Eastwood
CONSULTING ENGINEERS

Flood Risk Assessment

Land at Tilstock Road, Tilstock

Boningale Homes Limited

25/10/2024

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FLOOD RISK ASSESSMENT

LAND AT TILSTOCK ROAD, TILSTOCK

FOR

BONINGALE HOMES LIMITED

48888-ECE-XX-XX-RP-C-0001 **25 October 2024**

FLOOD RISK ASSESSMENT

LAND AT TILSTOCK ROAD, TILSTOCK

FOR

BONINGALE HOMES LIMITED

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Approved : [redacted]

Andy Allison

Eastwood
CONSULTING ENGINEERS

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Issue 1:	*18 April 2024*	
Issue 2:	*27 September 2024*	*New layout, updated drainage strategy and associated text changes.*
Issue 3:	*18 October 2024*	*Text changes following Phase 2 Site Investigation, new site layout and updates to drainage strategy.*
Issue 4:	*25 October 2024*	*Updated to include the revised site layout.*

EXECUTIVE SUMMARY

The project comprises the proposed development of an approximately 4.05-hectare greenfield site for residential use.

The Environment Agency's Flood Map for Planning shows the site to lie within Flood Zone 1. While the site is in an area susceptible to groundwater emergence, the risk is negligible and is expected to be limited to below ground structures only.

There are two small isolated areas at low risk of surface water ponding associated with topographic depressions. Following a review of the greenfield runoff within the wider catchment it is noted that surface water ponding in the south-east of the site is most likely generated from greenfield runoff within the site rather than from outside. The raising of topographic depressions and the presence of the proposed drainage network will therefore remove any surface water ponding.

The site is not at significant risk of flooding from any source. In accordance with current Planning Practice Guidance 'Flood Risk and Coastal Change', sequential testing is not required. Should the ongoing groundwater monitoring as part of the Phase 2 Site Investigation discover shallow groundwater contributes to ponding in the south-eastern portion of the site, making it a more permanent feature, a sequential test may be required to cover groundwater emergence, and the pond feature may need to be maintained.

Surface water disposal is considered in accordance with the drainage hierarchy in Building Regulations Part H 2015 and Planning Practice Guidance 'Reducing the causes and impacts of flooding', paragraph 80.

Infiltration testing has been conducted by Eastwood Consulting Engineers as part of the Phase 2 Site Investigation (Ref: 48888-ECE-XX-XX-RP-C-006). Four soakaway test pits were undertaken. None of the tests drained, and one of the test pits collapsed during monitoring. Infiltration type SuDS such as soakaways will therefore not be viable.

Surface water discharge to watercourse is discounted as a rising main would be required to pump surface water to a new bespoke ditch network through third party land before outfalling into the nearest ordinary watercourse located approximately 270 m south-west of the site off Hollins Lane.

Surface water disposal will be via gravity to an attenuation basin in the south-eastern corner of the site. Surface water will then discharge via gravity to the 225 mm public surface water sewer located

in Tilstock Lane at manhole 4805, subject to confirmation by Severn Trent Water and the LLFA. This will require evidence showing that all other options (watercourse and infiltration) have been discounted.

Surface water discharge will be restricted to the greenfield runoff rate of 17.61 l/s as agreed with Severn Trent Water. The discharge connection point and rate are subject to approval from Severn Trent Water and the LLFA.

Attenuation storage will be provided for rainfall events up to the return period of 1 in 100 year plus 45% climate change. The total estimated storage volume is approximately 965 m^3, subject to detailed design.

A basin, pond, conveyance swales and permeable paving (Type C) are proposed to provide water treatment. The basin, pond and conveyance swales will also provide biodiversity and amenity value to the site. SuDS features proposed are subject to detailed design and confirmation of the groundwater table elevation following ongoing monitoring being conducted as part of the Phase 2 Site Investigation.

Foul effluent should discharge via gravity to the 150 mm public foul water sewer south-east of the site at manhole 3802 to ensure a sustainable gravity solution, subject to Severn Trent Water approval.

Both the surface and foul water drainage systems may be offered for adoption to Severn Trent Water.

1.0 THE DEVELOPMENT

1.1 Introduction

This Flood Risk Assessment has been prepared in accordance with current National Planning Policy Framework[1] and Planning Practice Guidance 'Flood Risk and Coastal Change'[2] on the instruction of Boningale Homes Limited. Any other parties using the information in this report do so at their own risk, unless previously approved in writing. This report only outlines a general drainage strategy for the proposed development. Detailing of the drainage strategy should be provided within, and referenced from, the site specific Drainage Assessment Report (Ref: 48888-ECE-XX-XX-RP-C-0002) and associated plans.

The project comprises the development of a 4.05-hectare greenfield site for residential use.

1.2 Site location and description

The site is located to the north of Tilstock and is centred on coordinates 354257E, 338056N (Appendix 1).

The site is bounded by Tilstock Road to the west, fields to the north and east, with residential dwellings to the south.

The site is currently part of a larger field and features two small circular (<5%) surface-flooding features in the south-east and central north-west of the site. The site has had no previous development other than small, localised ponds and is currently an open grassed field boarded by mature trees and hedgerows.

The site falls from approximately 106.63 mAOD in the north to 102.06 mAOD in the south, at an average gradient of 1 in 35 (Appendix 2)

Proposals are for a full application for the erection of 70 dwellings (including 10 affordable dwellings), associated landscaping, drainage and infrastructure with access taken off Tilstock Road (Appendix 3).

[1] https://www.gov.uk/government/publications/national-planning-policy-framework--2
[2] https://www.gov.uk/guidance/flood-risk-and-coastal-change

1.3 Environment Agency - Flood Map for Planning

The Environment Agency's Flood Map for Planning (Figure 1 and Appendix 4) shows that the site lies within Flood Zone 1 (low risk); land having a less than 1 in 1,000 annual probability of flooding from rivers or sea.

Figure 1: Environment Agency's Flood Map for Planning

1.4 Shropshire Council Strategic Flood Risk Assessment

Shropshire Council's Strategic Flood Risk Assessment flood map is based on the Environment Agency flood map and records the site to be within Flood Zone 1 (Appendix 5).

2.0 FLOOD RISK

2.1 Potential sources of flooding

The Environment Agency and Strategic Flood Risk Assessment maps are intended for general guidance on flood risk and it is also necessary to consider other, more detailed, sources in relation to local factors.

2.1.1 Fluvial and tidal

The nearest watercourse is an unnamed stream/brook, located approximately 270 m west of the site, flowing south through Tilstock and eventually converging with the Soulton Brook approximately 7 km further south. These watercourses are not tidally influenced and are sufficiently offset from the site, therefore flood risk from these sources is assessed as negligible.

2.1.2 Surface water

The Environment Agency surface water flood risk map (Figure 2 and Appendix 4) shows the majority of site to be at very low risk of surface water flooding. Very low risk corresponds to the unshaded areas of the map. There are two small isolated areas at low risk of surface water ponding associated with topographic depressions. Following a review of the greenfield runoff within the wider catchment it is noted that surface water ponding in the south-east of the site is most likely generated from greenfield runoff within the site rather than from outside (Appendix 8).

Very low risk refers to land having less than a 1 in 1,000 annual exceedance probability of flooding (0.1% AEP). Low risk refers to land having between a 1 in 1,000 and 1 in 100 annual exceedance probability of flooding (0.1% - 1% AEP).

Figure 2: Environment Agency – Risk of surface water flooding map

2.1.3 Reservoir

The Environment Agency reservoir flood risk map (Figure 3 and Appendix 4) shows the whole site to lie outside of the maximum extent of flooding from reservoirs, even when there is flooding from rivers.

Figure 3: Environment Agency – Risk of reservoir flooding map

2.1.4 Groundwater

Groundwater is a potential flood risk to areas which are low lying and on permeable ground or, occasionally, to areas of higher ground in the vicinity of springs. The Shropshire Council SFRA groundwater flood map shows the southern extents of the site with a greater than 75% (>=75%) susceptibility to groundwater flooding whilst the central and northern extent have a 50% to 75% (>=50% <75%) susceptibility to groundwater flooding (Appendix 5).

It is of note that Envirocheck mapping (Appendix 7) shows the risk of on-site groundwater emergence to be negligible and is also limited to below ground structures only.

