Elizabeth Centre

OSNGR: 436377.668,287	Area: 0.68 ha	Mixed Brownfield/Greenfield

Sources of flood risk:

• Primary flood risk is from surface water flooding and overland flows.
• With further development and creation of impermeable ground surfaces, surface water flooding may become a problem.

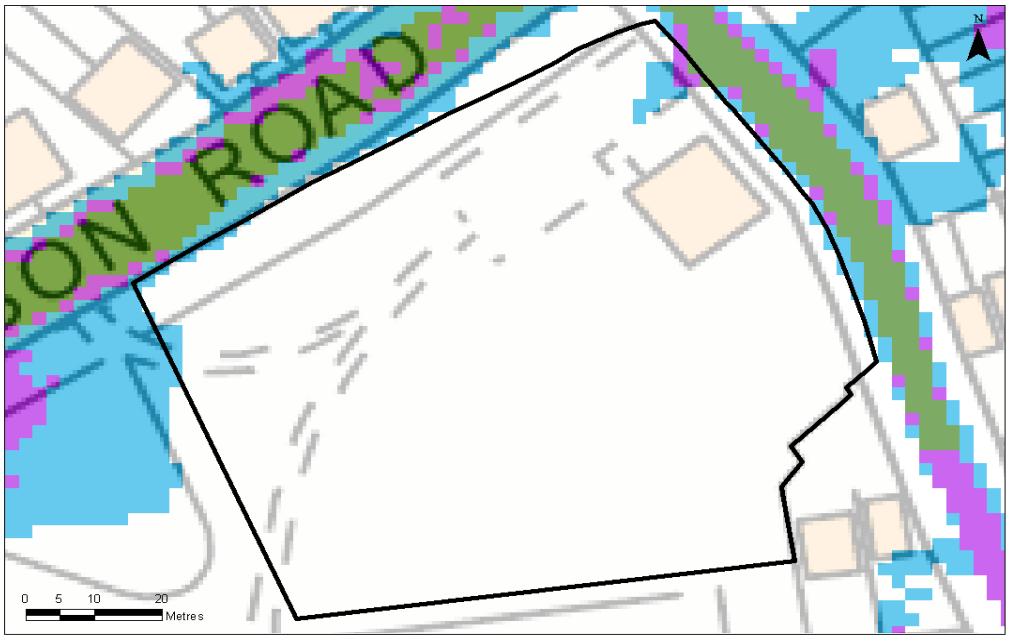
Exception Test Required?

No

NPPF Guidance:

• For development proposals on sites comprising one hectare or above in Flood Zone 1 the vulnerability of flooding from other sources as well as from river flooding should be incorporated into a FRA. The potential to increase flood risk elsewhere through the addition of hard surfaces and the effect of the new development on surface water run-off must be included.
• Developers and local authorities should seek opportunities to reduce the overall level of flood risk in the area and beyond through the layout and form of the development and through appropriate sustainable drainage techniques.

Surface Water Map



Potential development location
Council boundary
uFMfSW 30-year Extent
uFMfSW 100-year Extent
uFMfSW 1,000-year Extent

SuDS & the development site:

SuDS Type	Suitability	Comments
Source Control		All forms of source control are likely to be suitable.
Infiltration		Mapping suggests high permeability at this site, site investigations should be carried out to assess potential for drainage by infiltration.

Detention		Mapping suggests that the site slopes are suitable for all forms of detention.
Filtration		All filtration techniques are likely to be suitable. If the site has contaminated land issues; a liner will be required.
Conveyance		All forms of conveyance are likely to be suitable. Where the slopes are >5% features should follow contours or utilise check dams to slow flows.If the site has groundwater contamination issues, a liner will be required.

- *The site is not located in an area designated by the Environment Agency as a landfill site.*
- *The site is not located within any Environment Agency designated ground source protection zones.*

Flood Defences:
There are no flood defences at this site.

Flood Warning:
There are currently no flood warning areas covering this site.

Climate Change:
- Increased storm intensities.

Flood Risk Implications for Development:
- Green infrastructure should be considered within the mitigation measures for surface water runoff from potential development.
- Assessment for runoff should include allowance for climate change effects.
- New or re-development should adopt exemplar source control SUDS techniques to reduce the risk of frequent low impact flooding due to post-development runoff.
- Onsite attenuation schemes would need to be tested against the hydrograph of the receiving watercourse to ensure flows are not exacerbated downstream within the catchment.
- Demonstration that development at this location can be made safe.
- New development must seek opportunities to reduce overall level of flood risk at the site for example by:
  - Reducing volume and rate of runoff
  - Relocating development to zones with lower flood risk
  - Creating space for flooding.

NUN006		
OSNGR: 433288.978,291	Area: 1.06 ha	Majority Greenfield

Sources of flood risk:

• Primary flood risk is from surface water flooding and overland flows.
• With further development and creation of impermeable ground surfaces, surface water flooding may become a problem.

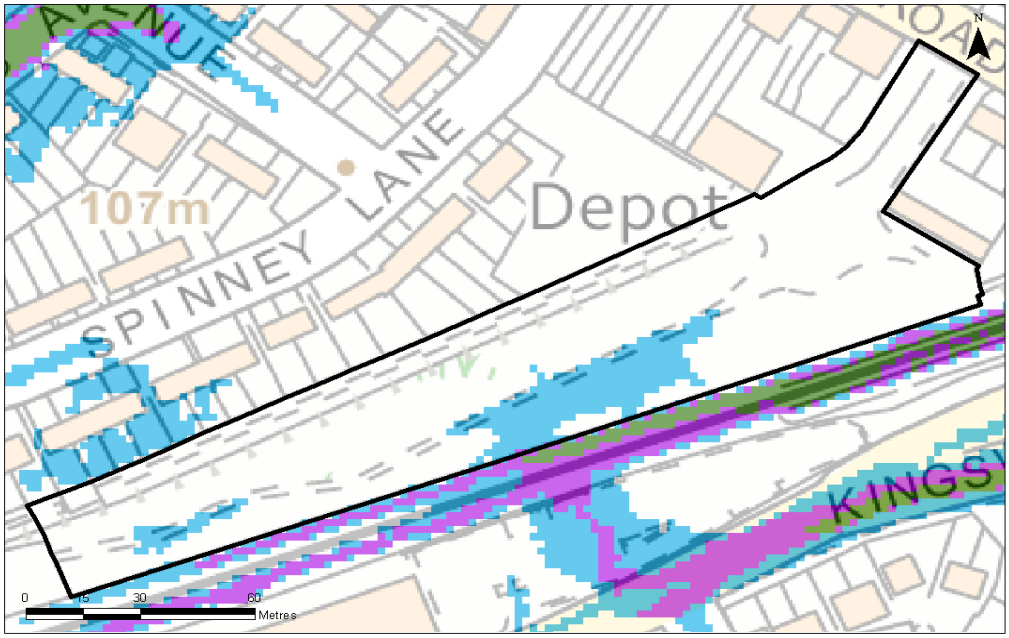
Exception Test Required?

No

NPPF Guidance:

• For development proposals on sites comprising one hectare or above in Flood Zone 1 the vulnerability of flooding from other sources as well as from river flooding should be incorporated into a FRA. The potential to increase flood risk elsewhere through the addition of hard surfaces and the effect of the new development on surface water run-off must be included.
• Developers and local authorities should seek opportunities to reduce the overall level of flood risk in the area and beyond through the layout and form of the development and through appropriate sustainable drainage techniques.

Surface Water Map



Potential development location
Council boundary
uFMfSW 30-year Extent
uFMfSW 100-year Extent
uFMfSW 1,000-year Extent

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SuDS & the development site:

SuDS Type	Suitability	Comments
Source Control		All forms of source control are likely to be suitable.
Infiltration		Mapping suggests high permeability at this site, site investigations should be carried out to assess potential for drainage by infiltration.

Detention		This option may be feasible provided site slopes are < 5% at the location of the detention feature. A liner maybe required if there any ground contamination issues.
Filtration		This feature is probably suitable provided site slopes are <5% and the depth to the water table is >1m. If the site has contaminated land issues; a liner will be required.
Conveyance		All forms of conveyance are likely to be suitable. Where the slopes are >5% features should follow contours or utilise check dams to slow flows.If the site has groundwater contamination issues, a liner will be required.

- *The site is not located in an area designated by the Environment Agency as a landfill site.*
- *The site is not located within any Environment Agency designated ground source protection zones.*

Flood Defences:

There are no flood defences at this site.

Flood Warning:

There are currently no flood warning areas covering this site.

Climate Change:

- Increased storm intensities.

Flood Risk Implications for Development:

- Green infrastructure should be considered within the mitigation measures for surface water runoff from potential development.
- Assessment for runoff should include allowance for climate change effects.
- New or re-development should adopt exemplar source control SUDS techniques to reduce the risk of frequent low impact flooding due to post-development runoff.
- Onsite attenuation schemes would need to be tested against the hydrograph of the receiving watercourse to ensure flows are not exacerbated downstream within the catchment.
- Demonstration that development at this location can be made safe.
- New development must seek opportunities to reduce overall level of flood risk at the site for example by:
  - Reducing volume and rate of runoff
  - Relocating development to zones with lower flood risk
  - Creating space for flooding.

NUN015		
OSNGR: 436458.776,290	Area: 0.48 ha	Greenfield

Sources of flood risk:

• Primary flood risk is from surface water flooding and overland flows.
• With further development and creation of impermeable ground surfaces, surface water flooding may become a problem.

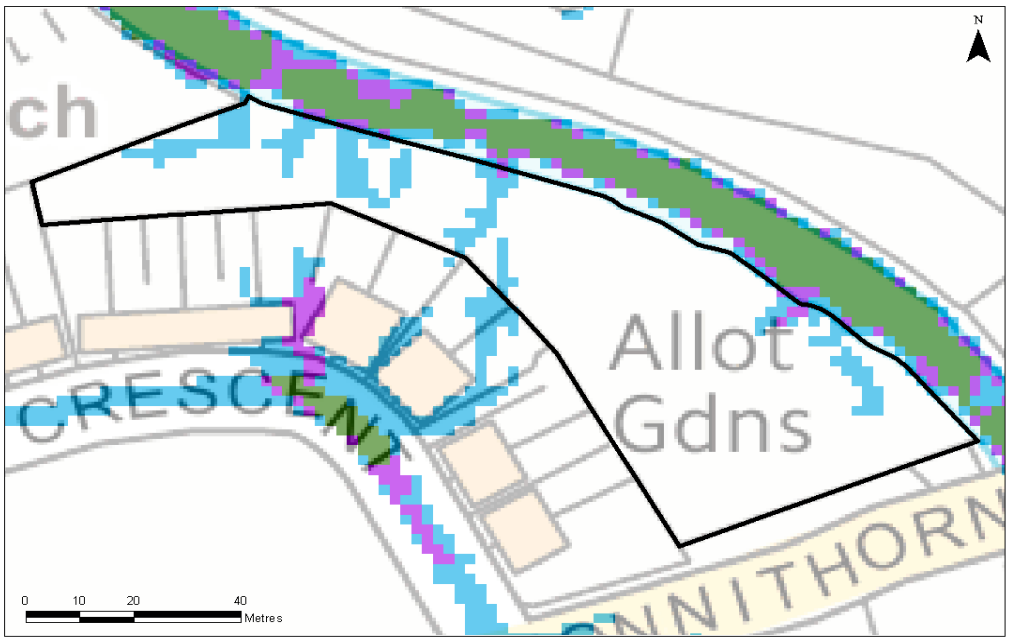
Exception Test Required?

No

NPPF Guidance:

• For development proposals on sites comprising one hectare or above in Flood Zone 1 the vulnerability of flooding from other sources as well as from river flooding should be incorporated into a FRA. The potential to increase flood risk elsewhere through the addition of hard surfaces and the effect of the new development on surface water run-off must be included.
• Developers and local authorities should seek opportunities to reduce the overall level of flood risk in the area and beyond through the layout and form of the development and through appropriate sustainable drainage techniques.

Surface Water Map



Potential development location
Council boundary
uFMfSW 30-year Extent
uFMfSW 100-year Extent
uFMfSW 1,000-year Extent

SuDS & the development site:

SuDS Type	Suitability	Comments
Source Control		All forms of source control are likely to be suitable.
Infiltration		Mapping suggests high permeability at this site, site investigations should be carried out to assess potential for drainage by infiltration.

Detention		Mapping suggests that the site slopes are suitable for all forms of detention.
Filtration		All filtration techniques are likely to be suitable. If the site has contaminated land issues; a liner will be required.
Conveyance		All forms of conveyance are likely to be suitable. Where the slopes are >5% features should follow contours or utilise check dams to slow flows.If the site has groundwater contamination issues, a liner will be required.

- *The site is not located in an area designated by the Environment Agency as a landfill site.*
- *The site is not located within any Environment Agency designated ground source protection zones.*

Flood Defences:
There are no flood defences at this site.

Flood Warning:
There are currently no flood warning areas covering this site.

Climate Change:
- Increased storm intensities.

Flood Risk Implications for Development:
- Green infrastructure should be considered within the mitigation measures for surface water runoff from potential development.
- Assessment for runoff should include allowance for climate change effects.
- New or re-development should adopt exemplar source control SUDS techniques to reduce the risk of frequent low impact flooding due to post-development runoff.
- Onsite attenuation schemes would need to be tested against the hydrograph of the receiving watercourse to ensure flows are not exacerbated downstream within the catchment.
- Demonstration that development at this location can be made safe.
- New development must seek opportunities to reduce overall level of flood risk at the site for example by:
  - Reducing volume and rate of runoff
  - Relocating development to zones with lower flood risk
  - Creating space for flooding.

NUN043		
OSNGR: 434089.72,2910	Area: 0.68 ha	Majority Brownfield

Sources of flood risk:

• Mapping shows the site is not at risk from surface water flooding.
• With further development and creation of impermeable ground surfaces, surface water flooding may become a problem.

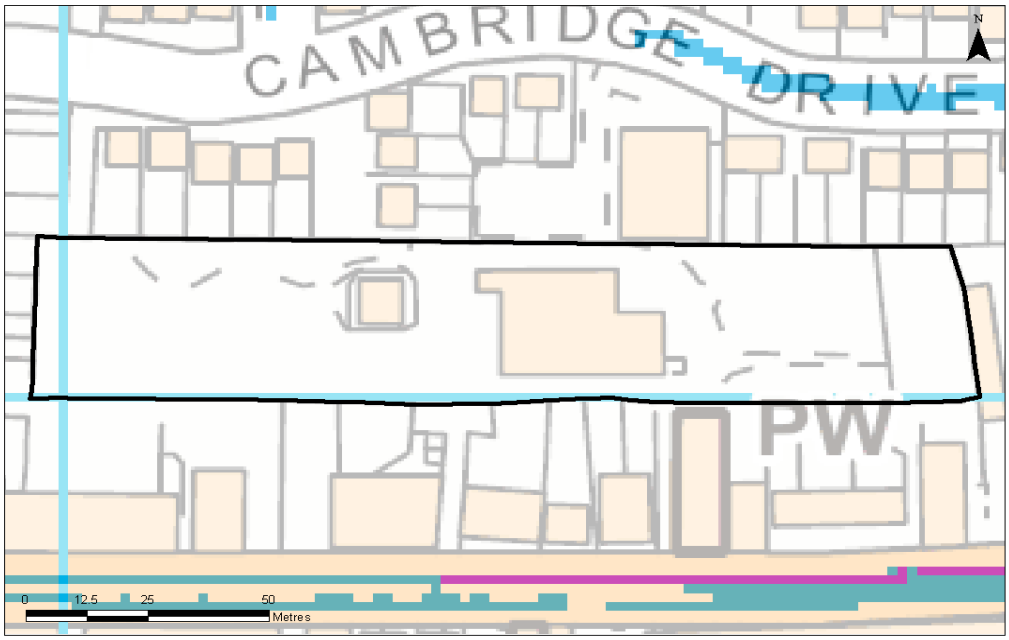
Exception Test Required?

No

NPPF Guidance:

• For development proposals on sites comprising one hectare or above in Flood Zone 1 the vulnerability of flooding from other sources as well as from river flooding should be incorporated into a FRA. The potential to increase flood risk elsewhere through the addition of hard surfaces and the effect of the new development on surface water run-off must be included.
• Developers and local authorities should seek opportunities to reduce the overall level of flood risk in the area and beyond through the layout and form of the development and through appropriate sustainable drainage techniques.

Surface Water Map



Potential development location
Council boundary
uFMfSW 30-year Extent
uFMfSW 100-year Extent
uFMfSW 1,000-year Extent

SuDS & the development site:

SuDS Type	Suitability	Comments
Source Control		All forms of source control are likely to be suitable.
Infiltration		Mapping suggests high permeability at this site, site investigations should be carried out to assess potential for drainage by infiltration.

Detention		Mapping suggests that the site slopes are suitable for all forms of detention.
Filtration		All filtration techniques are likely to be suitable. If the site has contaminated land issues; a liner will be required.
Conveyance		All forms of conveyance are likely to be suitable. Where the slopes are >5% features should follow contours or utilise check dams to slow flows.If the site has groundwater contamination issues, a liner will be required.

- *The site is not located in an area designated by the Environment Agency as a landfill site.*
- *The site is not located within any Environment Agency designated ground source protection zones.*

Flood Defences:
There are no flood defences at this site.

Flood Warning:
There are currently no flood warning areas covering this site.

Climate Change:
- Increased storm intensities.

Flood Risk Implications for Development:
- Green infrastructure should be considered within the mitigation measures for surface water runoff from potential development.
- Assessment for runoff should include allowance for climate change effects.
- New or re-development should adopt exemplar source control SUDS techniques to reduce the risk of frequent low impact flooding due to post-development runoff.
- Onsite attenuation schemes would need to be tested against the hydrograph of the receiving watercourse to ensure flows are not exacerbated downstream within the catchment.
- Demonstration that development at this location can be made safe.
- New development must seek opportunities to reduce overall level of flood risk at the site for example by:
  - Reducing volume and rate of runoff
  - Relocating development to zones with lower flood risk
  - Creating space for flooding.

NUN047		
OSNGR: 436767.228,291	Area: 0.46 ha	Brownfield

Sources of flood risk:

• Primary flood risk is from surface water flooding and overland flows.
• With further development and creation of impermeable ground surfaces, surface water flooding may become a problem.

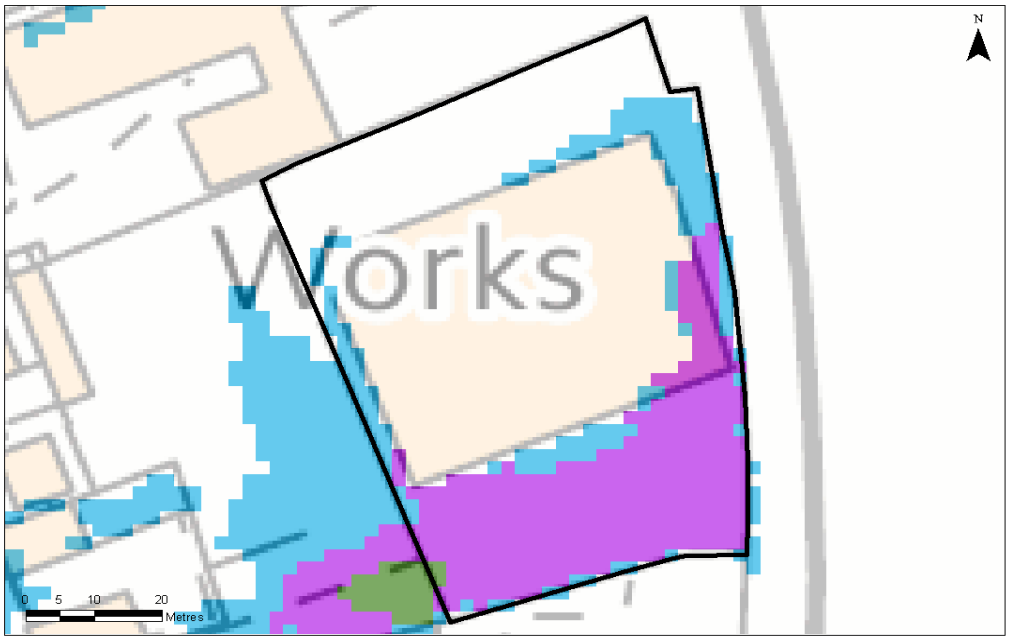
Exception Test Required?

No

NPPF Guidance:

• For development proposals on sites comprising one hectare or above in Flood Zone 1 the vulnerability of flooding from other sources as well as from river flooding should be incorporated into a FRA. The potential to increase flood risk elsewhere through the addition of hard surfaces and the effect of the new development on surface water run-off must be included.
• Developers and local authorities should seek opportunities to reduce the overall level of flood risk in the area and beyond through the layout and form of the development and through appropriate sustainable drainage techniques.

Surface Water Map



Potential development location
Council boundary
uFMfSW 30-year Extent
uFMfSW 100-year Extent
uFMfSW 1,000-year Extent

SuDS & the development site:

SuDS Type	Suitability	Comments
Source Control		All forms of source control are likely to be suitable.
Infiltration		Mapping suggests high permeability at this site, site investigations should be carried out to assess potential for drainage by infiltration.
Detention		Mapping suggests that the site slopes are suitable for all forms of detention.

Filtration		All filtration techniques are likely to be suitable. If the site has contaminated land issues; a liner will be required.
Conveyance		All forms of conveyance are likely to be suitable. Where the slopes are >5% features should follow contours or utilise check dams to slow flows.If the site has groundwater contamination issues, a liner will be required.

- *The site is not located in an area designated by the Environment Agency as a landfill site.*
- *The site is not located within any Environment Agency designated ground source protection zones.*

Flood Defences:
There are no flood defences at this site.

Flood Warning:
There are currently no flood warning areas covering this site.

Climate Change:
- Increased storm intensities.

Flood Risk Implications for Development:
- Green infrastructure should be considered within the mitigation measures for surface water runoff from potential development.
- Assessment for runoff should include allowance for climate change effects.
- New or re-development should adopt exemplar source control SUDS techniques to reduce the risk of frequent low impact flooding due to post-development runoff.
- Onsite attenuation schemes would need to be tested against the hydrograph of the receiving watercourse to ensure flows are not exacerbated downstream within the catchment.
- Demonstration that development at this location can be made safe.
- New development must seek opportunities to reduce overall level of flood risk at the site for example by:
  - Reducing volume and rate of runoff
  - Relocating development to zones with lower flood risk
  - Creating space for flooding.

NUN051		
OSNGR: 436721.66,2916	Area: 0.29 ha	Brownfield

Sources of flood risk:

• Primary flood risk is from surface water flooding and overland flows.
• With further development and creation of impermeable ground surfaces, surface water flooding may become a problem.

