Culmbridge Farm, Hemyock

OSNGR: 314007,113230	Area: 6.46ha		Predominantly 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 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 this watercourse would be required to know whether or not the Exception Test is required and if it could be passed.

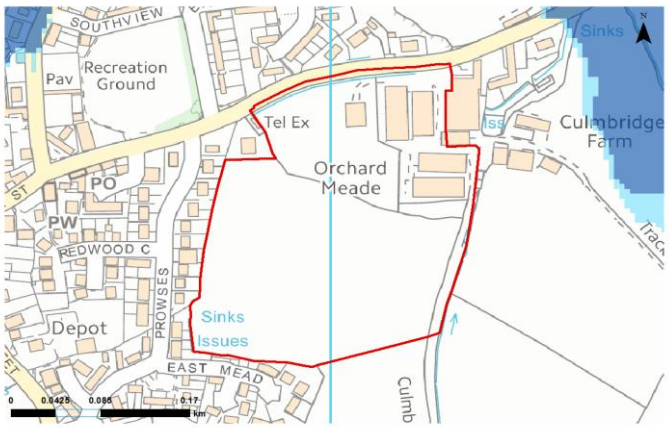
Planning application stage:

- Hydrological and hydraulic assessment of the unnamed watercourses that run 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 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

Contains Ordnance Survey data © Crown copyright and database right 2014.

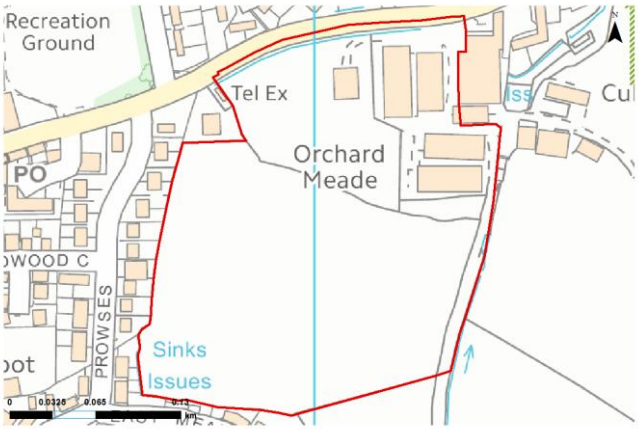


Climate Change:

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 more information please refer to Section 11 in the main report.

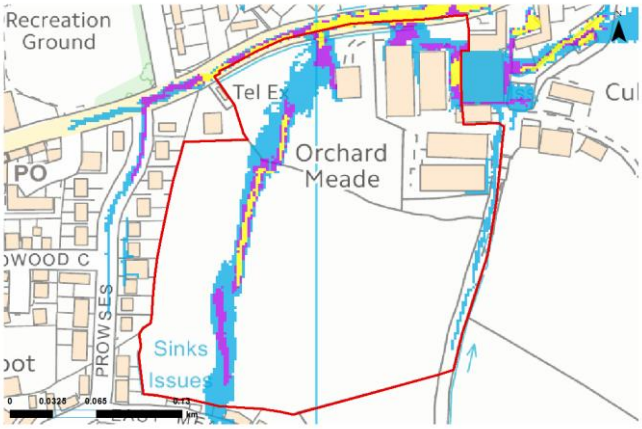


Surface Water:

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

Contains Ordnance Survey data © Crown copyright and database right 2014

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:

• There is a potential fluvial flood risk is from the overtopping of the 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		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. 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:

The main access road is affected by surface water flood risk.

Climate Change:

• Increased storm intensities.
• Increased water levels in the unnamed watercourses.

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 watercourse 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.

Depot, Hemyock

OSNGR: 313746, 113117	**Area:** 0.57ha		Partial 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.

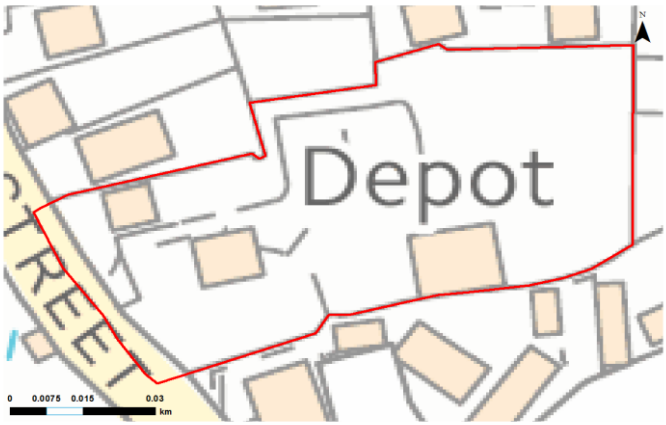
Planning application stage:

- 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

Contains Ordnance Survey data © Crown copyright and database right 2014.

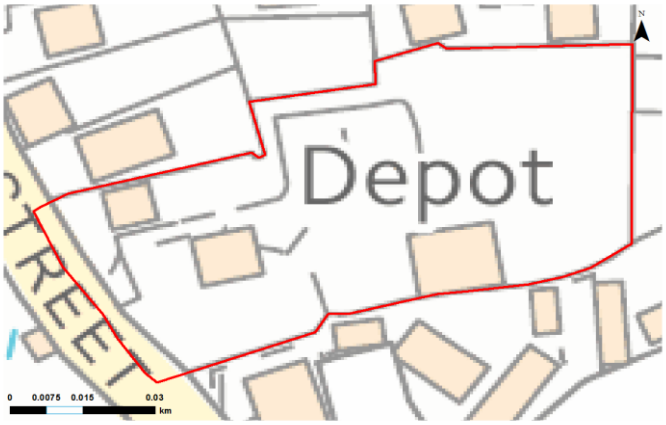


Climate Change:

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 more information please refer to Section 11 in the main report.

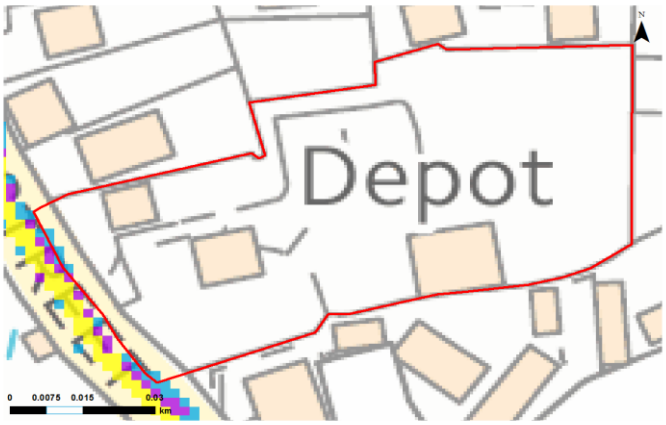


Surface Water:

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

Contains Ordnance Survey data © Crown copyright and database right 2014

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.

• 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 north of Culmbridge Farm, Hemyock

OSNGR: 314088,113589	Area: 5.16ha		Greenfield	
Flood Zone Coverage:	**FZ3b**	**FZ3a**	**FZ2**	**FZ1**
	TBC	1%	8%	91%

Exception Test Required?