Ongoing groundwater monitoring is being conducted by Eastwood Consulting Engineers as part of the Phase 2 Site Investigation.

2.1.5 Sewerage

The surrounding public sewer network is owned and maintained by Severn Trent Water. There is no public record of any flood risk to the site associated with these sewers.

2.2 Historic Flooding

Environment Agency online mapping records the site to be outside the historical flood outline.

2.3 Residual flood risk

There are two small isolated areas at low risk of surface water ponding associated with topographic depressions. Following a review of the greenfield runoff within the wider catchment it is noted that surface water ponding in the south-east of the site most likely originates from greenfield runoff within the site rather than from outside (Appendix 8).

While the site is noted to be susceptible to groundwater emergence, Envirocheck mapping shows the risk to be negligible as it is expected to be limited to below ground structures only.

These risks are not a development constraint and will be managed on the site within the surface water drainage strategy and by the mitigation measures in Section 2.4.

2.4 Flood Mitigation Measures

The building level should be set no lower than the existing ground level.

The raising of topographic depressions and the presence of the proposed drainage network will remove the mapped surface water ponding.

Should the Phase 2 Site Investigation discover shallow groundwater contributes to ponding in the south-eastern portion of the site, making it a more permanent feature, the pond feature may need to be maintained.

3.0 NATIONAL PLANNING POLICY FRAMEWORK

The National Planning Policy Framework (December 2023) sets out the principles for assessing the suitability of sites for development, in relation to flood risk, as part of the planning process.

3.1 Sequential Test

Initially a Sequential Test is applied to the allocation of land suitable for development. The test is required for any development proposed in Flood Zone 2 or 3 (and occasionally also in Flood Zone 1 where there are flood risks present which are not identified on the Environment Agency's Flood Maps for Planning).

The aim of the Sequential Test is to steer new development to areas with the lowest probability of flooding. Development should not be allocated or permitted if there are reasonably available sites, appropriate for the proposed development, in areas with a lower probability of flooding.

The Environment Agency's Flood Map for Planning shows the site to lie within Flood Zone 1. While the site is in an area susceptible to groundwater emergence, the risk is negligible and is limited to below ground structures only. There are also two small isolated areas at low risk of surface water ponding, associated topographic depressions. The site is therefore not at significant risk of flooding from any source. In accordance with current Planning Practice Guidance 'Flood Risk and Coastal Change', sequential testing is not required.

However, should the ongoing Phase 2 Site Investigation groundwater monitoring discover that shallow groundwater contributes to ponding in the south-eastern portion of the site, making it a more permanent feature, a sequential test may be required to cover groundwater emergence, and the pond feature may need to be maintained.

3.2 Climate change

An issue emphasised in the Planning Policy Guidance is the requirement to take account of potential climate change effects. New development is generally accepted as having a 100 year design life for flood risk purposes. Climate change allowances for peak rainfall intensity[3] are to be selected based on the assigned values for the relevant Management Catchment and epoch suited to the design life

[3] https://environment.data.gov.uk/hydrology/climate-change-allowances/rainfall

of the development. For the Severn Middle Shropshire Management Catchment the Upper End Allowance of 45% should be used to assess storage requirements.

4.0 DRAINAGE STRATEGY

Detailing of the drainage strategy is provided within a separate site specific Drainage Assessment Report (48888-ECE-XX-XX-RP-C-0002) and associated plans. A summary of the proposed drainage strategy is noted below.

4.1 Proposals for surface water disposal

The final disposal strategy for surface water run-off requires detailed consideration and approval during the design phase of the project. The final design will need the approval of the relevant statutory bodies but will broadly follow these principles:

Infiltration testing has been conducted by Eastwood Consulting Engineers as part of the Phase 2 Site Investigation (Ref: 48888-ECE-XX-XX-RP-C-006). Four soakaway test pits were undertaken. None of the tests drained, and one of the test pits collapsed during monitoring. Infiltration type SuDS such as soakaways will therefore not be viable.

Surface water discharge to watercourse is not viable as a sustainable gravity drainage solution, as a rising main would be required to pump surface water to a new bespoke ditch network through third party land before outfalling into the nearest ordinary watercourse located approximately 270 m south-west of the site off Hollins Lane.

Surface water disposal will be via gravity to an attenuation basin in the south-eastern corner of the site. Surface water will then discharge via gravity to the 225 mm public surface water sewer located in Tilstock Lane at manhole 4805, subject to confirmation from Severn Trent Water and the LLFA. This will require evidence to demonstrate that all other discharge options (watercourse and infiltration) have been discounted.

Surface water discharge will be restricted to the greenfield runoff rate of 17.61 l/s as agreed with Severn Trent Water (Appendix 6). The discharge connection point and rate are subject to approval from Severn Trent Water and the LLFA.

Attenuation storage will be provided for rainfall events up to the return period of 1 in 100 year plus 45% climate change. The total estimated storage volume is approximately 965 m^3, subject to detailed design. Attenuation calculations are provided in Appendix 8.

A basin, pond, conveyance swales and permeable paving (Type C) are proposed to provide water treatment. The basin, pond and conveyance swales will also provide biodiversity and amenity value to the site. SuDS features proposed are subject to detailed design and confirmation of the groundwater table elevation following ongoing Phase 2 Site Investigation monitoring.

The surface water drainage system may be offered for adoption to Severn Trent Water.

4.2 Proposals for foul disposal

Foul effluent should discharge via gravity to the 150 mm public foul water sewer south-east of the site at manhole 3802 to ensure a sustainable gravity solution, subject to Severn Trent Water approval (Appendix 6).

The foul water drainage system may be offered for adoption to Severn Trent Water.

4.3 Residual flood risk

There is a potential flood risk to site occupiers and to others from surface water runoff as a result of developing the site. The residual risk can be managed by the general flood mitigation measures outlined in Section 4.4.

4.4 Mitigation measures

The proposed surface water drainage system is designed to current best practice and to the standards laid out in the publication ‘Design and Construction Guidance for foul and surface water sewers’ and Building Regulations Part H 2015.

In the event of surface water exceedance during extreme rainfall events the site is laid out so that surface water runoff is directed away from buildings, including those on neighbouring streets.

5.0 CONCLUSIONS

1. The Environment Agency's Flood Map for Planning shows the site to lie within Flood Zone 1.

2. While the site is in an area susceptible to groundwater emergence, the risk is negligible and is limited to below ground structures only.

3. There are two small isolated areas at low risk of surface water ponding, associated with topographic depressions. Following a review of the greenfield runoff within the wider catchment it is noted that surface water ponding in the south-east of the site is most likely generated from greenfield runoff within the site rather than from outside. The raising of topographic depressions and the presence of the proposed drainage network will therefore remove any surface water ponding.

4. The site is not at significant risk of flooding from any source. In accordance with current Planning Practice Guidance 'Flood Risk and Coastal Change', sequential testing is not required. Should the ongoing groundwater monitoring discover that shallow groundwater contributes to ponding in the south-eastern portion of the site, making it a more permanent feature, a sequential test may be required to cover groundwater emergence, and the pond feature may need to be maintained.

5. Infiltration testing has been conducted by Eastwood Consulting Engineers as part of the Phase 2 Site Investigation (Ref: 48888-ECE-XX-XX-RP-C-006). Four soakaway test pits were undertaken. None of the tests drained, and one of the test pits collapsed during monitoring. Infiltration type SuDS such as soakaways will therefore not be viable.

6. Surface water discharge to watercourse is discounted as a rising main would be required to pump surface water to a new bespoke ditch network through third party land before outfalling into the nearest ordinary watercourse located approximately 270 m south-west of the site off Hollins Lane.

7. Surface water disposal will be via gravity to an attenuation basin in the south-eastern corner of the site. Surface water will then discharge via gravity to the 225 mm public surface water sewer located in Tilstock Lane at manhole 4805, subject to confirmation from Severn Trent Water and the LLFA. This will require evidence showing that all other options (watercourse and infiltration) have been discounted.

8. Surface water discharge will be restricted to the greenfield runoff rate of 17.61 l/s as agreed with Severn Trent Water. The discharge connection point and rate are subject to approval from Severn Trent Water and the LLFA.

9. Attenuation storage will be provided for rainfall events up to the return period of 1 in 100 year plus 45% climate change. The total estimated storage volume is approximately 965 m^3, subject to detailed design.

