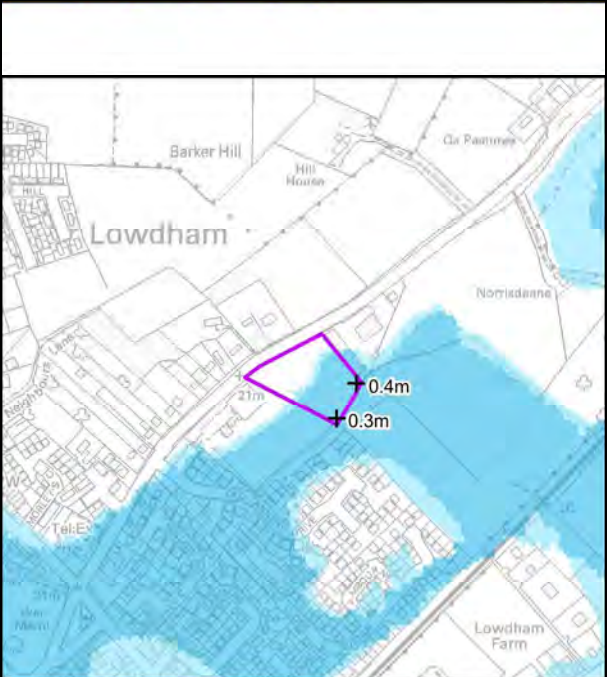
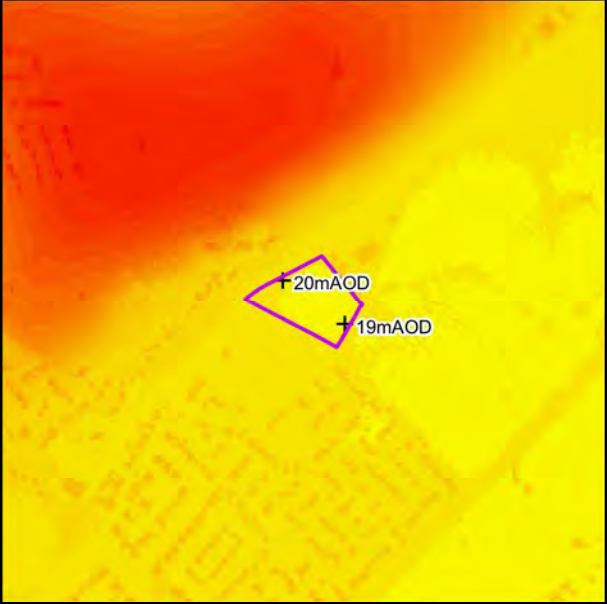
<p>Site Name: 34 – Land off Southwell Road Location: Lowdham (OS Grid Ref: 467417, 346501)</p>		
<p>Site Size: 0.94 hectares</p>	<p>Flood Risk Assessment Requirements: Any sites located within Flood Zone 2 or 3 regardless of size will require an FRA. Climate change should be taken in to account when assessing flood risk from any source. The lifetime of the development will guide the allowance required for climate change, in accordance with the NPPF.</p> <p>Flood risk from surface water will need to be assessed as part of any FRA, with a drainage strategy provided to ensure that the development does not flood during low annual probability rainfall events or exacerbate the flood risk off site. The sequential Approach will need to be applied with no development located within the Zone 3 extent.</p> <p>The site is located within Trent Valley Internal Drainage Board's (TVIDB) district and has a board maintained watercourse along its eastern boundary. The TVIDB will seek to establish an easement strip alongside this watercourse. The Board's consent will be required to any works in, over, under or within 9.0m of top, or, where the watercourse is culverted, the outside edge of the pipe. The LLFA or IDB consent will be required prior to any increases in surface water discharge from the site being made to any watercourse, other than designated main river, which would require EA consent.</p>	
<p>Existing Site Use: Greenfield and Brownfield</p>	<p>Flood Map The site is located within Flood Zones 1, 2 and 3a. Approximately 10% of the site is located within Flood Zone 2, approximately 50% of the site at the eastern edge is located within Flood Zone 3a, and the other 40% of the site is located in Flood Zone 1.</p>	
<p>Proposed Site Use: 15 Dwellings</p>	<p>Functional Floodplain The site is not located within functional floodplain.</p>	
<p>Vulnerability Classification: More Vulnerable</p>	<p>Safe Access and Egress: Any development brought forward on this site should provide safe access and egress for residents. The approach should be taken whereby access to and from the site is away from the area shown as located within the flood extent. This area should be free from development.</p> <p>It is likely land raising will be required to levels above the associated flood depth to provide safe refuge during times of flood (should safe access and egress not be possible).</p>	
<p>Surface Water Flood Risk: The locally agreed surface water information maps indicate the site is located in an area susceptible to surface water flooding to an intermediate level. Therefore, further assessment of surface water flood risk should be included with a site specific flood risk assessment.</p> <p>Proposed surface water drainage is a key factor to the viability of the project and must not place extra pressure on the existing drainage regime. The drainage is subject to EA consent.</p>	<p>Minimum Finished Floor Levels: Finished floor levels must be set above the maximum flood depth, the EA general requirement is a 600mm freeboard for residential. If single storey dwellings are proposed this is essential. Where this is not possible then a range of measures including flood resilient construction must be considered.</p> <p>This is subject to EA approval and discussions.</p> <p>An initial estimate of flood levels has been carried out, indicating that the level of flood water is at approximately 19.2m AOD for the extent of Flood Zone 3. The minimum finished floor level to be set 600mm above this level, is at approximately 19.8m AOD.</p>	
<p>Safe Access and Egress:</p>		
<p>Minimum Finished Floor Levels:</p>	<p>Historical Flooding The eastern part of the site is located within an area which has flooded historically. There are a number of specific fluvial flood events close to the site to the south-west. NAIDB has records that flooding has occurred in the village of Lowdham.</p>	<p>Flood Warning Areas The site is located within a Flood Warning Area. Where sites are within Flood Zone 3, a Flood Plan should be provided detailing what residents / occupants should do to prepare for flood events, and what to do if the development floods. Safe escape / safe refuge details should be provided as part of a Flood Plan.</p>
<p>Safe Access and Egress:</p>	<p>Flood Defences No flood defences are located close to the site. The IDB maintain a number of raised defences which developers should identify in a site specific FRA.</p>	<p>Flood Defences No flood defences are located close to the site. The IDB maintain a number of raised defences which developers should identify in a site specific FRA.</p>

