Dean Hill Road, Willand (a)

OSNGR: 302891,109949	Area: 0.53ha		Greenfield	
Flood Zone Coverage:	**FZ3b** 0%	**FZ3a** 0%	**FZ2** 0%	**FZ1** 100%

Exception Test Required?

The proposed land use for this site is residential which has a flood risk vulnerability class of 'More Vulnerable'.

This site is100% in Flood Zone 1 and, therefore, the Exception Test is not required.

Planning application stage:

- A site specific flood risk assessment would not be required for this site as it is less than 1ha and located in Flood Zone 1.
- 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 should be considered.

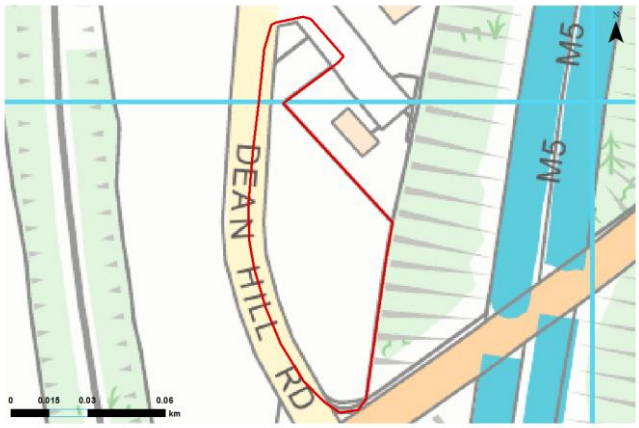
Flood Zone Map:

Proposed Development Area
Mid Devon DC Boundary
Flood Zone 3a
Flood Zone 2

Climate Change:

Proposed Development Area
Mid Devon DC Boundary
Flood Zone 3 with Climate Change
Indicative Extent of Flood Zone 3 with Climate Change

Note: Indicative flood extents have been used to represent FZ3 with climate change in certain locations. For more information please refer to Section 11 in the main report.



Surface Water:

Proposed Development Area
Mid Devon DC Boundary
uFMfSW 30-year Extent
uFMfSW 100-year Extent
uFMfSW 1,000-year Extent

Note: This map gives an indication of the broad areas likely to be at risk of surface water flooding. It is not suitable for use at an individual property scale due to the method used.

Sources of Flood Risk:

• Further Development and creation of impermeable surfaces may result in an increase of surface water flood risk.

SuDS & the development site:

SuDS Type	Suitability	Comments
Source Control		Most source control techniques are likely to be suitable. Permeable paving should use non-infiltrating systems due to high risk of groundwater flooding.
Infiltration		Mapping suggests low permeability in this area possibly making the infiltration techniques unsuitable. Further site investigation should be carried out to assess potential for drainage by infiltration. If infiltration is suitable it should be avoided in areas where the depth to the water table is <1m.
Detention		This option may be feasible provided site slopes are < 5%. A liner maybe required to prevent the egress of groundwater.
Filtration		This feature is probably suitable provided site slopes are <5% and the depth to the water table is >1m. A liner maybe required to prevent the egress of groundwater.
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. A liner maybe required to prevent the egress of groundwater.

• Residential developments should provide at least two independent SuDS features in series to provide a suitable level of water quality treatment.
• The site is not located in an area designated as a landfill site.
• The site is not located within a groundwater source protection zone.

Flood Defences:

There are no flood defences at this site.

Flood Warning:

There are currently no flood warning areas covering this site.

Access & Egress:

Existing information suggests there are no access or egress issues for the 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.

• 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

Dean Hill Road, Willand (b)

OSNGR: 302840,109980	Area: 1.4ha		Greenfield	
Flood Zone Coverage:	**FZ3b** 0%	**FZ3a** 0%	**FZ2** 0%	**FZ1** 100%

Exception Test Required?

The proposed land use for this site is residential which has a flood risk vulnerability class of 'More Vulnerable'.

Existing information shows this site to be 100% in Flood Zone 1 and, therefore, the Exception Test is not required.

Planning application stage:

- A site specific flood risk assessment is required for development proposals on sites comprising one hectare or above in Flood Zone 1, in which the vulnerability to flooding from other sources should be considered.
- 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 should be considered.

Flood Zone Map:

Proposed Development Area
Mid Devon DC Boundary
Flood Zone 3a
Flood Zone 2

Climate Change:

Proposed Development Area
Mid Devon DC Boundary
Flood Zone 3 with Climate Change
Indicative Extent of Flood Zone 3 with Climate Change

Note: Indicative flood extents have been used to represent FZ3 with climate change in certain locations. For more information please refer to Section 11 in the main report.

Surface Water:

Proposed Development Area

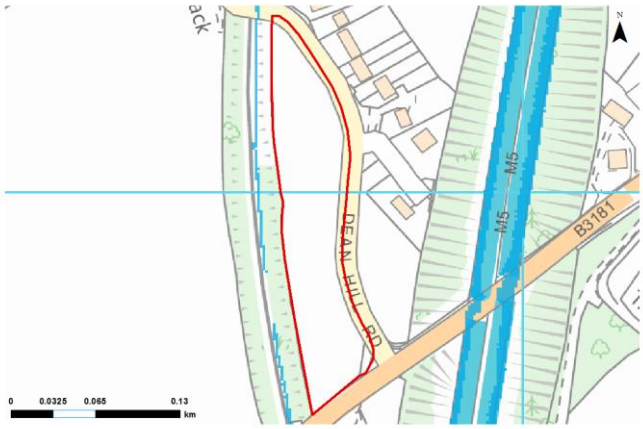
Mid Devon DC Boundary

uFMfSW 30-year Extent

uFMfSW 100-year Extent

uFMfSW 1,000-year Extent

Note: This map gives an indication of the broad areas likely to be at risk of surface water flooding. It is not suitable for use at an individual property scale due to the method used.



Sources of Flood Risk:

• Further development and creation of impermeable surfaces may result in an increase of surface water flood risk.

SuDS & the development site:

SuDS Type	Suitability	Comments
Source Control		Most source control techniques are likely to be suitable. Permeable paving should use non-infiltrating systems due to high risk of groundwater flooding.
Infiltration		Mapping suggests low permeability in this area possibly making the infiltration techniques unsuitable. Further site investigation should be carried out to assess potential for drainage by infiltration. If infiltration is suitable it should be avoided in areas where the depth to the water table is <1m.
Detention		This option may be feasible provided site slopes are < 5%. A liner maybe required to prevent the egress of groundwater.
Filtration		This feature is probably suitable provided site slopes are <5% and the depth to the water table is >1m. A liner maybe required to prevent the egress of groundwater.
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. A liner maybe required to prevent the egress of groundwater.

• Residential developments should provide at least two independent SuDS features in series to provide a suitable level of water quality treatment.

• The site is not located in an area designated as a landfill site.

• The site is not located within a groundwater source protection zone.

Flood Defences:

There are no flood defences at this site.

Flood Warning:

There are currently no flood warning areas covering this site.

Access & Egress:

Existing information suggests there are no access or egress issues for the 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.

• Development should adopt exemplar source control SuDS techniques to reduce the risk of frequent low impact flooding due to post-development runoff.

• 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

Land adj B3181, Willand

OSNGR: 303351,110356	Area: 0.97ha		Greenfield	
Flood Zone Coverage:	**FZ3b** 0%	**FZ3a** 0%	**FZ2** 0%	**FZ1** 100%

Exception Test Required?

The proposed land use for this site is residential which has a flood risk vulnerability class of 'More Vulnerable'.

This site is100% in Flood Zone 1 and, therefore, the Exception Test is not required.