10. A basin, pond, conveyance swales and permeable paving (Type C) are proposed to provide water treatment. The basin, pond and conveyance swales will also provide biodiversity and amenity value to the site. SuDS features proposed are subject to detailed design and confirmation of the groundwater table elevation following ongoing monitoring as part of the Phase 2 Site Investigation.

11. Foul effluent should discharge via gravity to the 150 mm public foul water sewer south-east of the site at manhole 3802 to ensure a sustainable gravity solution, subject to Severn Trent Water approval.

12. Both the surface and foul water drainage systems may be offered for adoption to Severn Trent Water.

13. The level of risk and safeguards available are considered appropriate to this class of development.

APPENDICES

APPENDIX 1

Location Plan

Location Plan

Issue:

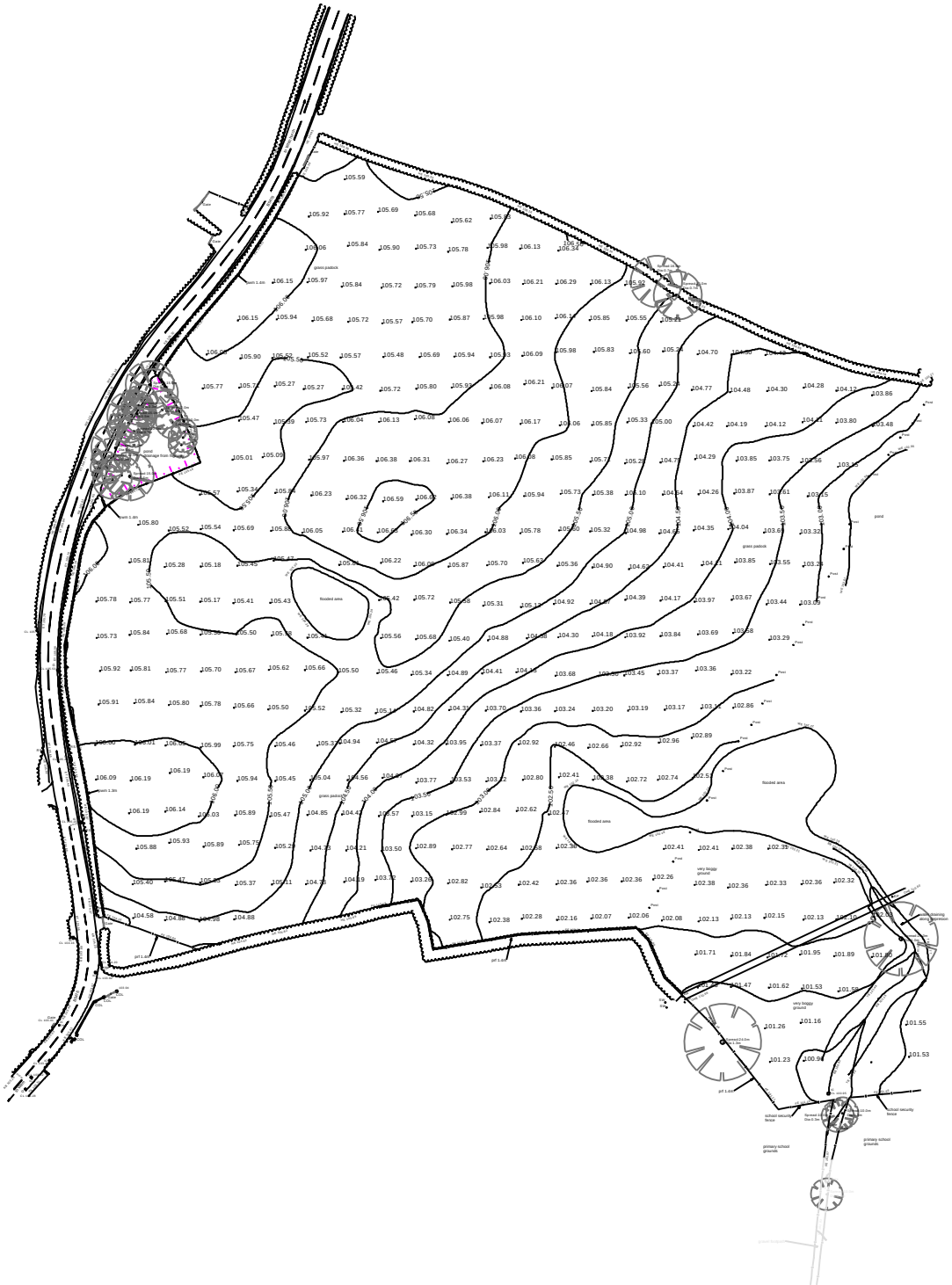
DRAFT

LAND NORTH OF TILSTOCK ROAD - SITE LOCATION PLAN

PEGASUS GROUP

| PEGASUSGROUP.CO.UK | TEAM/DRAWN BY: JF | APPROVED BY: CP | DATE: 17/07/2024 | SCALE: 1:1250@A3 | DRWG: P24-1425_DE_001_A_01 I CLIENT: BONINGALE HOMES I

APPENDIX 2



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APPENDIX 3

Issue:

TILSTOCK
Accommodation Schedule

Open Market

Unit Type	No. Beds	No.Persons	Storeys	No. of Units
TYPE C2	2	3	2	6
TYPE C	2	4	2	10
TYPE D	3	4	2	10
TYPE L	3	5	2	10
TYPE E	3	5	2	5
TYPE G	4	7	2	9
TYPE H	4	7	2	10
			OM TOTAL	**60**

Affordable

AH1B BUNG - M4(3)	1	2	1	4
TYPE C2	2	3	2	3
AH3B	3	4	2	3
			AFF TOTAL	**10**
			TOTAL UNITS	70

SHARED SURFACE
SHARED SURFACE
SHARED SURFACE
PRIVATE DRIVE
PRIMARY STREET
SHARED SURFACE
SHARED SURFACE
PRIMARY STREET
PRIVATE DRIVE
PRIVATE DRIVE
PRIVATE DRIVE
B5476

KEY: SITE LAYOUT

APPLICATION BOUNDARY

SURFACE MATERIALS:

GARDEN/POS/HIGHWAY VERGE
(SEE DETAILED LANDSCAPE PROPOSALS)

TARMACADUM

OTHER:

BIN STORE

GATE/PERSONNEL DOOR

AFFORDABLE HOUSING

INDICATIVE SWALE LOCATION

LANDSCAPING:

INDICATIVE TREE PLANTING
(SEE DETAILED LANDSCAPE PROPOSALS)

RETAINED VEGETATION
(SEE TREE RETENTION PLAN)

RETAINED TREE
(CATEGORY A)

RETAINED TREE
(CATEGORY B)

RETAINED TREE
(CATEGORY C)

ROOT PROTECTION ZONE

TREE REMOVED

ENCLOSURE DETAILS:

1.8M HIGH BRICK WALL

1.8M HIGH CLOSE BOARDED FENCING

0.45M HIGH KNEE RAIL

FENCING TO PLAY SPACES INC LEAP AND LAP
- 1.2M ANTI TRAP BOW TOP FENCING

FENCING TO THE SUDS BASIN
- 1.2M BOW TOP FENCING

LOW LEVEL HEDGEROW
(SEE DETAILED LANDSCAPE PROPOSALS)

N 0 10 25 m

LAND NORTH OF TILSTOCK ROAD - SITE LAYOUT

PEGASUS GROUP

| PEGASUSGROUP.CO.UK | TEAM/DRAWN BY: JF | APPROVED BY: CP | DATE: 24/10/2024 | SCALE: 1:500@A1 | DRWG: P24-1425_DE_002_C_02 I CLIENT: BONINGALE HOMES I

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APPENDIX 4

Flood map for planning

Your reference	Location (easting/northing)	Created
<Unspecified>	**354277/338106**	**20 Aug 2024 10:13**

Your selected location is in flood zone 1, an area with a low probability of flooding.