Site Name: 34 – Land off Southwell Road
Location: Lowdham (OS Grid Ref: 467417, 346501)

Introduction
 In the absence of a detailed hydraulic model for this site an analysis has been undertaken based on first principles whereby the flood depth has been estimated based upon a comparison between the predicted flood extent (obtained from the Environment Agency Flood Maps) and the ground level information available using LiDAR. Refer to the site specific information on the previous page for more detailed information. This data does not supersede the need for site specific modelling should the EA request it as part of a site specific FRA.

Contour Information
 Existing Contours for the site have been taken from LiDAR data for the area. This shows the site slopes from north to south by approximately 1m. The contours show that Barker Hill is located to the north-west of the site, with a very flat area located between the base of the hill and the River Trent which is located approximately 3km to the south-east.
 The site slopes from a level of approximately 19m AOD close to the Car Dyke which runs across the south-east of the site, to a level of approximately 20m AOD close to the road. The site is reasonably flat in between these levels, with the majority of the difference in level being made up by a slope at the north-west end of the site.
 A full topographical survey of the site should be carried out as part of a site specific FRA to ensure accurate analysis of any flood depths and water flow paths can be carried out.

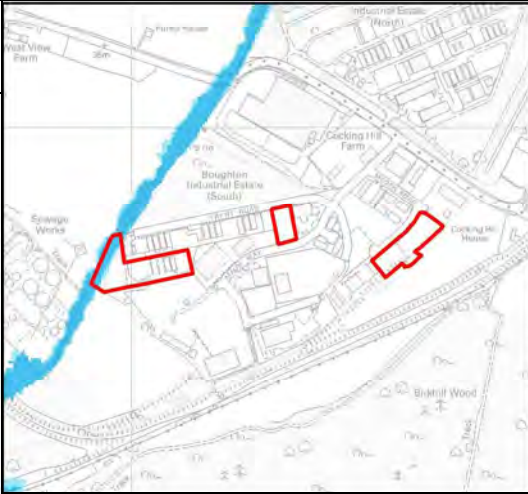
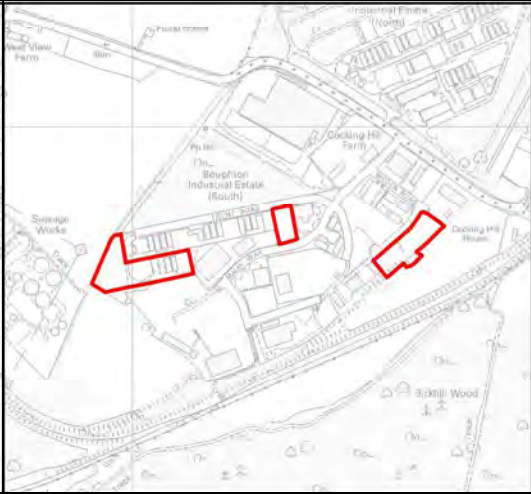