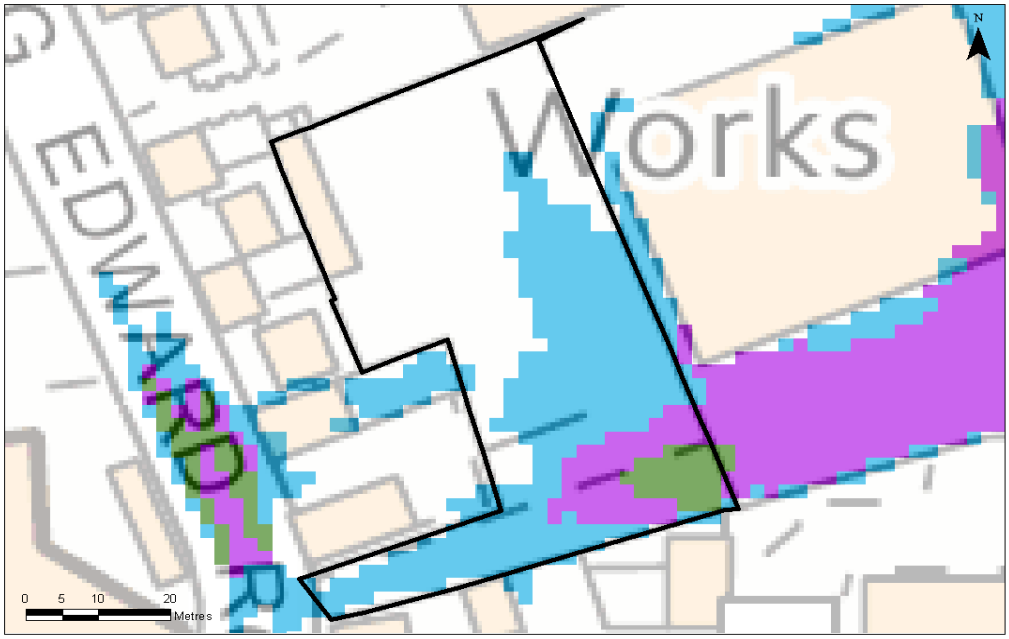
Exception Test Required?

No

NPPF Guidance:

• For development proposals on sites comprising one hectare or above in Flood Zone 1 the vulnerability of flooding from other sources as well as from river flooding should be incorporated into a FRA. The potential to increase flood risk elsewhere through the addition of hard surfaces and the effect of the new development on surface water run-off must be included.
• Developers and local authorities should seek opportunities to reduce the overall level of flood risk in the area and beyond through the layout and form of the development and through appropriate sustainable drainage techniques.

Surface Water Map



Potential development location
Council boundary
uFMfSW 30-year Extent
uFMfSW 100-year Extent
uFMfSW 1,000-year Extent

SuDS & the development site:

SuDS Type	Suitability	Comments
Source Control		All forms of source control are likely to be suitable.
Infiltration		Mapping suggests high permeability at this site, site investigations should be carried out to assess potential for drainage by infiltration.
Detention		Mapping suggests that the site slopes are suitable for all forms of detention.

Filtration		All filtration techniques are likely to be suitable. If the site has contaminated land issues; a liner will be required.
Conveyance		All forms of conveyance are likely to be suitable. Where the slopes are >5% features should follow contours or utilise check dams to slow flows.If the site has groundwater contamination issues, a liner will be required.

- *The site is not located in an area designated by the Environment Agency as a landfill site.*
- *The site is not located within any Environment Agency designated ground source protection zones.*

Flood Warning:

There are currently no flood warning areas covering this site.

Climate Change:

- Increased storm intensities.

Flood Risk Implications for Development:

- Green infrastructure should be considered within the mitigation measures for surface water runoff from potential development.
- Assessment for runoff should include allowance for climate change effects.
- New or re-development should adopt exemplar source control SUDS techniques to reduce the risk of frequent low impact flooding due to post-development runoff.
- Onsite attenuation schemes would need to be tested against the hydrograph of the receiving watercourse to ensure flows are not exacerbated downstream within the catchment.
- Demonstration that development at this location can be made safe.
- New development must seek opportunities to reduce overall level of flood risk at the site for example by:
  - Reducing volume and rate of runoff
  - Relocating development to zones with lower flood risk
  - Creating space for flooding.

NUN060		
OSNGR: 436502.065,287	Area: 0.23 ha	Brownfield

Sources of flood risk:

• Mapping shows the site is not at risk from surface water flooding

• With further development and creation of impermeable ground surfaces, surface water flooding may become a problem.

Exception Test Required?

No

NPPF Guidance:

• For development proposals on sites comprising one hectare or above in Flood Zone 1 the vulnerability of flooding from other sources as well as from river flooding should be incorporated into a FRA. The potential to increase flood risk elsewhere through the addition of hard surfaces and the effect of the new development on surface water run-off must be included.

• Developers and local authorities should seek opportunities to reduce the overall level of flood risk in the area and beyond through the layout and form of the development and through appropriate sustainable drainage techniques.

Surface Water Map

Potential development location | Council boundary | uFMfSW 30-year Extent | uFMfSW 100-year Extent | uFMfSW 1,000-year Extent

SuDS & the development site:

SuDS Type	Suitability	Comments
Source Control		All forms of source control are likely to be suitable.
Infiltration		Mapping suggests high permeability at this site, site investigations should be carried out to assess potential for drainage by infiltration.
Detention		Mapping suggests that the site slopes are suitable for all forms of detention.

Filtration		All filtration techniques are likely to be suitable. If the site has contaminated land issues; a liner will be required.
Conveyance		All forms of conveyance are likely to be suitable. Where the slopes are >5% features should follow contours or utilise check dams to slow flows.If the site has groundwater contamination issues, a liner will be required.

- *The site is not located in an area designated by the Environment Agency as a landfill site.*
- *The site is not located within any Environment Agency designated ground source protection zones.*

Flood Defences:
There are no flood defences at this site.

Flood Warning:
There are currently no flood warning areas covering this site.

Climate Change:
- Increased storm intensities.

Flood Risk Implications for Development:
- Green infrastructure should be considered within the mitigation measures for surface water runoff from potential development.
- Assessment for runoff should include allowance for climate change effects.
- New or re-development should adopt exemplar source control SUDS techniques to reduce the risk of frequent low impact flooding due to post-development runoff.
- Onsite attenuation schemes would need to be tested against the hydrograph of the receiving watercourse to ensure flows are not exacerbated downstream within the catchment.
- Demonstration that development at this location can be made safe.
- New development must seek opportunities to reduce overall level of flood risk at the site for example by:
  - Reducing volume and rate of runoff
  - Relocating development to zones with lower flood risk
  - Creating space for flooding.

NUN061		
OSNGR: 433325,286519	Area: 0.25 ha	Greenfield

Sources of flood risk:

• Mapping shows the site is not at risk from surface water flooding.
• With further development and creation of impermeable ground surfaces, surface water flooding may become a problem.

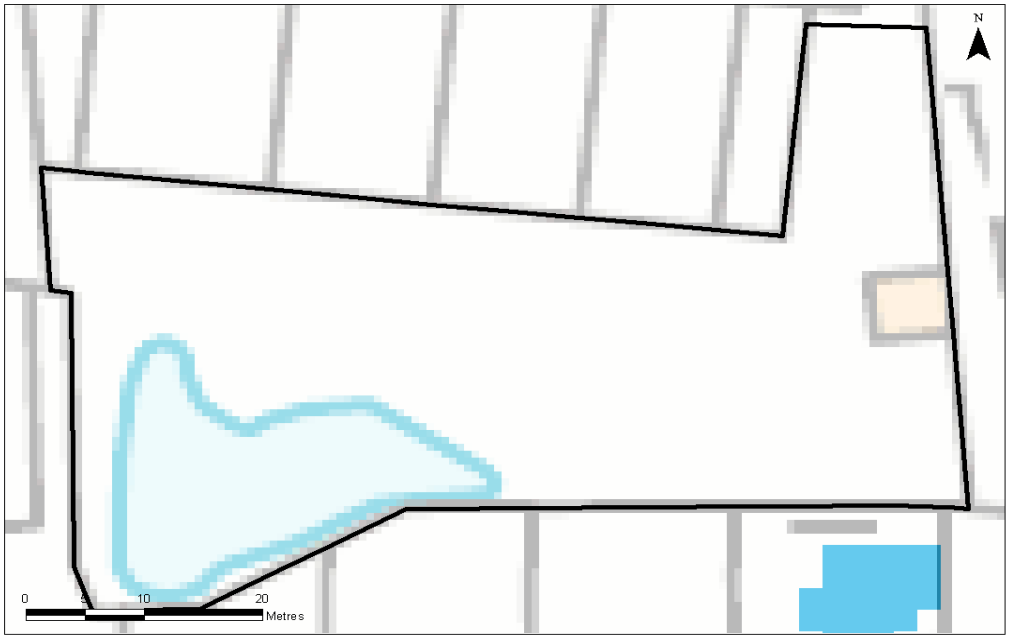
Exception Test Required?

No

NPPF Guidance:

• For development proposals on sites comprising one hectare or above in Flood Zone 1 the vulnerability of flooding from other sources as well as from river flooding should be incorporated into a FRA. The potential to increase flood risk elsewhere through the addition of hard surfaces and the effect of the new development on surface water run-off must be included.
• Developers and local authorities should seek opportunities to reduce the overall level of flood risk in the area and beyond through the layout and form of the development and through appropriate sustainable drainage techniques.

Surface Water Map



Potential development location
Council boundary
uFMfSW 30-year Extent
uFMfSW 100-year Extent
uFMfSW 1,000-year Extent

SuDS & the development site:

SuDS Type	Suitability	Comments
Source Control		All forms of source control are likely to be suitable.
Infiltration		Mapping suggests high permeability at this site, site investigations should be carried out to assess potential for drainage by infiltration.
Detention		Mapping suggests that the site slopes are suitable for all forms of detention.

Filtration		All filtration techniques are likely to be suitable. If the site has contaminated land issues; a liner will be required.
Conveyance		All forms of conveyance are likely to be suitable. Where the slopes are >5% features should follow contours or utilise check dams to slow flows.If the site has groundwater contamination issues, a liner will be required.

- *The site is not located in an area designated by the Environment Agency as a landfill site.*
- *The site is not located within any Environment Agency designated ground source protection zones.*

Flood Defences:
There are no flood defences at this site.

Flood Warning:
There are currently no flood warning areas covering this site.

Climate Change:
- Increased storm intensities.

Flood Risk Implications for Development:
- Green infrastructure should be considered within the mitigation measures for surface water runoff from potential development.
- Assessment for runoff should include allowance for climate change effects.
- New or re-development should adopt exemplar source control SUDS techniques to reduce the risk of frequent low impact flooding due to post-development runoff.
- Onsite attenuation schemes would need to be tested against the hydrograph of the receiving watercourse to ensure flows are not exacerbated downstream within the catchment.
- Demonstration that development at this location can be made safe.
- New development must seek opportunities to reduce overall level of flood risk at the site for example by:
  - Reducing volume and rate of runoff
  - Relocating development to zones with lower flood risk
  - Creating space for flooding.

NUN065		
OSNGR: 439674.462,286	Area: 0.31 ha	Brownfield

Sources of flood risk:

• Primary flood risk is from surface water flooding and overland flows.
• With further development and creation of impermeable ground surfaces, surface water flooding may become a problem.

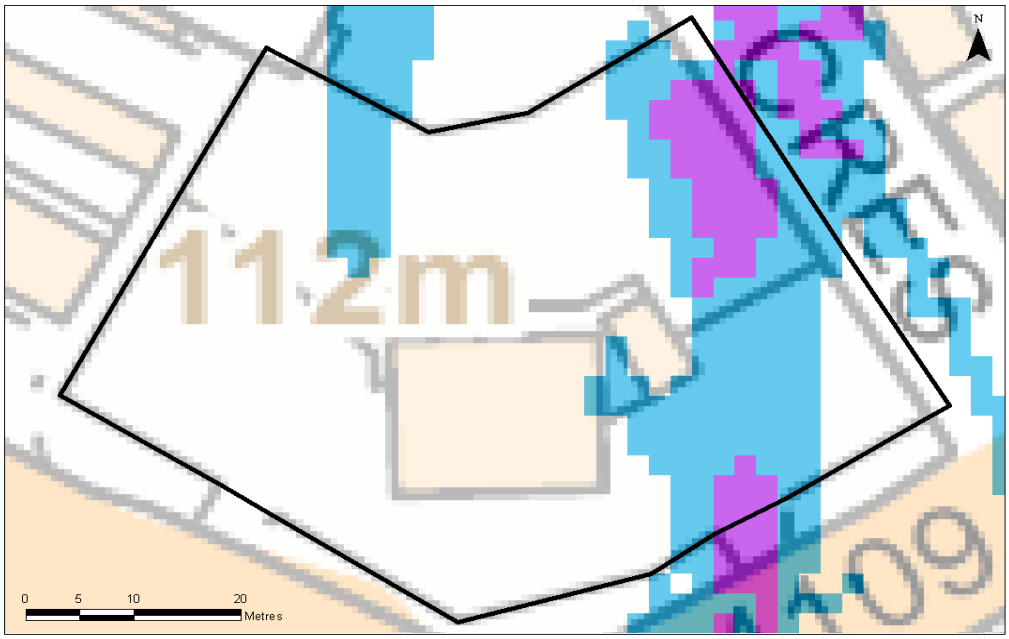
Exception Test Required?

No

NPPF Guidance:

• For development proposals on sites comprising one hectare or above in Flood Zone 1 the vulnerability of flooding from other sources as well as from river flooding should be incorporated into a FRA. The potential to increase flood risk elsewhere through the addition of hard surfaces and the effect of the new development on surface water run-off must be included.
• Developers and local authorities should seek opportunities to reduce the overall level of flood risk in the area and beyond through the layout and form of the development and through appropriate sustainable drainage techniques.

Surface Water Map



Potential development location
Council boundary
uFMfSW 30-year Extent
uFMfSW 100-year Extent
uFMfSW 1,000-year Extent

SuDS & the development site:

SuDS Type	Suitability	Comments
Source Control		All forms of source control are likely to be suitable.
Infiltration		Mapping suggests that there is a possibility of groundwater flooding at this location, therefore it is possible infiltration techniques will not be suitable. This should be confirmed via site investigations to assess the potential for infiltration.
Detention		Mapping suggests that the site slopes are suitable for all forms of detention.

Filtration		All filtration techniques are likely to be suitable. If the site has contaminated land issues; a liner will be required.
Conveyance		All forms of conveyance are likely to be suitable. Where the slopes are >5% features should follow contours or utilise check dams to slow flows.If the site has groundwater contamination issues, a liner will be required.

- *The site is not located in an area designated by the Environment Agency as a landfill site.*
- *The site is not located within any Environment Agency designated ground source protection zones.*

Flood Defences:
There are no flood defences at this site.

Flood Warning:
There are currently no flood warning areas covering this site.

Climate Change:
- Increased storm intensities.

Flood Risk Implications for Development:
- Green infrastructure should be considered within the mitigation measures for surface water runoff from potential development.
- Assessment for runoff should include allowance for climate change effects.
- New or re-development should adopt exemplar source control SUDS techniques to reduce the risk of frequent low impact flooding due to post-development runoff.
- Onsite attenuation schemes would need to be tested against the hydrograph of the receiving watercourse to ensure flows are not exacerbated downstream within the catchment.
- Demonstration that development at this location can be made safe.
- New development must seek opportunities to reduce overall level of flood risk at the site for example by:
  - Reducing volume and rate of runoff
  - Relocating development to zones with lower flood risk
  - Creating space for flooding.

NUN068		
OSNGR: 435258.104,286	Area: 0.24 ha	Brownfield

Sources of flood risk:

• Primary flood risk is from surface water flooding and overland flows.
• With further development and creation of impermeable ground surfaces, surface water flooding may become a problem.

Exception Test Required?

No

NPPF Guidance:

• For development proposals on sites comprising one hectare or above in Flood Zone 1 the vulnerability of flooding from other sources as well as from river flooding should be incorporated into a FRA. The potential to increase flood risk elsewhere through the addition of hard surfaces and the effect of the new development on surface water run-off must be included.
• Developers and local authorities should seek opportunities to reduce the overall level of flood risk in the area and beyond through the layout and form of the development and through appropriate sustainable drainage techniques.

Surface Water Map

Potential development location
Council boundary
uFMfSW 30-year Extent
uFMfSW 100-year Extent
uFMfSW 1,000-year Extent

SuDS & the development site:

SuDS Type	Suitability	Comments
Source Control		All forms of source control are likely to be suitable.
Infiltration		Mapping suggests high permeability at this site, site investigations should be carried out to assess potential for drainage by infiltration.

Detention		Mapping suggests that the site slopes are suitable for all forms of detention.
Filtration		All filtration techniques are likely to be suitable. If the site has contaminated land issues; a liner will be required.
Conveyance		All forms of conveyance are likely to be suitable. Where the slopes are >5% features should follow contours or utilise check dams to slow flows.If the site has groundwater contamination issues, a liner will be required.

- *The site is not located in an area designated by the Environment Agency as a landfill site.*
- *The site is not located within any Environment Agency designated ground source protection zones.*

Flood Defences:
There are no flood defences at this site.

Flood Warning:
There are currently no flood warning areas covering this site.

Climate Change:
- Increased storm intensities.

Flood Risk Implications for Development:
- Green infrastructure should be considered within the mitigation measures for surface water runoff from potential development.
- Assessment for runoff should include allowance for climate change effects.
- New or re-development should adopt exemplar source control SUDS techniques to reduce the risk of frequent low impact flooding due to post-development runoff.
- Onsite attenuation schemes would need to be tested against the hydrograph of the receiving watercourse to ensure flows are not exacerbated downstream within the catchment.
- Demonstration that development at this location can be made safe.
- New development must seek opportunities to reduce overall level of flood risk at the site for example by:
  - Reducing volume and rate of runoff
  - Relocating development to zones with lower flood risk
  - Creating space for flooding.

NUN074		
OSNGR: 435234.125,286	Area: 0.16 ha	Brownfield

Sources of flood risk:

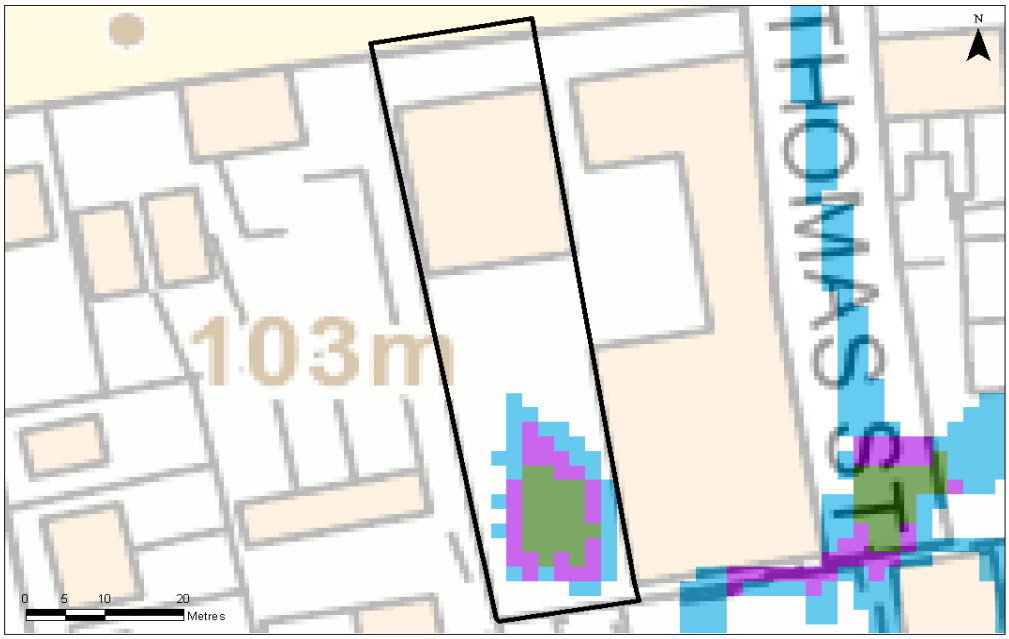
• Primary flood risk is from surface water flooding and overland flows.
• With further development and creation of impermeable ground surfaces, surface water flooding may become a problem.

Exception Test Required?

No

NPPF Guidance:

• For development proposals on sites comprising one hectare or above in Flood Zone 1 the vulnerability of flooding from other sources as well as from river flooding should be incorporated into a FRA. The potential to increase flood risk elsewhere through the addition of hard surfaces and the effect of the new development on surface water run-off must be included.
• Developers and local authorities should seek opportunities to reduce the overall level of flood risk in the area and beyond through the layout and form of the development and through appropriate sustainable drainage techniques.



Potential development location
Council boundary
uFMfSW 30-year Extent
uFMfSW 100-year Extent
uFMfSW 1,000-year Extent

SuDS & the development site:

SuDS Type	Suitability	Comments
Source Control		All forms of source control are likely to be suitable.
Infiltration		Mapping suggests high permeability at this site, site investigations should be carried out to assess potential for drainage by infiltration.
Detention		Mapping suggests that the site slopes are suitable for all forms of detention.

Filtration		All filtration techniques are likely to be suitable. If the site has contaminated land issues; a liner will be required.
Conveyance		All forms of conveyance are likely to be suitable. Where the slopes are >5% features should follow contours or utilise check dams to slow flows.If the site has groundwater contamination issues, a liner will be required.

- *The site is not located in an area designated by the Environment Agency as a landfill site.*
- *The site is not located within any Environment Agency designated ground source protection zones.*

Flood Defences:
There are no flood defences at this site.

Flood Warning:
There are currently no flood warning areas covering this site.

Climate Change:
- Increased storm intensities.

Flood Risk Implications for Development:
- Green infrastructure should be considered within the mitigation measures for surface water runoff from potential development.
- Assessment for runoff should include allowance for climate change effects.
- New or re-development should adopt exemplar source control SUDS techniques to reduce the risk of frequent low impact flooding due to post-development runoff.
- Onsite attenuation schemes would need to be tested against the hydrograph of the receiving watercourse to ensure flows are not exacerbated downstream within the catchment.
- Demonstration that development at this location can be made safe.
- New development must seek opportunities to reduce overall level of flood risk at the site for example by:
  - Reducing volume and rate of runoff
  - Relocating development to zones with lower flood risk
  - Creating space for flooding.

NUN075		
OSNGR: 435617.427,286	Area: 0.14 ha	Greenfield

Sources of flood risk:

• Mapping shows the site is not at risk from surface water flooding.
• With further development and creation of impermeable ground surfaces, surface water flooding may become a problem.

Exception Test Required?

No

NPPF Guidance:

• For development proposals on sites comprising one hectare or above in Flood Zone 1 the vulnerability of flooding from other sources as well as from river flooding should be incorporated into a FRA. The potential to increase flood risk elsewhere through the addition of hard surfaces and the effect of the new development on surface water run-off must be included.
• Developers and local authorities should seek opportunities to reduce the overall level of flood risk in the area and beyond through the layout and form of the development and through appropriate sustainable drainage techniques.

Surface Water Map

Potential development location
Council boundary
uFMfSW 30-year Extent
uFMfSW 100-year Extent
uFMfSW 1,000-year Extent

SuDS & the development site:

SuDS Type	Suitability	Comments
Source Control		All forms of source control are likely to be suitable.
Infiltration		Mapping suggests that there is a possibility of groundwater flooding at this location, therefore it is possible infiltration techniques will not be suitable. This should be confirmed via site investigations to assess the potential for infiltration.
Detention		Mapping suggests that the site may be too steep to allow 'above ground' detention features to be used at this development.