You will need to do a flood risk assessment if your site is **any of the following:**

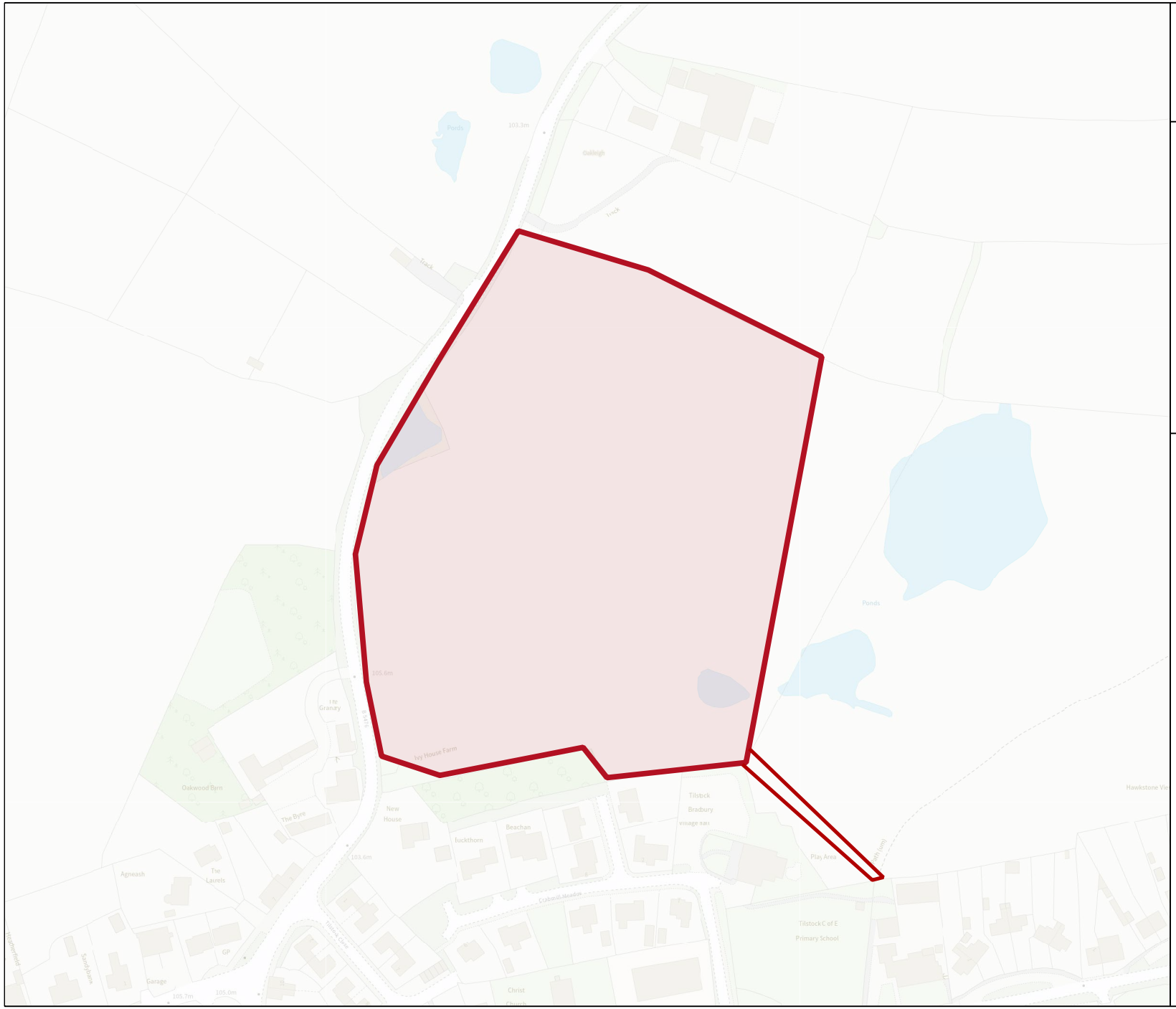
- bigger that 1 hectare (ha)
- In an area with critical drainage problems as notified by the Environment Agency
- identified as being at increased flood risk in future by the local authority's strategic flood risk assessment
- at risk from other sources of flooding (such as surface water or reservoirs) and its development would increase the vulnerability of its use (such as constructing an office on an undeveloped site or converting a shop to a dwelling)

Notes

The flood map for planning shows river and sea flooding data only. It doesn't include other sources of flooding. It is for use in development planning and flood risk assessments.

This information relates to the selected location and is not specific to any property within it. The map is updated regularly and is correct at the time of printing.

Flood risk data is covered by the Open Government Licence **which** sets out the terms and conditions for using government data. https://www.nationalarchives.gov.uk/doc/open-government-licence/version/3/



Environment Agency

Flood map for planning

Your reference
<Unspecified>

Location (easting/northing)
354277/338106

Scale
1:2500

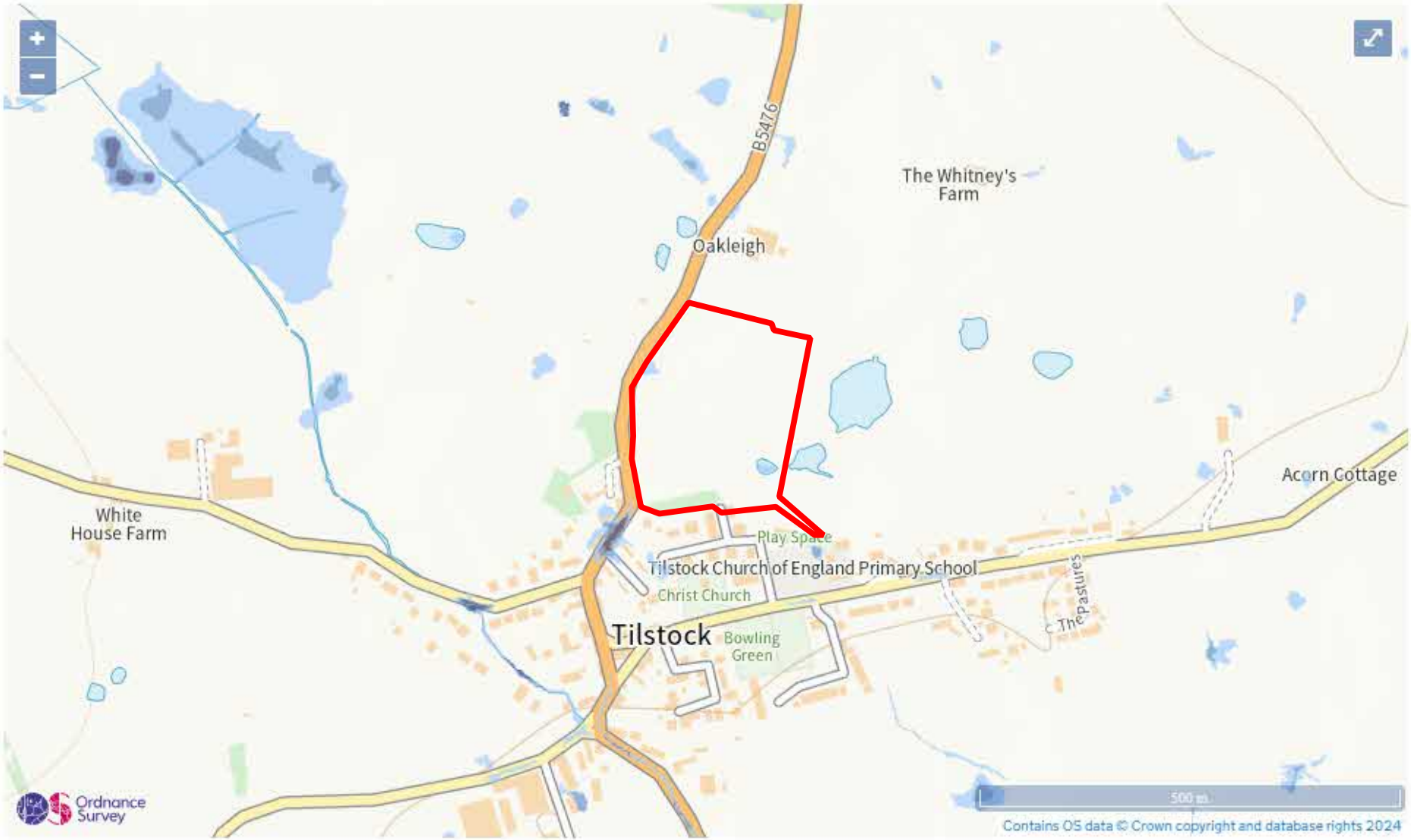
Created
20 Aug 2024 10:13

- Selected area
- Flood zone 3
- Flood zone 2
- Flood zone 1
- Flood defence
- Main river
- Water storage area