Flooding Information
 Approximately 50% of the site is situated in Flood Zone 3, 10% of the site within Flood Zone 2, with the remainder located in Flood Zone 1. Indicative maximum water depths across the site range from 0.3m to 0.4m.
 Due to the depth of flood waters at the site it is recommended that development occur only within the lower risk areas of the site and no development to occur within the Flood Zone 3 extent. This will cause approximately 50-60% of the site to be undeveloped.
 If any 'more vulnerable' development (as defined by PPS25) were proposed within the Flood Zone 3 extent then the exception test would need to be passed. Any development within this area would need to be raised to be above the modelled flood level and therefore flood compensation would have to be provided to ensure no off-site impacts.



The flood levels shown are indicative only and should be confirmed through site specific investigations.

<p>Site Name: 35 – Land off Barker Ridge / Ridge Hill / Barker Hill/ North of Epperstone Rd Location: Lowdham (OS Grid Ref:467004, 346923)</p>			
<p>Site Size: 18.96 hectares</p>	<p>Flood Risk Assessment Requirements:</p>	<p>Flood Map</p>	<p>Functional Floodplain</p>
<p>Existing Site Use: Greenfield</p>	<p>Any sites located within Flood Zone 2 or 3 regardless of size will require an FRA.</p>	<p>The site is mainly located within Flood Zone 1, with approximately 5% of the site along the north-western edge being located within Flood Zone 2 and 3.</p>	<p>The site is not located within functional floodplain.</p>
<p>Proposed Site Use: Residential</p>	<p>Climate change should be taken in to account when assessing flood risk from any source. The lifetime of the development will guide the allowance required for climate change, in accordance with the NPPF.</p>		
<p>Vulnerability Classification: More Vulnerable</p>	<p>Flood risk from surface water will need to be assessed as part of any FRA, with a drainage strategy provided to ensure that the development does not flood during low annual probability rainfall events or exacerbate the flood risk off-site.</p>	<p>Historical Flooding</p>	<p>Flood Defences</p>
<p>Surface Water Flood Risk:</p> <p>The locally agreed surface water information maps indicate the site is located in an area susceptible to surface water flooding to an intermediate level. Therefore, further assessment of surface water flood risk should be included with the site specific flood risk assessment.</p> <p>Proposed surface water drainage is a key factor to the viability of the project and must not place extra pressure on the existing drainage regime. The drainage is subject to EA consent.</p>	<p>The sequential approach should be applied to the site whereby development is to be located in Zone 1 area of the site only and to avoid developing within any areas likely to flood. Flood resilient construction should also be considered.</p> <p>Approval will be required from the LLFA or IDB if there is an increase in surface water discharge from the site to any watercourse other than a designated main river. Any discharge of surface water to a main river will require EA consent.</p>	<p>Flood Warning Areas</p>	<p>Flood Defences</p>
<p>Safe Access and Egress:</p> <p>The approach should be taken whereby access to and from the site is away from the area shown as located within the flood extent. This area should be free from development.</p>		<p>Flood Defences</p>	
<p>Minimum Finished Floor Levels:</p> <p>Finished floor levels must be set above the maximum flood depth, the EA general requirement is a 600mm freeboard for residential. If single storey dwellings are proposed this is essential. Where this is not possible then a range of measures including flood resilient construction must be considered.</p> <p>This is subject to EA approval and discussions.</p>	<p>The northern part of the site is located within an area which has flooded historically. There are a number of specific fluvial flood events within the town of Lowdham to the south, however these relate to a different watercourse. NAIDB has records that flooding has occurred within the Village of Lowdham.</p>	<p>The site is not located within a Flood Warning Area. A Flood Plan should be provided detailing what residents / occupants should do to prepare for flood events, and what to do if the development floods. Safe escape / safe refuge details should be provided as part of a Flood Plan along with information on the EA Flood Warning system.</p>	<p>No flood defences are located close to the site. The IDB maintain a number of raised defences which developers should identify in a site specific FRA.</p>