Unlikely, given 91% of the site is in Flood Zone 1. The proposed land use for this site is residential which has a flood risk vulnerability class of 'More Vulnerable'. Under the NPPF, More Vulnerable development in Flood Zone 3a requires the application of the Exception Test.

Potential to pass the Exception Test (if required):

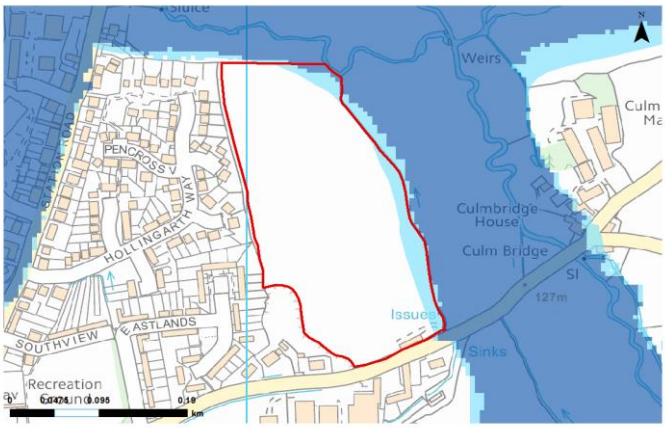
Should development be located in Flood Zone 3 it will need to pass the Exception Test. To pass Part 'b' of the Exception Test, a FRA should demonstrate that: the development will be safe, will avoid increasing flood risk elsewhere, and will reduce flood risk overall.

• The majority of the site is within Flood Zone 1. Risks to development could be reduced by using sequential design to locate development in the west of the site, outside of Flood Zone 3.
• The development could potentially be made safe through building design, and by meeting drainage requirements. In view of the possible flooding from the River Culm, 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 design and confirm whether housing proposals can pass the Exception Test.
• 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

Contains Ordnance Survey data © Crown copyright and database right 2014.



Climate Change:

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

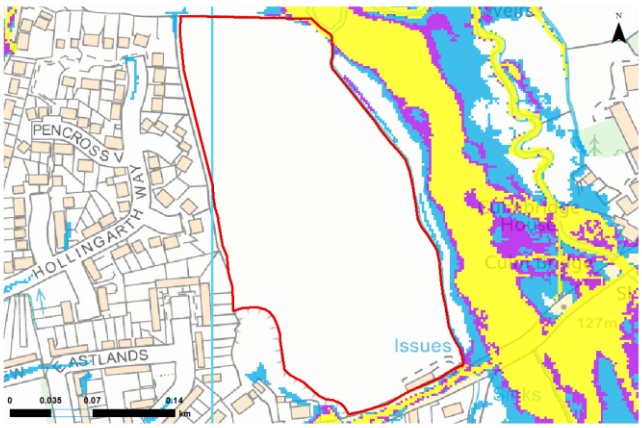
Note: Indicative flood extents have been used to represent FZ3 with climate change in certain locations. For more information please refer to Section 11 in the main report.

Surface Water:

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

Contains Ordnance Survey data © Crown copyright and database right 2014

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:

• There is a potential fluvial flood risk from the overtopping of the River Culm.
• 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		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:

The site is partially covered by the Rivers Clyst and Culm and their tributaries Flood Alert Area and is partially covered by the River Culm (Upper) from Hemyock to Cullompton Flood Warning Area.

Access & Egress:

The main access road to the site is Fore Street and existing evidence suggests it is affected by surface water flood risk.

Climate Change:

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

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 River Culm 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 SW Conigar Close, Hemyock

OSNGR: 313212,113270	Area: 1.08ha		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 is an unnamed watercourse flowing to the west of the site, for which flood zone information is not available. Further information regarding the level of risk from this watercourse 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 watercourse that runs along the western boundary 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 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

Contains Ordnance Survey data © Crown copyright and database right 2014.

Climate Change:

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

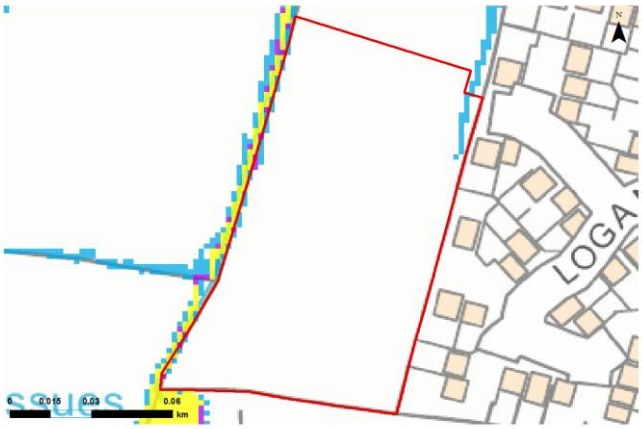
Note: Indicative flood extents have been used to represent FZ3 with climate change in certain locations. For more information please refer to Section 11 in the main report.

Surface Water:

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

Contains Ordnance Survey data © Crown copyright and database right 2014

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:

• There is a potential fluvial flood risk from the overtopping of the unnamed watercourse.
• 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 the nearby Culmstock Road, located north of the site, is affected by surface water flood risk and Logan Way, located east of the site, is not significantly affected by surface water flood risk.

Climate Change:

• Increased storm intensities.
• Increased water levels in the unnamed watercourse.

Flood Risk Implications for Development:

• Flood zones have not been produced for the unnamed watercourse running along the western boundary of the site. The flood risk from this waterbody 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 watercourse 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 by Kentisbeare Village Hall, Kentisbeare

OSNGR: 306891, 108053	**Area:** 0.84ha		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.

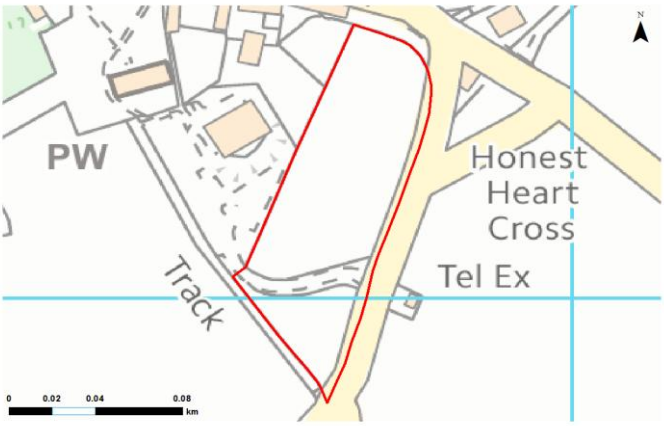
Planning application stage:

- 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

Contains Ordnance Survey data © Crown copyright and database right 2014.

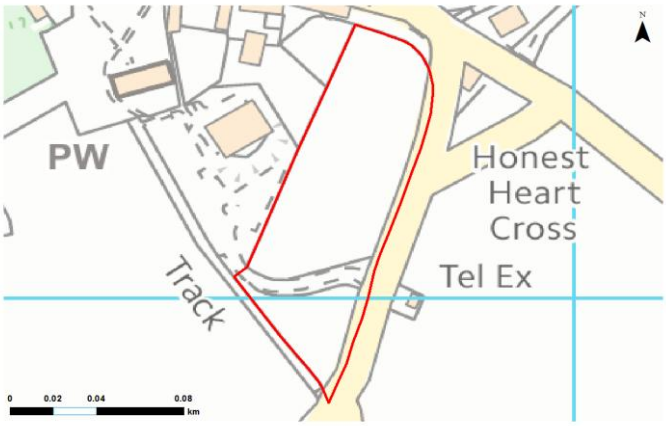


Climate Change:

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 more information please refer to Section 11 in the main report.