Planning application stage:

- A site specific flood risk assessment would not be required for this site as it is less than 1ha and located in Flood Zone 1.
- 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 should be considered.

Flood Zone Map:

Proposed Development Area
Mid Devon DC Boundary
Flood Zone 3a
Flood Zone 2

Climate Change:

Proposed Development Area
Mid Devon DC Boundary
Flood Zone 3 with Climate Change
Indicative Extent of Flood Zone 3 with Climate Change

Note: Indicative flood extents have been used to represent FZ3 with climate change in certain locations. For more information please refer to Section 11 in the main report.

Surface Water:

Proposed Development Area

Mid Devon DC Boundary

uFMfSW 30-year Extent

uFMfSW 100-year Extent

uFMfSW 1,000-year Extent

Note: This map gives an indication of the broad areas likely to be at risk of surface water flooding. It is not suitable for use at an individual property scale due to the method used.

Sources of Flood Risk:

• Further development and creation of impermeable surfaces may result in an increase of surface water flood risk.

SuDS & the development site:

SuDS Type	Suitability	Comments
Source Control		All forms of source control are likely to be suitable.
Infiltration		Mapping suggests low permeability in this area possibly making the infiltration techniques unsuitable. Further site investigation should be carried out to assess potential for drainage by infiltration. If infiltration is suitable it should be avoided in areas where the depth to the water table is <1m.
Detention		This option may be feasible provided site slopes are < 5%. A liner maybe required to prevent the egress of groundwater.
Filtration		This feature is probably suitable provided site slopes are <5% and the depth to the water table is >1m. A liner maybe required to prevent the egress of groundwater.
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.

• Residential developments should provide at least two independent SuDS features in series to provide a suitable level of water quality treatment.
• The site is not located in an area designated as a landfill site.
• The site is not located within a groundwater source protection zone.

Flood Defences:

There are no flood defences at this site.

Flood Warning:

There are currently no flood warning areas covering this site.

Access & Egress:

Existing information suggests there are no access or egress issues for the 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.

• 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

Land at Junction 27 and adjoining Willand (a)

OSNGR: 304917,113661	Area: 81.29ha		Greenfield	
Flood Zone Coverage:	**FZ3b** 0%	**FZ3a** 0%	**FZ2** 0%	**FZ1** 100%

Exception Test Required?

The proposed land use for this site is commercial which has a flood risk vulnerability class of Less Vulnerable'.

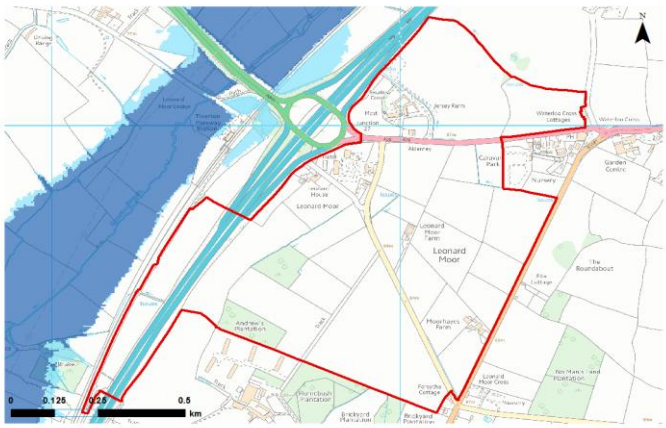
Existing information shows this site to be 100% in Flood Zone 1 and, therefore, the Exception Test is not required. However, there are unnamed watercourses flowing to the north and east of the site, for which flood zone information is not available. Further information regarding the level of risk from these watercourses would be required to know whether or not the Exception Test is required and if it could be passed.

Planning application stage:

- Hydrological and hydraulic assessment of the unnamed watercourses that runs to the north and the east of the site should be undertaken to verify flood extent.
- The results of the modelling will inform development zoning in the site, allowing location of development in areas outside of highest flood risk.
- At the planning application stage, a site-specific flood risk assessment will be required for any development greater than 1ha or if it is located within Flood Zones 2 or 3.

Flood Zone Map:

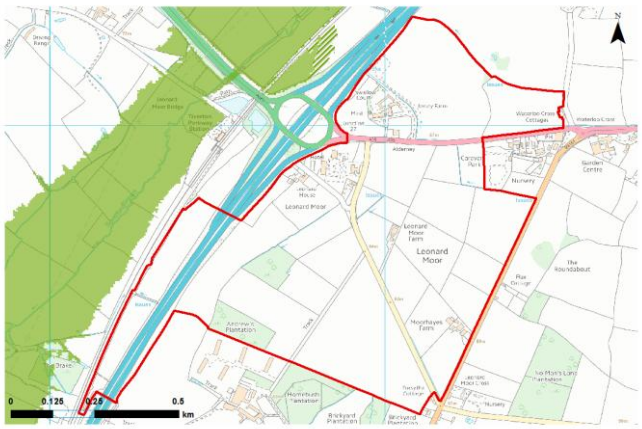
Proposed Development Area
Mid Devon DC Boundary
Flood Zone 3a
Flood Zone 2



Climate Change:

Proposed Development Area
Mid Devon DC Boundary
Flood Zone 3 with Climate Change
Indicative Extent of Flood Zone 3 with Climate Change

Note: Indicative flood extents have been used to represent FZ3 with climate change in certain locations. For more information please refer to Section 11 in the main report.



Surface Water:

Proposed Development Area

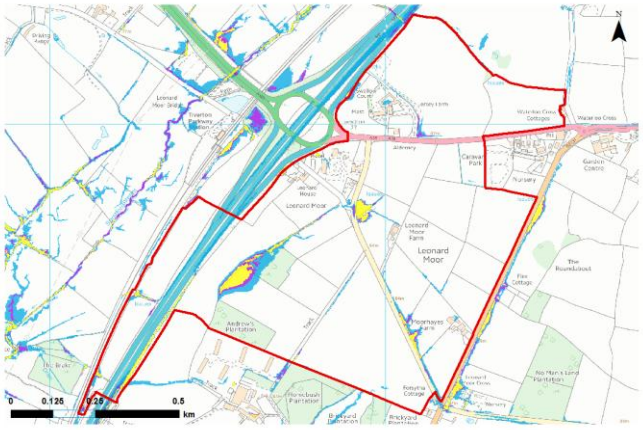
Mid Devon DC Boundary

uFMfSW 30-year Extent

uFMfSW 100-year Extent

uFMfSW 1,000-year Extent

Note: This map gives an indication of the broad areas likely to be at risk of surface water flooding. It is not suitable for use at an individual property scale due to the method used.



Sources of Flood Risk:

• Surface water presents a risk to the site. Further development and creation of impermeable surfaces may result in an increase of surface water flood risk.

SuDS & the development site:

SuDS Type	Suitability	Comments
Source Control		Most source control techniques are likely to be suitable. Permeable paving should use non-infiltrating systems due to high risk of groundwater flooding.
Infiltration		Mapping suggests low permeability in this area possibly making the infiltration techniques unsuitable. Further site investigation should be carried out to assess potential for drainage by infiltration. If infiltration is suitable it should be avoided in areas where the depth to the water table is <1m.
Detention		This option may be feasible provided site slopes are < 5%. A liner maybe required to prevent the egress of groundwater.
Filtration		This feature is probably suitable provided site slopes are <5% and the depth to the water table is >1m. A liner maybe required to prevent the egress of groundwater.
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. A liner maybe required to prevent the egress of groundwater.

• Commercial developments should provide at least two independent SuDS features in series to provide a suitable level of water quality treatment.

• The site is not located in an area designated as a landfill site.

• The site is not located within a groundwater source protection zone.