Filtration		Mapping suggests that there may be steep slopes within the site; however, filtration features may be suitable provided site slopes are <5% and the depth to the water table is >1m.
Conveyance		All forms of conveyance are likely to be suitable. Where the slopes are >5% features should follow contours or utilise check dams to slow flows.If the site has groundwater contamination issues, a liner will be required.

- *The site is not located in an area designated by the Environment Agency as a landfill site.*
- *The site is not located within any Environment Agency designated ground source protection zones.*

Flood Defences:

There are no flood defences at this site.

Flood Warning:

There are currently no flood warning areas covering this site.

Climate Change:

- Increased storm intensities.

Flood Risk Implications for Development:

- Green infrastructure should be considered within the mitigation measures for surface water runoff from potential development.
- Assessment for runoff should include allowance for climate change effects.
- New or re-development should adopt exemplar source control SUDS techniques to reduce the risk of frequent low impact flooding due to post-development runoff.
- Onsite attenuation schemes would need to be tested against the hydrograph of the receiving watercourse to ensure flows are not exacerbated downstream within the catchment.
- Demonstration that development at this location can be made safe.
- New development must seek opportunities to reduce overall level of flood risk at the site for example by:
  - Reducing volume and rate of runoff
  - Relocating development to zones with lower flood risk
  - Creating space for flooding.

NUN087		
OSNGR: 433256.972,286	Area: 0.14 ha	Brownfield

Sources of flood risk:

• Mapping shows the site is not at risk from surface water flooding.
• With further development and creation of impermeable ground surfaces, surface water flooding may become a problem.

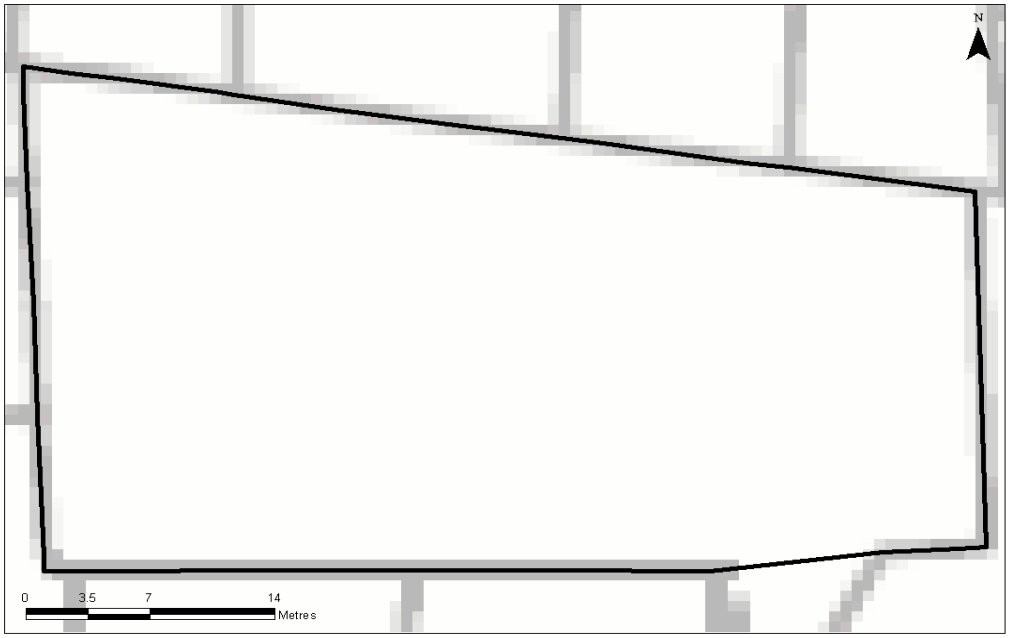
Exception Test Required?

No

NPPF Guidance:

• For development proposals on sites comprising one hectare or above in Flood Zone 1 the vulnerability of flooding from other sources as well as from river flooding should be incorporated into a FRA. The potential to increase flood risk elsewhere through the addition of hard surfaces and the effect of the new development on surface water run-off must be included.
• Developers and local authorities should seek opportunities to reduce the overall level of flood risk in the area and beyond through the layout and form of the development and through appropriate sustainable drainage techniques.

Surface Water Map



Potential development location
Council boundary
uFMfSW 30-year Extent
uFMfSW 100-year Extent
uFMfSW 1,000-year Extent

SuDS & the development site:

SuDS Type	Suitability	Comments
Source Control		All forms of source control are likely to be suitable.
Infiltration		Mapping suggests high permeability at this site, site investigations should be carried out to assess potential for drainage by infiltration.
Detention		Mapping suggests that the site slopes are suitable for all forms of detention.

Filtration		All filtration techniques are likely to be suitable. If the site has contaminated land issues; a liner will be required.
Conveyance		All forms of conveyance are likely to be suitable. Where the slopes are >5% features should follow contours or utilise check dams to slow flows.If the site has groundwater contamination issues, a liner will be required.

- *The site is not located in an area designated by the Environment Agency as a landfill site.*
- *The site is not located within any Environment Agency designated ground source protection zones.*

Flood Defences:
There are no flood defences at this site.

Flood Warning:
There are currently no flood warning areas covering this site.

Climate Change:
- Increased storm intensities.

Flood Risk Implications for Development:
- Green infrastructure should be considered within the mitigation measures for surface water runoff from potential development.
- Assessment for runoff should include allowance for climate change effects.
- New or re-development should adopt exemplar source control SUDS techniques to reduce the risk of frequent low impact flooding due to post-development runoff.
- Onsite attenuation schemes would need to be tested against the hydrograph of the receiving watercourse to ensure flows are not exacerbated downstream within the catchment.
- Demonstration that development at this location can be made safe.
- New development must seek opportunities to reduce overall level of flood risk at the site for example by:
  - Reducing volume and rate of runoff
  - Relocating development to zones with lower flood risk
  - Creating space for flooding.

NUN088		
OSNGR: 437040.848,290	Area: 0.03 ha	Brownfield

Sources of flood risk:

• Mapping shows the site is not at risk from surface water flooding.
• With further development and creation of impermeable ground surfaces, surface water flooding may become a problem.

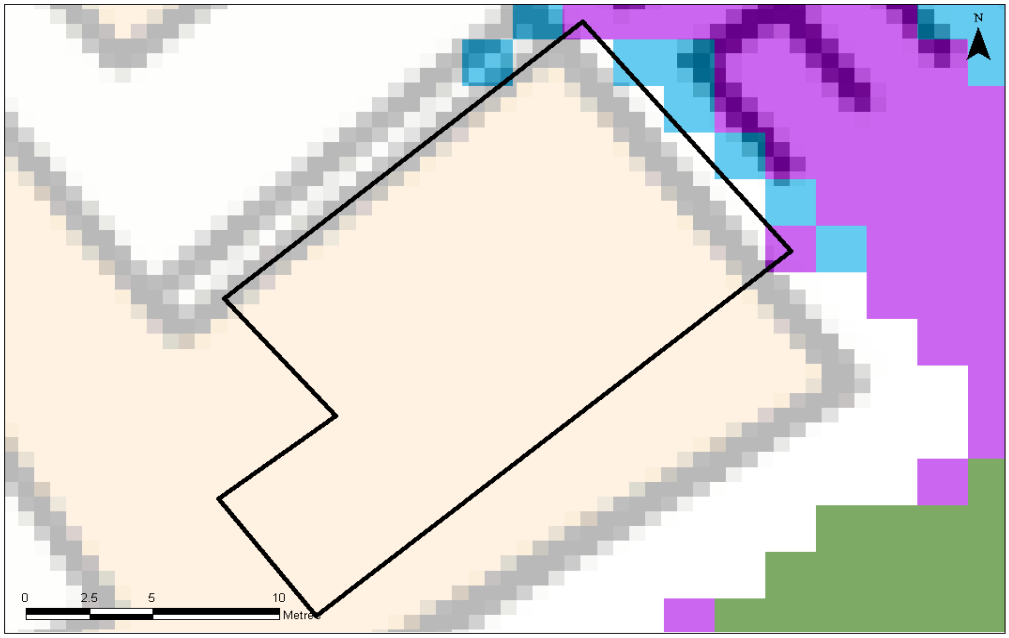
Exception Test Required?

No

NPPF Guidance:

• For development proposals on sites comprising one hectare or above in Flood Zone 1 the vulnerability of flooding from other sources as well as from river flooding should be incorporated into a FRA. The potential to increase flood risk elsewhere through the addition of hard surfaces and the effect of the new development on surface water run-off must be included.
• Developers and local authorities should seek opportunities to reduce the overall level of flood risk in the area and beyond through the layout and form of the development and through appropriate sustainable drainage techniques.

Surface Water Map



Potential development location
Council boundary
uFMfSW 30-year Extent
uFMfSW 100-year Extent
uFMfSW 1,000-year Extent

SuDS & the development site:

SuDS Type	Suitability	Comments
Source Control		All forms of source control are likely to be suitable.
Infiltration		Mapping suggests high permeability at this site, site investigations should be carried out to assess potential for drainage by infiltration.
Detention		Mapping suggests that the site slopes are suitable for all forms of detention.

Filtration		All filtration techniques are likely to be suitable. If the site has contaminated land issues; a liner will be required.
Conveyance		All forms of conveyance are likely to be suitable. Where the slopes are >5% features should follow contours or utilise check dams to slow flows.If the site has groundwater contamination issues, a liner will be required.

- *The site is not located in an area designated by the Environment Agency as a landfill site.*
- *The site is not located within any Environment Agency designated ground source protection zones.*

Flood Defences:
There are no flood defences at this site.

Flood Warning:
There are currently no flood warning areas covering this site.

Climate Change:
- Increased storm intensities.

Flood Risk Implications for Development:
- Green infrastructure should be considered within the mitigation measures for surface water runoff from potential development.
- Assessment for runoff should include allowance for climate change effects.
- New or re-development should adopt exemplar source control SUDS techniques to reduce the risk of frequent low impact flooding due to post-development runoff.
- Onsite attenuation schemes would need to be tested against the hydrograph of the receiving watercourse to ensure flows are not exacerbated downstream within the catchment.
- Demonstration that development at this location can be made safe.
- New development must seek opportunities to reduce overall level of flood risk at the site for example by:
  - Reducing volume and rate of runoff
  - Relocating development to zones with lower flood risk
  - Creating space for flooding.

NUN119_147		
OSNGR: 436271 285272	Area: 28.8 ha	Greenfield

Sources of flood risk:

• Primary flood risk is from surface water flooding and overland flows.
• With further development and creation of impermeable ground surfaces, surface water flooding may become a problem.

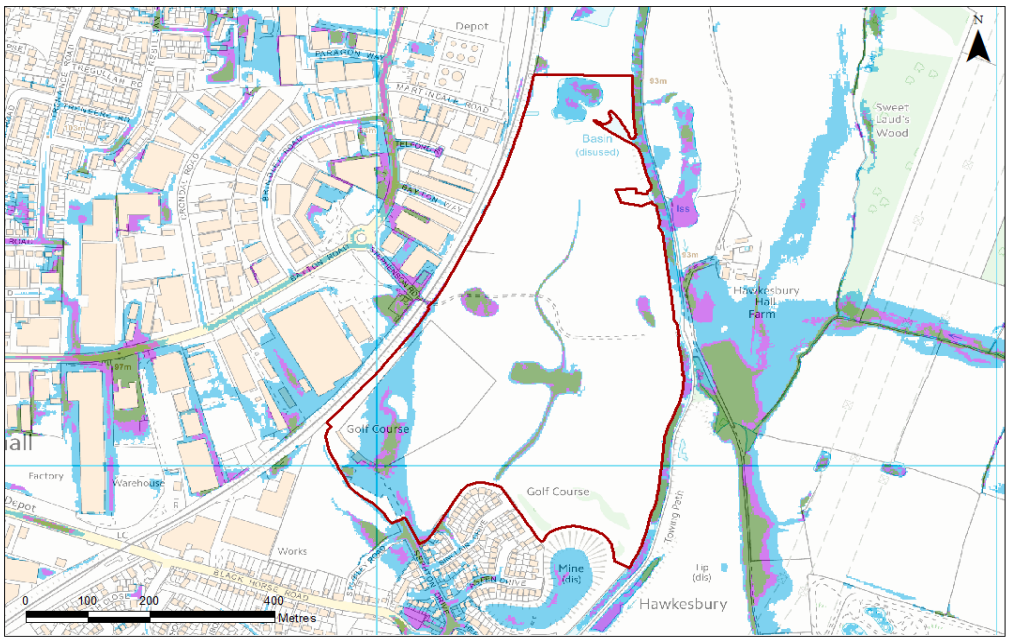
Exception Test Required?

No

NPPF Guidance:

• For development proposals on sites comprising one hectare or above in Flood Zone 1 the vulnerability of flooding from other sources as well as from river flooding should be incorporated into a FRA. The potential to increase flood risk elsewhere through the addition of hard surfaces and the effect of the new development on surface water run-off must be included.
• Developers and local authorities should seek opportunities to reduce the overall level of flood risk in the area and beyond through the layout and form of the development and through appropriate sustainable drainage techniques.

Surface Water Map



Potential development location
Council boundary
uFMfSW 30-year Extent
uFMfSW 100-year Extent
uFMfSW 1,000-year Extent

SuDS & the development site:

SuDS Type	Suitability	Comments
Source Control		All forms of source control are likely to be suitable.
Infiltration		Mapping suggests high permeability at this site, site investigations should be carried out to assess potential for drainage by infiltration.
Detention		This option may be feasible provided site slopes are < 5% at the location of the detention feature. A liner maybe required if there any ground contamination issues.

Filtration		This feature is probably suitable provided site slopes are <5% and the depth to the water table is >1m. If the site has contaminated land issues; a liner will be required.
Conveyance		All forms of conveyance are likely to be suitable. Where the slopes are >5% features should follow contours or utilise check dams to slow flows.If the site has groundwater contamination issues, a liner will be required.

• *The site is not located within a groundwater source protection zone.*
• *The site is bordered by several landfill areas. Investigation and consultation with the Environment Agency may be needed to assess the risk of contamination.*

Flood Defences:
There are no flood defences at this site.

Flood Warning:
There are currently no flood warning areas covering this site.

Climate Change:
• Increased storm intensities.

Flood Risk Implications for Development:
• Green infrastructure should be considered within the mitigation measures for surface water runoff from potential development.
• Assessment for runoff should include allowance for climate change effects.
• New or re-development should adopt exemplar source control SUDS techniques to reduce the risk of frequent low impact flooding due to post-development runoff.
• Onsite attenuation schemes would need to be tested against the hydrograph of the receiving watercourse to ensure flows are not exacerbated downstream within the catchment.
• Demonstration that development at this location can be made safe.
• New development must seek opportunities to reduce overall level of flood risk at the site for example by:
o Reducing volume and rate of runoff
o Relocating development to zones with lower flood risk
o Creating space for flooding.

NUN174				
OSNGR: 436802,287850	Area: 2.18 ha		Greenfield	
Flood Zone Coverage:	**FZ3b** 0%	**FZ3a** 3%	**FZ2** 1%	**FZ1** 96%

Sources of flood risk:

• Primary flood risk fluvial from Wem Brookl, resulting from overtopping of the watercourse channel. Wem Brook flows along the south east site boundary.

• With further development and creation of impermeable ground surfaces, surface water flooding may become a problem.

Exception Test Required?

Yes, for Essential infrastructure development in FZ3b, Essential infrastructure and More Vulnerable development in FZ3a and Highly Vulnerable development in FZ2.

Highly Vulnerable infrastructure should not be permitted within FZ3a. Highly Vulnerable, More Vulnerable and Less Vulnerable infrastructure should not be permitted within FZ3b.

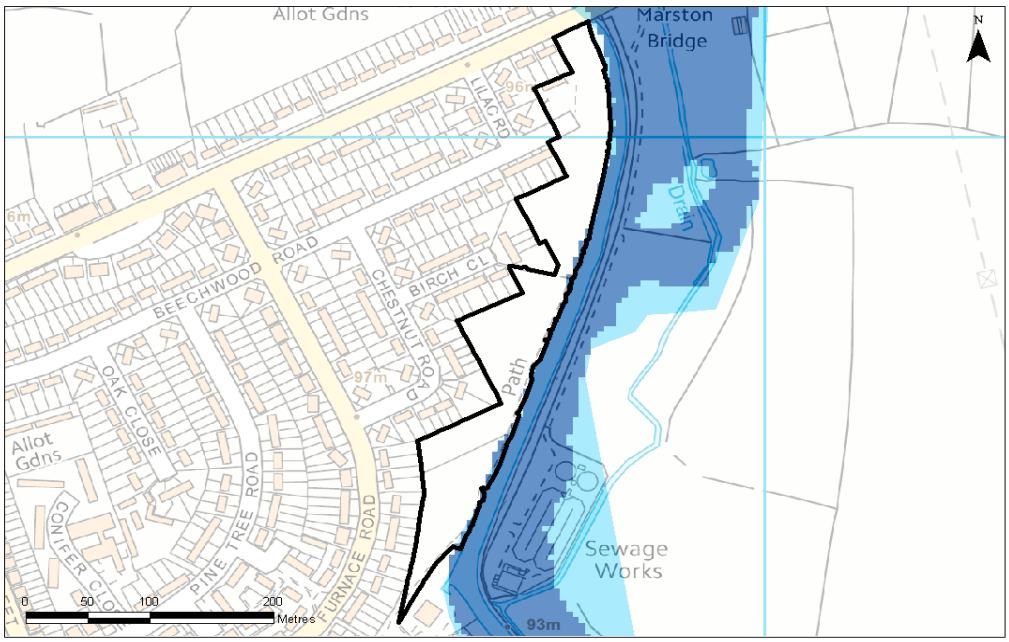
NPPF Guidance:

• To pass Part 'b' of the Exception Test, a FRA should demonstrate that the development will be safe, will avoid increasing flood risk elsewhere and will reduce flood risk overall.

• Preference should be given to locating development outside the flooded areas, which flows along the south westerly boundary of the development site. It should be possible to reduce flood risk at this location by using sequential design to locate more vulnerable development towards higher ground, through building design and by meeting drainage requirements. Some resilience measures may be required if buildings are situated in the flood risk area.

• Consultation with the Local Authority and the Environment Agency should be undertaken at an early stage.

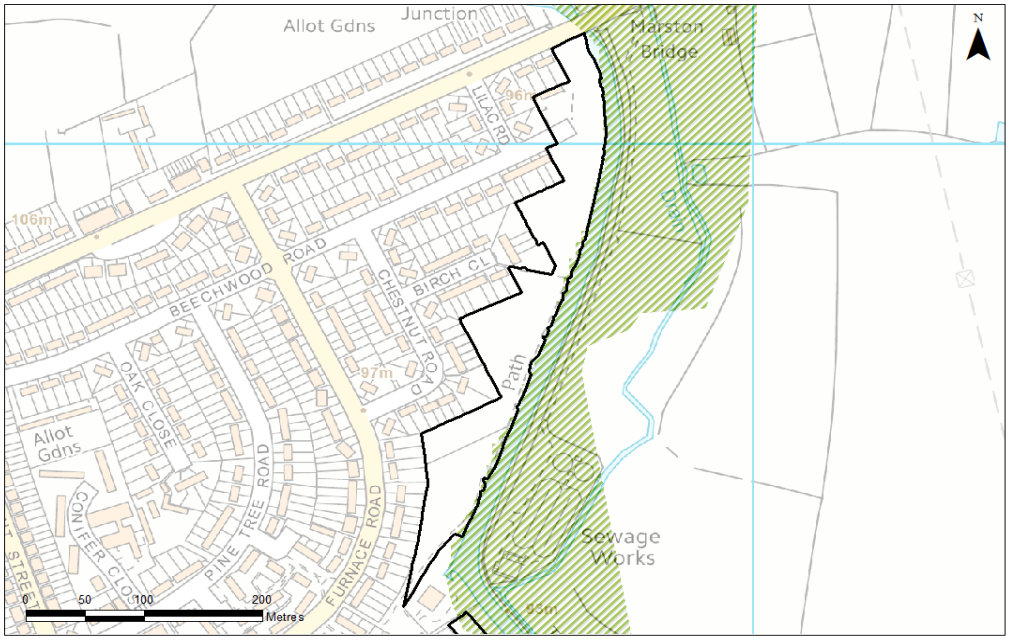
Flood Zone Map



Note: Indicative flood extents have been used to represent FZ3b in certain locations. For more information please refer to section 10 in the main report.