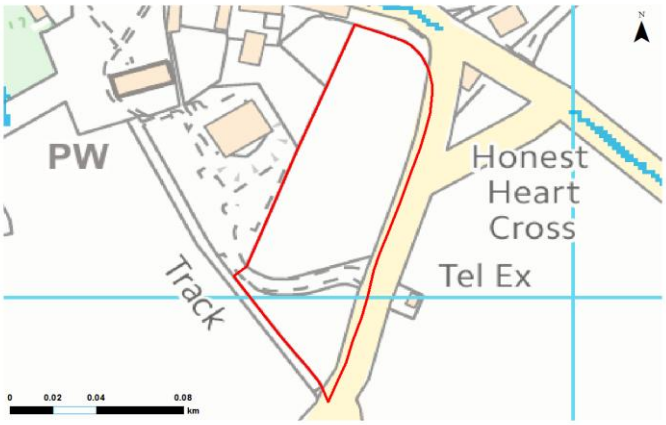


Surface Water:

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

Contains Ordnance Survey data © Crown copyright and database right 2014

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. Mapping suggests that permeable paving is unlikely to be suitable due to the slope of the site.
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		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. 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.

• 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 between primary school and church, Lapford

OSNGR: 273373,108572	Area: 1.3ha		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

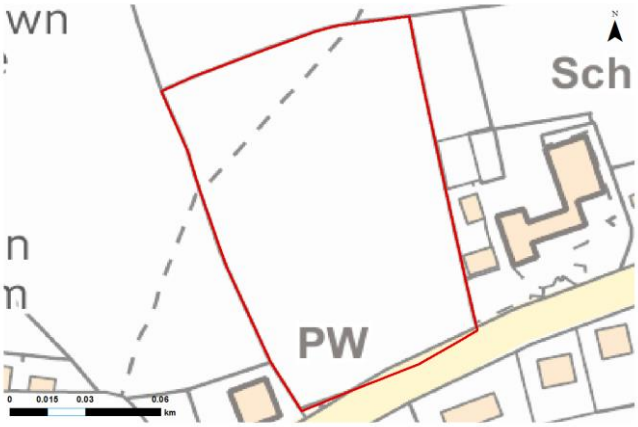
Contains Ordnance Survey data © Crown copyright and database right 2014.

Climate Change:

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 more information please refer to Section 11 in the main report.

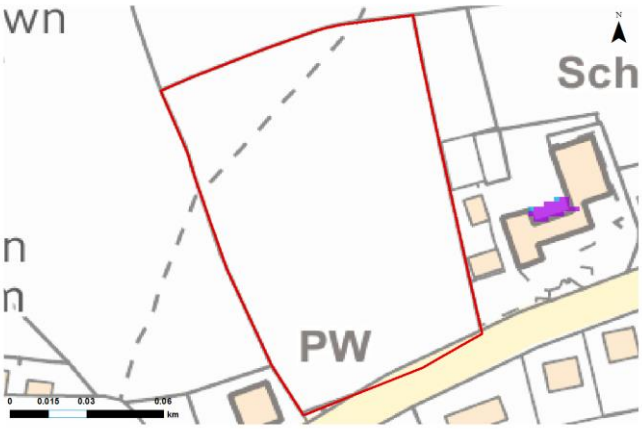


Surface Water:

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

Contains Ordnance Survey data © Crown copyright and database right 2014

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.
• 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 south of Sandhurst, Lapford

OSNGR: 273409, 108424	**Area:** 0.94ha		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 is an unnamed watercourse flowing to the south of the site, for which flood zone information is not available. Further information regarding the level of risk from this watercourse would be required to know whether or not the Exception Test is required and if it could be passed.

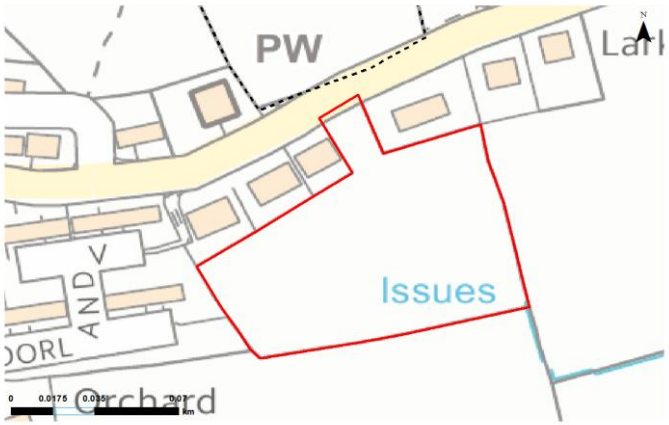
Planning application stage:

- Hydrological and hydraulic assessment of the unnamed watercourse that runs along the southern boundary 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 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 located within Flood Zones 2 or 3.

Flood Zone Map:

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

Contains Ordnance Survey data © Crown copyright and database right 2014.

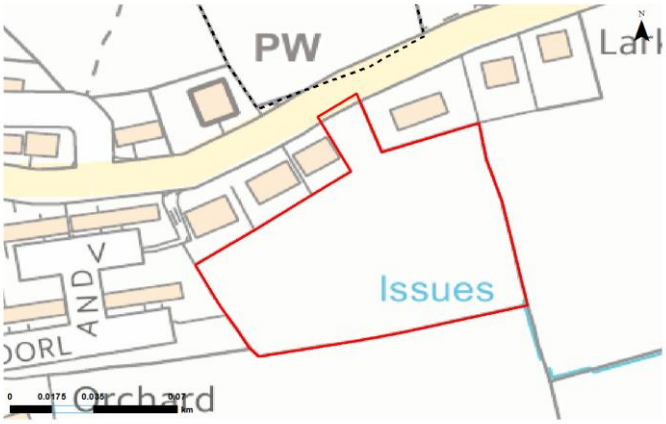


Climate Change:

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 more information please refer to Section 11 in the main report.

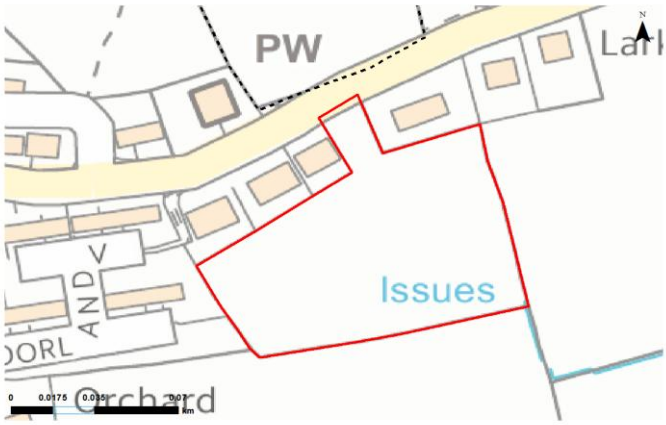


Surface Water:

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

Contains Ordnance Survey data © Crown copyright and database right 2014

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:

• There is a potential fluvial flood risk from the overtopping of the unnamed watercourse.
• 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. Mapping suggests that permeable paving is unlikely to be suitable due to the slope of the site.
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.