Flood Defences:

There are no flood defences at this site.

Canal:

The site lies within the low impact zone associated with bank failure of the Grand Western Canal.

Flood Warning:

There are currently no flood warning areas covering this site.

Access & Egress:

Existing information suggests there are no access or egress issues for the site.

Climate Change:

• Increased storm intensities.

Flood Risk Implications for Development:

• Flood zones have not been produced for the unnamed watercourses flowing through the site. The flood risk from these water bodies should be considered during the planning application stage.

• Green infrastructure should be considered within the mitigation measures for surface water runoff from potential development.

• The peak flows on the unnamed watercourses should be considered when considering drainage.

• Assessment for runoff should include allowance for climate change effects.

• 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.

• 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 zones with lower flood risk

  o Creating space for flooding.

Land at M5 Junction 27 and adjoining Willand (b)

OSNGR: 304322,112560	Area: 123.23ha		Greenfield	
Flood Zone Coverage:	**FZ3b** 0%	**FZ3a** 0%	**FZ2** 0%	**FZ1** 100%

Exception Test Required?

The proposed land use for this site is residential which has a flood risk vulnerability class of 'More Vulnerable'.

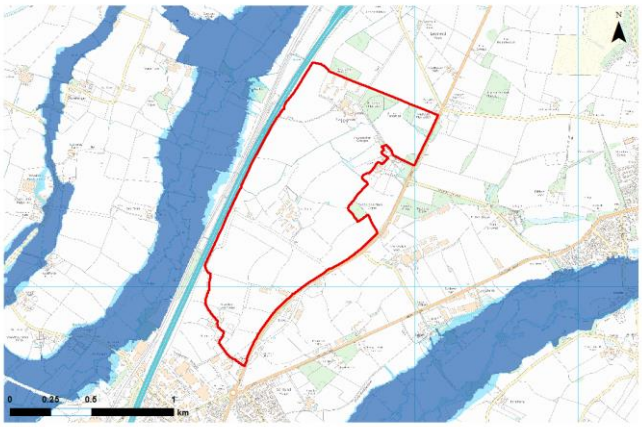
Existing information shows this site to be 100% in Flood Zone 1. However, there are unnamed watercourses flowingthrough the site, for which flood zone information is not available. Further information regarding the level of risk from these watercourses would be required to know whether or not the Exception Test is required and if it could be passed.

Planning Application Stage:

- Hydrological and hydraulic assessment of the unnamed watercourses that run through the site should be undertaken to verify flood extent.
- The results of the modelling will inform development zoning in the site, allowing location of residential development in areas outside of flood risk. If residential development is unable to be located outside of flood risk areas (1 in 100-year flood) the Exception Test would be required.
- At the planning application stage, a site-specific flood risk assessment will be required for any development greater than 1ha or if it is located within Flood Zones 2 or 3.

Flood Zone Map:

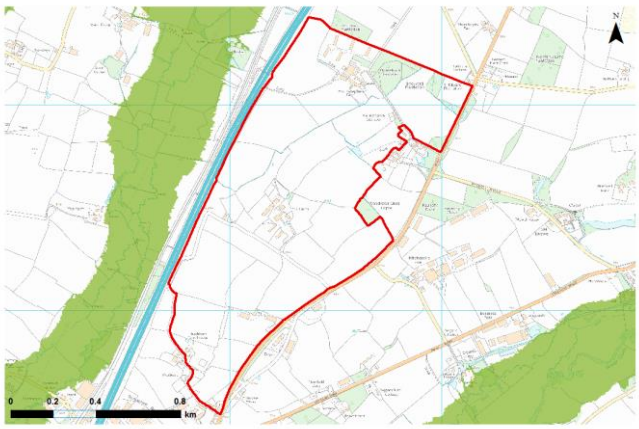
Proposed Development Area
Mid Devon DC Boundary
Flood Zone 3a
Flood Zone 2



Climate Change:

Proposed Development Area
Mid Devon DC Boundary
Flood Zone 3 with Climate Change
Indicative Extent of Flood Zone 3 with Climate Change

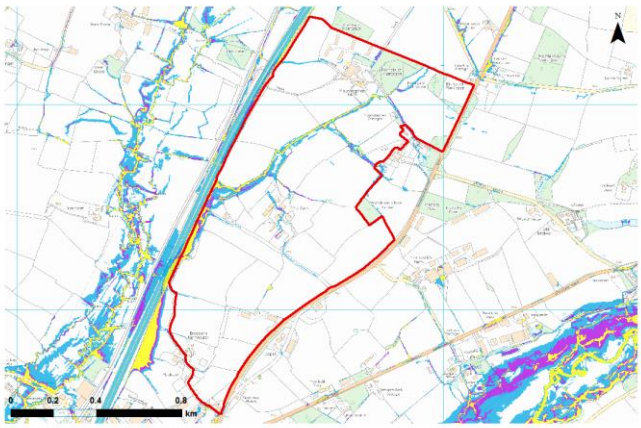
Note: Indicative flood extents have been used to represent FZ3 with climate change in certain locations. For more information please refer to Section 11 in the main report.



Surface Water:

Proposed Development Area
Mid Devon DC Boundary
uFMfSW 30-year Extent
uFMfSW 100-year Extent
uFMfSW 1,000-year Extent

Note: This map gives an indication of the broad areas likely to be at risk of surface water flooding. It is not suitable for use at an individual property scale due to the method used.



Sources of Flood Risk:

• Fluvial flood risk is from the overtopping of a series of unnamed watercourses flowing through the site.
• Surface water presents a risk to the site. Further development and creation of impermeable surfaces may result in an increase of surface water flood risk.

SuDS & the development site:

SuDS Type	Suitability	Comments
Source Control		Most source control techniques are likely to be suitable. Permeable paving should use non-infiltrating systems due to high risk of groundwater flooding.
Infiltration		Mapping suggests low permeability in this area possibly making the infiltration techniques unsuitable. Further site investigation should be carried out to assess potential for drainage by infiltration. If infiltration is suitable it should be avoided in areas where the depth to the water table is <1m.
Detention		This option may be feasible provided site slopes are < 5%. A liner maybe required to prevent the egress of groundwater.
Filtration		This feature is probably suitable provided site slopes are <5% and the depth to the water table is >1m. A liner maybe required to prevent the egress of groundwater.
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. A liner maybe required to prevent the egress of groundwater.

• Residential developments should provide at least two independent SuDS features in series to provide a suitable level of water quality treatment.
• The site is not located in an area designated as a landfill site.
• The site is not located within a groundwater source protection zone.

Flood Defences:

There are no flood defences at this site.

Flood Warning:

There are currently no flood warning areas covering this site.

Access & Egress:

There may be potential flood risk to access and egress routes that would need to be confirmed by a detailed assessment of risk from the unnamed watercourses.

Climate Change:

• Increased storm intensities.
• Increased water levels a series of unnamed watercourses within the site.

Flood Risk Implications for Development:

• Flood zones have not been produced for the unnamed watercourses running to the north and the east of the site. The flood risk from these water bodies should be considered during the planning application stage.

• Green infrastructure should be considered within the mitigation measures for surface water runoff from potential development.

• The peak flows on the unnamed watercourses should be considered when considering drainage.

• Assessment for runoff should include allowance for climate change effects.

• 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.

• 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 zones with lower flood risk

  o Creating space for flooding.

Land east of M5, Willand				
OSNGR: 303263,110548	Area: 4.36ha		Greenfield	
Flood Zone Coverage:	**FZ3b** 0%	**FZ3a** 0%	**FZ2** 0%	**FZ1** 100%

Exception Test Required?

The proposed land use for this site is residential which has a flood risk vulnerability class of 'More Vulnerable'.