0 20 40 60m

Extent of flooding

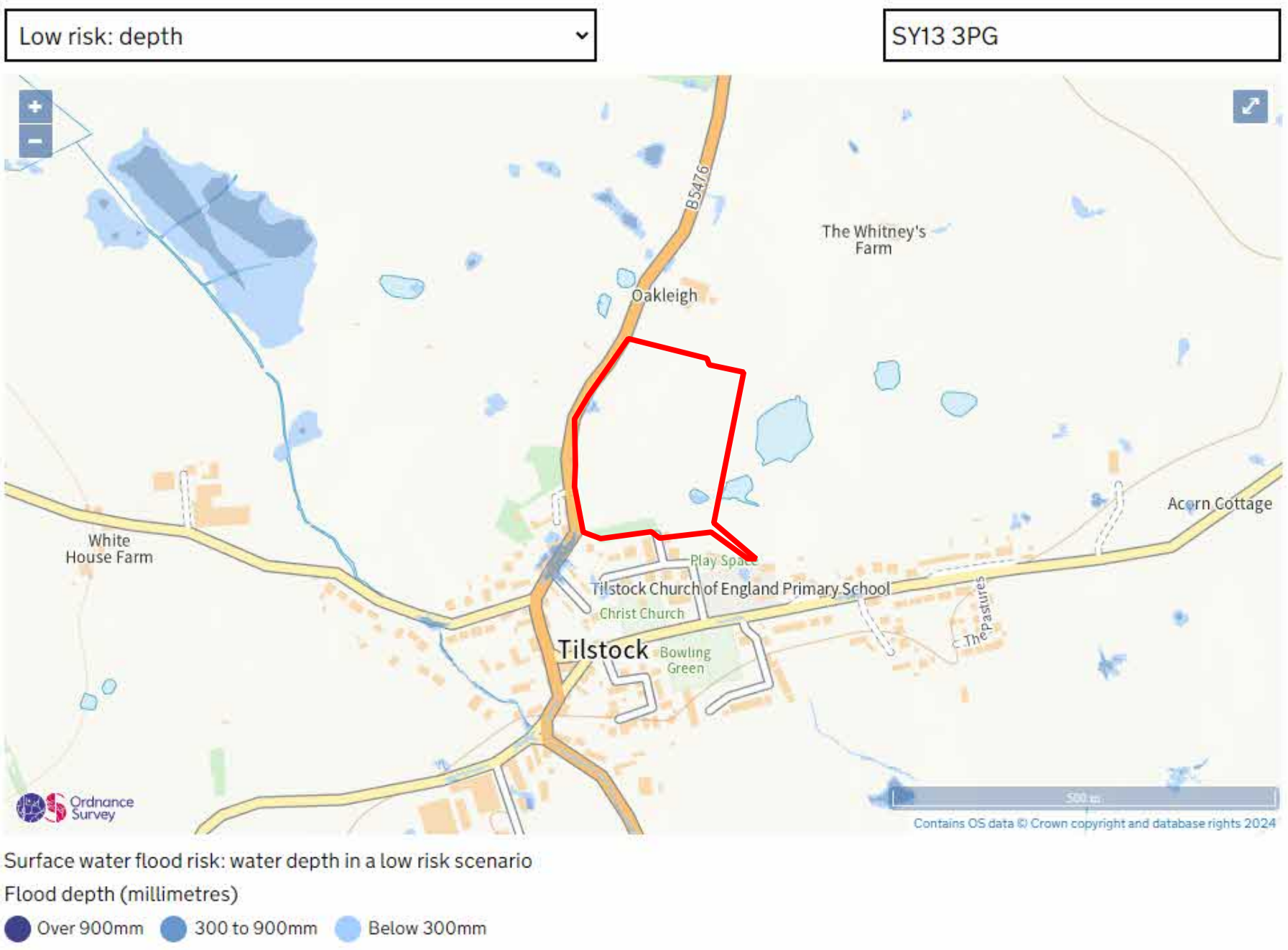
SY13 3PG



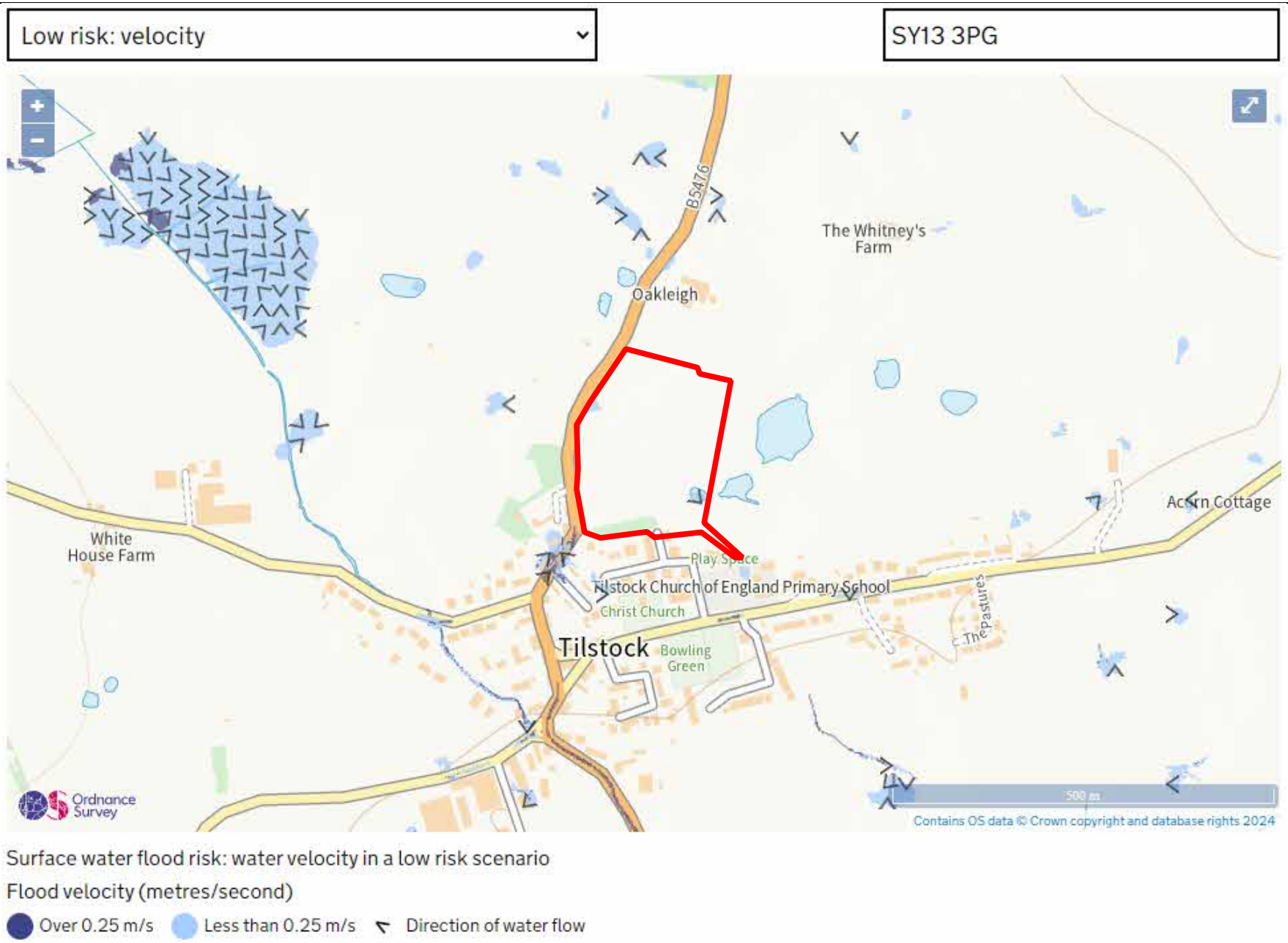
Extent of flooding from surface water

High Medium Low Very low

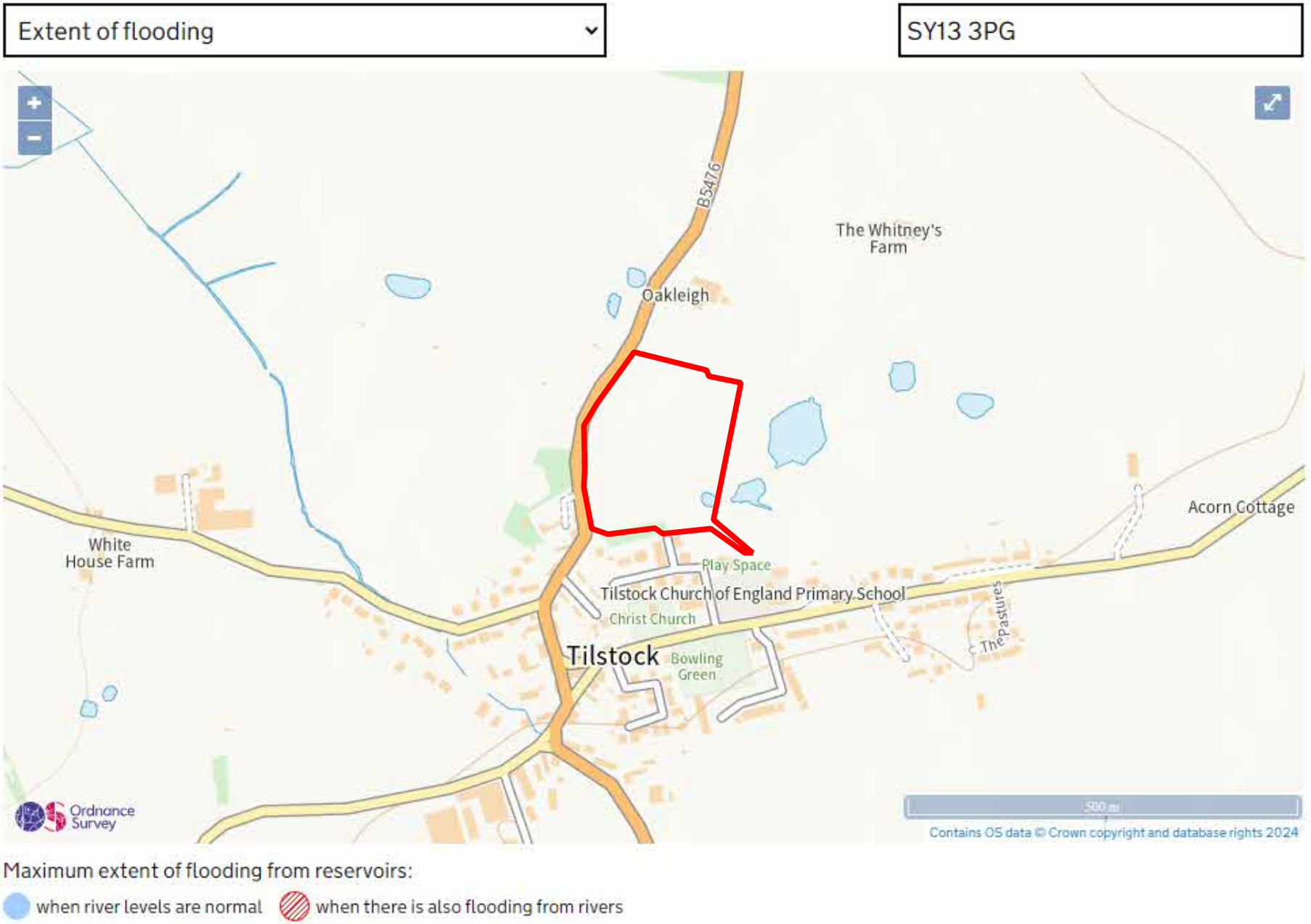
Long term flood risk