• 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.
• Increased water levels in the unnamed watercourse.

Flood Risk Implications for Development:

• Flood zones have not been produced for the unnamed watercourse running to south 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 watercourse 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.

Church Street, Morchard Bishop

OSNGR: 277143,107618	Area: 2.57ha		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.

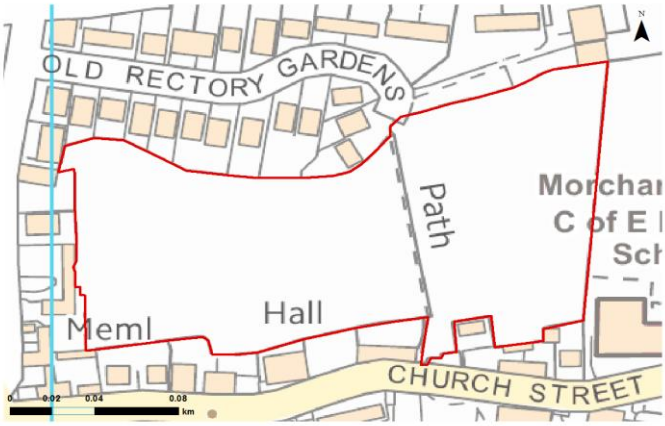
Planning application stage:

- 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

Contains Ordnance Survey data © Crown copyright and database right 2014.

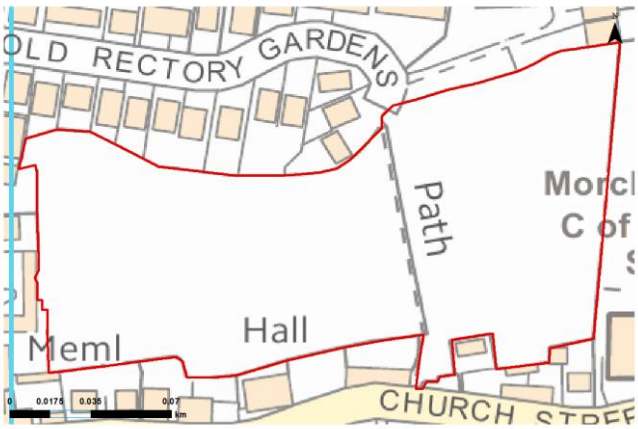


Climate Change:

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 more information please refer to Section 11 in the main report.

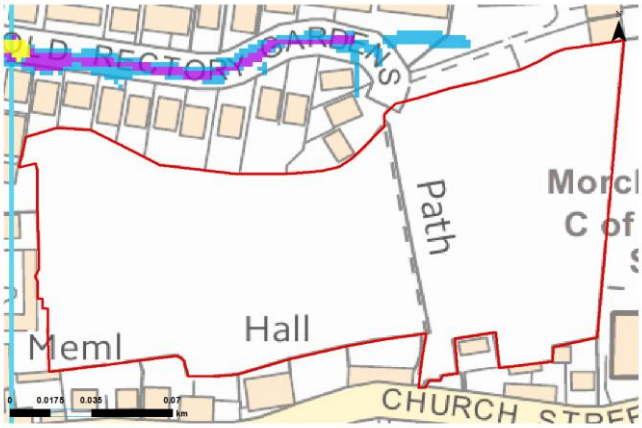


Surface Water:

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

Contains Ordnance Survey data © Crown copyright and database right 2014

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:

The main access roads to the site are Old Rectory Gardens, Wood Lane and Church Street. Old Rectory Gardens and Wood Lane are affected by surface water flood risk. Church Street is not 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

Greenaway, Morchard Bishop

OSNGR: 276535,107804	Area (amended): 1.31ha		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. The site boundary has been amended from what was originally proposed; this has had no impact on the level of flood risk to the site.

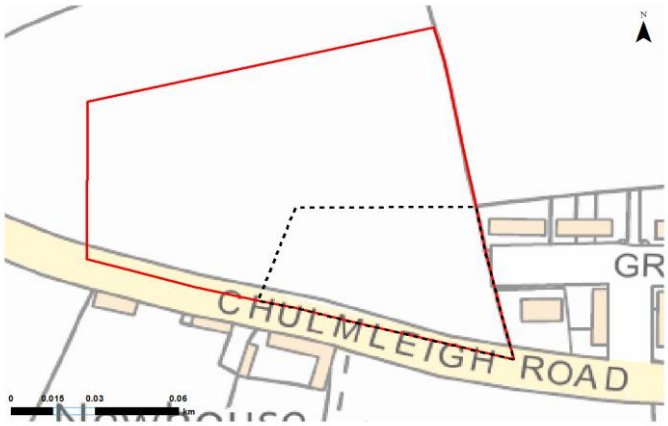
Planning application stage:

- 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

Contains Ordnance Survey data Crown copyright and database right 2014

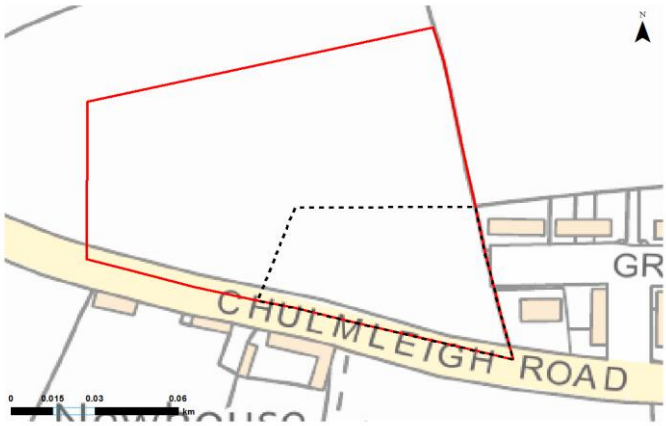


Climate Change:

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

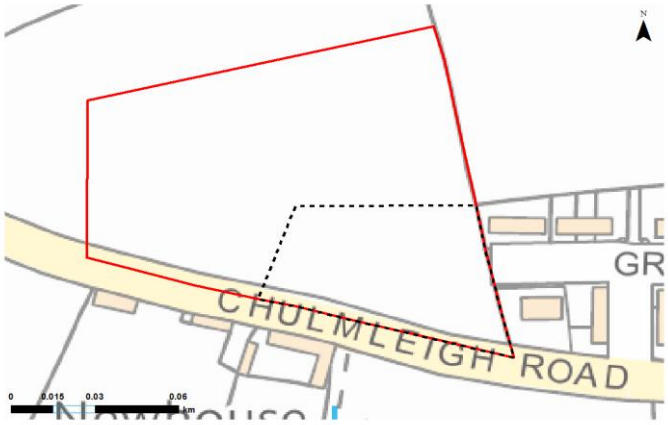
Note: indicative flood extents have been used to represent FZ3 with climate change in certain locations. For information please refer to Section 11 of the main report.