This site is100% in Flood Zone 1 and, therefore, the Exception Test is not required. The site boundary has been amended from what was originally proposed; this has had no impact on the level of flood risk at the site.

Planning application stage:

- A site specific flood risk assessment is required for development proposals on sites comprising one hectare or above in Flood Zone 1, in which the vulnerability to flooding from other sources should be considered.
- 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 should be considered.

Flood Zones:

Original Proposed Area
Proposed Development Area
Mid Devon DC Boundary
Flood Zone 3a
Flood Zone 2

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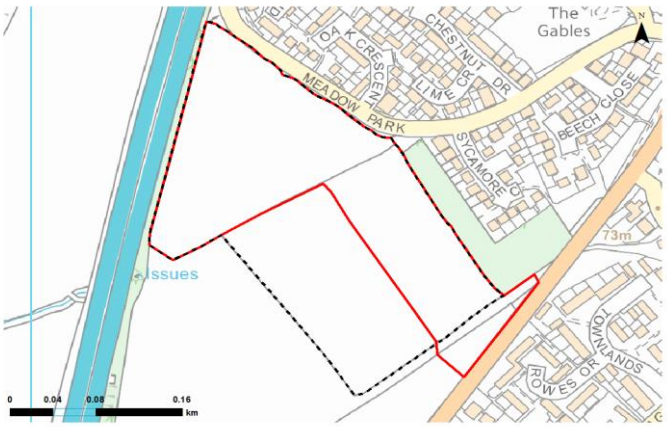
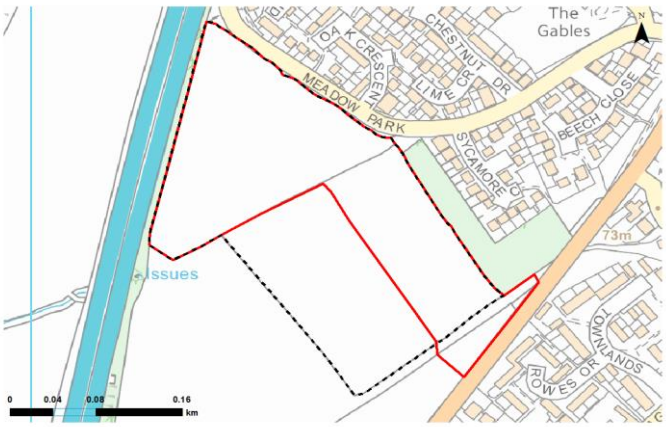


Climate Change:

Original Proposed Area
Proposed Development Area
Mid Devon DC Boundary
Flood Zone 3 with Climate Change
Indicative Extent of Flood Zone 3 with climate change

Contains Ordnance Survey data Crown copyright and database right 2014

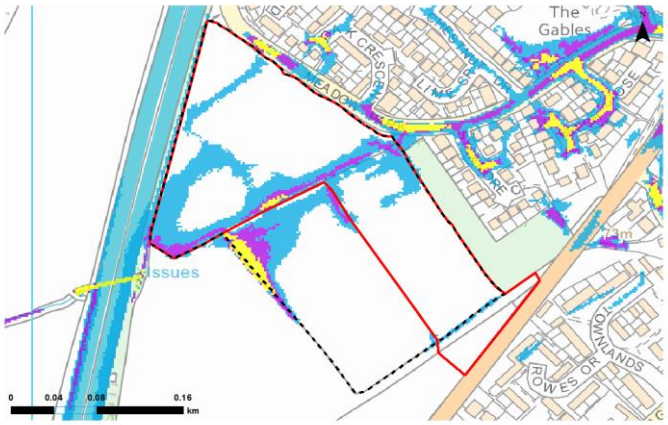
Note: indicative flood extents have been used to represent FZ3 with climate change in certain locations. For information please refer to Section 11 of the main report.



Flood Zones:

- Original Proposed Area
- Proposed Development Area
- Mid Devon DC Boundary
- uFMfSW 30-year Extent
- uFMfSW 100-year Extent
- uFMfSW 1,000-year Extent

Note: This map gives an indication of the broad areas likely to be at risk of surface water flooding. It is not suitable for use at an individual property scale due to the method used.



Sources of Flood Risk:

• Surface water presents a risk to the site. Further development and creation of impermeable surfaces may result in an increase of surface water flood risk.

SuDS & the development site:

SuDS Type	Suitability	Comments
Source Control		All forms of source control are likely to be suitable.
Infiltration		Mapping suggests low permeability in this area possibly making the infiltration techniques unsuitable. Further site investigation should be carried out to assess potential for drainage by infiltration. If infiltration is suitable it should be avoided in areas where the depth to the water table is <1m.
Detention		This option may be feasible provided site slopes are < 5%. A liner maybe required to prevent the egress of groundwater.
Filtration		This feature is probably suitable provided site slopes are <5% and the depth to the water table is >1m. A liner maybe required to prevent the egress of groundwater.
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.

• Residential developments should provide at least two independent SuDS features in series to provide a suitable level of water quality treatment.
• The site is not located in an area designated as a landfill site.
• The site is not located within a groundwater source protection zone.

Flood Defences:

There are no flood defences at this site.

Flood Warning:

There are currently no flood warning areas covering this site.

Access & Egress:

The main access road to the site is not significantly affected by surface water flood risk.

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.

• Development should adopt exemplar source control SuDS techniques to reduce the risk of frequent low impact flooding due to post-development runoff.

• 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

Lloyd Maunder Way, Willand

OSNGR: 303104,110935	Area: 1.86ha		Greenfield	
Flood Zone Coverage:	**FZ3b** 0%	**FZ3a** 0%	**FZ2** 0%	**FZ1** 100%

Exception Test Required?

The proposed land use for this site is residential which has a flood risk vulnerability class of 'More Vulnerable'.

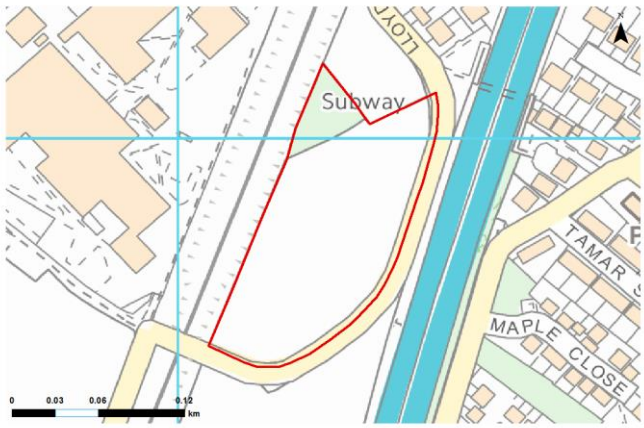
Existing information shows this site to be 100% in Flood Zone 1 and, therefore, the Exception Test is not required.

Planning application stage:

- A site specific flood risk assessment is required for development proposals on sites comprising one hectare or above in Flood Zone 1, in which the vulnerability to flooding from other sources should be considered.
- 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 should be considered.