Extent of Surface Water Flooding



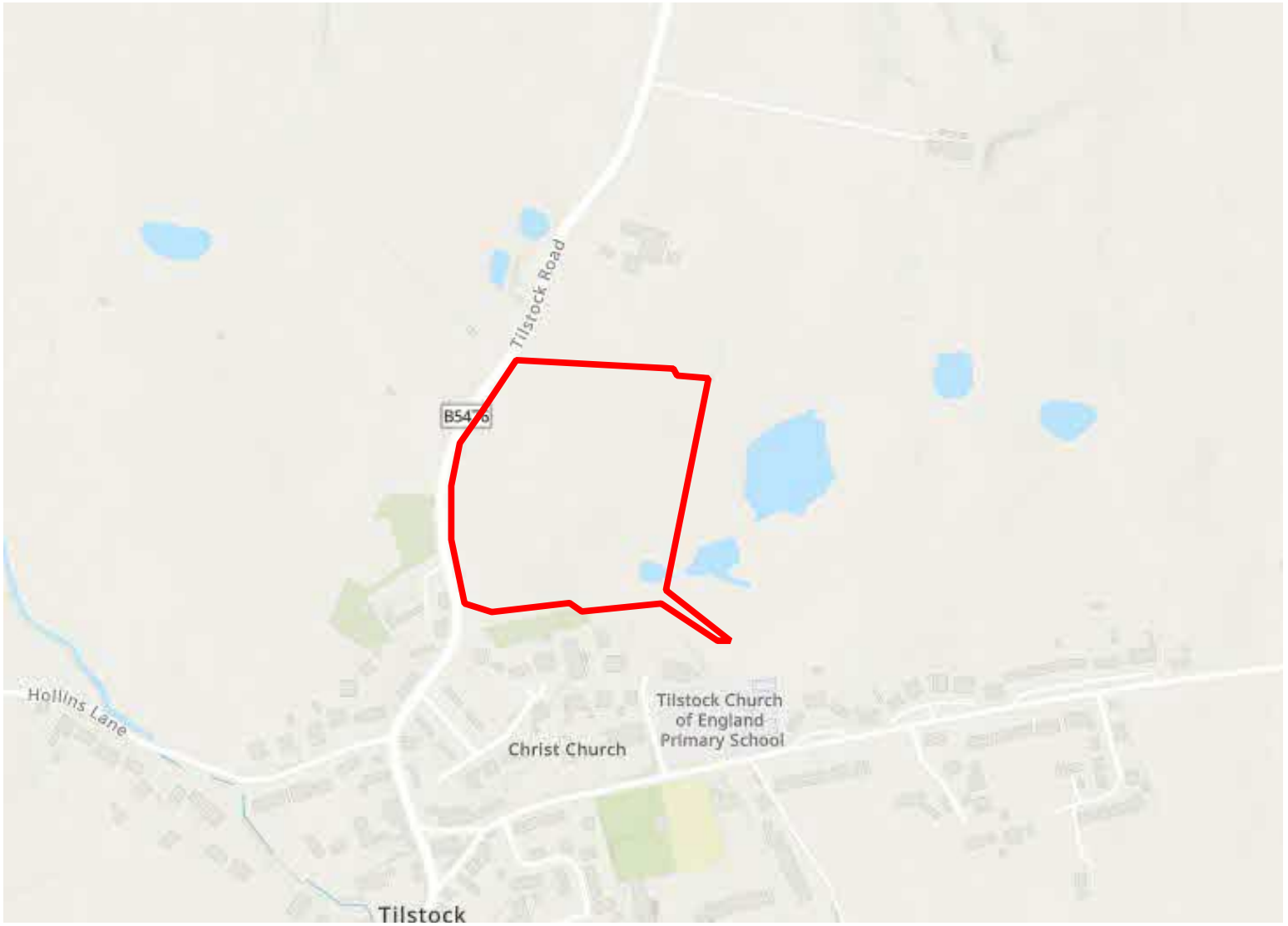
Long term flood risk
Surface Water Flood Risk Depths (100 – 1000 yr return period)



Long term flood risk
Surface Water Velocity– (100 – 1000 yr return period)