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

Contains Ordnance Survey data Crown copyright and database right 2014
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:

The main access road to the site is not affected by surface water or fluvial 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

Tatepath Farm, Morchard Bishop

OSNGR: 277026,107990	Area: 0.57ha		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.

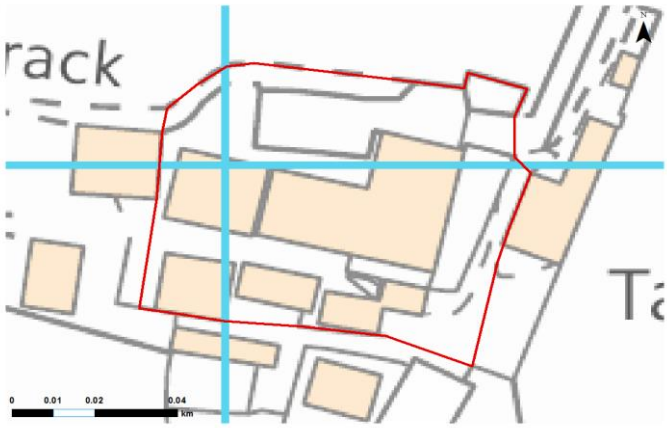
Planning application stage:

- 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

Contains Ordnance Survey data © Crown copyright and database right 2014.

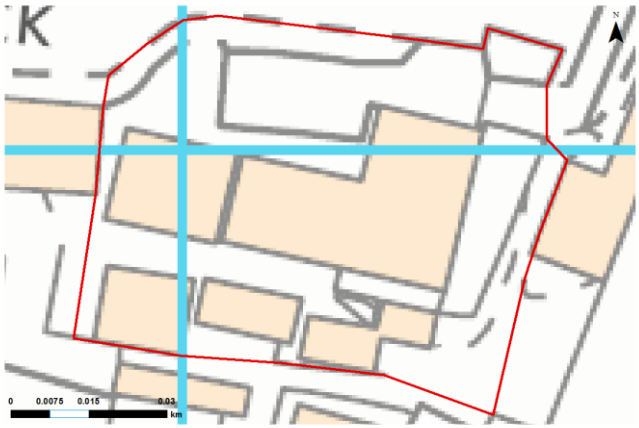


Climate Change:

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 more information please refer to Section 11 in the main report.

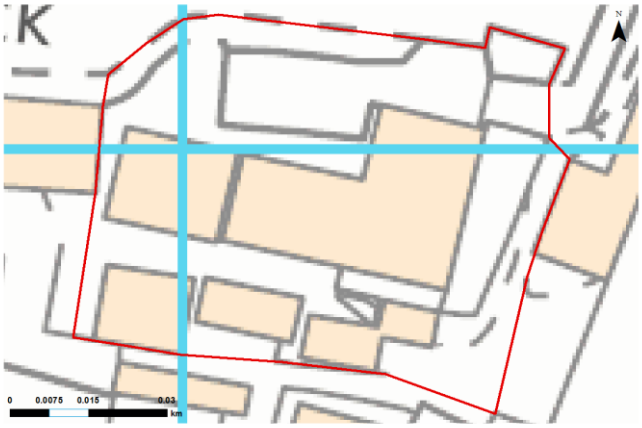


Surface Water:

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

Contains Ordnance Survey data © Crown copyright and database right 2014

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

Court Orchard, Newton St Cyres

OSNGR: 288090,098173	**Area (amended):** 2.27ha		Greenfield	
Flood Zone Coverage:	**FZ3b**	**FZ3a**	**FZ2**	**FZ1**
	TBC	12%	5%	83%

Exception Test Required?

Possibly. The proposed land use for this site is residential which has a flood risk vulnerability class of 'More Vulnerable'. Under the NPPF, More Vulnerable development in Flood Zone 3a requires the application of the Exception Test.

Only a small proportion of the site is in Flood Zone 3a, at the eastern boundary, from the Shuttern Brook. As long as residential development is located so that it is outside of Flood Zone 3 then the Exception test will not be required. The site boundary has been amended from what was originally proposed; as a result of this change in site boundary 12% of the site is now in Flood Zone 3 compared to 28% with the original site boundary.

Requirements for passing the Exception Test:

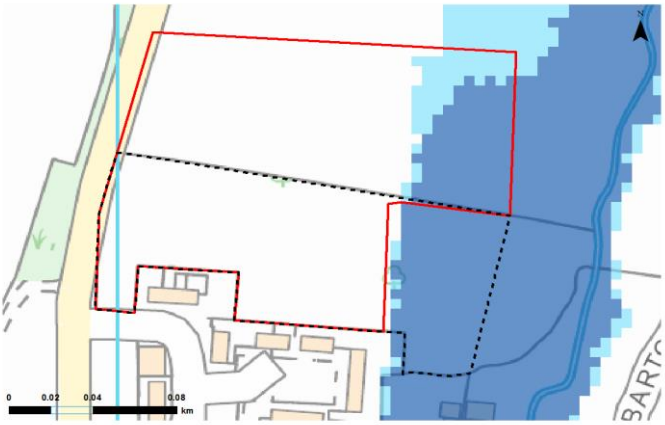
Should development be located in Flood Zone 3 it will need to pass the Exception Test. To pass Part 'b' of the Exception Test, a FRA should demonstrate that: the development will be safe, will avoid increasing flood risk elsewhere, and will reduce flood risk overall.

- The majority of the site is within Flood Zone 1. Risks to development could be reduced by using sequential design to locate development away from the banks of the watercourse running along the eastern boundary.
- The development could potentially be made safe through building design, and by meeting drainage requirements.
- To avoid increasing flood risk elsewhere, surface water management techniques should be adopted (see 'SUDS & the development site' below).

Flood Zones:

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

Contains Ordnance Survey data Crown copyright and database right 2014



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

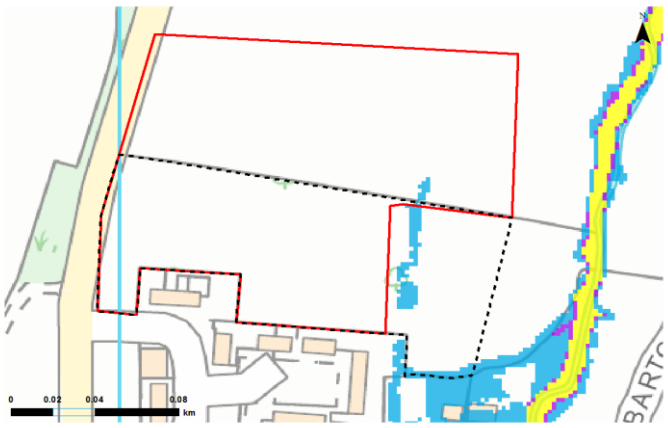
Contains Ordnance Survey data Crown copyright and database right 2014

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

Contains Ordnance Survey data Crown copyright and database right 2014
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 Shuttern Brook located to the east of 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		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 site slopes may be steep, larger 'above ground' features may not be viable.
Filtration		All filtration techniques are likely to be suitable.
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:

The site is covered by the Mid Devon Rivers Flood Alert Area. No Flood Warning currently covers this site.