Flood Zone Map:

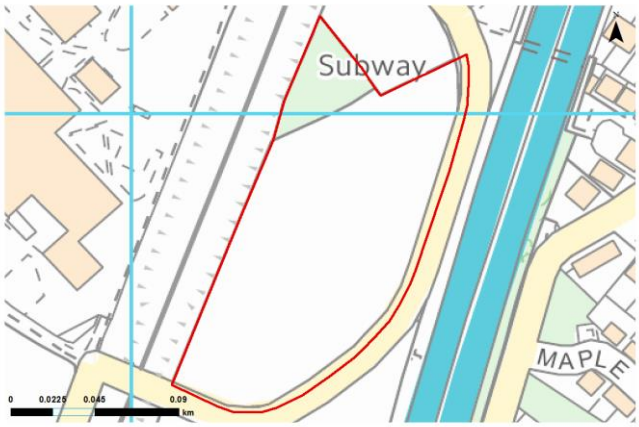
Proposed Development Area
Mid Devon DC Boundary
Flood Zone 3a
Flood Zone 2



Climate Change:

Proposed Development Area
Mid Devon DC Boundary
Flood Zone 3 with Climate Change
Indicative Extent of Flood Zone 3 with Climate Change

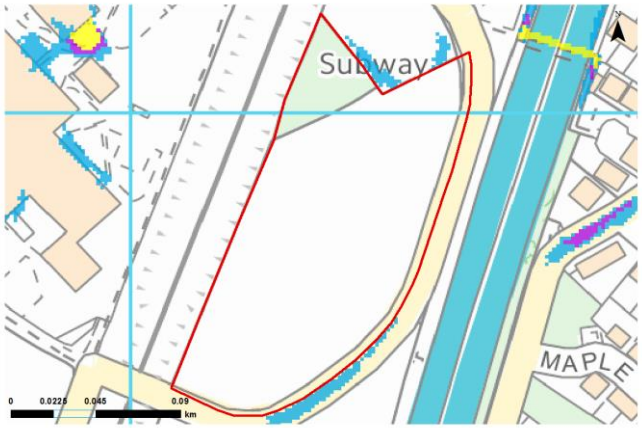
Note: Indicative flood extents have been used to represent FZ3 with climate change in certain locations. For more information please refer to Section 11 in the main report.



Surface Water:

Proposed Development Area
Mid Devon DC Boundary
uFMfSW 30-year Extent
uFMfSW 100-year Extent
uFMfSW 1,000-year Extent

Note: This map gives an indication of the broad areas likely to be at risk of surface water flooding. It is not suitable for use at an individual property scale due to the method used.



Sources of Flood Risk:

• Further development and creation of impermeable surfaces may result in an increase of surface water flood risk.

SuDS & the development site:

SuDS Type	Suitability	Comments
Source Control		Most source control techniques are likely to be suitable. Permeable paving should use non-infiltrating systems due to high risk of groundwater flooding.
Infiltration		Mapping suggests low permeability in this area possibly making the infiltration techniques unsuitable. Further site investigation should be carried out to assess potential for drainage by infiltration. If infiltration is suitable it should be avoided in areas where the depth to the water table is <1m.
Detention		This option may be feasible provided site slopes are < 5%. A liner maybe required to prevent the egress of groundwater.
Filtration		This feature is probably suitable provided site slopes are <5% and the depth to the water table is >1m. A liner maybe required to prevent the egress of groundwater.
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. A liner maybe required to prevent the egress of groundwater.

• Residential developments should provide at least two independent SuDS features in series to provide a suitable level of water quality treatment.
• The site is not located in an area designated as a landfill site.
• The site is not located within a groundwater source protection zone.

Flood Defences:

There are no flood defences at this site.

Flood Warning:

There are currently no flood warning areas covering this site.

Access & Egress:

Existing information suggests there are no access or egress issues for the 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.

• Development should adopt exemplar source control SuDS techniques to reduce the risk of frequent low impact flooding due to post-development runoff.

• 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

Lloyd Maunder, Willand

OSNGR: 302947,111243	Area: 8.2ha		Brownfield	
Flood Zone Coverage:	**FZ3b**	**FZ3a**	**FZ2**	**FZ1**
	TBC	10%	9%	81%

Exception Test Required?

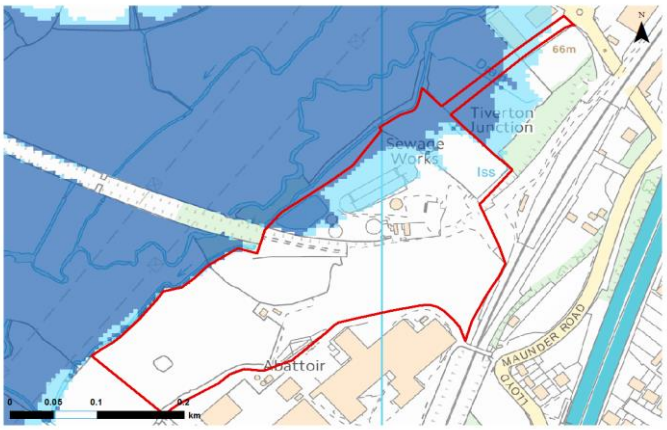
The proposed land use for this site is commercial which has a flood risk vulnerability class of 'Less Vulnerable'. Under the NPPF, Less Vulnerable development in Flood Zone 3a does not require the application of the Exception Test.

Planning application stage:

- A site specific flood risk assessment is required for development proposals on sites comprising one hectare or above in Flood Zone 1, or if it is located within Flood Zones 2 or 3, in which the vulnerability to flooding from other sources should be considered.
- In view of the possible flooding from the Spratford Stream, detailed hydraulic modelling should be undertaken to determine the 1 in 100-year flood level (with and without climate change) as well as any other return periods requested by the Environment Agency. The results of this modelling will inform development zoning and design.
- To avoid increasing flood risk elsewhere, surface water management techniques should be adopted (see 'SUDS & the development site' below).

Flood Zone Map:

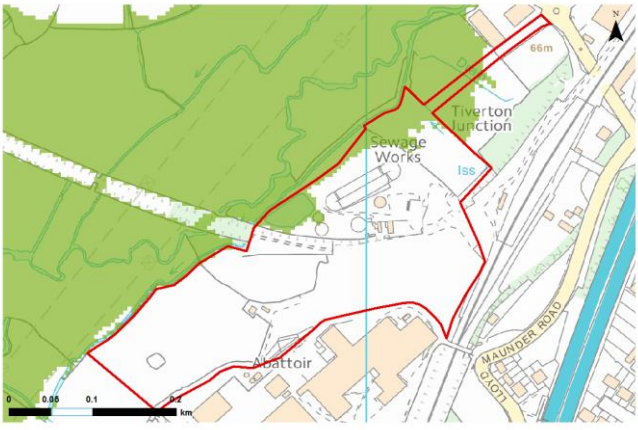
Proposed Development Area
Mid Devon DC Boundary
Flood Zone 3a
Flood Zone 2



Climate Change:

Proposed Development Area
Mid Devon DC Boundary
Flood Zone 3 with Climate Change
Indicative Extent of Flood Zone 3 with Climate Change

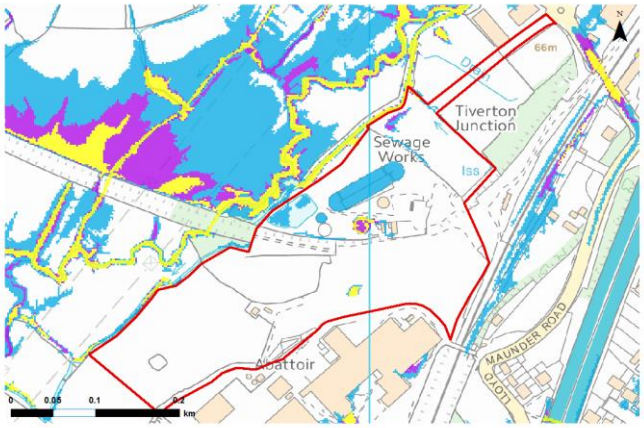
Note: Indicative flood extents have been used to represent FZ3 with climate change in certain locations. For more information please refer to Section 11 in the main report.