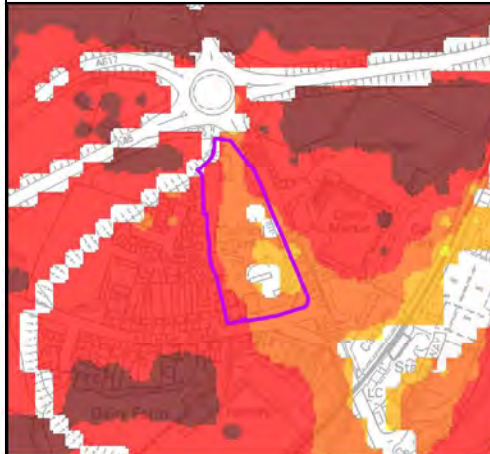
<p>Site Name: 36 – OB\E1 Location: Ollerton and Boughton (OS Grid Ref: 468614, 367745)</p>		
<p>Site Size: 11.36 hectares</p>	<p>Flood Risk Assessment Requirements: Any sites located within Flood Zone 2 or 3 regardless of size will require an FRA.</p>	
<p>Existing Site Use: Industrial / Commercial</p>	<p>Climate change should be taken in to account when assessing flood risk from any source. The lifetime of the development will guide the allowance required for climate change, in accordance with the NPPF.</p>	
<p>Proposed Site Use: Employment</p>	<p>Flood risk from surface water will need to be assessed as part of any FRA, with a drainage strategy provided to ensure that the development does not flood during low annual probability rainfall events or exacerbate the flood risk off-site.</p>	
<p>Vulnerability Classification: Less Vulnerable</p>	<p>The sequential approach should be applied to the site whereby development is to be located in Zone 1 area of the site only and to avoid developing within any areas likely to flood. Flood resilient construction should also be considered.</p>	
<p>Surface Water Flood Risk: The locally agreed surface water information maps indicate the site is located in an area susceptible to surface water flooding. Therefore, further assessment of surface water flood risk should be included with the site specific flood risk assessment. Proposed surface water drainage is a key factor to the viability of the project and must not place extra pressure on the existing drainage regime.</p>	<p>Approval will be required from the LLFA or IDB if there is an increase in surface water discharge from the site to any watercourse other than a designated main river. Any discharge of surface water to a main river will require EA consent.</p>	
<p>Safe Access and Egress: Safe / dry access and egress should be provided for all future residents of the site. Residents should be directed away from offsite flood areas.</p>	<p>Flood Map The site is predominantly located within Flood Zone 1, with an area of the site of less than 1% along the northern edge being located within Flood Zone 2 and 3.</p>	<p>Functional Floodplain The site is not located within functional floodplain.</p>
<p>Minimum Finished Floor Levels: It is advisable for finished floor levels to be 150mm to 300mm above ground levels to ensure that any surface water flooding would not enter buildings and cause damage. This is subject to EA discussions and approval.</p>		
<p>Historical Flooding No records of historical flooding have been received for the site. This does not mean that flooding has not occurred as these events may not have been recorded. Investigations into historical flooding of the area should be undertaken as part of a site specific FRA.</p>	<p>Flood Warning Areas The site is not located within a Flood Warning Area. A Flood Plan should be provided detailing what residents / occupants should do to prepare for flood events, and what to do if the development floods. Safe escape / safe refuge details should be provided as part of a Flood Plan.</p>	<p>Flood Defences No flood defences are located close to the site.</p>