Access & Egress:

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

Climate Change:

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

Flood Risk Implications for Development:

• A detailed site-specific flood risk assessment, including hazard mapping, will be required for any development in Flood Zone 2 or 3, or for any development 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 Shuttern Brook should be considered when considering drainage.
• 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 Shuttern Brook 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 Tytheing Close, Newton St Cyres

OSNGR: 288633,097803	Area: 2.06ha		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.

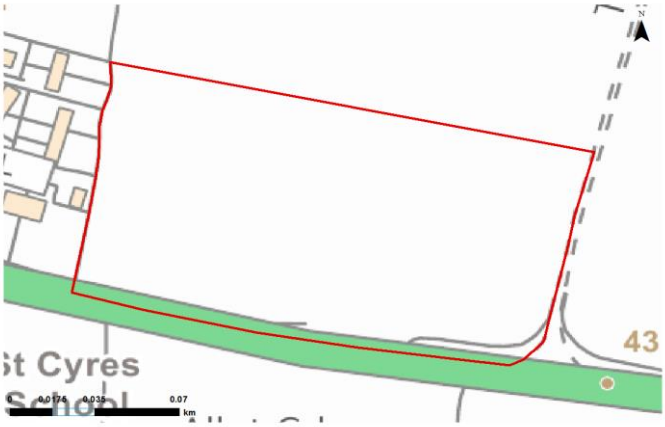
Planning application stage:

- 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

Contains Ordnance Survey data © Crown copyright and database right 2014.

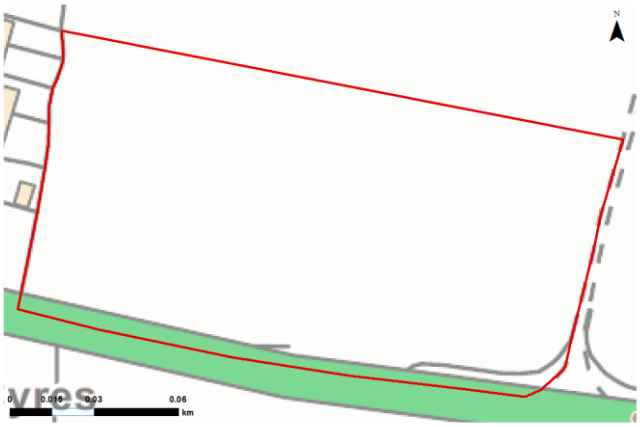


Climate Change:

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 more information please refer to Section 11 in the main report.

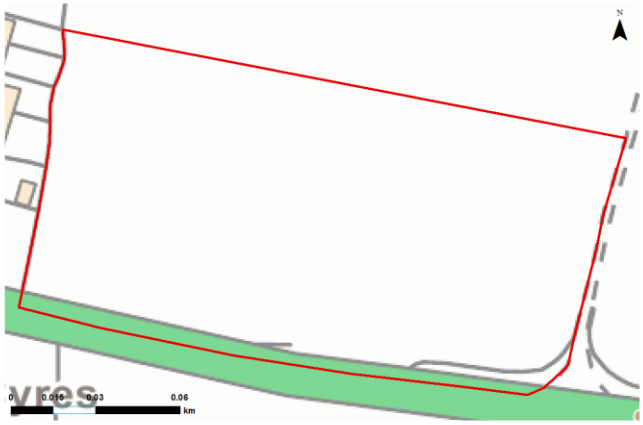


Surface Water:

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

Contains Ordnance Survey data © Crown copyright and database right 2014

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.
• 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 west of Tytheing Close, Newton St Cyres

OSNGR: 288318,097913	Area: 1.84ha		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

Contains Ordnance Survey data © Crown copyright and database right 2014.

Climate Change:

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 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

Contains Ordnance Survey data © Crown copyright and database right 2014

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.
• 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 Oakford, Oakford

OSNGR: 291195,121412	Area: 0.50ha		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 flowing through the north of the site, for which flood zone information is not available. Further information regarding the level of risk from this watercourse would be required to know whether or not the Exception Test is required and if it could be passed.

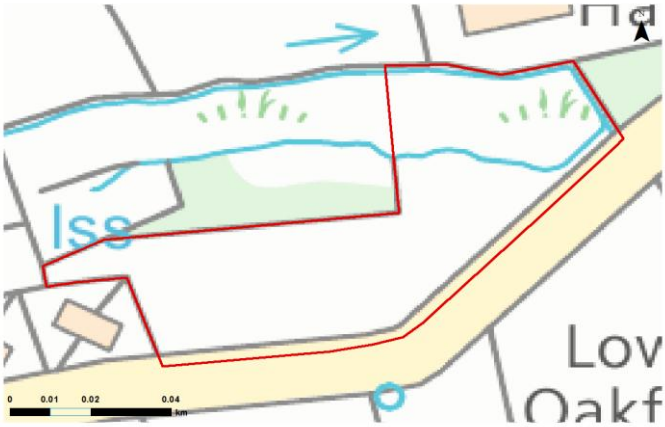
Planning application stage:

- Hydrological and hydraulic assessment of the unnamed watercourses that run through the north 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 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 located within Flood Zones 2 or 3.

Flood Zone Map:

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

Contains Ordnance Survey data © Crown copyright and database right 2014.

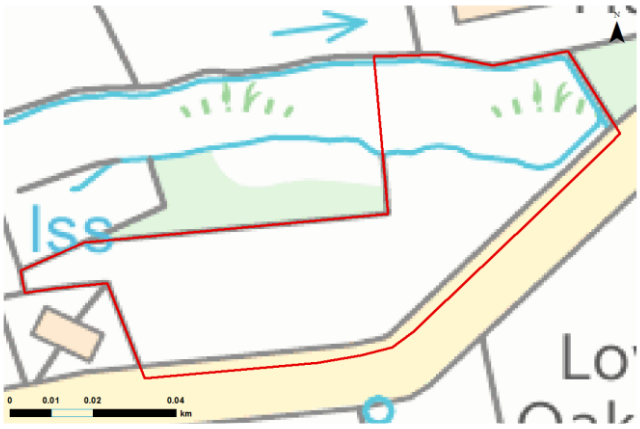


Climate Change:

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 more information please refer to Section 11 in the main report.

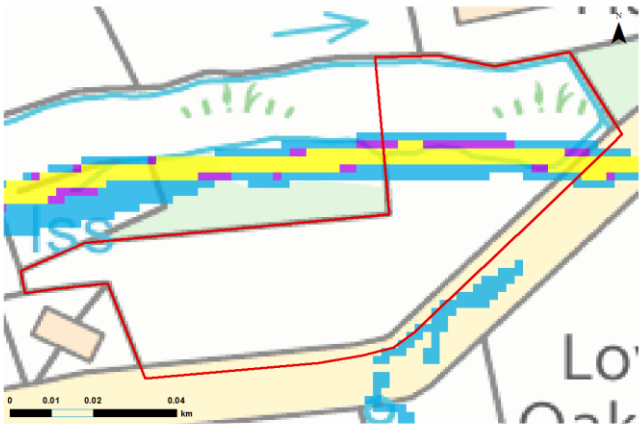


Surface Water:

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

Contains Ordnance Survey data © Crown copyright and database right 2014

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

Climate Change:
• Increased storm intensities.
• Increased water levels in the unnamed watercourses.

Flood Risk Implications for Development:

• Flood zones have not been produced for the unnamed watercourses running through the north 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.