Surface Water:

Proposed Development Area
Mid Devon DC Boundary
uFMfSW 30-year Extent
uFMfSW 100-year Extent
uFMfSW 1,000-year Extent

Note: This map gives an indication of the broad areas likely to be at risk of surface water flooding. It is not suitable for use at an individual property scale due to the method used.



Sources of Flood Risk:

• Fluvial flood risk is from the overtopping of the Spratford Stream and unnamed watercourses.
• Surface water presents a risk to the site. Further development and creation of impermeable surfaces may result in an increase of surface water flood risk.

SuDS & the development site:

SuDS Type	Suitability	Comments
Source Control		Most source control techniques are likely to be suitable. Permeable paving should use non-infiltrating systems due to high risk of groundwater flooding.
Infiltration		Mapping suggests low permeability in this area possibly making the infiltration techniques unsuitable. Further site investigation should be carried out to assess potential for drainage by infiltration. If infiltration is suitable it should be avoided in areas where the depth to the water table is <1m.
Detention		This option may be feasible provided site slopes are < 5%. A liner maybe required to prevent the egress of groundwater.
Filtration		This feature is probably suitable provided site slopes are <5% and the depth to the water table is >1m. A liner maybe required to prevent the egress of groundwater.
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. A liner maybe required to prevent the egress of groundwater.

• Commercial developments should provide at least two independent SuDS features in series to provide a suitable level of water quality treatment.
• The site is not located in an area designated as a landfill site.
• The site is not located within a groundwater source protection zone.

Flood Defences:

There are no flood defences at this site.

Flood Warning:

There are currently no flood warning areas covering this site.

Access & Egress:

Existing information suggests there is a potential access and egress issue for the site. The proposed route is shown to be at risk from fluvial flooding and is in Flood Zone3.

Climate Change:

• Increased storm intensities.
• Increased water levels in the Spratford Stream and unnamed watercourses.

Flood Risk Implications for Development:

• At the planning application stage, a site-specific flood risk assessment will be required if any development is located within Flood Zones 2 or 3, or for sites larger than 1ha in Flood Zone 1.
• Resilience measures will be required if buildings are situated in the flood risk area.
• Green infrastructure should be considered within the mitigation measures for surface water runoff from potential development.
• The peak flows on the Spratford Stream should be considered when considering drainage.
• Assessment for runoff should include allowance for climate change effects.
• 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.
• 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 zones with lower flood risk
  o Creating space for flooding.

Quicks Farm, Willand

OSNGR: 304221,111304	Area: 2.87ha		Greenfield	
Flood Zone Coverage:	**FZ3b** 0%	**FZ3a** 0%	**FZ2** 0%	**FZ1** 100%

Exception Test Required?

The proposed land use for this site is residential which has a flood risk vulnerability class of 'More Vulnerable'.

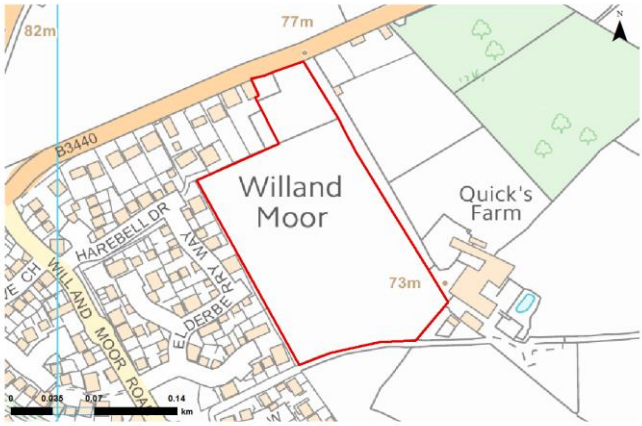
Existing information shows this site to be 100% in Flood Zone 1 and, therefore, the Exception Test is not required.

Planning application stage:

- A site specific flood risk assessment is required for development proposals on sites comprising one hectare or above in Flood Zone 1, in which the vulnerability to flooding from other sources should be considered.
- 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 should be considered.

Flood Zone Map:

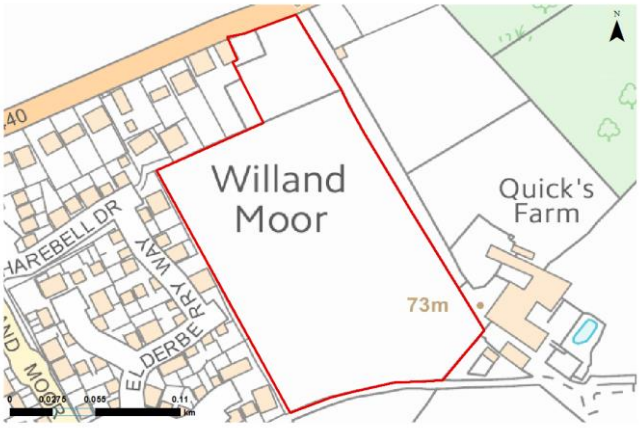
Proposed Development Area
Mid Devon DC Boundary
Flood Zone 3a
Flood Zone 2



Climate Change:

Proposed Development Area
Mid Devon DC Boundary
Flood Zone 3 with Climate Change
Indicative Extent of Flood Zone 3 with Climate Change

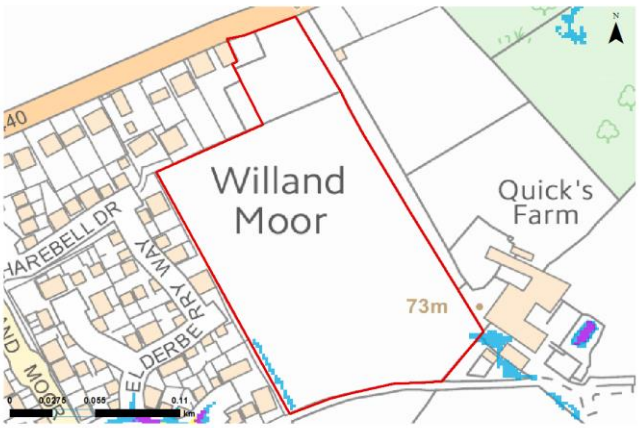
Note: Indicative flood extents have been used to represent FZ3 with climate change in certain locations. For more information please refer to Section 11 in the main report.



Surface Water:

Proposed Development Area
Mid Devon DC Boundary
uFMfSW 30-year Extent
uFMfSW 100-year Extent
uFMfSW 1,000-year Extent

Note: This map gives an indication of the broad areas likely to be at risk of surface water flooding. It is not suitable for use at an individual property scale due to the method used.



Sources of Flood Risk:

• Surface water presents a risk to the site. Further development and creation of impermeable surfaces may result in an increase of surface water flood risk.

SuDS & the development site:

SuDS Type	Suitability	Comments
Source Control		Most source control techniques are likely to be suitable. Permeable paving should use non-infiltrating systems due to high risk of groundwater flooding.
Infiltration		Mapping suggests low permeability in this area possibly making the infiltration techniques unsuitable. Further site investigation should be carried out to assess potential for drainage by infiltration. If infiltration is suitable it should be avoided in areas where the depth to the water table is <1m.
Detention		This option may be feasible provided site slopes are < 5%. A liner maybe required to prevent the egress of groundwater.
Filtration		This feature is probably suitable provided site slopes are <5% and the depth to the water table is >1m. A liner maybe required to prevent the egress of groundwater.
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. A liner maybe required to prevent the egress of groundwater.

• Residential developments should provide at least two independent SuDS features in series to provide a suitable level of water quality treatment.
• The site is not located in an area designated as a landfill site.
• The site is not located within a groundwater source protection zone.

Flood Defences:

There are no flood defences at this site.