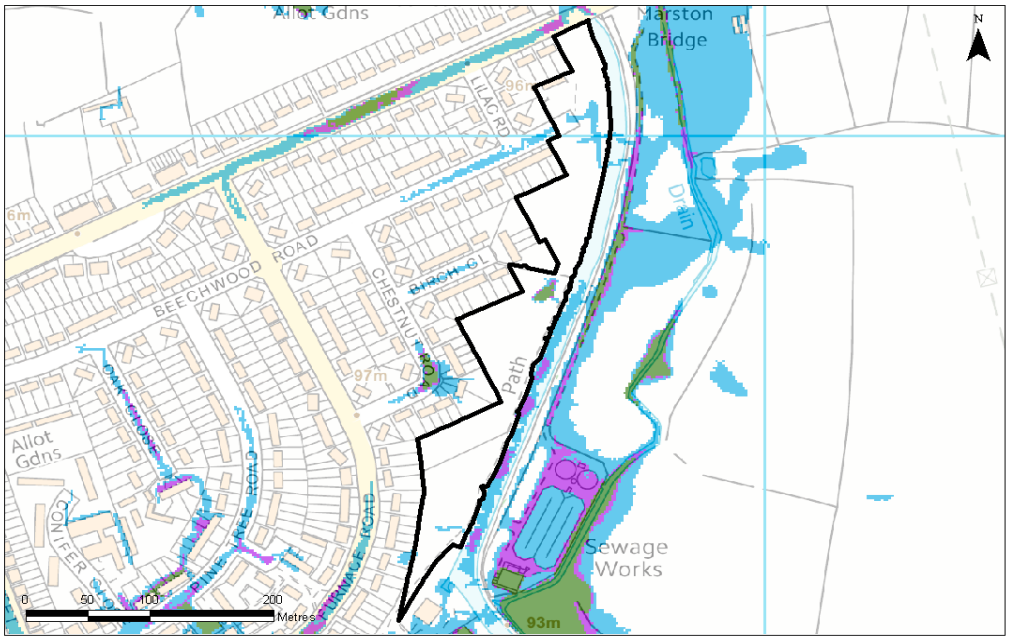
Potential development location
Council boundary
Flood Zone 3b
Indicative Extent of Flood Zone 3b
Flood Zone 3a
Flood Zone 2

Climate Change Map



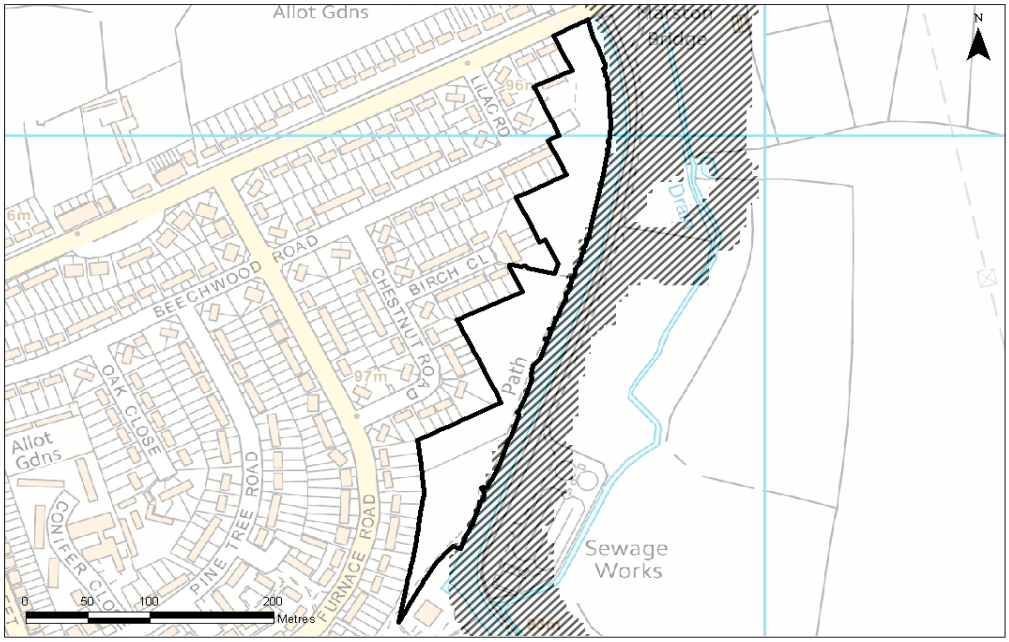
Potential development location
Council boundary
Flood Zone 3 with Climate Change
Indicative Extent of Flood Zone 3 with Climate Change

Surface Water Map



Potential development location
Council boundary
uFMfSW 30-year Extent
uFMfSW 100-year Extent
uFMfSW 1,000-year Extent

Depth Map - fluvial flooding (1 in 100-year event)

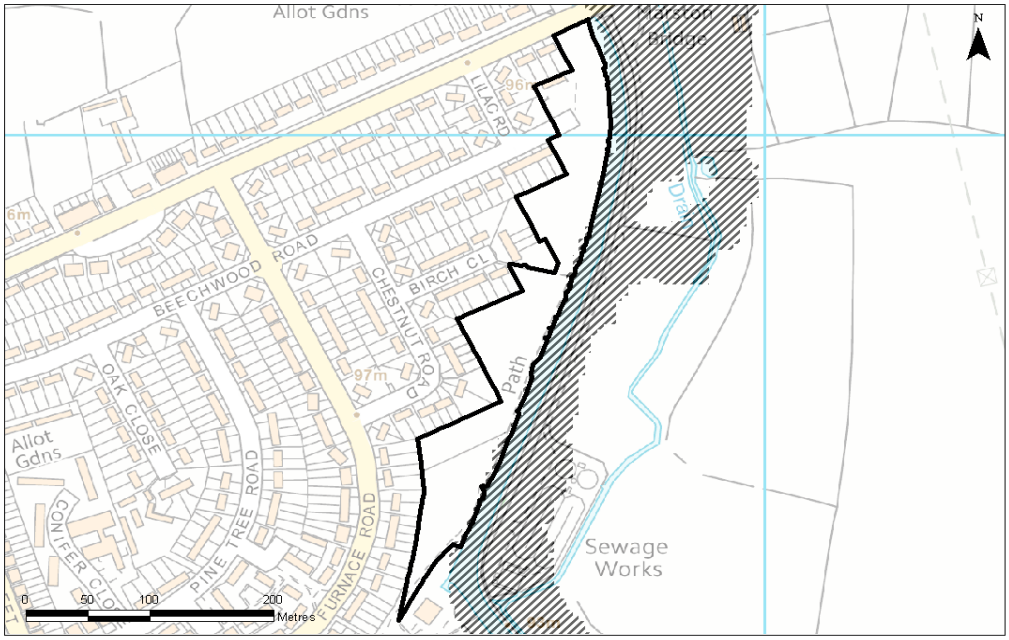


Potential development location
Council Boundary

Depth (m)

0 - 0.01
0.01 - 0.1
0.1 - 0.5
0.5 - 1.0
1.0 - 1.5
1.5 - 2.0
2.0 - 2.5
2.5 - 4.5
Unknown depth rating

Velocity Map - fluvial flooding (1 in 100-year event)

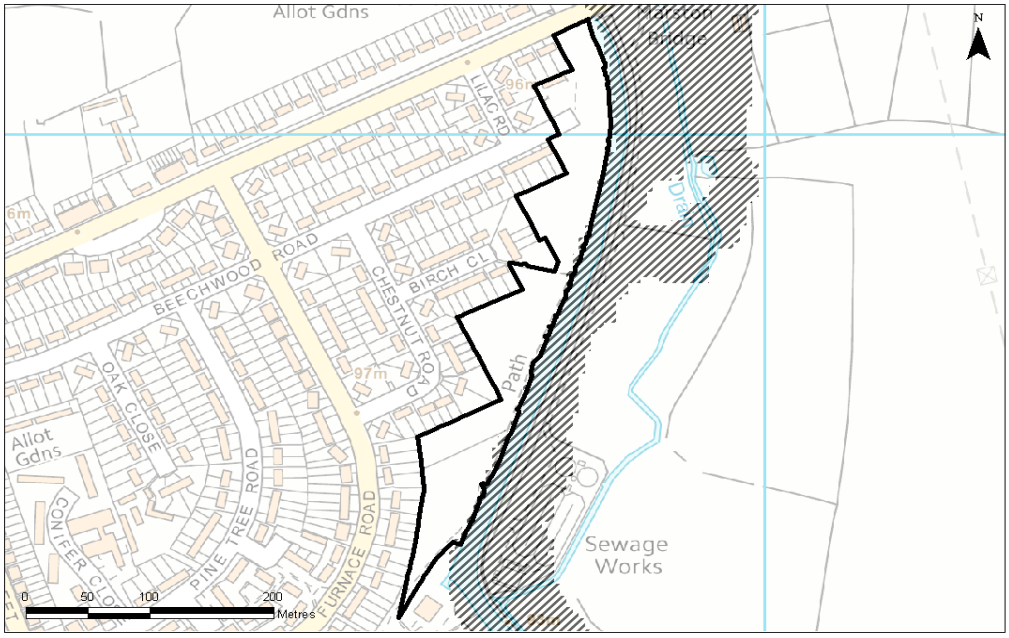


Potential development location
Council Boundary

Velocity (m/s)

0 - 0.2
0.2 - 0.5
0.5 - 1.0
1.0 - 2.0
> 2.0
Unknown velocity rating

Hazard Map - fluvial flooding (1 in 100-year event)



Potential development location
Council Boundary

Hazard Rating

Very low hazard - caution
Danger for some
Danger for most
Danger for all
Unknown hazard rating

SuDS & the development site:

SuDS Type	Suitability	Comments
Source Control		All forms of source control are likely to be suitable.
Infiltration		Mapping suggests high permeability at this site, site investigations should be carried out to assess potential for drainage by infiltration.
Detention		Mapping suggests that the site slopes are suitable for all forms of detention.
Filtration		All filtration techniques are likely to be suitable. If the site has contaminated land issues; a liner will be required.
Conveyance		All forms of conveyance are likely to be suitable. Where the slopes are >5% features should follow contours or utilise check dams to slow flows.If the site has groundwater contamination issues, a liner will be required.

- *The site is not located in an area designated by the Environment Agency as a landfill site.*
- *The site is not located within any Environment Agency designated ground source protection zones.*

Flood Defences:

There are no flood defences at this site.

Flood Warning:

There are currently no flood warning areas covering this site.

Climate Change:

• Increased storm intensities.
• Increased water levels in the Wem Brook

Flood Risk Implications for Development:

• Only a small proportion of the development site is affected by flood levels, therefore all development should be located within Flood Zone 1, unless appropriate in accordance with NPPF Planning Practice Guidance. Also with a larger region in the south of the development site is located in Flood Zone 2 new infrastructure should be designed to not increase flood risk in these regions during large rainfall events.
• Consideration of the peak flows on the Wem Brook and its durations required when considering drainage.
• A site specific flood risk assessment will be required for any development in Flood Zone 2 and 3.
• Green infrastructure should be considered within the mitigation measures for surface water runoff from potential development.
• Assessment for runoff should include allowance for climate change effects.
• New or re-development should adopt exemplar source control SUDS techniques to reduce the risk of frequent low impact flooding due to post-development runoff.
• Onsite attenuation schemes would need to be tested against the hydrograph of the Wem Brook to ensure flows are not exacerbated downstream within the catchment.
• Demonstration that development at this location can be made safe.
• New development must seek opportunities to reduce overall level of flood risk at the site for example by:
o Reducing volume and rate of runoff
o Relocating development to zones with lower flood risk
o Creating space for flooding.
• Consider using Flood Zone 2 and 3as public open space.

NUN181		
OSNGR: 435922.774,284	Area: 2.77 ha	Greenfield

Sources of flood risk:

• Primary flood risk is from surface water flooding and overland flows.
• With further development and creation of impermeable ground surfaces, surface water flooding may become a problem.

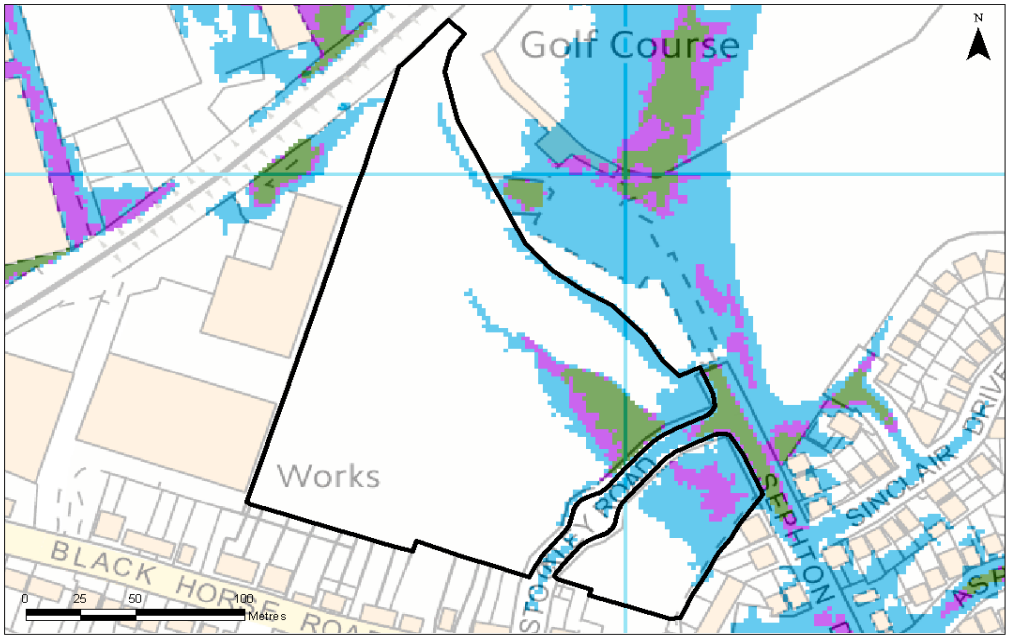
Exception Test Required?

No

NPPF Guidance:

• For development proposals on sites comprising one hectare or above in Flood Zone 1 the vulnerability of flooding from other sources as well as from river flooding should be incorporated into a FRA. The potential to increase flood risk elsewhere through the addition of hard surfaces and the effect of the new development on surface water run-off must be included.
• Developers and local authorities should seek opportunities to reduce the overall level of flood risk in the area and beyond through the layout and form of the development and through appropriate sustainable drainage techniques.

Surface Water Map



Potential development location
Council boundary
uFMfSW 30-year Extent
uFMfSW 100-year Extent
uFMfSW 1,000-year Extent

SuDS & the development site:

SuDS Type	Suitability	Comments
Source Control		All forms of source control are likely to be suitable.
Infiltration		Mapping suggests high permeability at this site, site investigations should be carried out to assess potential for drainage by infiltration.
Detention		Mapping suggests that the site slopes are suitable for all forms of detention.

Filtration		All filtration techniques are likely to be suitable. If the site has contaminated land issues; a liner will be required.
Conveyance		All forms of conveyance are likely to be suitable. Where the slopes are >5% features should follow contours or utilise check dams to slow flows.If the site has groundwater contamination issues, a liner will be required.

- *The site is not located in an area designated by the Environment Agency as a landfill site.*
- *The site is not located within any Environment Agency designated ground source protection zones.*

Flood Defences:

There are no flood defences at this site.

Flood Warning:

There are currently no flood warning areas covering this site.

Climate Change:

- Increased storm intensities.

Flood Risk Implications for Development:

- Green infrastructure should be considered within the mitigation measures for surface water runoff from potential development.
- Assessment for runoff should include allowance for climate change effects.
- New or re-development should adopt exemplar source control SUDS techniques to reduce the risk of frequent low impact flooding due to post-development runoff.
- Onsite attenuation schemes would need to be tested against the hydrograph of the receiving watercourse to ensure flows are not exacerbated downstream within the catchment.
- Demonstration that development at this location can be made safe.
- New development must seek opportunities to reduce overall level of flood risk at the site for example by:
  - Reducing volume and rate of runoff
  - Relocating development to zones with lower flood risk
  - Creating space for flooding.

NUN182				
OSNGR: SP349863	Area: 3.7 ha		Greenfield	
Flood Zone Coverage:	**FZ3b** 0%	**FZ3a** 0%	**FZ2** 4%	**FZ1** 96%

Sources of flood risk:

• Primary fluvial flood risk is from the River Sowe to the north of the site.
• With further development and creation of impermeable ground surfaces, surface water flooding may become a problem.

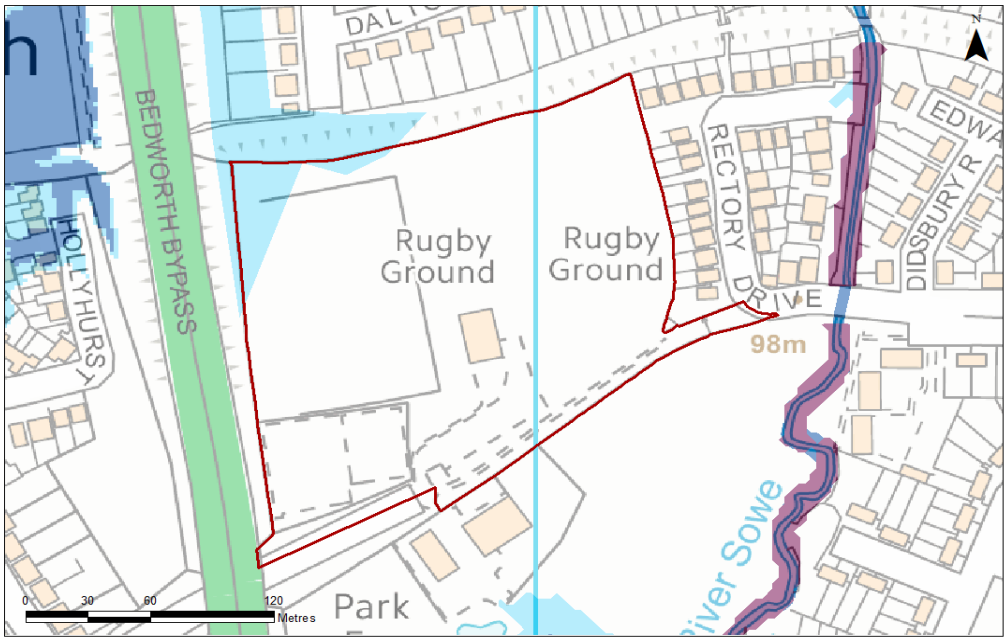
Exception Test Required?

Yes, for Highly Vulnerable development in FZ2.

NPPF Guidance:

• To pass Part 'b' of the Exception Test, a FRA should demonstrate that the development will be safe, will avoid increasing flood risk elsewhere and will reduce flood risk overall.
• Preference should be given to locating development outside the flooded areas, located adjacent to the Coventry Canal, which flows along the south westerly boundary of the development site. It should be possible to reduce flood risk at this location by using sequential design to locate more vulnerable development towards higher ground, through building design and by meeting drainage requirements. Some resilience measures may be required if buildings are situated in the flood risk area.
• Consultation with the Local Authority and the Environment Agency should be undertaken at an early stage.

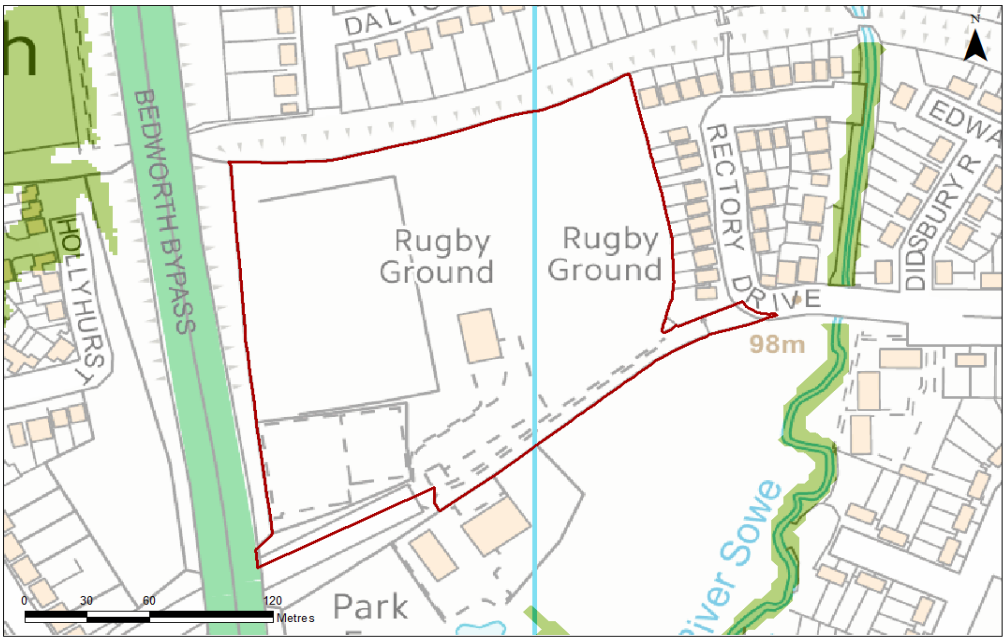
Flood Zone Map



Note: Indicative flood extents have been used to represent FZ3b in certain locations. For more information please refer to section 10 in the main report.

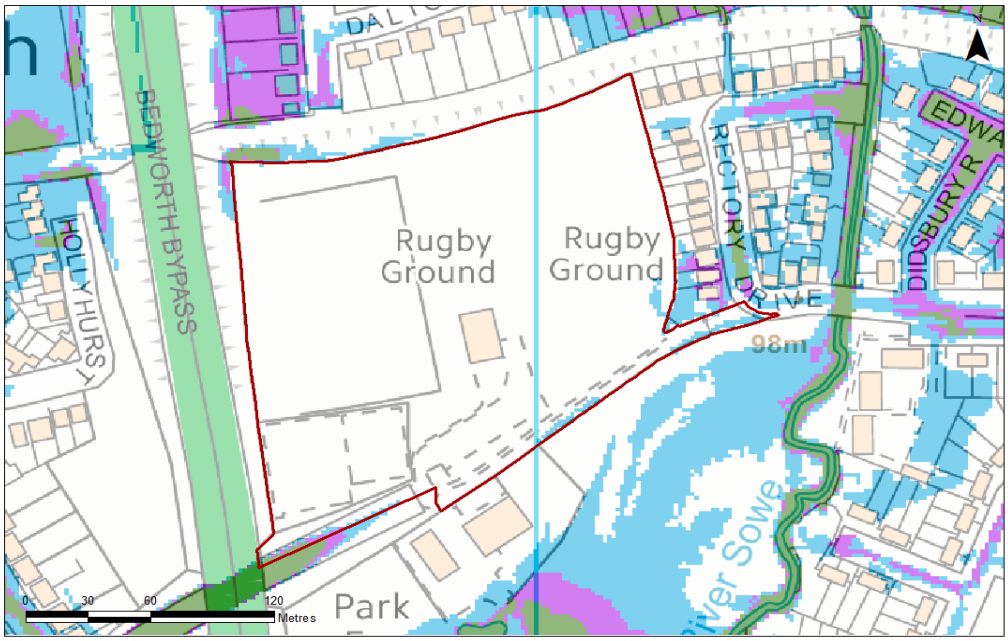
Potential development location
Council boundary
Flood Zone 3b
Indicative Extent of Flood Zone 3b
Flood Zone 3a
Flood Zone 2

Climate Change Map



Potential development location
Council boundary
Flood Zone 3 with Climate Change
Indicative Extent of Flood Zone 3 with Climate Change

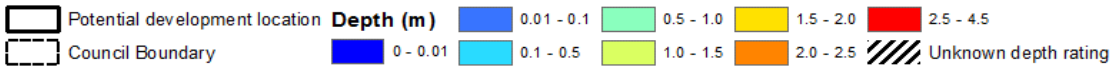
Surface Water Map



Potential development location
Council boundary
uFMfSW 30-year Extent
uFMfSW 100-year Extent
uFMfSW 1,000-year Extent

Depth Map - fluvial flooding (1 in 100-year event)

No flooding in the 1 in 100-year event

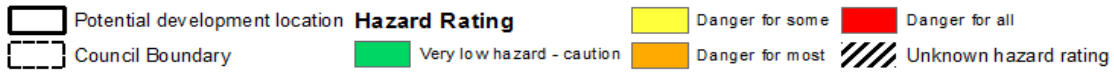


Velocity Map - fluvial flooding (1 in 100-year event)

No flooding in the 1 in 100-year event

Hazard Map - fluvial flooding (1 in 100-year event)

No flooding in the 1 in 100-year event



SuDS & the development site:

SuDS Type	Suitability	Comments
Source Control		All forms of source control are likely to be suitable.
Infiltration		Mapping suggests high permeability at this site, site investigations should be carried out to assess potential for drainage by infiltration.
Detention		Mapping suggests that the site slopes are suitable for all forms of detention.
Filtration		All filtration techniques are likely to be suitable. If the site has contaminated land issues; a liner will be required.
Conveyance		All forms of conveyance are likely to be suitable. Where the slopes are >5% features should follow contours or utilise check dams to slow flows.If the site has groundwater contamination issues, a liner will be required.

- *The site is not located in an area designated by the Environment Agency as a landfill site.*
- *The site is not located within any Environment Agency designated ground source protection zones.*

Flood Defences:
There are no flood defences at this site.

Flood Warning:
There are currently no flood warning areas covering this site.

Climate Change:

• Increased storm intensities.
• Increased water levels in the River Sowe.