Long term flood risk
Extent of Reservoir Flooding



Recorded Flood Outlines

Topographic

Long term flood risk Historic Flooding	

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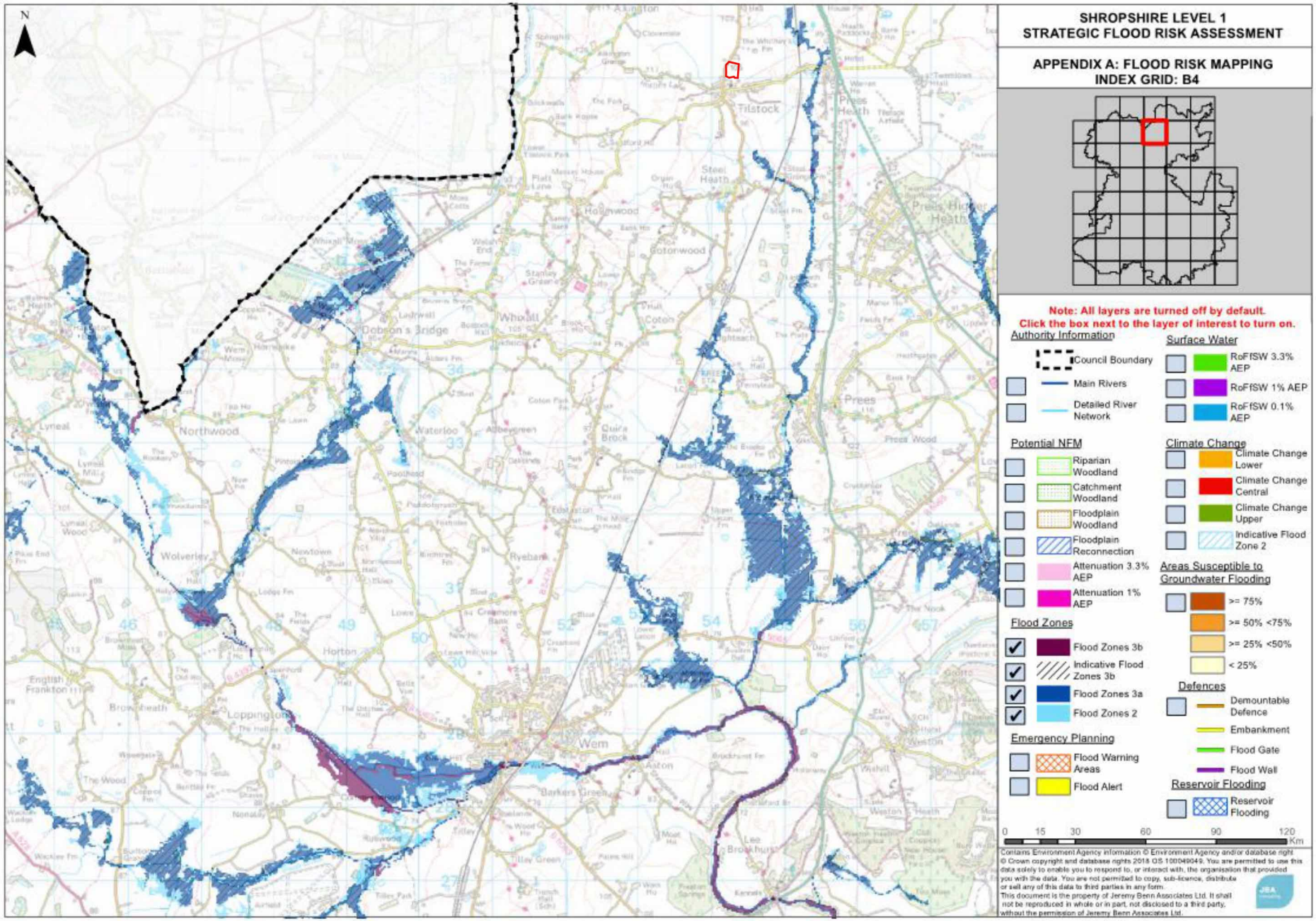
APPENDIX 5