<p>Site Name: 37 – OB\E2 Location: Ollerton and Boughton (OS Grid Ref: 468227, 367745)</p>		
<p>Site Size: 2.09 hectares</p>	<p>Flood Risk Assessment Requirements: Any sites located within Flood Zone 2 or 3 regardless of size will require an FRA.</p>	
<p>Existing Site Use: Industrial / Commercial</p>	<p>Climate change should be taken in to account when assessing flood risk from any source. The lifetime of the development will guide the allowance required for climate change, in accordance with the NPPF.</p>	
<p>Proposed Site Use: Employment</p>	<p>Flood risk from surface water will need to be assessed as part of any FRA, with a drainage strategy provided to ensure that the development does not flood during low annual probability rainfall events or exacerbate the flood risk off-site.</p>	
<p>Vulnerability Classification: Less Vulnerable</p>	<p>The sequential approach should be applied to the site whereby development is to be located in Zone 1 area of the site only and to avoid developing within any areas likely to flood. Flood resilient construction should also be considered.</p>	
<p>Surface Water Flood Risk: The locally agreed surface water information maps indicate the site is located in an area susceptible to surface water flooding to an intermediate level. Therefore, further assessment of surface water flood risk should be included with the site specific flood risk assessment incorporating SuDS. Proposed surface water drainage is a key factor to the viability of the project and must not place extra pressure on the existing drainage regime.</p>	<p>Approval will be required from the LLFA or IDB if there is an increase in surface water discharge from the site to any watercourse other than a designated main river. Any discharge of surface water to a main river will require EA consent.</p>	
<p>Safe Access and Egress: Safe / dry access and egress should be provided for all future residents of the site. Residents should be directed away from offsite flood areas.</p>		
<p>Minimum Finished Floor Levels: It is advisable for finished floor levels to be 150mm to 300mm above ground levels to ensure that any surface water flooding would not enter buildings and cause damage. This is subject to EA discussions and approval.</p>		
<p>Historical Flooding No records of historical flooding have been received for the site. This does not mean that flooding has not occurred as these events may not have been recorded. Investigations into historical flooding of the area should be undertaken as part of a site specific FRA</p>	<p>Flood Warning Areas The site is not located within a Flood Warning Area. Where sites are within Flood Zone 3, a Flood Plan should be provided detailing what residents / occupants should do to prepare for flood events, and what to do if the development floods. Safe escape / safe refuge details should be provided as part of a Flood Plan.</p>	<p>Flood Defences No flood defences are located close to the site.</p>

<p>Site Name: 38 – NUA\E1 Location: Newark-on-Trent (OS Grid Ref: 479402, 354459)</p>		
<p>Site Size: 2.06 hectares</p>	<p>Flood Risk Assessment Requirements:</p>	
<p>Existing Site Use: Industrial / Commercial</p>	<p>Any sites located within Flood Zone 2 or 3 regardless of size will require an FRA. Climate change should be taken in to account when assessing flood risk from any source. The lifetime of the development will guide the allowance required for climate change, in accordance with the NPPF.</p>	
<p>Proposed Site Use: Employment</p>	<p>Flood risk from surface water will need to be assessed as part of any FRA, with a drainage strategy provided to ensure that the development does not flood during low annual probability rainfall events or exacerbate the flood risk off site. The sequential Approach will need to be applied with no development located within the Zone 3 extent.</p>	
<p>Vulnerability Classification: Less Vulnerable</p>	<p>The site is located within Trent Valley Internal Drainage Board's (TVIDB) district and has a board maintained watercourse along its eastern boundary. The TVIDB will seek to establish an easement strip alongside this watercourse. The Board's consent will be required to any works in, over, under or within 9.0m of top, or, where the watercourse is culverted, the outside edge of the pipe. The LLFA or IDB consent will be required prior to any increases in surface water discharge from the site being made to any watercourse, other than designated main river, which would require EA consent.</p>	
<p>Surface Water Flood Risk:</p> <p>The locally agreed surface water information maps indicate the site is located in an area susceptible to surface water flooding to an intermediate level. Therefore, further assessment of surface water flood risk should be included with the site specific flood risk assessment.</p> <p>Proposed surface water drainage is a key factor to the viability of the project and must not place extra pressure on the existing drainage regime.</p>	<p>Flood Map The site is entirely located within Flood Zone 3</p> <p>Functional Floodplain The site is not located within functional floodplain.</p>	
<p>Safe Access and Egress:</p> <p>Safe / dry access and egress should be provided for all future residents of the site. Residents should be directed away from offsite flood areas.</p> <p>Safe escape does not appear viable from the hazard mapping associated with the site. Safe refuge should be investigated as part of a Flood Risk Assessment / Flood Plan for the site.</p>		
<p>Minimum Finished Floor Levels:</p> <p>Finished floor levels must be set above the maximum flood depth, the EA general requirement is a 300mm freeboard for commercial. Where this is not possible then a range of measures including flood resilient construction must be considered.</p> <p>This is subject to EA approval and discussions.</p>	<p>Historical Flooding The whole site is covered by historical flooding records. A single fluvial flooding record has been noted to the south-west of the site.</p> <p>Flood Warning Areas The site is located within a Flood Warning Area. A Flood Plan should be provided detailing what residents / occupants should do to prepare for flood events, and what to do if the development floods. Safe escape / safe refuge details should be provided as part of a Flood Plan.</p> <p>Flood Defences A flood defence runs to the west of the site, providing a barrier between the functional floodplain and the site. .</p>	