Flood Risk Implications for Development:

• Only a small proportion of the development site is affected by flood levels, therefore all development should be located within Flood Zone 1, unless appropriate in accordance with NPPF Planning Practice Guidance.
• Consideration of the peak flows on the River Sowe and its durations required when considering drainage.
• A site specific flood risk assessment will be required for any development in Flood Zone 2.
• Green infrastructure should be considered within the mitigation measures for surface water runoff from potential development.
• Assessment for runoff should include allowance for climate change effects.
• New or re-development should adopt exemplar source control SUDS techniques to reduce the risk of frequent low impact flooding due to post-development runoff.
• Onsite attenuation schemes would need to be tested against the hydrograph of the River Sowe to ensure flows are not exacerbated downstream within the catchment.
• Demonstration that development at this location can be made safe.
• New development must seek opportunities to reduce overall level of flood risk at the site for example by:
o Reducing volume and rate of runoff
o Relocating development to zones with lower flood risk
o Creating space for flooding.
• Consider using Flood Zone 2 as public open space.

NUN227		
OSNGR: 435117.107,290	Area: 0.43 ha	Brownfield

Sources of flood risk:

• Primary flood risk is from surface water flooding and overland flows.
• With further development and creation of impermeable ground surfaces, surface water flooding may become a problem.

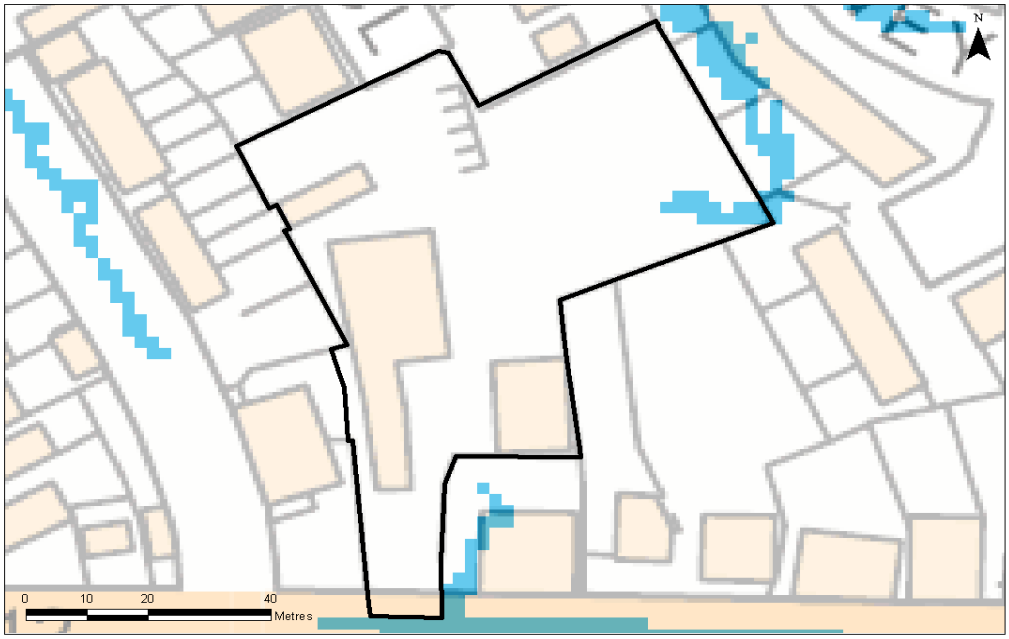
Exception Test Required?

No

NPPF Guidance:

• For development proposals on sites comprising one hectare or above in Flood Zone 1 the vulnerability of flooding from other sources as well as from river flooding should be incorporated into a FRA. The potential to increase flood risk elsewhere through the addition of hard surfaces and the effect of the new development on surface water run-off must be included.
• Developers and local authorities should seek opportunities to reduce the overall level of flood risk in the area and beyond through the layout and form of the development and through appropriate sustainable drainage techniques.

Surface Water Map



Potential development location
Council boundary
uFMfSW 30-year Extent
uFMfSW 100-year Extent
uFMfSW 1,000-year Extent

SuDS & the development site:

SuDS Type	Suitability	Comments
Source Control		All forms of source control are likely to be suitable.
Infiltration		Mapping suggests high permeability at this site, site investigations should be carried out to assess potential for drainage by infiltration.
Detention		Mapping suggests that the site slopes are suitable for all forms of detention.

Filtration		All filtration techniques are likely to be suitable. If the site has contaminated land issues; a liner will be required.
Conveyance		All forms of conveyance are likely to be suitable. Where the slopes are >5% features should follow contours or utilise check dams to slow flows.If the site has groundwater contamination issues, a liner will be required.

- *The site is not located in an area designated by the Environment Agency as a landfill site.*
- *The site is not located within any Environment Agency designated ground source protection zones.*

Flood Defences:

There are no flood defences at this site.

Flood Warning:

There are currently no flood warning areas covering this site.

Climate Change:

- Increased storm intensities.

Flood Risk Implications for Development:

- Green infrastructure should be considered within the mitigation measures for surface water runoff from potential development.
- Assessment for runoff should include allowance for climate change effects.
- New or re-development should adopt exemplar source control SUDS techniques to reduce the risk of frequent low impact flooding due to post-development runoff.
- Onsite attenuation schemes would need to be tested against the hydrograph of the receiving watercourse to ensure flows are not exacerbated downstream within the catchment.
- Demonstration that development at this location can be made safe.
- New development must seek opportunities to reduce overall level of flood risk at the site for example by:
  - Reducing volume and rate of runoff
  - Relocating development to zones with lower flood risk
  - Creating space for flooding.

NUN236		
OSNGR: 431691,284798	Area: 0.13 ha	Greenfield

Sources of flood risk:

• Mapping shows the site is not at risk from surface water flooding.
• With further development and creation of impermeable ground surfaces, surface water flooding may become a problem.

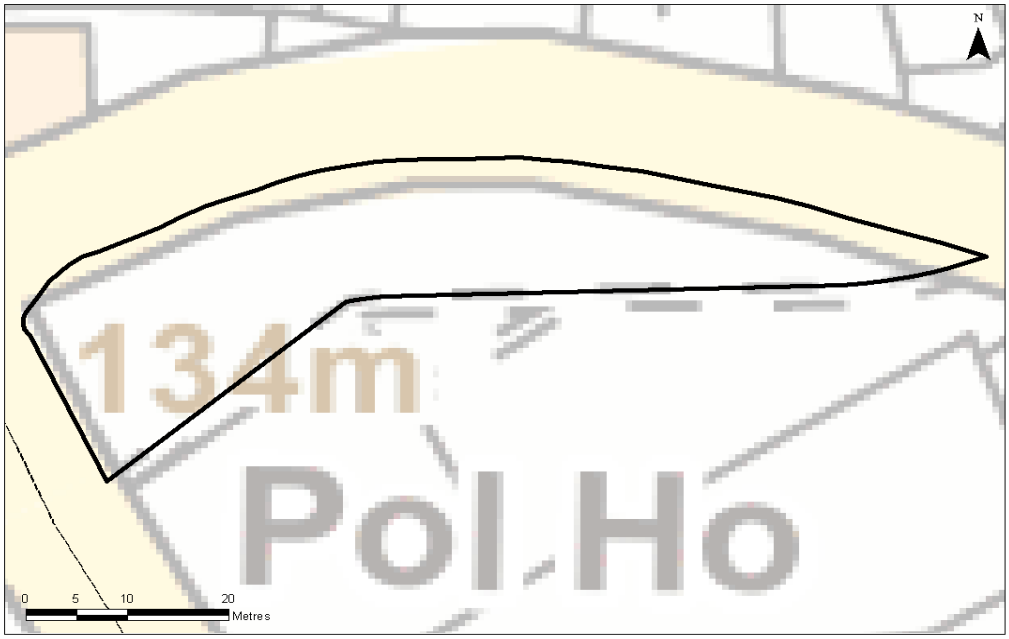
Exception Test Required?

No

NPPF Guidance:

• For development proposals on sites comprising one hectare or above in Flood Zone 1 the vulnerability of flooding from other sources as well as from river flooding should be incorporated into a FRA. The potential to increase flood risk elsewhere through the addition of hard surfaces and the effect of the new development on surface water run-off must be included.
• Developers and local authorities should seek opportunities to reduce the overall level of flood risk in the area and beyond through the layout and form of the development and through appropriate sustainable drainage techniques.

Surface Water Map



Potential development location
Council boundary
uFMfSW 30-year Extent
uFMfSW 100-year Extent
uFMfSW 1,000-year Extent

SuDS & the development site:

SuDS Type	Suitability	Comments
Source Control		All forms of source control are likely to be suitable.
Infiltration		Mapping suggests high permeability at this site, site investigations should be carried out to assess potential for drainage by infiltration.
Detention		Mapping suggests that the site slopes are suitable for all forms of detention.

Filtration		All filtration techniques are likely to be suitable. If the site has contaminated land issues; a liner will be required.
Conveyance		All forms of conveyance are likely to be suitable. Where the slopes are >5% features should follow contours or utilise check dams to slow flows.If the site has groundwater contamination issues, a liner will be required.

• The site is not located in an area designated by the Environment Agency as a landfill site.
• The site is located with a groundwater protection zone. As such inflitration techniques should only be used used where there are suitable levels of treatment although it is possible that infiltration may not be permitted. Proposed SuDS should be discussed with relevant stakeholders (LPA, LLFA and EA) at an early stage to understand possible constraints.

Flood Defences:
There are no flood defences at this site.

Flood Warning:
There are currently no flood warning areas covering this site.

Climate Change:
• Increased storm intensities.

Flood Risk Implications for Development:
• Green infrastructure should be considered within the mitigation measures for surface water runoff from potential development.
• Assessment for runoff should include allowance for climate change effects.
• New or re-development should adopt exemplar source control SUDS techniques to reduce the risk of frequent low impact flooding due to post-development runoff.
• Onsite attenuation schemes would need to be tested against the hydrograph of the receiving watercourse to ensure flows are not exacerbated downstream within the catchment.
• Demonstration that development at this location can be made safe.
• New development must seek opportunities to reduce overall level of flood risk at the site for example by:
o Reducing volume and rate of runoff
o Relocating development to zones with lower flood risk
o Creating space for flooding.

NUN239		
OSNGR: 435172,286023	Area: 0.21 ha	Brownfield

Sources of flood risk:

• Primary flood risk is from surface water flooding and overland flows.
• With further development and creation of impermeable ground surfaces, surface water flooding may become a problem.

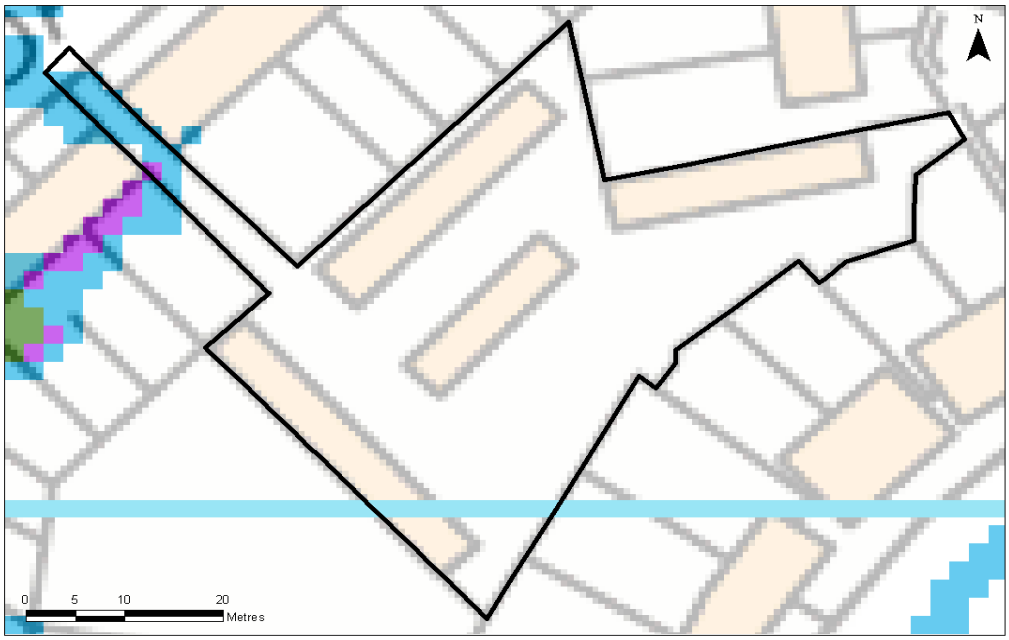
Exception Test Required?

No

NPPF Guidance:

• For development proposals on sites comprising one hectare or above in Flood Zone 1 the vulnerability of flooding from other sources as well as from river flooding should be incorporated into a FRA. The potential to increase flood risk elsewhere through the addition of hard surfaces and the effect of the new development on surface water run-off must be included.
• Developers and local authorities should seek opportunities to reduce the overall level of flood risk in the area and beyond through the layout and form of the development and through appropriate sustainable drainage techniques.

Surface Water Map



Potential development location
Council boundary
uFMfSW 30-year Extent
uFMfSW 100-year Extent
uFMfSW 1,000-year Extent

SuDS & the development site:

SuDS Type	Suitability	Comments
Source Control		All forms of source control are likely to be suitable.
Infiltration		Mapping suggests high permeability at this site, site investigations should be carried out to assess potential for drainage by infiltration.
Detention		This option may be feasible provided site slopes are < 5% at the location of the detention feature. A liner maybe required if there any ground contamination issues.

Filtration		This feature is probably suitable provided site slopes are <5% and the depth to the water table is >1m. If the site has contaminated land issues; a liner will be required.
Conveyance		All forms of conveyance are likely to be suitable. Where the slopes are >5% features should follow contours or utilise check dams to slow flows.If the site has groundwater contamination issues, a liner will be required.

- *The site is not located in an area designated by the Environment Agency as a landfill site.*
- *The site is not located within any Environment Agency designated ground source protection zones.*

Flood Defences:
There are no flood defences at this site.

Flood Warning:
There are currently no flood warning areas covering this site.

Climate Change:
- Increased storm intensities.

Flood Risk Implications for Development:
- Green infrastructure should be considered within the mitigation measures for surface water runoff from potential development.
- Assessment for runoff should include allowance for climate change effects.
- New or re-development should adopt exemplar source control SUDS techniques to reduce the risk of frequent low impact flooding due to post-development runoff.
- Onsite attenuation schemes would need to be tested against the hydrograph of the receiving watercourse to ensure flows are not exacerbated downstream within the catchment.
- Demonstration that development at this location can be made safe.
- New development must seek opportunities to reduce overall level of flood risk at the site for example by:
  - Reducing volume and rate of runoff
  - Relocating development to zones with lower flood risk
  - Creating space for flooding.

NUN241		
OSNGR: 436519.614,291	Area: 0.16 ha	Brownfield

Sources of flood risk:

• Mapping shows the site is not at risk from surface water flooding.
• With further development and creation of impermeable ground surfaces, surface water flooding may become a problem.

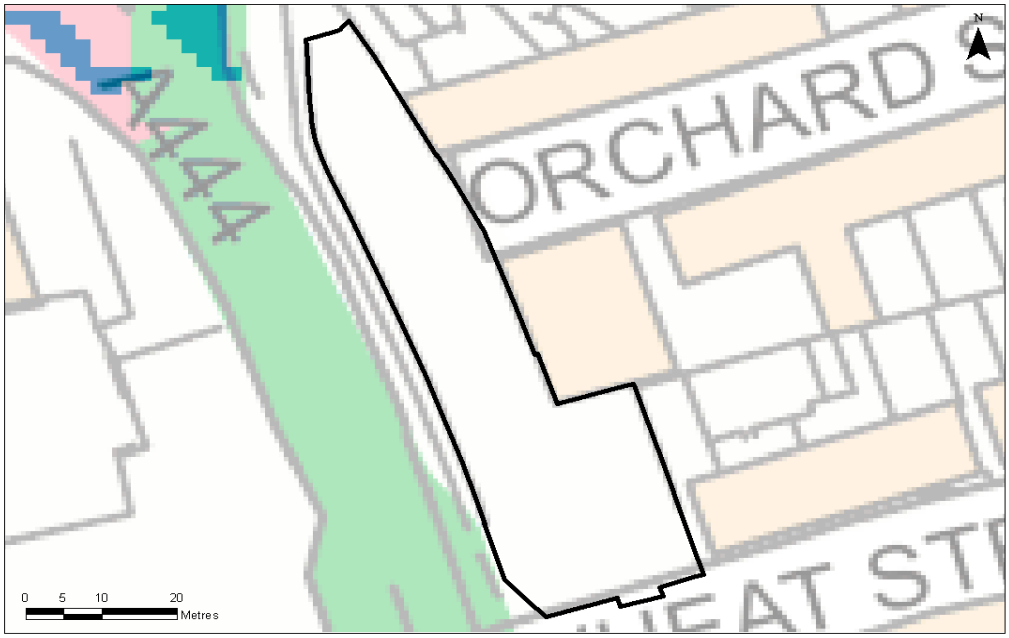
Exception Test Required?

The exception test is not required for this site.

NPPF Guidance:

• For development proposals on sites comprising one hectare or above in Flood Zone 1 the vulnerability of flooding from other sources as well as from river flooding should be incorporated into a FRA. The potential to increase flood risk elsewhere through the addition of hard surfaces and the effect of the new development on surface water run-off must be included.
• Developers and local authorities should seek opportunities to reduce the overall level of flood risk in the area and beyond through the layout and form of the development and through appropriate sustainable drainage techniques.

Surface Water Map



Potential development location
Council boundary
uFMfSW 30-year Extent
uFMfSW 100-year Extent
uFMfSW 1,000-year Extent

SuDS & the development site:

SuDS Type	Suitability	Comments
Source Control		All forms of source control are likely to be suitable.
Infiltration		Mapping suggests high permeability at this site, site investigations should be carried out to assess potential for drainage by infiltration.
Detention		This option may be feasible provided site slopes are < 5% at the location of the detention feature. A liner maybe required if there any ground contamination issues.

Filtration		This feature is probably suitable provided site slopes are <5% and the depth to the water table is >1m. If the site has contaminated land issues; a liner will be required.
Conveyance		All forms of conveyance are likely to be suitable. Where the slopes are >5% features should follow contours or utilise check dams to slow flows.If the site has groundwater contamination issues, a liner will be required.

- *The site is not located in an area designated by the Environment Agency as a landfill site.*
- *The site is not located within any Environment Agency designated ground source protection zones.*

Flood Defences:
There are no flood defences at this site.

Flood Warning:
There are currently no flood warning areas covering this site.

Climate Change:
• Increased storm intensities.

Flood Risk Implications for Development:
• Green infrastructure should be considered within the mitigation measures for surface water runoff from potential development.
• Assessment for runoff should include allowance for climate change effects.
• New or re-development should adopt exemplar source control SUDS techniques to reduce the risk of frequent low impact flooding due to post-development runoff.
• Onsite attenuation schemes would need to be tested against the hydrograph of the receiving watercourse to ensure flows are not exacerbated downstream within the catchment.
• Demonstration that development at this location can be made safe.
• New development must seek opportunities to reduce overall level of flood risk at the site for example by:
o Reducing volume and rate of runoff
o Relocating development to zones with lower flood risk
o Creating space for flooding.

NUN242		
OSNGR: 436198.358,284	Area: 0.14 ha	Mixed Brownfield/Greenfield

Sources of flood risk:

• Primary flood risk is from surface water flooding and overland flows.
• With further development and creation of impermeable ground surfaces, surface water flooding may become a problem.

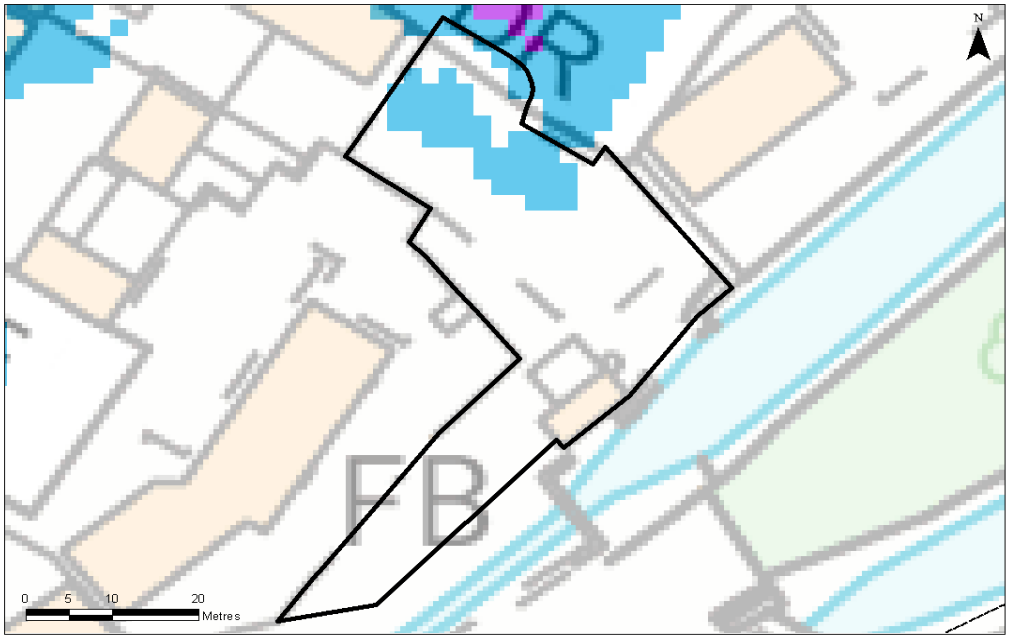
Exception Test Required?

No

NPPF Guidance:

• For development proposals on sites comprising one hectare or above in Flood Zone 1 the vulnerability of flooding from other sources as well as from river flooding should be incorporated into a FRA. The potential to increase flood risk elsewhere through the addition of hard surfaces and the effect of the new development on surface water run-off must be included.
• Developers and local authorities should seek opportunities to reduce the overall level of flood risk in the area and beyond through the layout and form of the development and through appropriate sustainable drainage techniques.

Surface Water Map



Potential development location
Council boundary
uFMfSW 30-year Extent
uFMfSW 100-year Extent
uFMfSW 1,000-year Extent

SuDS & the development site:

SuDS Type	Suitability	Comments
Source Control		All forms of source control are likely to be suitable.
Infiltration		Mapping suggests high permeability at this site, site investigations should be carried out to assess potential for drainage by infiltration.
Detention		This option may be feasible provided site slopes are < 5% at the location of the detention feature. A liner maybe required if there any ground contamination issues.

Filtration		This feature is probably suitable provided site slopes are <5% and the depth to the water table is >1m. If the site has contaminated land issues; a liner will be required.
Conveyance		All forms of conveyance are likely to be suitable. Where the slopes are >5% features should follow contours or utilise check dams to slow flows.If the site has groundwater contamination issues, a liner will be required.

- *The site is not located in an area designated by the Environment Agency as a landfill site.*
- *The site is not located within any Environment Agency designated ground source protection zones.*

Flood Defences:
There are no flood defences at this site.

Flood Warning:
There are currently no flood warning areas covering this site.

Climate Change:
- Increased storm intensities.

Flood Risk Implications for Development:
- Green infrastructure should be considered within the mitigation measures for surface water runoff from potential development.
- Assessment for runoff should include allowance for climate change effects.
- New or re-development should adopt exemplar source control SUDS techniques to reduce the risk of frequent low impact flooding due to post-development runoff.
- Onsite attenuation schemes would need to be tested against the hydrograph of the receiving watercourse to ensure flows are not exacerbated downstream within the catchment.
- Demonstration that development at this location can be made safe.
- New development must seek opportunities to reduce overall level of flood risk at the site for example by:
  - Reducing volume and rate of runoff
  - Relocating development to zones with lower flood risk
  - Creating space for flooding.