Flood Warning:

There are currently no flood warning areas covering this site.

Access & Egress:

Existing information suggests there are no access or egress issues for the 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.

• Development should adopt exemplar source control SuDS techniques to reduce the risk of frequent low impact flooding due to post-development runoff.

• 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

Willand Industrial Estate, Willand				
OSNGR: 303719,111557	Area: 10.67ha		Brown/Greenfield	
Flood Zone Coverage:	**FZ3b** 0%	**FZ3a** 0%	**FZ2** 0%	**FZ1** 100%

Exception Test Required?

The proposed land use for this site is commercial which has a flood risk vulnerability class of 'Less Vulnerable'.

Existing information shows this site to be 100% in Flood Zone 1 and, therefore, the Exception Test is not required.

Planning application stage:

• A site specific flood risk assessment is required for development proposals on sites comprising one hectare or above in Flood Zone 1, in which the vulnerability to flooding from other sources should be considered.

• 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 should be considered.

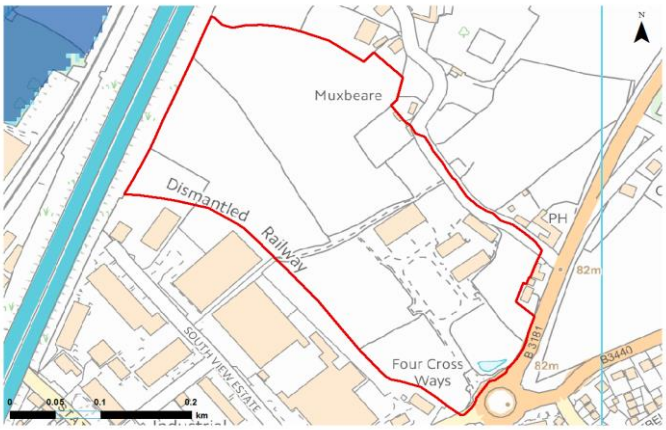
Flood Zone Map:

Proposed Development Area

Mid Devon DC Boundary

Flood Zone 3a

Flood Zone 2



Climate Change:

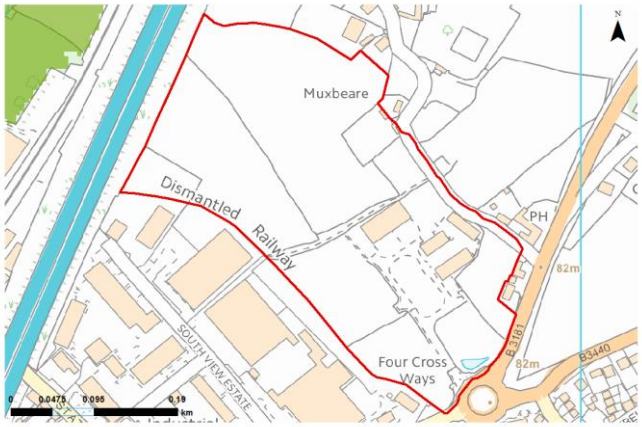
Proposed Development Area

Mid Devon DC Boundary

Flood Zone 3 with Climate Change

Indicative Extent of Flood Zone 3 with Climate Change

Note: Indicative flood extents have been used to represent FZ3 with climate change in certain locations. For more information please refer to Section 11 in the main report.



Surface Water:

Proposed Development Area

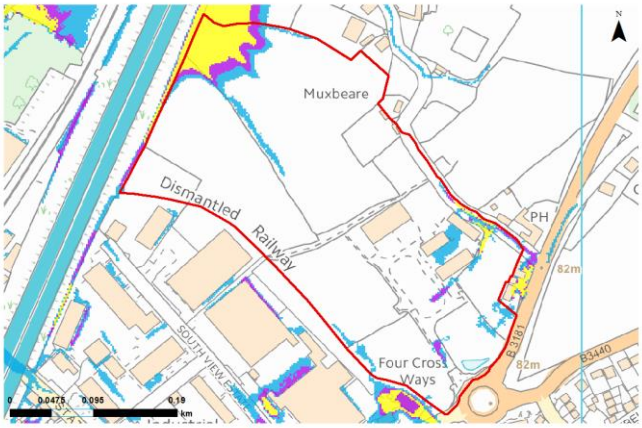
Mid Devon DC Boundary

uFMfSW 30-year Extent

uFMfSW 100-year Extent

uFMfSW 1,000-year Extent

Note: This map gives an indication of the broad areas likely to be at risk of surface water flooding. It is not suitable for use at an individual property scale due to the method used.



Sources of Flood Risk:

• Further development and creation of impermeable surfaces may result in an increase of surface water flood risk.

SuDS & the development site:

SuDS Type	Suitability	Comments
Source Control		Most source control techniques are likely to be suitable. Permeable paving should use non-infiltrating systems due to high risk of groundwater flooding.
Infiltration		Mapping suggests low permeability in this area possibly making the infiltration techniques unsuitable. Further site investigation should be carried out to assess potential for drainage by infiltration. If infiltration is suitable it should be avoided in areas where the depth to the water table is <1m.
Detention		This option may be feasible provided site slopes are < 5%. A liner maybe required to prevent the egress of groundwater.
Filtration		This feature is probably suitable provided site slopes are <5% and the depth to the water table is >1m. A liner maybe required to prevent the egress of groundwater.
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. A liner maybe required to prevent the egress of groundwater.

• Commercial developments should provide at least two independent SuDS features in series to provide a suitable level of water quality treatment.
• The site is not located in an area designated as a landfill site.
• The site is not located within a groundwater source protection zone.

Flood Defences:

There are no flood defences at this site.

Flood Warning:

There are currently no flood warning areas covering this site.

Access & Egress:

Existing information suggests there are no access or egress issues for the 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.

• Development should adopt exemplar source control SuDS techniques to reduce the risk of frequent low impact flooding due to post-development runoff.

• 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

Land off Lower Road, Yeoford (a)

OSNGR: 278568,099077	Area: 0.25ha		Brownfield	
Flood Zone Coverage:	**FZ3b** 0%	**FZ3a** 0%	**FZ2** 0%	**FZ1** 100%

Exception Test Required?

The proposed land use for this site is residential which has a flood risk vulnerability class of 'More Vulnerable'.

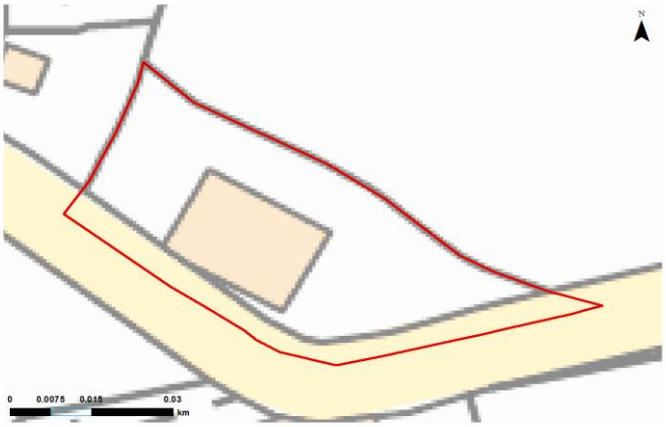
This site is100% in Flood Zone 1 and, therefore, the Exception Test is not required.

Planning application stage:

- A site specific flood risk assessment would not be required for this site as it is less than 1ha and located in Flood Zone 1.
- 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 should be considered.