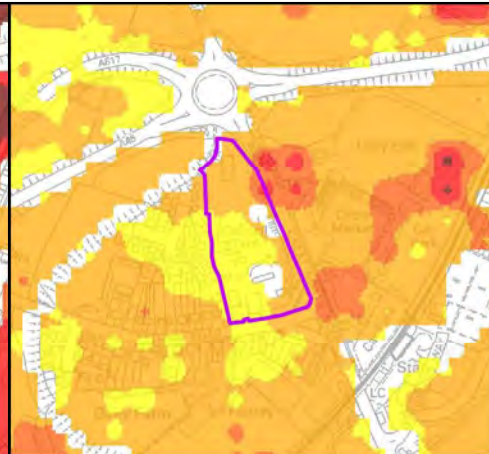
Site Name:
Location:

38 – NUA\EV1
Newark-on-Trent (OS Grid Ref: 479402, 354459)



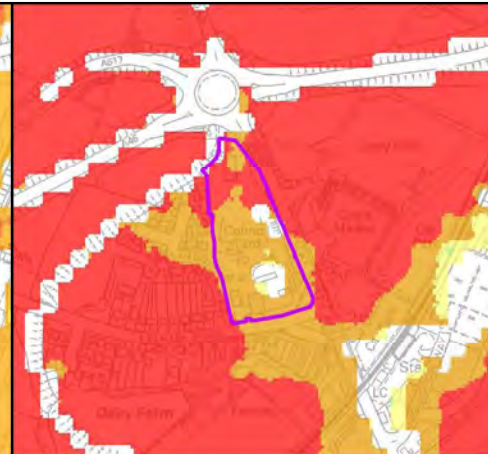
100CC - Depth

It can be seen on Figure 1647-F-1.1 that the site is located within an area that would be inundated by water to a depth up to 2m.



100CC - Velocity

When referencing Figure 1647-F-2.1 it can be seen that the site experiences velocities of flood water between 0 and 2.5 m/s.



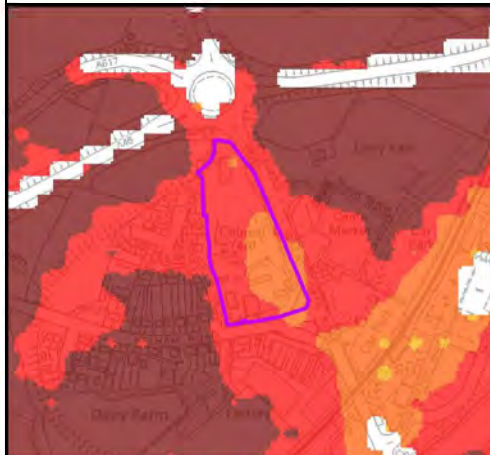
100CC - Hazard

With reference to Figure 1647-F-3.1 it can be seen that the site is located within an area with a hazard rating of up to and greater than 2 (Danger for All) as defined by FD2320 Flood Risk to People.