NUN245		
OSNGR: 433426,291061	Area: 0.25 ha	Brownfield

Sources of flood risk:

• Mapping shows this site is not at risk from surface water flooding

• With further development and creation of impermeable ground surfaces, surface water flooding may become a problem.

Exception Test Required?

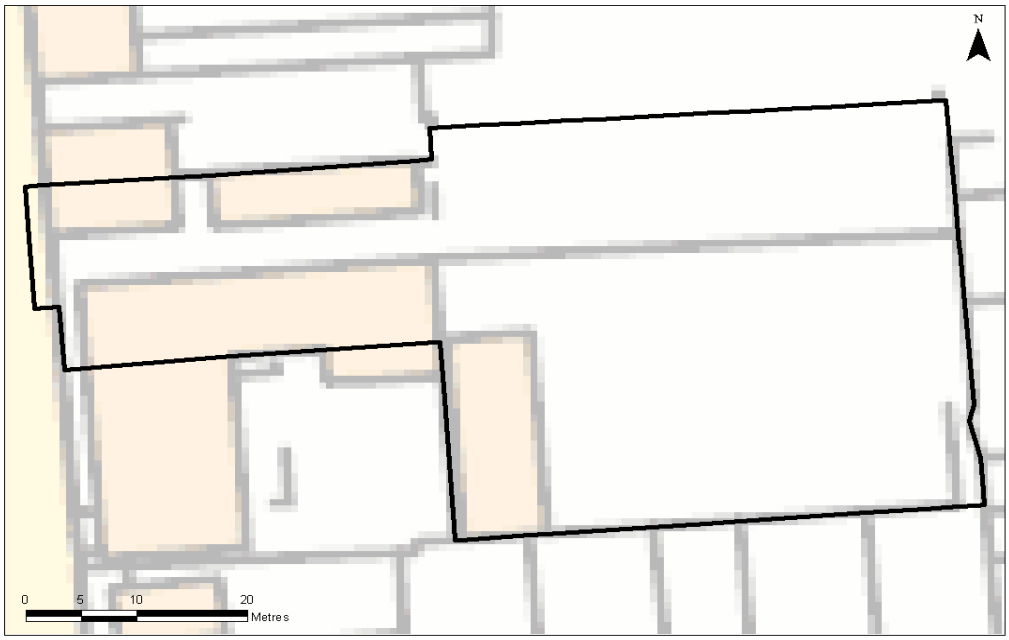
No

NPPF Guidance:

• For development proposals on sites comprising one hectare or above in Flood Zone 1 the vulnerability of flooding from other sources as well as from river flooding should be incorporated into a FRA. The potential to increase flood risk elsewhere through the addition of hard surfaces and the effect of the new development on surface water run-off must be included.

• Developers and local authorities should seek opportunities to reduce the overall level of flood risk in the area and beyond through the layout and form of the development and through appropriate sustainable drainage techniques.

Surface Water Map



Potential development location | uFMfSW 30-year Extent | uFMfSW 1,000-year Extent

Council boundary | uFMfSW 100-year Extent

SuDS & the development site:

SuDS Type	Suitability	Comments
Source Control		All forms of source control are likely to be suitable.
Infiltration		Mapping suggests high permeability at this site, site investigations should be carried out to assess potential for drainage by infiltration.
Detention		Mapping suggests that the site slopes are suitable for all forms of detention.

Filtration		All filtration techniques are likely to be suitable. If the site has contaminated land issues; a liner will be required.
Conveyance		All forms of conveyance are likely to be suitable. Where the slopes are >5% features should follow contours or utilise check dams to slow flows.If the site has groundwater contamination issues, a liner will be required.

- *The site is not located in an area designated by the Environment Agency as a landfill site.*
- *The site is not located within any Environment Agency designated ground source protection zones.*

Flood Defences:

There are no flood defences at this site.

Flood Warning:

There are currently no flood warning areas covering this site.

Climate Change:

- Increased storm intensities.

Flood Risk Implications for Development:

- Green infrastructure should be considered within the mitigation measures for surface water runoff from potential development.
- Assessment for runoff should include allowance for climate change effects.
- New or re-development should adopt exemplar source control SUDS techniques to reduce the risk of frequent low impact flooding due to post-development runoff.
- Onsite attenuation schemes would need to be tested against the hydrograph of the receiving watercourse to ensure flows are not exacerbated downstream within the catchment.
- Demonstration that development at this location can be made safe.
- New development must seek opportunities to reduce overall level of flood risk at the site for example by:
  - Reducing volume and rate of runoff
  - Relocating development to zones with lower flood risk
  - Creating space for flooding.

NUN258		
OSNGR: 437018,290734	Area: 0.11 ha	Brownfield

Sources of flood risk:

• Primary flood risk is from surface water flooding and overland flows.
• With further development and creation of impermeable ground surfaces, surface water flooding may become a problem.

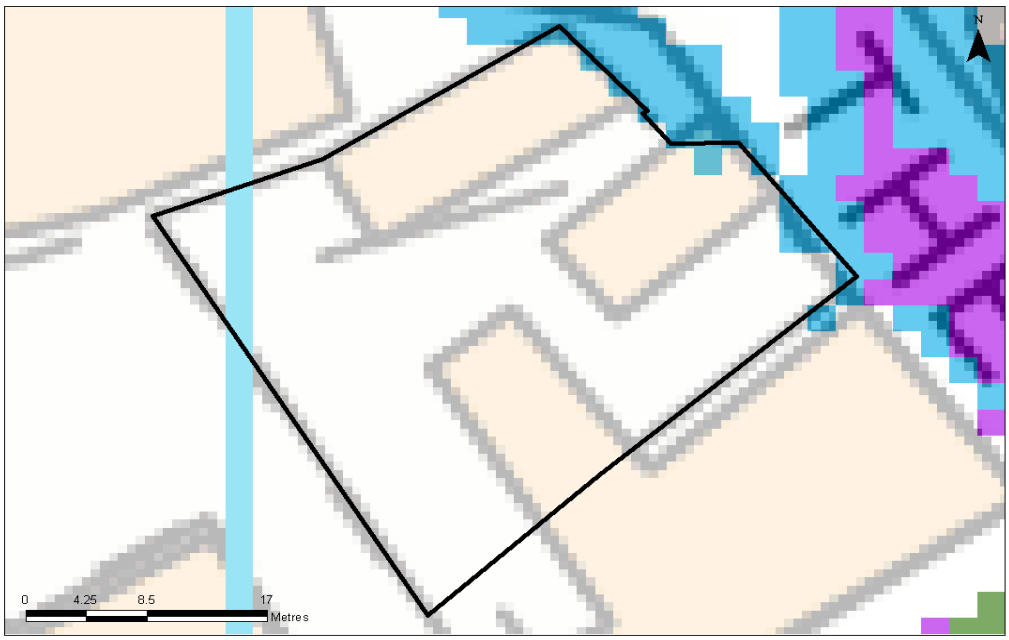
Exception Test Required?

No

NPPF Guidance:

• For development proposals on sites comprising one hectare or above in Flood Zone 1 the vulnerability of flooding from other sources as well as from river flooding should be incorporated into a FRA. The potential to increase flood risk elsewhere through the addition of hard surfaces and the effect of the new development on surface water run-off must be included.
• Developers and local authorities should seek opportunities to reduce the overall level of flood risk in the area and beyond through the layout and form of the development and through appropriate sustainable drainage techniques.

Surface Water Map



Potential development location
Council boundary
uFMfSW 30-year Extent
uFMfSW 100-year Extent
uFMfSW 1,000-year Extent

SuDS & the development site:

SuDS Type	Suitability	Comments
Source Control		All forms of source control are likely to be suitable.
Infiltration		Mapping suggests high permeability at this site, site investigations should be carried out to assess potential for drainage by infiltration.
Detention		Mapping suggests that the site slopes are suitable for all forms of detention.

Filtration		All filtration techniques are likely to be suitable. If the site has contaminated land issues; a liner will be required.
Conveyance		All forms of conveyance are likely to be suitable. Where the slopes are >5% features should follow contours or utilise check dams to slow flows.If the site has groundwater contamination issues, a liner will be required.

- *The site is not located in an area designated by the Environment Agency as a landfill site.*
- *The site is not located within any Environment Agency designated ground source protection zones.*

Flood Defences:
There are no flood defences at this site.

Flood Warning:
There are currently no flood warning areas covering this site.

Climate Change:
- Increased storm intensities.

Flood Risk Implications for Development:
- Green infrastructure should be considered within the mitigation measures for surface water runoff from potential development.
- Assessment for runoff should include allowance for climate change effects.
- New or re-development should adopt exemplar source control SUDS techniques to reduce the risk of frequent low impact flooding due to post-development runoff.
- Onsite attenuation schemes would need to be tested against the hydrograph of the receiving watercourse to ensure flows are not exacerbated downstream within the catchment.
- Demonstration that development at this location can be made safe.
- New development must seek opportunities to reduce overall level of flood risk at the site for example by:
  - Reducing volume and rate of runoff
  - Relocating development to zones with lower flood risk
  - Creating space for flooding.

NUN263		
OSNGR: 435750.086,286	Area: 0.13 ha	Brownfield

Sources of flood risk:

• Mapping shows this site is not at risk from surface water flooding.
• With further development and creation of impermeable ground surfaces, surface water flooding may become a problem.

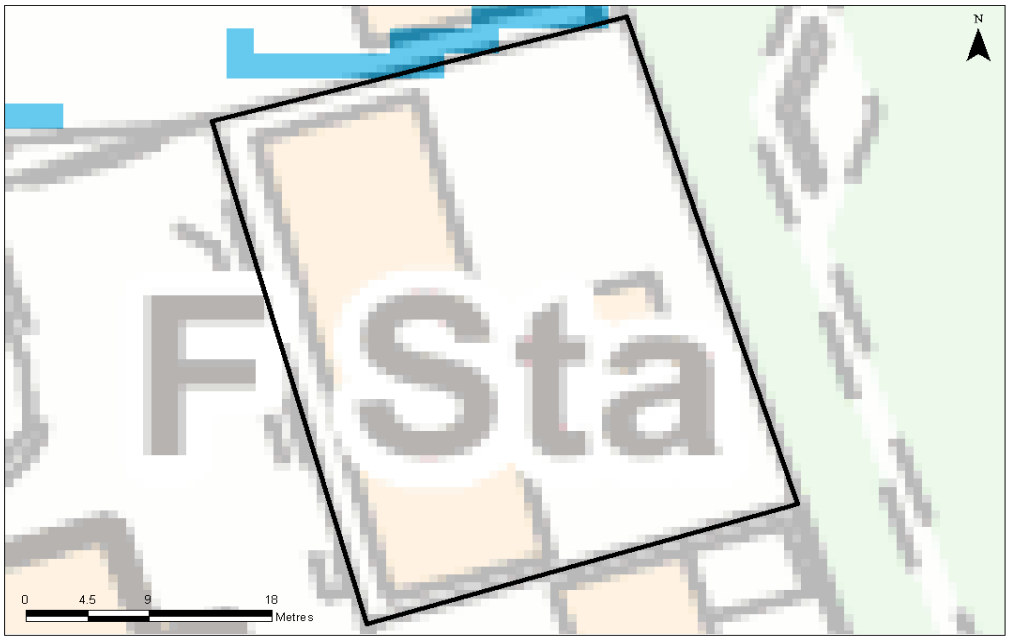
Exception Test Required?

No

NPPF Guidance:

• For development proposals on sites comprising one hectare or above in Flood Zone 1 the vulnerability of flooding from other sources as well as from river flooding should be incorporated into a FRA. The potential to increase flood risk elsewhere through the addition of hard surfaces and the effect of the new development on surface water run-off must be included.
• Developers and local authorities should seek opportunities to reduce the overall level of flood risk in the area and beyond through the layout and form of the development and through appropriate sustainable drainage techniques.

Surface Water Map



Potential development location
Council boundary
uFMfSW 30-year Extent
uFMfSW 100-year Extent
uFMfSW 1,000-year Extent

SuDS & the development site:

SuDS Type	Suitability	Comments
Source Control		All forms of source control are likely to be suitable.
Infiltration		Mapping suggests that there is a possibility of groundwater flooding at this location, therefore it is possible infiltration techniques will not be suitable. This should be confirmed via site investigations to assess the potential for infiltration.
Detention		Mapping suggests that the site slopes are suitable for all forms of detention.

Filtration		All filtration techniques are likely to be suitable. If the site has contaminated land issues; a liner will be required.
Conveyance		All forms of conveyance are likely to be suitable. Where the slopes are >5% features should follow contours or utilise check dams to slow flows.If the site has groundwater contamination issues, a liner will be required.

- *The site is not located in an area designated by the Environment Agency as a landfill site.*
- *The site is not located within any Environment Agency designated ground source protection zones.*

Flood Defences:

There are no flood defences at this site.

Flood Warning:

There are currently no flood warning areas covering this site.

Climate Change:

- Increased storm intensities.

Flood Risk Implications for Development:

- Green infrastructure should be considered within the mitigation measures for surface water runoff from potential development.
- Assessment for runoff should include allowance for climate change effects.
- New or re-development should adopt exemplar source control SUDS techniques to reduce the risk of frequent low impact flooding due to post-development runoff.
- Onsite attenuation schemes would need to be tested against the hydrograph of the receiving watercourse to ensure flows are not exacerbated downstream within the catchment.
- Demonstration that development at this location can be made safe.
- New development must seek opportunities to reduce overall level of flood risk at the site for example by:
  - Reducing volume and rate of runoff
  - Relocating development to zones with lower flood risk
  - Creating space for flooding.

NUN286			
OSNGR:	433868,284233	Area: 3.51 ha	Greenfield

Sources of flood risk:

• Primary flood risk is from surface water flooding and overland flows.
• With further development and creation of impermeable ground surfaces, surface water flooding may become a problem.

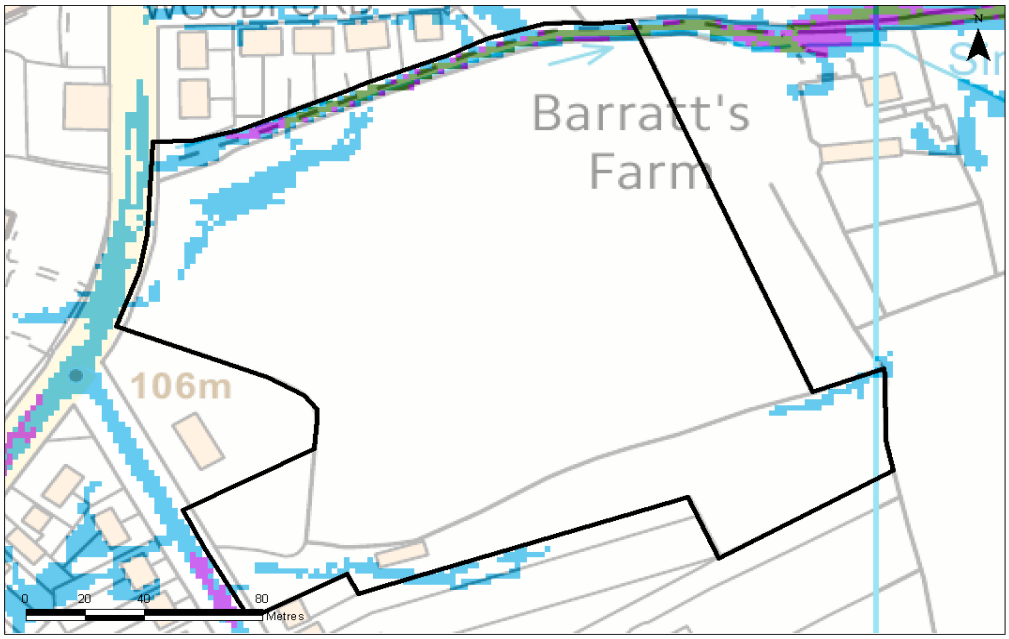
Exception Test Required?

No

NPPF Guidance:

• For development proposals on sites comprising one hectare or above in Flood Zone 1 the vulnerability of flooding from other sources as well as from river flooding should be incorporated into a FRA. The potential to increase flood risk elsewhere through the addition of hard surfaces and the effect of the new development on surface water run-off must be included.
• Developers and local authorities should seek opportunities to reduce the overall level of flood risk in the area and beyond through the layout and form of the development and through appropriate sustainable drainage techniques.

Surface Water Map



Potential development location
Council boundary
uFMfSW 30-year Extent
uFMfSW 100-year Extent
uFMfSW 1,000-year Extent

SuDS & the development site:

SuDS Type	Suitability	Comments
Source Control		All forms of source control are likely to be suitable.
Infiltration		Mapping suggests that there is a possibility of groundwater flooding at this location, therefore it is possible infiltration techniques will not be suitable. This should be confirmed via site investigations to assess the potential for infiltration.
Detention		Mapping suggests that the site slopes are suitable for all forms of detention.

Filtration		All filtration techniques are likely to be suitable. If the site has contaminated land issues; a liner will be required.
Conveyance		All forms of conveyance are likely to be suitable. Where the slopes are >5% features should follow contours or utilise check dams to slow flows.If the site has groundwater contamination issues, a liner will be required.

- *The site is not located in an area designated by the Environment Agency as a landfill site.*
- *The site is not located within any Environment Agency designated ground source protection zones.*

Flood Defences:
There are no flood defences at this site.

Flood Warning:
There are currently no flood warning areas covering this site.

Climate Change:
- Increased storm intensities.

Flood Risk Implications for Development:
- Green infrastructure should be considered within the mitigation measures for surface water runoff from potential development.
- Assessment for runoff should include allowance for climate change effects.
- New or re-development should adopt exemplar source control SUDS techniques to reduce the risk of frequent low impact flooding due to post-development runoff.
- Onsite attenuation schemes would need to be tested against the hydrograph of the receiving watercourse to ensure flows are not exacerbated downstream within the catchment.
- Demonstration that development at this location can be made safe.
- New development must seek opportunities to reduce overall level of flood risk at the site for example by:
  - Reducing volume and rate of runoff
  - Relocating development to zones with lower flood risk
  - Creating space for flooding.

NUN302		
OSNGR: 433489.223,292	Area: 0.28 ha	Greenfield

Sources of flood risk:

• Mapping shows the site is not at risk from surface water flooding.
• With further development and creation of impermeable ground surfaces, surface water flooding may become a problem.

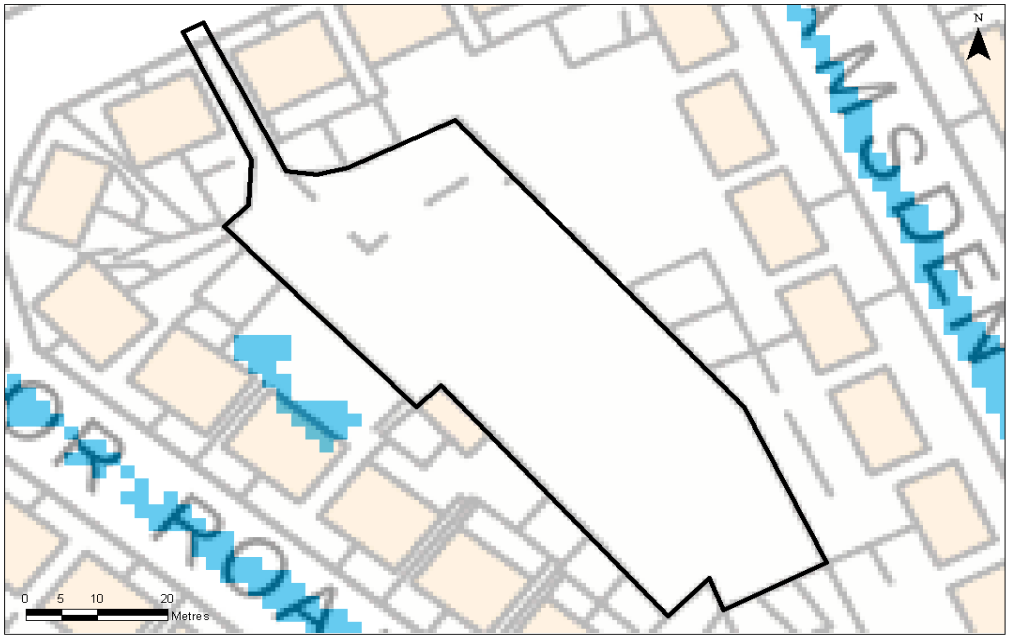
Exception Test Required?

No

NPPF Guidance:

• For development proposals on sites comprising one hectare or above in Flood Zone 1 the vulnerability of flooding from other sources as well as from river flooding should be incorporated into a FRA. The potential to increase flood risk elsewhere through the addition of hard surfaces and the effect of the new development on surface water run-off must be included.
• Developers and local authorities should seek opportunities to reduce the overall level of flood risk in the area and beyond through the layout and form of the development and through appropriate sustainable drainage techniques.

Surface Water Map



Potential development location
Council boundary
uFMfSW 30-year Extent
uFMfSW 100-year Extent
uFMfSW 1,000-year Extent

SuDS & the development site:

SuDS Type	Suitability	Comments
Source Control		All forms of source control are likely to be suitable.
Infiltration		Mapping suggests high permeability at this site, site investigations should be carried out to assess potential for drainage by infiltration.
Detention		Mapping suggests that the site slopes are suitable for all forms of detention.

Filtration		All filtration techniques are likely to be suitable. If the site has contaminated land issues; a liner will be required.
Conveyance		All forms of conveyance are likely to be suitable. Where the slopes are >5% features should follow contours or utilise check dams to slow flows.If the site has groundwater contamination issues, a liner will be required.

- *The site is not located in an area designated by the Environment Agency as a landfill site.*
- *The site is not located within any Environment Agency designated ground source protection zones.*

Flood Defences:

There are no flood defences at this site.

Flood Warning:

There are currently no flood warning areas covering this site.

Climate Change:

- Increased storm intensities.

Flood Risk Implications for Development:

- Green infrastructure should be considered within the mitigation measures for surface water runoff from potential development.
- Assessment for runoff should include allowance for climate change effects.
- New or re-development should adopt exemplar source control SUDS techniques to reduce the risk of frequent low impact flooding due to post-development runoff.
- Onsite attenuation schemes would need to be tested against the hydrograph of the receiving watercourse to ensure flows are not exacerbated downstream within the catchment.
- Demonstration that development at this location can be made safe.
- New development must seek opportunities to reduce overall level of flood risk at the site for example by:
  - Reducing volume and rate of runoff
  - Relocating development to zones with lower flood risk
  - Creating space for flooding.

NUN305		
OSNGR: 433060.343,293	Area: 1.92 ha	Greenfield

Sources of flood risk:

• Primary flood risk is from surface water flooding and overland flows.
• With further development and creation of impermeable ground surfaces, surface water flooding may become a problem.