Former Tiverton Parkway Hotel, Sampford Peverell

OSNGR: 303489,114409	**Area:** 0.47ha		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

Contains Ordnance Survey data © Crown copyright and database right 2014.

Climate Change:

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 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

Contains Ordnance Survey data © Crown copyright and database right 2014

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 slopes are suitable for all forms of detention.
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.

• 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 high 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:

• 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

Higher Town, Sampford Peverell

OSNGR: 302470,114074	Area: 5.9ha		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

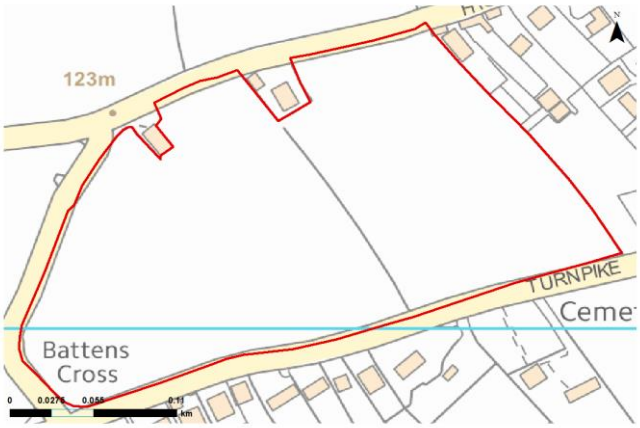
Contains Ordnance Survey data © Crown copyright and database right 2014.

Climate Change:

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 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

Contains Ordnance Survey data © Crown copyright and database right 2014

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.

Canal:

The site lies within the high 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:

• 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 Mountain Oak Farm, Sampford Peverell

OSNGR: 303724,114569	Area: 8.95ha		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 flowing through the site, for which flood zone information is not available. Further information regarding the level of risk from this watercourse would be required to know whether or not the Exception Test is required and if it could be passed.

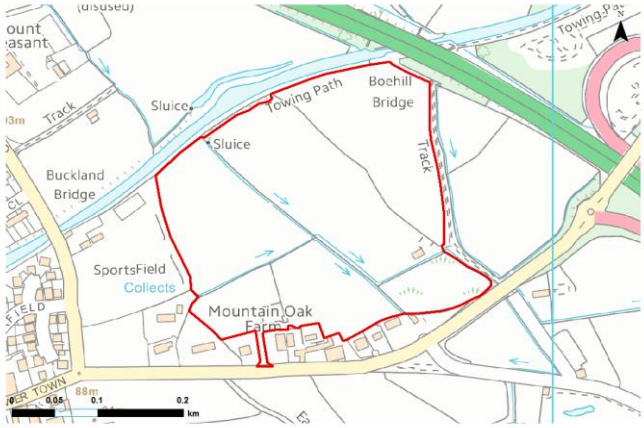
Planning application stage:

- Hydrological and hydraulic assessment of the unnamed watercourses that run through and along the boundary 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 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

Contains Ordnance Survey data © Crown copyright and database right 2014.

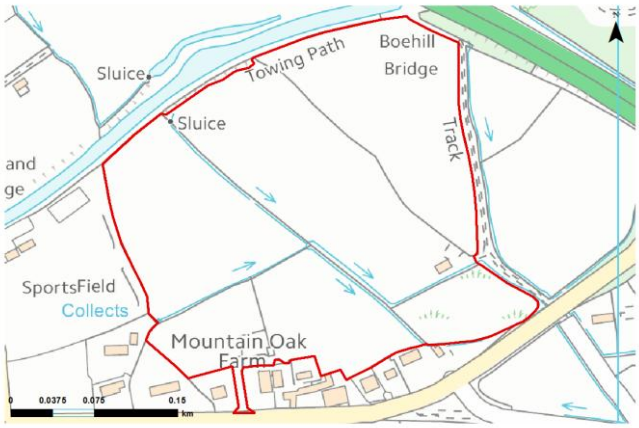


Climate Change:

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 more information please refer to Section 11 in the main report.

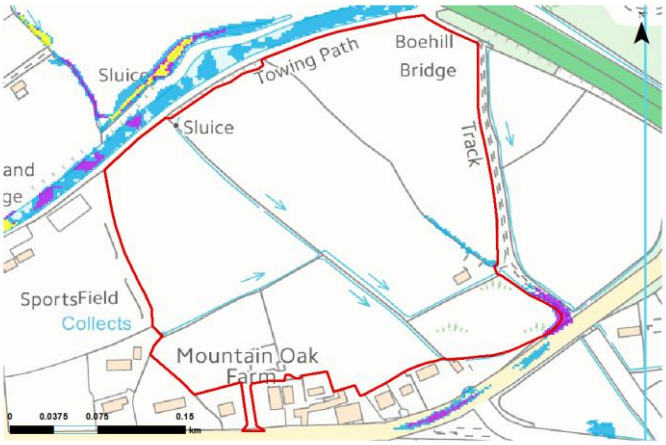


Surface Water:

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

Contains Ordnance Survey data © Crown copyright and database right 2014

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 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		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 site slopes may be steep, larger 'above ground' features may not be viable.
Filtration		All filtration techniques are likely to be suitable.
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.

Canal:

The site lies within the very high 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 significant access or egress issues for the site.

Climate Change:

• Increased storm intensities.
• Increased water levels in the unnamed watercourses

Flood Risk Implications for Development:

• Flood zones have not been produced for the unnamed watercourses running through and along the boundary 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 watercourse 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 off Whitnage Road, Sampford Peverell

OSNGR: 303383,114791	Area: 6.17ha		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 is an unnamed watercourse flowing through the site, for which flood zone information is not available. Further information regarding the level of risk from this watercourse would be required to know whether or not the Exception Test is required and if it could be passed.

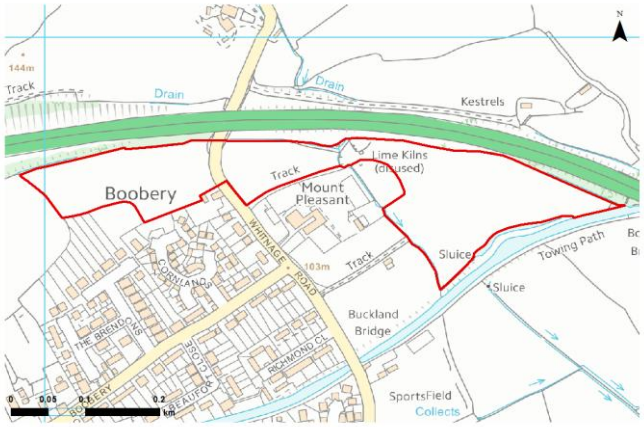
Planning application stage:

- Hydrological and hydraulic assessment of the unnamed watercourse that runs 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

Contains Ordnance Survey data © Crown copyright and database right 2014.