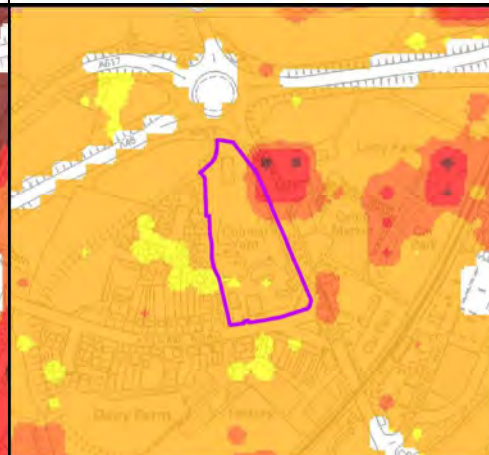
100CC - Time to Inundation

TO BE MODELLED.



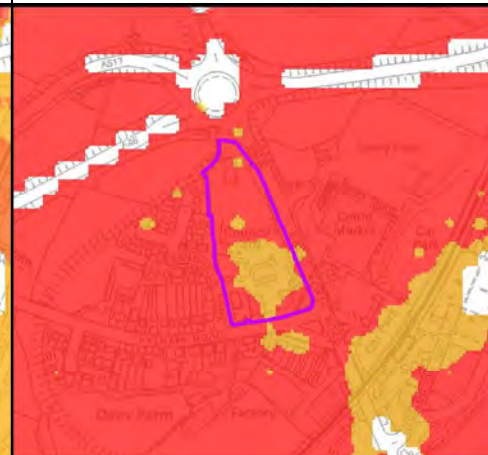
1000 - Depth

It can be seen on Figure 1647-F-1.2 that the site is located within an area that would be inundated by water to a depth up to 2m.



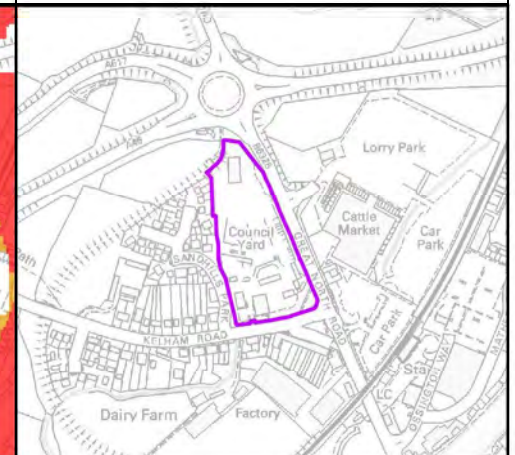
1000 - Velocity

When referencing Figure 1647-F-2.2 it can be seen that the site experiences velocities of flood water between 0 and 2.5 m/s.



1000 - Hazard

With reference to Figure 1647-F-3.2 it can be seen that the site is located within an area with a hazard rating of up to and greater than 2 (Danger for All) as defined by FD2320 Flood Risk to People.



1000 - Time to Inundation

TO BE MODELLED.


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Key - Sheet 1





Panel 1 - Flood Map

-  Flood Zone 2
-  Flood Zone 3


Panel 2 - Functional Floodplain

-  Functional Floodplain


Panel 3 - Historical Flooding

-  Historic Flood Map
-  Historic Flooding (Fluvial / Tidal)
-  Historic Flooding (Pluvial)
-  Historic Flooding (Sewer)

Panel 4 - Flood Warning Areas

-  Flood Warning Areas






Panel 5 - Flood Defences

-  Raised Defences

Key - Sheet 2






Depth Mapping

Max Depth (m)

-  0 - 0.25
-  0.25 - 0.5
-  0.5 - 1
-  1.0 - 2
-  2+


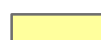


Velocity Mapping

Max Velocity (m/s)

-  0 - 0.3
-  0.3 - 1
-  1.0 - 1.5
-  1.5 - 2.5
-  2.5+


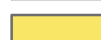
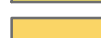






Hazard Mapping

Max Hazard (Flood Risk to People : FD2320)

-  Less than 0.75 (Low Hazard)
-  Between 0.75 and 1.25 (Danger for Some)
-  Between 1.25 and 2 (Danger for Most)
-  Greater than 2 (Danger for All)

Time to Inundation Mapping

Time (hours)

-  0 - 5
-  5 - 10
-  10 - 15
-  15 - 20
-  20 - 25
-  25 - 30
-  30 - 35
-  35 - 40
-  40 - 45



TITLE:
NEWARK AND SHERWOOD
DISTRICT COUNCIL
LEVEL 2 SFRA
PHASE 2

FIGURE No:
KEY FOR SITE SPECIFIC
DEVELOPMENT INFORMATION