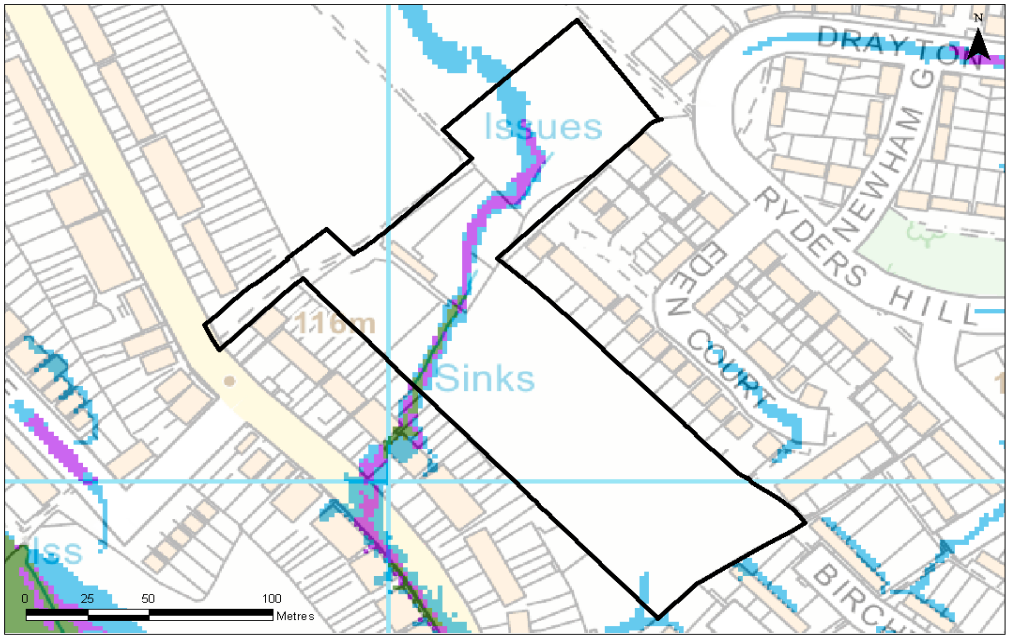
Exception Test Required?

No

NPPF Guidance:

• For development proposals on sites comprising one hectare or above in Flood Zone 1 the vulnerability of flooding from other sources as well as from river flooding should be incorporated into a FRA. The potential to increase flood risk elsewhere through the addition of hard surfaces and the effect of the new development on surface water run-off must be included.
• Developers and local authorities should seek opportunities to reduce the overall level of flood risk in the area and beyond through the layout and form of the development and through appropriate sustainable drainage techniques.

Surface Water Map



Potential development location
Council boundary
uFMfSW 30-year Extent
uFMfSW 100-year Extent
uFMfSW 1,000-year Extent

SuDS & the development site:

SuDS Type	Suitability	Comments
Source Control		All forms of source control are likely to be suitable.
Infiltration		Mapping suggests high permeability at this site, site investigations should be carried out to assess potential for drainage by infiltration.
Detention		This option may be feasible provided site slopes are < 5% at the location of the detention feature. A liner maybe required if there any ground contamination issues.

Filtration		This feature is probably suitable provided site slopes are <5% and the depth to the water table is >1m. If the site has contaminated land issues; a liner will be required.
Conveyance		All forms of conveyance are likely to be suitable. Where the slopes are >5% features should follow contours or utilise check dams to slow flows.If the site has groundwater contamination issues, a liner will be required.

- *The site is not located in an area designated by the Environment Agency as a landfill site.*
- *The site is not located within any Environment Agency designated ground source protection zones.*

Flood Defences:

There are no flood defences at this site.

Flood Warning:

There are currently no flood warning areas covering this site.

Climate Change:

- Increased storm intensities.

Flood Risk Implications for Development:

- Green infrastructure should be considered within the mitigation measures for surface water runoff from potential development.
- Assessment for runoff should include allowance for climate change effects.
- New or re-development should adopt exemplar source control SUDS techniques to reduce the risk of frequent low impact flooding due to post-development runoff.
- Onsite attenuation schemes would need to be tested against the hydrograph of the receiving watercourse to ensure flows are not exacerbated downstream within the catchment.
- Demonstration that development at this location can be made safe.
- New development must seek opportunities to reduce overall level of flood risk at the site for example by:
  - Reducing volume and rate of runoff
  - Relocating development to zones with lower flood risk
  - Creating space for flooding.

NUN317		
OSNGR: 433915,284140	Area: 1.62 ha	Majority Greenfield

Sources of flood risk:

• Primary flood risk is from surface water flooding and overland flows.
• With further development and creation of impermeable ground surfaces, surface water flooding may become a problem.

Exception Test Required?

No

NPPF Guidance:

• For development proposals on sites comprising one hectare or above in Flood Zone 1 the vulnerability of flooding from other sources as well as from river flooding should be incorporated into a FRA. The potential to increase flood risk elsewhere through the addition of hard surfaces and the effect of the new development on surface water run-off must be included.
• Developers and local authorities should seek opportunities to reduce the overall level of flood risk in the area and beyond through the layout and form of the development and through appropriate sustainable drainage techniques.

Surface Water Map

Potential development location
Council boundary
uFMfSW 30-year Extent
uFMfSW 100-year Extent
uFMfSW 1,000-year Extent

SuDS & the development site:

SuDS Type	Suitability	Comments
Source Control		All forms of source control are likely to be suitable.
Infiltration		Mapping suggests that there is a possibility of groundwater flooding at this location, therefore it is possible infiltration techniques will not be suitable. This should be confirmed via site investigations to assess the potential for infiltration.

Detention		Mapping suggests that the site slopes are suitable for all forms of detention.
Filtration		All filtration techniques are likely to be suitable. If the site has contaminated land issues; a liner will be required.
Conveyance		All forms of conveyance are likely to be suitable. Where the slopes are >5% features should follow contours or utilise check dams to slow flows.If the site has groundwater contamination issues, a liner will be required.

- *The site is not located in an area designated by the Environment Agency as a landfill site.*
- *The site is not located within any Environment Agency designated ground source protection zones.*

Flood Defences:
There are no flood defences at this site.

Flood Warning:
There are currently no flood warning areas covering this site.

Climate Change:
- Increased storm intensities.

Flood Risk Implications for Development:
- Green infrastructure should be considered within the mitigation measures for surface water runoff from potential development.
- Assessment for runoff should include allowance for climate change effects.
- New or re-development should adopt exemplar source control SUDS techniques to reduce the risk of frequent low impact flooding due to post-development runoff.
- Onsite attenuation schemes would need to be tested against the hydrograph of the receiving watercourse to ensure flows are not exacerbated downstream within the catchment.
- Demonstration that development at this location can be made safe.
- New development must seek opportunities to reduce overall level of flood risk at the site for example by:
  - Reducing volume and rate of runoff
  - Relocating development to zones with lower flood risk
  - Creating space for flooding.

NUN318		
OSNGR: 438579,288688	Area: 1.48 ha	Brownfield

Sources of flood risk:

• Mapping shows the site is not at risk from surface water flooding.
• With further development and creation of impermeable ground surfaces, surface water flooding may become a problem.

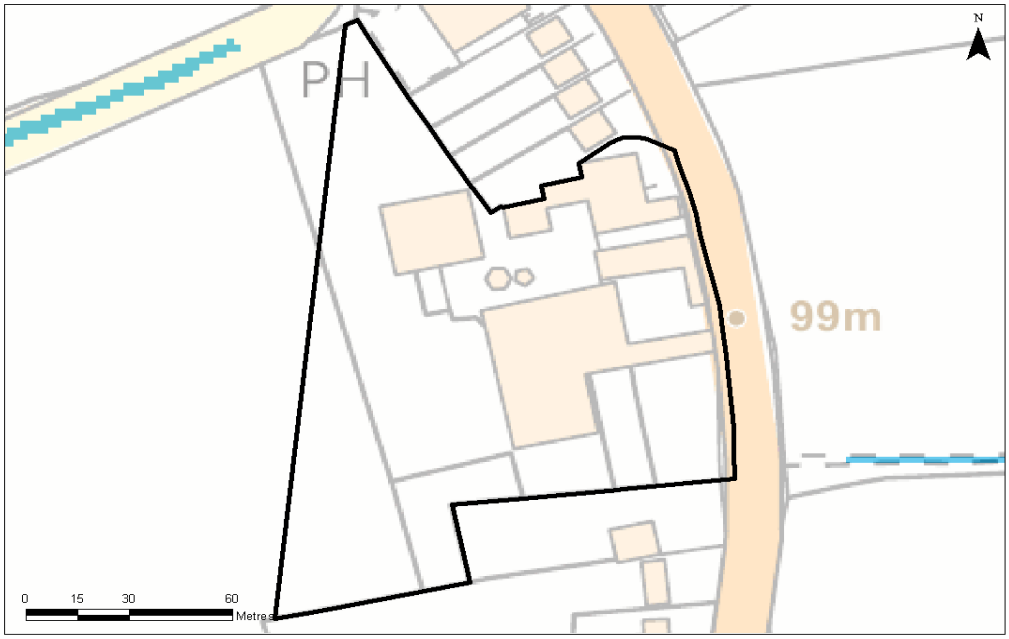
Exception Test Required?

No

NPPF Guidance:

• For development proposals on sites comprising one hectare or above in Flood Zone 1 the vulnerability of flooding from other sources as well as from river flooding should be incorporated into a FRA. The potential to increase flood risk elsewhere through the addition of hard surfaces and the effect of the new development on surface water run-off must be included.
• Developers and local authorities should seek opportunities to reduce the overall level of flood risk in the area and beyond through the layout and form of the development and through appropriate sustainable drainage techniques.

Surface Water Map



Potential development location
Council boundary
uFMfSW 30-year Extent
uFMfSW 100-year Extent
uFMfSW 1,000-year Extent

SuDS & the development site:

SuDS Type	Suitability	Comments
Source Control		All forms of source control are likely to be suitable.
Infiltration		Mapping suggests high permeability at this site, site investigations should be carried out to assess potential for drainage by infiltration.
Detention		Mapping suggests that the site slopes are suitable for all forms of detention.

Filtration		All filtration techniques are likely to be suitable. If the site has contaminated land issues; a liner will be required.
Conveyance		All forms of conveyance are likely to be suitable. Where the slopes are >5% features should follow contours or utilise check dams to slow flows.If the site has groundwater contamination issues, a liner will be required.

- *The site is not located in an area designated by the Environment Agency as a landfill site.*
- *The site is not located within any Environment Agency designated ground source protection zones.*

Flood Defences:
There are no flood defences at this site.

Flood Warning:
There are currently no flood warning areas covering this site.

Climate Change:
- Increased storm intensities.

Flood Risk Implications for Development:
- Green infrastructure should be considered within the mitigation measures for surface water runoff from potential development.
- Assessment for runoff should include allowance for climate change effects.
- New or re-development should adopt exemplar source control SUDS techniques to reduce the risk of frequent low impact flooding due to post-development runoff.
- Onsite attenuation schemes would need to be tested against the hydrograph of the receiving watercourse to ensure flows are not exacerbated downstream within the catchment.
- Demonstration that development at this location can be made safe.
- New development must seek opportunities to reduce overall level of flood risk at the site for example by:
  - Reducing volume and rate of runoff
  - Relocating development to zones with lower flood risk
  - Creating space for flooding.

NUN323				
OSNGR: 436769,287538	Area: 0.14 ha		Brownfield	
Flood Zone Coverage:	**FZ3b** 0%	**FZ3a** 21%	**FZ2** 21%	**FZ1** 58%

Sources of flood risk:

• Primary flood risk fluvial from Wem Brook, resulting from overtopping of the watercourse channel. Wem Brook flows along the north east site boundary.

• With further development and creation of impermeable ground surfaces, surface water flooding may become a problem.

Exception Test Required?

Yes, for Essential infrastructure development in FZ3b, Essential infrastructure and More Vulnerable development in FZ3a and Highly Vulnerable development in FZ2.

Highly Vulnerable infrastructure should not be permitted within FZ3a. Highly Vulnerable, More Vulnerable and Less Vulnerable infrastructure should not be permitted within FZ3b.

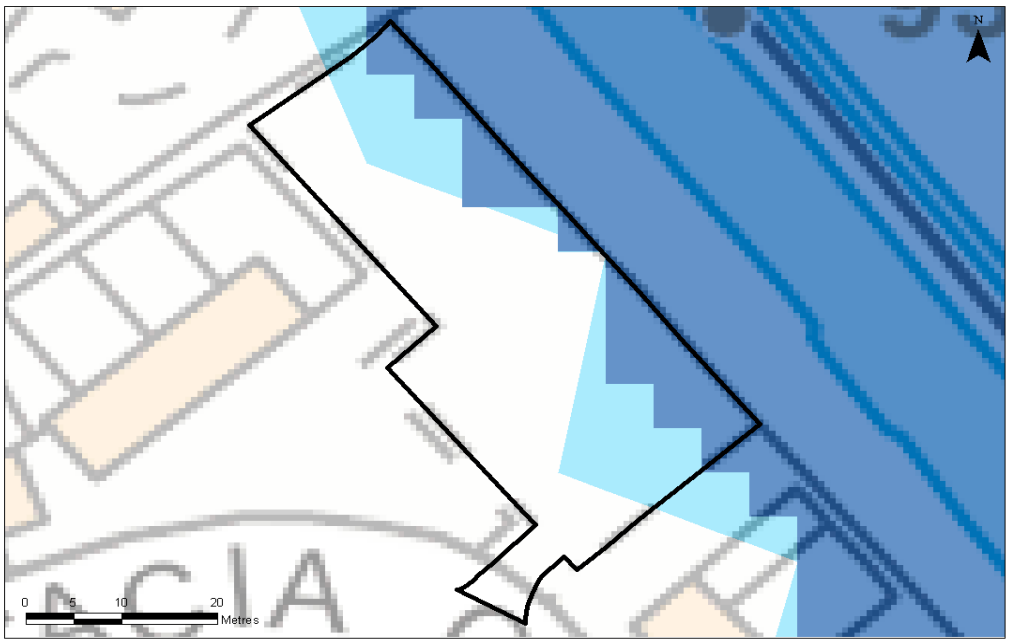
NPPF Guidance:

• To pass Part 'b' of the Exception Test, a FRA should demonstrate that the development will be safe, will avoid increasing flood risk elsewhere and will reduce flood risk overall.

• Preference should be given to locating development outside the flooded areas, located adjacent to the Wem Brook, which flows along the south westerly boundary of the development site. It should be possible to reduce flood risk at this location by using sequential design to locate more vulnerable development towards higher ground, through building design and by meeting drainage requirements. Some resilience measures may be required if buildings are situated in the flood risk area.

• Consultation with the Local Authority and the Environment Agency should be undertaken at an early stage.

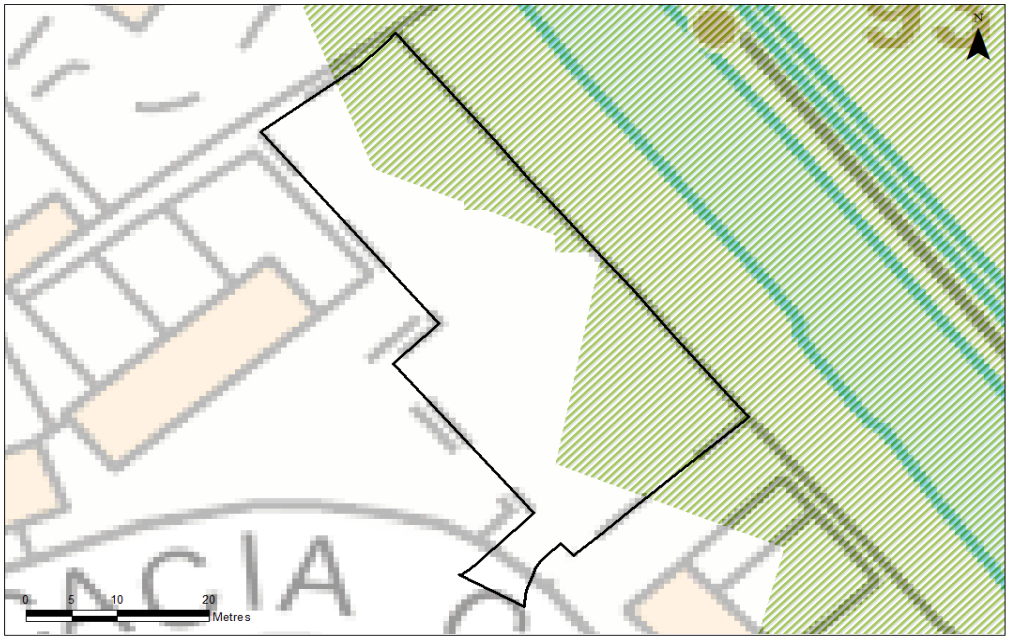
Flood Zone Map



Note: Indicative flood extents have been used to represent FZ3b in certain locations. For more information please refer to section 10 in the main report.

Potential development location
Council boundary
Flood Zone 3b
Indicative Extent of Flood Zone 3b
Flood Zone 3a
Flood Zone 2

Climate Change Map



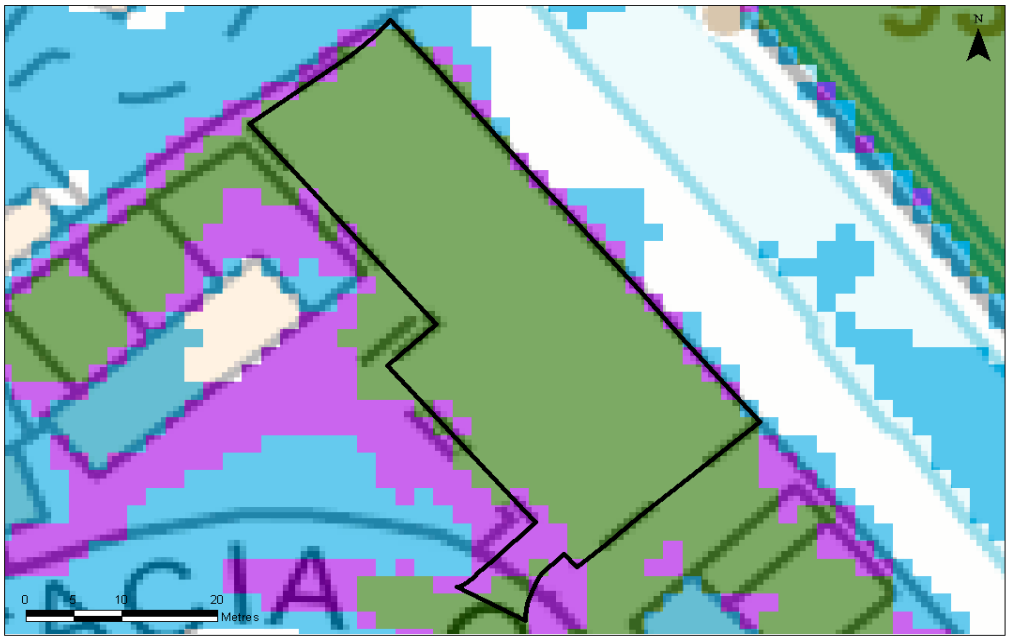
Potential development location

Council boundary

Flood Zone 3 with Climate Change

Indicative Extent of Flood Zone 3 with Climate Change

Surface Water Map



Potential development location

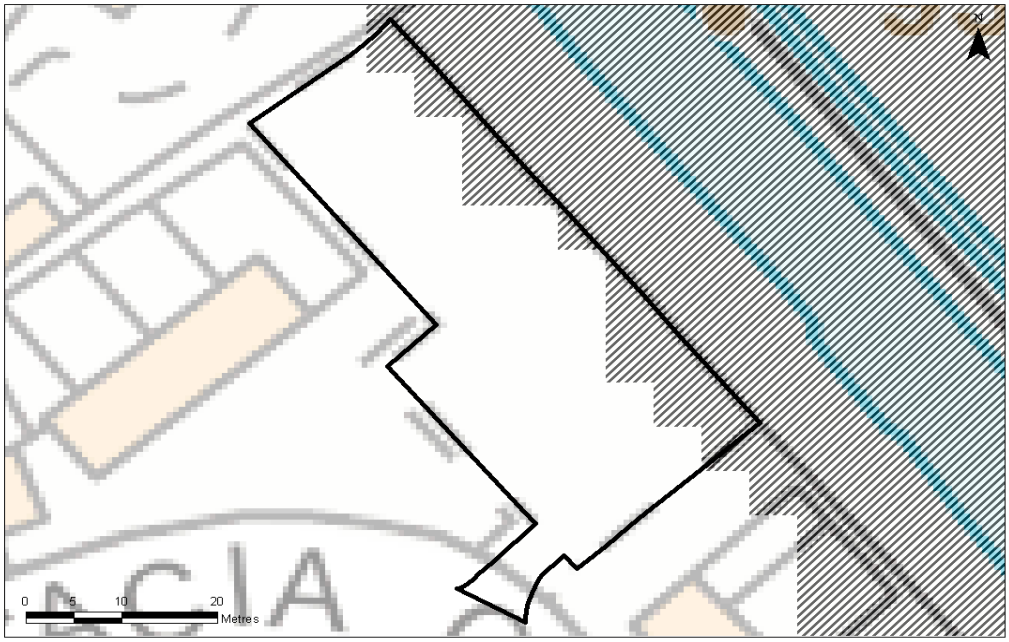
Council boundary

uFMfSW 30-year Extent

uFMfSW 100-year Extent

uFMfSW 1,000-year Extent

Depth Map - fluvial flooding (1 in 100-year event)

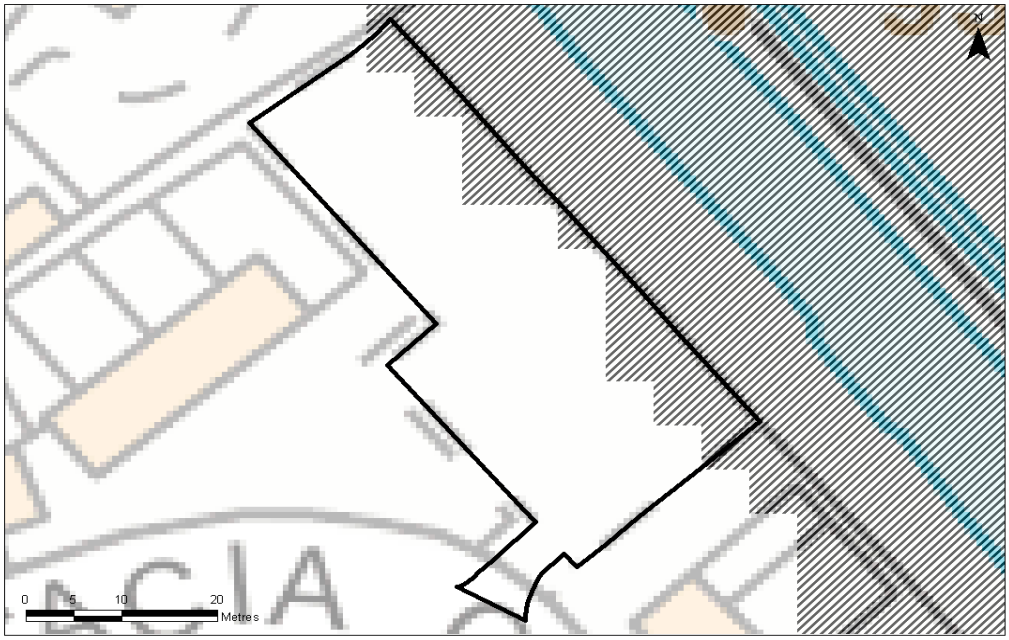


Potential development location
Council Boundary

Depth (m)