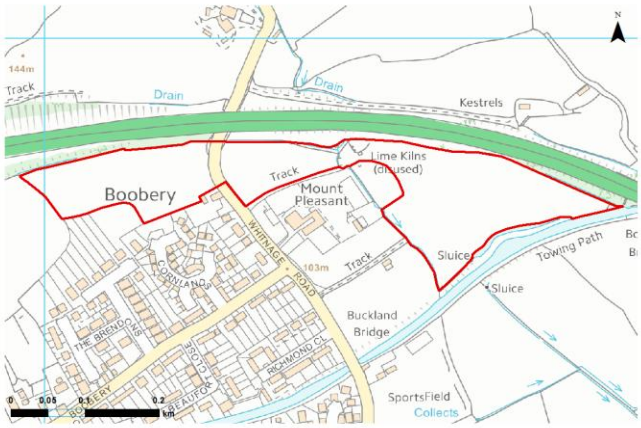


Climate Change:

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 more information please refer to Section 11 in the main report.



Surface Water:

Proposed Development Area

Mid Devon DC Boundary

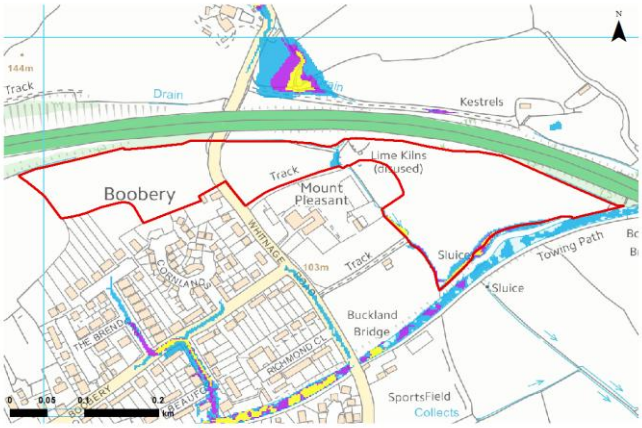
uFMfSW 30-year Extent

uFMfSW 100-year Extent

uFMfSW 1,000-year Extent

Contains Ordnance Survey data © Crown copyright and database right 2014

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 unnamed watercourse.

• 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. Mapping suggests that permeable paving is unlikely to be suitable due to the slope of the site.
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. 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.

Canal:

The site lies within the very high 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.

• Increased water levels in the unnamed watercourse.

Flood Risk Implications for Development:

• Flood zones have not been produced for the ordinary watercourse running through the site. The flood risk from these waterbodies 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 watercourse 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.

Morrell's Farm, Sampford Peverell

OSNGR: 303983,114116	Area: 8.95ha		Greenfield	
Flood Zone Coverage:	**FZ3b**	**FZ3a**	**FZ2**	**FZ1**
	TBC	8%	5%	87%

Exception Test Required?

Potentially yes, depending on location of development. The proposed land use for this site is residential which has a flood risk vulnerability class of 'More Vulnerable'. Under the NPPF, More Vulnerable development in Flood Zone 3a requires the application of the Exception Test.

There are unnamed watercourses flowing through the site, for which flood zone information is not available. Further information regarding the level of risk from these watercourses would also be required to know whether or not the Exception Test is required and if it could be passed.

Should residential development be located so that it is outside of Flood Zone 3 then the Exception test would not be required.

Potential to pass the Exception Test (if required):

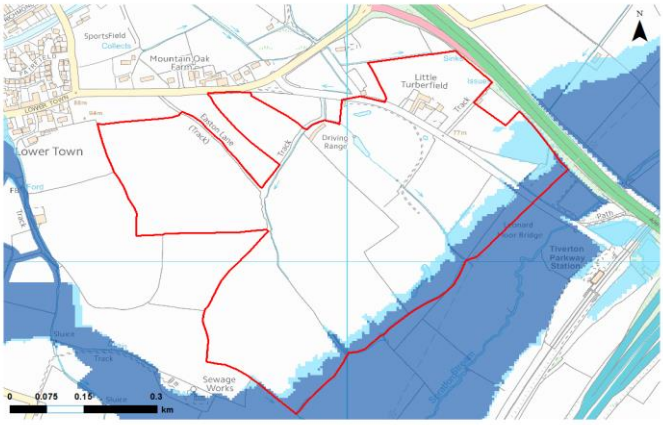
Should development be located in Flood Zone 3 it will need to pass the Exception Test. To pass Part 'b' of the Exception Test, a FRA should demonstrate that: the development will be safe, will avoid increasing flood risk elsewhere, and will reduce flood risk overall.

• The majority of the site is within Flood Zone 1. Risks to development could be reduced by using sequential design to locate development in the centre and south of the site, outside of Flood Zone 3.
• The development could potentially be made safe through building design, and by meeting drainage requirements. In view of the possible flooding from the Spratford Stream and unnamed watercourses, 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 design and confirm whether housing proposals can pass the Exception Test.
• 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

Contains Ordnance Survey data © Crown copyright and database right 2014.

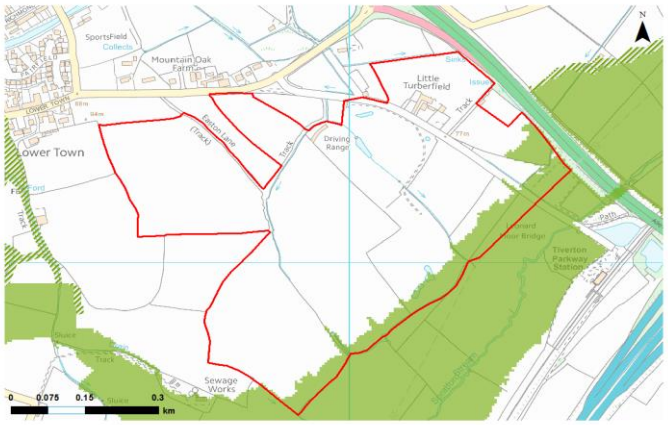


Climate Change:

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 more information please refer to Section 11 in the main report.

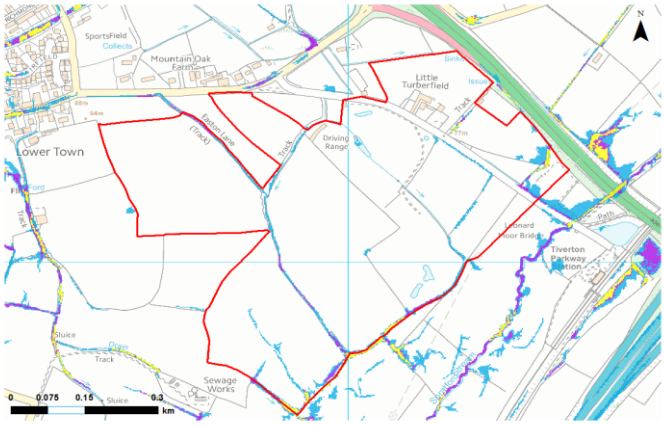


Surface Water:

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

Contains Ordnance Survey data © Crown copyright and database right 2014

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		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 site slopes may be steep, larger 'above ground' features may not be viable.
Filtration		All filtration techniques are likely to be suitable.
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.

Canal: The site lies within the low and medium impact zones associated with bank failure of the Grand Western Canal.
Flood Warning: The site is covered by the Rivers Clyst and Culm and their tributaries Alert Area.
Access & Egress: Existing information suggests there are no significant access or egress issues for the site.
Climate Change: • Increased storm intensities. • Increased water levels in the unnamed watercourses and the Spratford Stream
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 and 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.