Flood Zone Map:

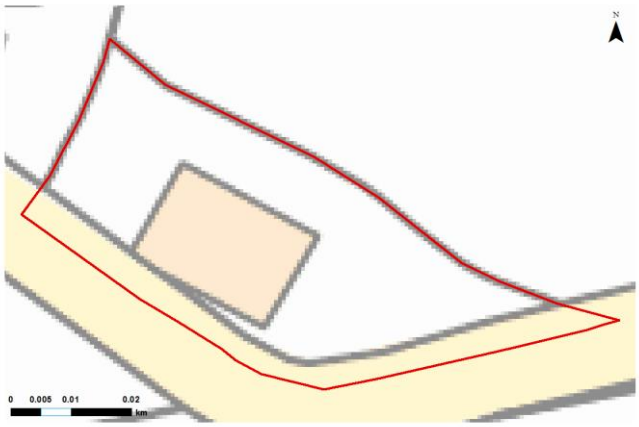
Proposed Development Area
Mid Devon DC Boundary
Flood Zone 3a
Flood Zone 2



Climate Change:

Proposed Development Area
Mid Devon DC Boundary
Flood Zone 3 with Climate Change
Indicative Extent of Flood Zone 3 with Climate Change

Note: Indicative flood extents have been used to represent FZ3 with climate change in certain locations. For more information please refer to Section 11 in the main report.



Surface Water:

Proposed Development Area

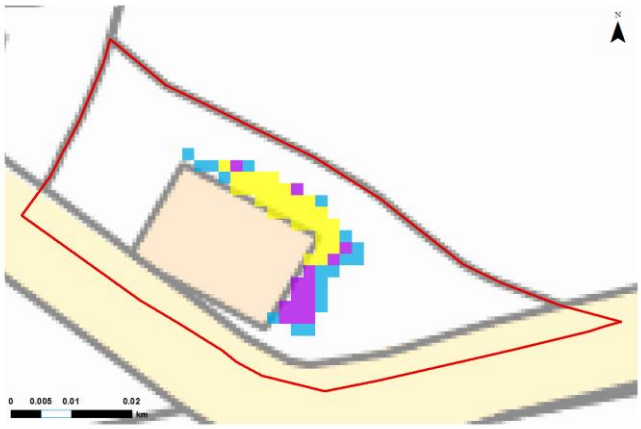
Mid Devon DC Boundary

uFMfSW 30-year Extent

uFMfSW 100-year Extent

uFMfSW 1,000-year Extent

Note: This map gives an indication of the broad areas likely to be at risk of surface water flooding. It is not suitable for use at an individual property scale due to the method used.



Sources of Flood Risk:

• Surface water presents a risk to the site. Further development and creation of impermeable surfaces may result in an increase of surface water flood risk.

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 will be too steep to allow 'above ground' detention features to be used at this development
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.

• Residential developments should provide at least two independent SuDS features in series to provide a suitable level of water quality treatment.
• The site is not located in an area designated as a landfill site.
• The site is not located within a groundwater source protection zone.

Flood Defences:

There are no flood defences at this site.

Flood Warning:

There are currently no flood warning areas covering this site.

Access & Egress:

Existing information suggests there are no access or egress issues for the 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.
• 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

Land off Lower Road, Yeoford (b)

OSNGR: 278495,099068	Area: 0.4ha		Greenfield	
Flood Zone Coverage:	**FZ3b** 0%	**FZ3a** 0%	**FZ2** 0%	**FZ1** 100%

Exception Test Required?

The proposed land use for this site is residential which has a flood risk vulnerability class of 'More Vulnerable'.

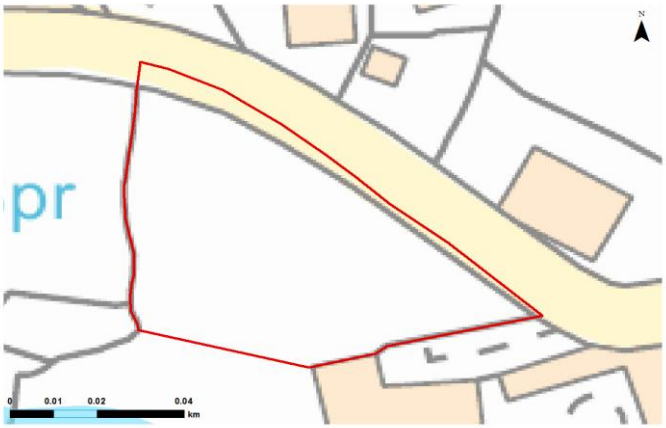
This site is100% in Flood Zone 1 and, therefore, the Exception Test is not required.

Planning application stage:

- A site specific flood risk assessment would not be required for this site as it is less than 1ha and located in Flood Zone 1.
- 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 should be considered.

Flood Zone Map:

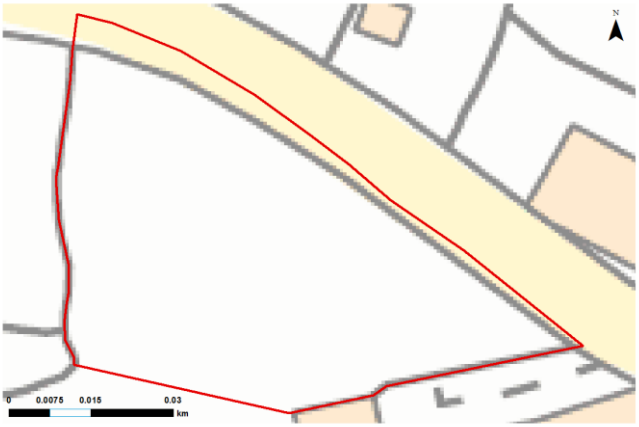
Proposed Development Area
Mid Devon DC Boundary
Flood Zone 3a
Flood Zone 2



Climate Change:

Proposed Development Area
Mid Devon DC Boundary
Flood Zone 3 with Climate Change
Indicative Extent of Flood Zone 3 with Climate Change

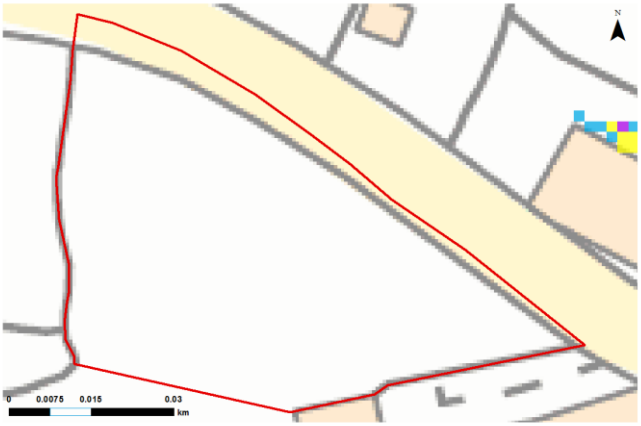
Note: Indicative flood extents have been used to represent FZ3 with climate change in certain locations. For more information please refer to Section 11 in the main report.



Surface Water:

Proposed Development Area
Mid Devon DC Boundary
uFMfSW 30-year Extent
uFMfSW 100-year Extent
uFMfSW 1,000-year Extent

Note: This map gives an indication of the broad areas likely to be at risk of surface water flooding. It is not suitable for use at an individual property scale due to the method used.



Sources of Flood Risk:

• Further development and creation of impermeable surfaces may result in an increase of surface water flood risk.

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 will be too steep to allow 'above ground' detention features to be used at this development.
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.

• Residential developments should provide at least two independent SuDS features in series to provide a suitable level of water quality treatment.
• The site is not located in an area designated as a landfill site.
• The site is not located within a groundwater source protection zone.

Flood Defences:

There are no flood defences at this site.

Flood Warning:

There are currently no flood warning areas covering this site.

Access & Egress:

Existing information suggests there are no access or egress issues for the 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.
• 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