0 - 0.01
0.01 - 0.1
0.1 - 0.5
0.5 - 1.0
1.0 - 1.5
1.5 - 2.0
2.0 - 2.5
2.5 - 4.5
Unknown depth rating

Velocity Map - fluvial flooding (1 in 100-year event)

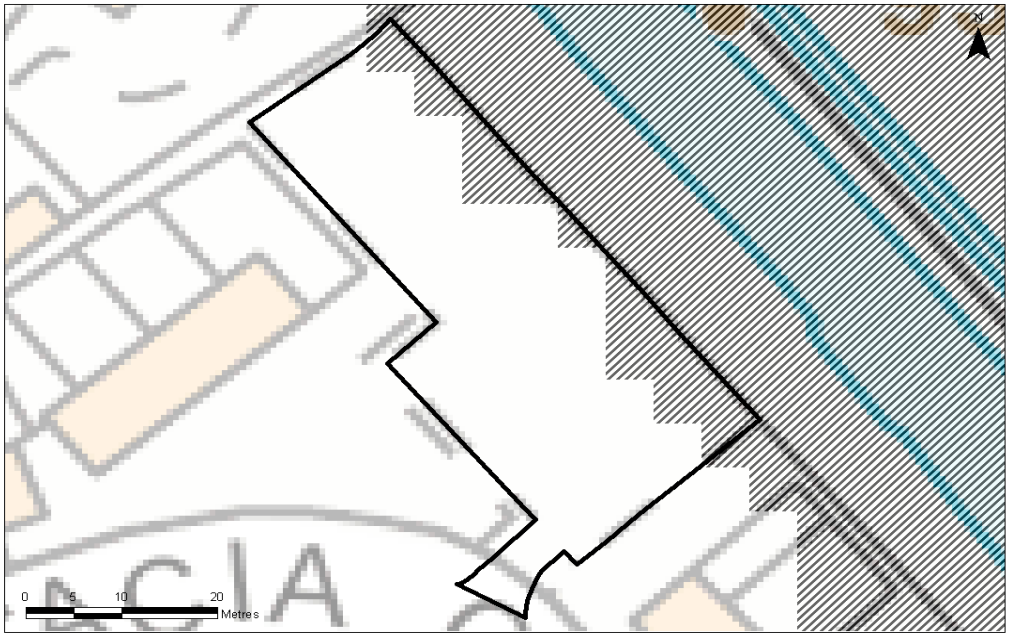


Potential development location
Council Boundary

Velocity (m/s)

0 - 0.2
0.2 - 0.5
0.5 - 1.0
1.0 - 2.0
> 2.0
Unknown velocity rating

Hazard Map - fluvial flooding (1 in 100-year event)



Potential development location
Council Boundary

Hazard Rating

Very low hazard - caution
Danger for some
Danger for most
Danger for all
Unknown hazard rating

SuDS & the development site:

SuDS Type	Suitability	Comments
Source Control		All forms of source control are likely to be suitable.
Infiltration		Mapping suggests high permeability at this site, site investigations should be carried out to assess potential for drainage by infiltration.
Detention		Mapping suggests that the site slopes are suitable for all forms of detention.
Filtration		All filtration techniques are likely to be suitable. If the site has contaminated land issues; a liner will be required.
Conveyance		All forms of conveyance are likely to be suitable. Where the slopes are >5% features should follow contours or utilise check dams to slow flows.If the site has groundwater contamination issues, a liner will be required.

- *The site is not located in an area designated by the Environment Agency as a landfill site.*
- *The site is not located within any Environment Agency designated ground source protection zones.*

Flood Defences:

There are no flood defences at this site.

Flood Warning:

There are currently no flood warning areas covering this site.

Climate Change:

• Increased storm intensities.
• Increased water levels in the Wem Brook.

Flood Risk Implications for Development:

• Only a small proportion of the development site is affected by flood levels, therefore all development should be located within Flood Zone 1, unless appropriate in accordance with NPPF Planning Practice Guidance. Also with a larger region in the south of the development site is located in Flood Zone 2 new infrastructure should be designed to not increase flood risk in these regions during large rainfall events.
• Consideration of the peak flows on the Wem Brook and its durations required when considering drainage.
• A site specific flood risk assessment will be required for any development in Flood Zone 2 and 3.
• Green infrastructure should be considered within the mitigation measures for surface water runoff from potential development.
• Assessment for runoff should include allowance for climate change effects.
• New or re-development should adopt exemplar source control SUDS techniques to reduce the risk of frequent low impact flooding due to post-development runoff.
• Onsite attenuation schemes would need to be tested against the hydrograph of the Wem Brook to ensure flows are not exacerbated downstream within the catchment.
• Demonstration that development at this location can be made safe.
• New development must seek opportunities to reduce overall level of flood risk at the site for example by:
o Reducing volume and rate of runoff
o Relocating development to zones with lower flood risk
o Creating space for flooding.
• Consider using Flood Zone 2 and 3as public open space.

NUN348			
OSNGR:	434139,291947	Area: 0.28 ha	Greenfield

Sources of flood risk:

• Mapping shows the site is not at risk from surface water flooding.
• With further development and creation of impermeable ground surfaces, surface water flooding may become a problem.

Exception Test Required?

No

NPPF Guidance:

• For development proposals on sites comprising one hectare or above in Flood Zone 1 the vulnerability of flooding from other sources as well as from river flooding should be incorporated into a FRA. The potential to increase flood risk elsewhere through the addition of hard surfaces and the effect of the new development on surface water run-off must be included.
• Developers and local authorities should seek opportunities to reduce the overall level of flood risk in the area and beyond through the layout and form of the development and through appropriate sustainable drainage techniques.

Surface Water Map

Potential development location
Council boundary
uFMfSW 30-year Extent
uFMfSW 100-year Extent
uFMfSW 1,000-year Extent

SuDS & the development site:

SuDS Type	Suitability	Comments
Source Control		All forms of source control are likely to be suitable.
Infiltration		Mapping suggests high permeability at this site, site investigations should be carried out to assess potential for drainage by infiltration.
Detention		Mapping suggests that the site slopes are suitable for all forms of detention.

Filtration		All filtration techniques are likely to be suitable. If the site has contaminated land issues; a liner will be required.
Conveyance		All forms of conveyance are likely to be suitable. Where the slopes are >5% features should follow contours or utilise check dams to slow flows.If the site has groundwater contamination issues, a liner will be required.

• This site has areas within its boundary designated by the Environment Agency as being a landfill site. A thorough ground investigation will be required as part of a detailed FRA to determine the extent of the contamination and the impact this may have on SuDS. As such proposed SuDS should be discussed with the relevant stakeholders (LPA, LLFA and EA) at an early stage to understand possible constraints.

• The site is not located within any Environment Agency designated ground source protection zones.

Flood Defences:

There are no flood defences at this site.

Flood Warning:

There are currently no flood warning areas covering this site.

Climate Change:

• Increased storm intensities.

Flood Risk Implications for Development:

• Green infrastructure should be considered within the mitigation measures for surface water runoff from potential development.
• Assessment for runoff should include allowance for climate change effects.
• New or re-development should adopt exemplar source control SUDS techniques to reduce the risk of frequent low impact flooding due to post-development runoff.
• Onsite attenuation schemes would need to be tested against the hydrograph of the receiving watercourse to ensure flows are not exacerbated downstream within the catchment.
• Demonstration that development at this location can be made safe.
• New development must seek opportunities to reduce overall level of flood risk at the site for example by:
o Reducing volume and rate of runoff
o Relocating development to zones with lower flood risk
o Creating space for flooding.

NUN350				
OSNGR: 436962,289900	Area: 0.11 ha		Mixed Brownfield/Greenfield	
Flood Zone Coverage:	**FZ3b** 0%	**FZ3a** 0%	**FZ2** 1%	**FZ1** 99%

Sources of flood risk:

• Primary fluvial flood risk is from Griff Brook to the south of the site resulting from overtopping of the watercourse channels. Griff Brook flows in eastern direction.

• With further development and creation of impermeable ground surfaces, surface water flooding may become a problem.

Exception Test Required?

Yes, for Essential infrastructure development in FZ3b, Essential infrastructure and More Vulnerable development in FZ3a and Highly Vulnerable development in FZ2.

Highly Vulnerable infrastructure should not be permitted within FZ3a. Highly Vulnerable, More Vulnerable and Less Vulnerable infrastructure should not be permitted within FZ3b.

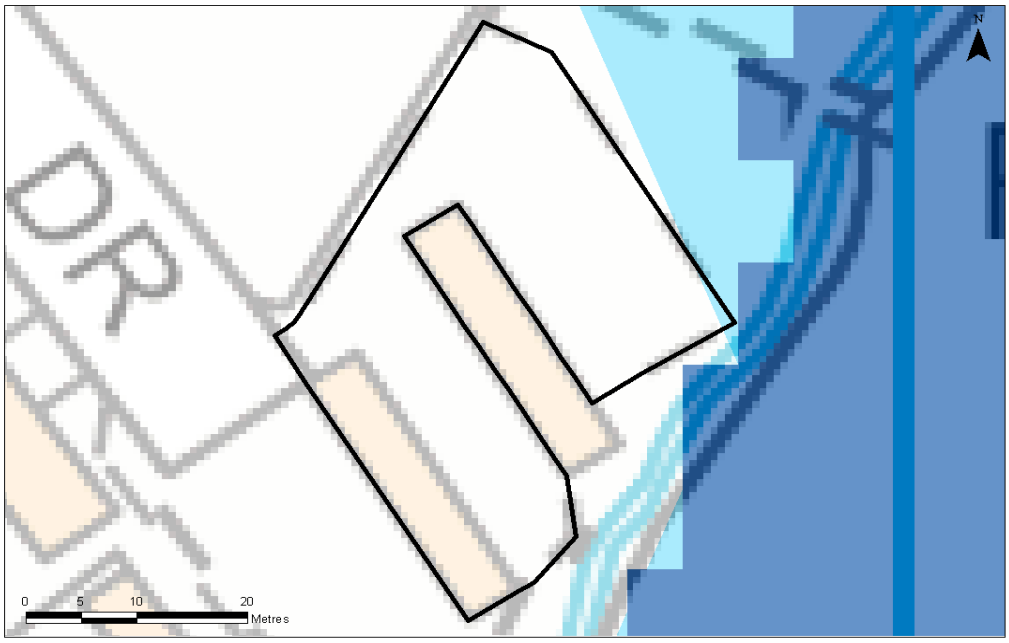
NPPF Guidance:

• To pass Part 'b' of the Exception Test, a FRA should demonstrate that the development will be safe, will avoid increasing flood risk elsewhere and will reduce flood risk overall.

• Preference should be given to locating development outside the flooded areas, located adjacent to the Coventry Canal, which flows along the south westerly boundary of the development site. It should be possible to reduce flood risk at this location by using sequential design to locate more vulnerable development towards higher ground, through building design and by meeting drainage requirements. Some resilience measures may be required if buildings are situated in the flood risk area.

• Consultation with the Local Authority and the Environment Agency should be undertaken at an early stage.

Flood Zone Map

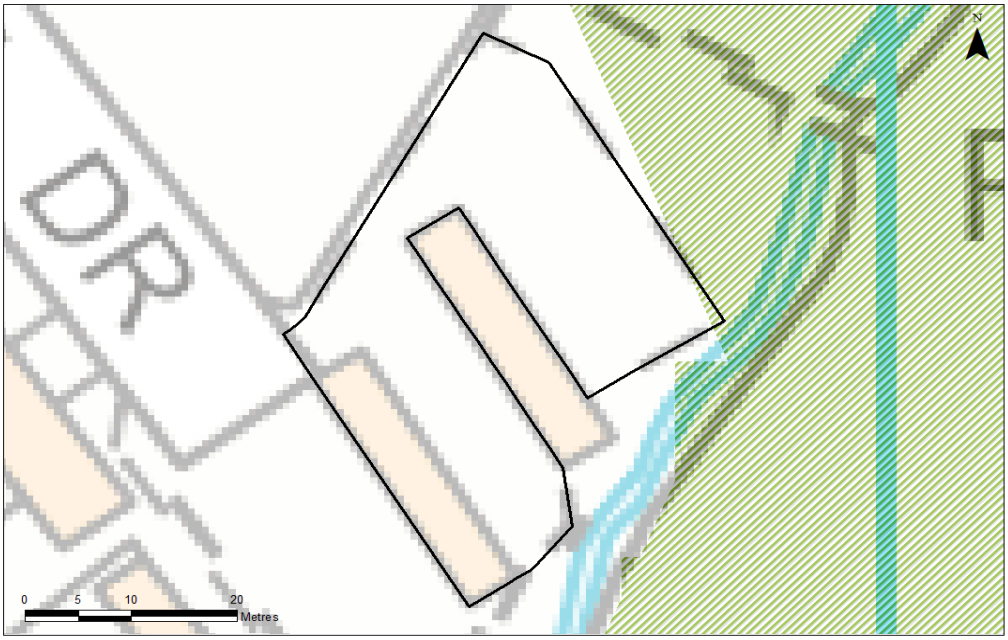


Note: Indicative flood extents have been used to represent FZ3b in certain locations. For more information please refer to section 10 in the main report.

Potential development location | Flood Zone 3b | Flood Zone 3a

Council boundary | Indicative Extent of Flood Zone 3b | Flood Zone 2

Climate Change Map



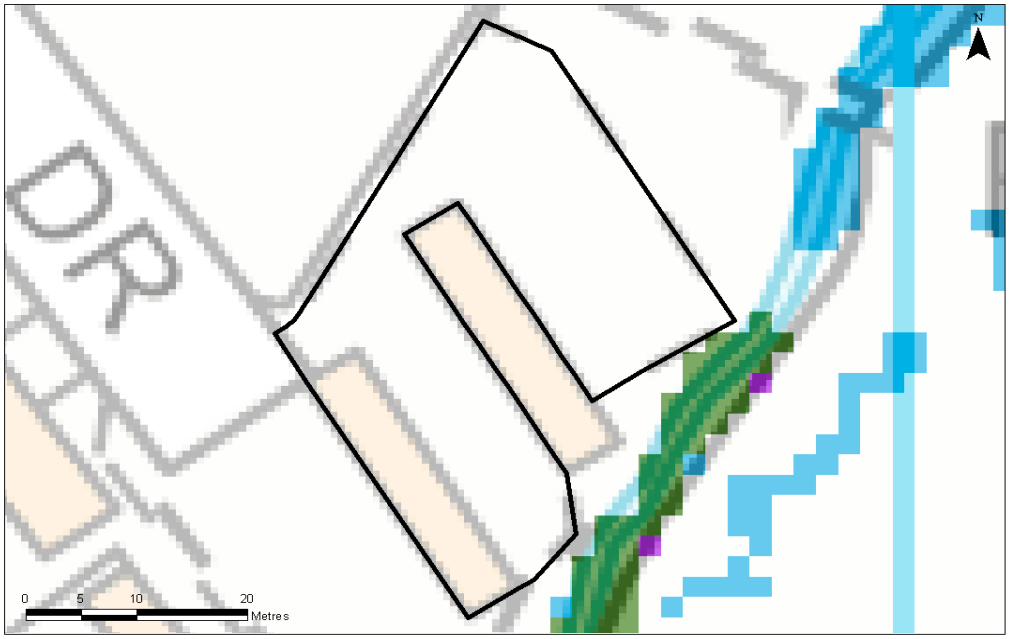
Potential development location

Council boundary

Flood Zone 3 with Climate Change

Indicative Extent of Flood Zone 3 with Climate Change

Surface Water Map



Potential development location

Council boundary

uFMfSW 30-year Extent

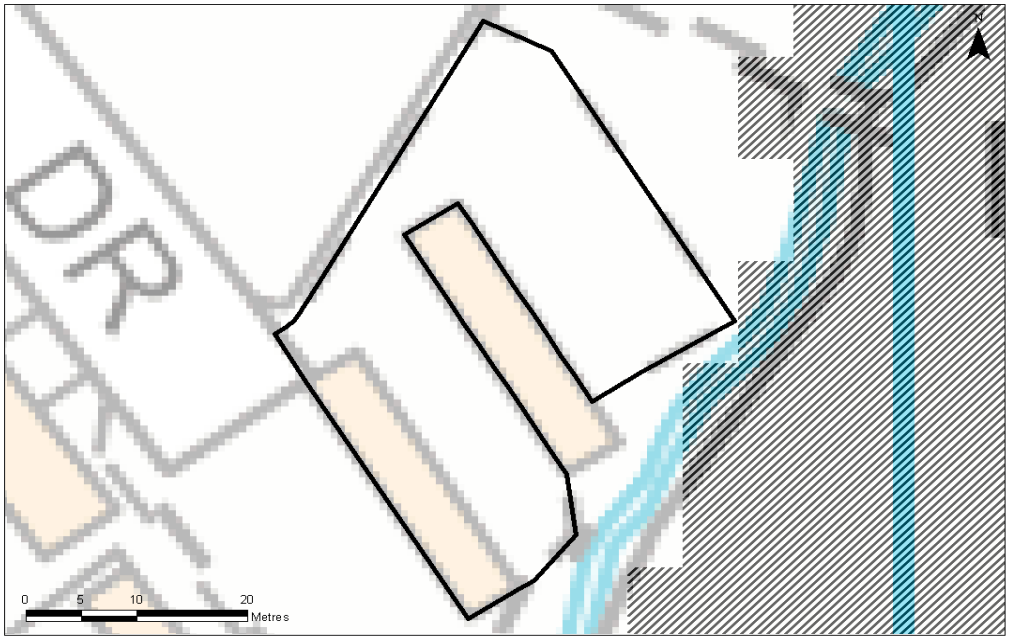
uFMfSW 100-year Extent

uFMfSW 1,000-year Extent

Depth Map - fluvial flooding (1 in 100-year event)

Potential development location
Council Boundary
Depth (m)
0 - 0.01
0.01 - 0.1
0.1 - 0.5
0.5 - 1.0
1.0 - 1.5
1.5 - 2.0
2.0 - 2.5
2.5 - 4.5
Unknown depth rating

Velocity Map - fluvial flooding (1 in 100-year event)



Potential development location
Council Boundary
Velocity (m/s)
0 - 0.2
0.2 - 0.5
0.5 - 1.0
1.0 - 2.0
> 2.0
Unknown velocity rating

Hazard Map - fluvial flooding (1 in 100-year event)

Potential development location
Council Boundary

Hazard Rating

Very low hazard - caution
Danger for some
Danger for most
Danger for all
Unknown hazard rating

SuDS & the development site:

SuDS Type	Suitability	Comments
Source Control		All forms of source control are likely to be suitable.
Infiltration		Mapping suggests high permeability at this site, site investigations should be carried out to assess potential for drainage by infiltration.
Detention		Mapping suggests that the site slopes are suitable for all forms of detention.
Filtration		All filtration techniques are likely to be suitable. If the site has contaminated land issues; a liner will be required.
Conveyance		All forms of conveyance are likely to be suitable. Where the slopes are >5% features should follow contours or utilise check dams to slow flows.If the site has groundwater contamination issues, a liner will be required.

- *The site is not located in an area designated by the Environment Agency as a landfill site.*
- *The site is not located within any Environment Agency designated ground source protection zones.*

Flood Defences:
There are no flood defences at this site.

Flood Warning:
There are currently no flood warning areas covering this site.

Climate Change:

• Increased storm intensities.
• Increased water levels in the Griff Brook.

Flood Risk Implications for Development:

• Only a small proportion of the development site is affected by flood levels, therefore all development should be located within Flood Zone 1, unless appropriate in accordance with NPPF Planning Practice Guidance. Also with a larger region in the south of the development site is located in Flood Zone 2 new infrastructure should be designed to not increase flood risk in these regions during large rainfall events.
• Consideration of the peak flows on the Griff Brook and its durations required when considering drainage.
• A site specific flood risk assessment will be required for any development in Flood Zone 2 and 3.
• Green infrastructure should be considered within the mitigation measures for surface water runoff from potential development.
• Assessment for runoff should include allowance for climate change effects.
• New or re-development should adopt exemplar source control SUDS techniques to reduce the risk of frequent low impact flooding due to post-development runoff.
• Onsite attenuation schemes would need to be tested against the hydrograph of the Griff Brook to ensure flows are not exacerbated downstream within the catchment.
• Demonstration that development at this location can be made safe.
• New development must seek opportunities to reduce overall level of flood risk at the site for example by:
o Reducing volume and rate of runoff
o Relocating development to zones with lower flood risk
o Creating space for flooding.
• Consider using Flood Zone 2 and 3as public open space.

NUN352		
OSNGR: 435435,287430	Area: 0.14 ha	Majority Brownfield

Sources of flood risk:

• Mapping shows the site is not at risk from surface water flooding.
• With further development and creation of impermeable ground surfaces, surface water flooding may become a problem.

Exception Test Required?

No

NPPF Guidance:

• For development proposals on sites comprising one hectare or above in Flood Zone 1 the vulnerability of flooding from other sources as well as from river flooding should be incorporated into a FRA. The potential to increase flood risk elsewhere through the addition of hard surfaces and the effect of the new development on surface water run-off must be included.
• Developers and local authorities should seek opportunities to reduce the overall level of flood risk in the area and beyond through the layout and form of the development and through appropriate sustainable drainage techniques.

Surface Water Map

Potential development location
Council boundary
uFMfSW 30-year Extent
uFMfSW 100-year Extent
uFMfSW 1,000-year Extent

SuDS & the development site:

SuDS Type	Suitability	Comments
Source Control		All forms of source control are likely to be suitable.
Infiltration		Mapping suggests high permeability at this site, site investigations should be carried out to assess potential for drainage by infiltration.
Detention		Mapping suggests that the site slopes are suitable for all forms of detention.

Filtration		All filtration techniques are likely to be suitable. If the site has contaminated land issues; a liner will be required.
Conveyance		All forms of conveyance are likely to be suitable. Where the slopes are >5% features should follow contours or utilise check dams to slow flows.If the site has groundwater contamination issues, a liner will be required.

- *The site is not located in an area designated by the Environment Agency as a landfill site.*
- *The site is not located within any Environment Agency designated ground source protection zones.*

Flood Warning:

There are currently no flood warning areas covering this site.

Climate Change:

- Increased storm intensities.

Flood Risk Implications for Development:

- Green infrastructure should be considered within the mitigation measures for surface water runoff from potential development.
- Assessment for runoff should include allowance for climate change effects.
- New or re-development should adopt exemplar source control SUDS techniques to reduce the risk of frequent low impact flooding due to post-development runoff.
- Onsite attenuation schemes would need to be tested against the hydrograph of the receiving watercourse to ensure flows are not exacerbated downstream within the catchment.
- Demonstration that development at this location can be made safe.
- New development must seek opportunities to reduce overall level of flood risk at the site for example by:
  - Reducing volume and rate of runoff
  - Relocating development to zones with lower flood risk
  - Creating space for flooding.