N
SHROPSHIRE LEVEL 1
STRATEGIC FLOOD RISK ASSESSMENT
APPENDIX A: FLOOD RISK MAPPING
INDEX GRID: B4
Note: All layers are turned off by default.
Click the box next to the layer of interest to turn on.
Authority Information
Council Boundary
Main Rivers
Detailed River Network
Surface Water
RoFfSW 3.3% AEP
RoFfSW 1% AEP
RoFfSW 0.1% AEP
Potential NFM
Riparian Woodland
Catchment Woodland
Floodplain Woodland
Floodplain Reconnection
Attenuation 3.3% AEP
Attenuation 1% AEP
Climate Change
Climate Change Lower
Climate Change Central
Climate Change Upper
Indicative Flood Zone 2
Flood Zones
Flood Zones 3b
Indicative Flood Zones 3b
Flood Zones 3a
Flood Zones 2
Areas Susceptible to Groundwater Flooding
>= 75%
>= 50% <75%
>= 25% <50%
< 25%
Defences
Demountable Defence
Embankment
Flood Gate
Flood Wall
Emergency Planning
Flood Warning Areas
Flood Alert
Reservoir Flooding
Reservoir Flooding
0 15 30 60 90 120
Km
Contains Environment Agency information © Environment Agency and/or database right
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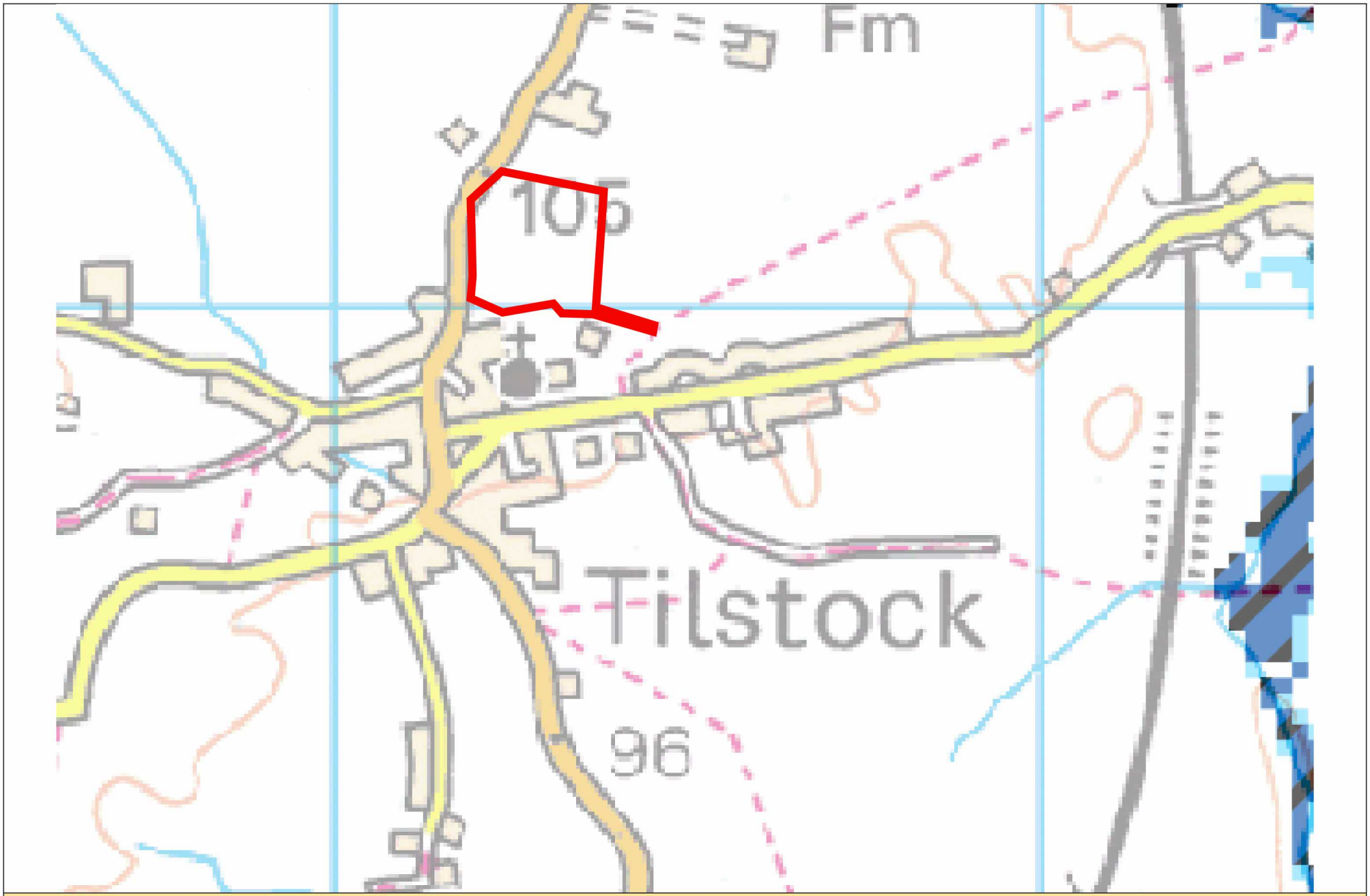
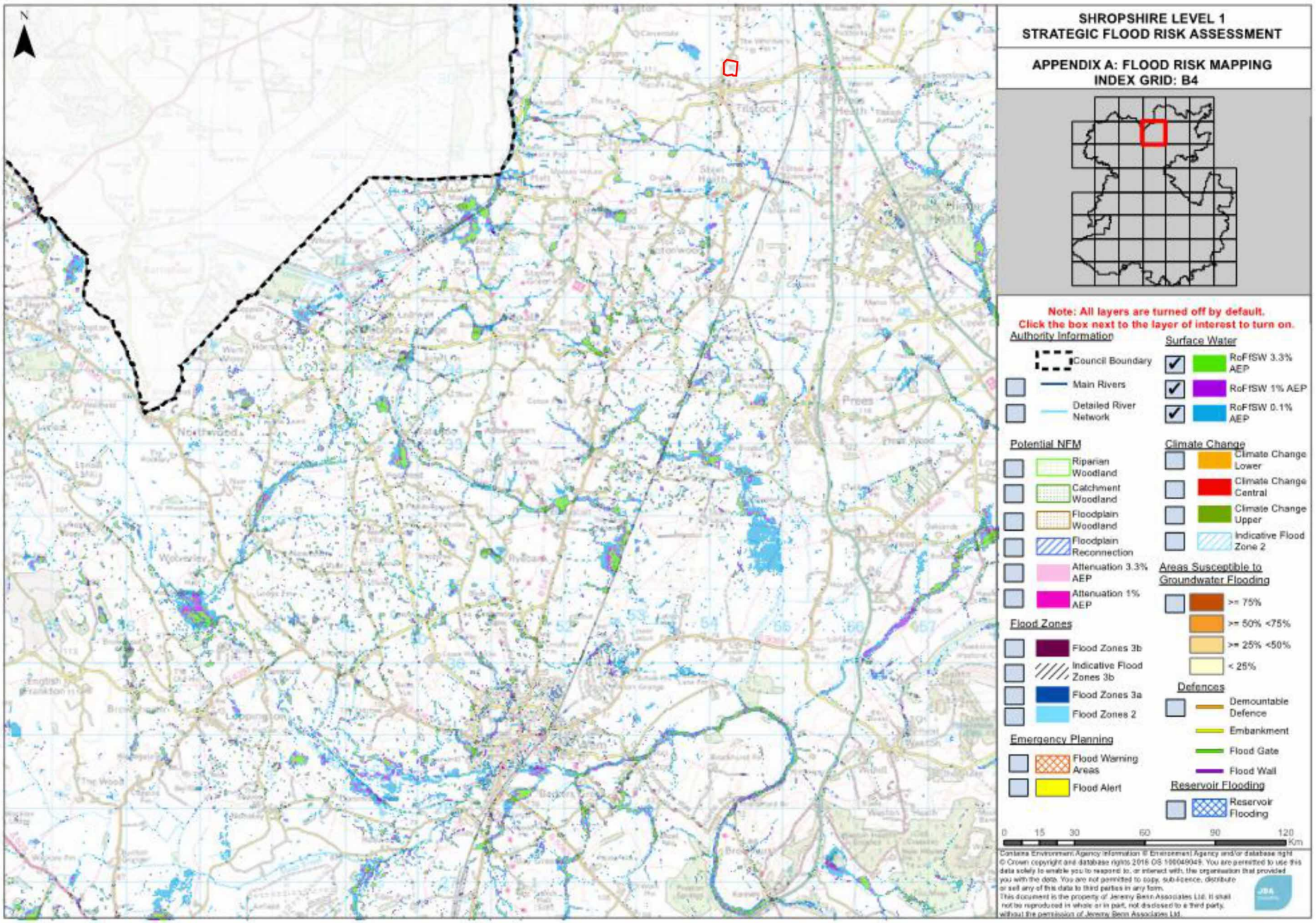
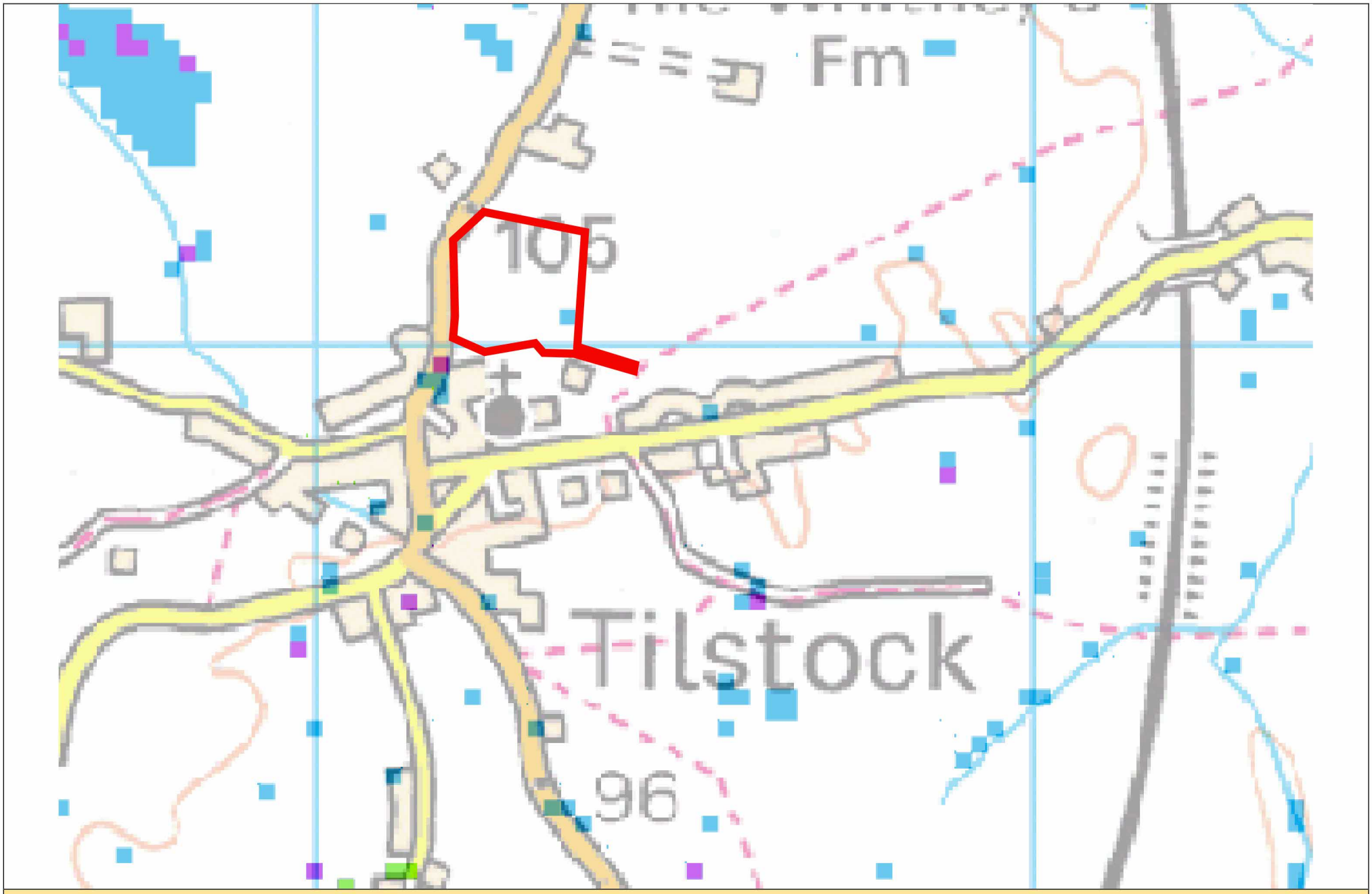
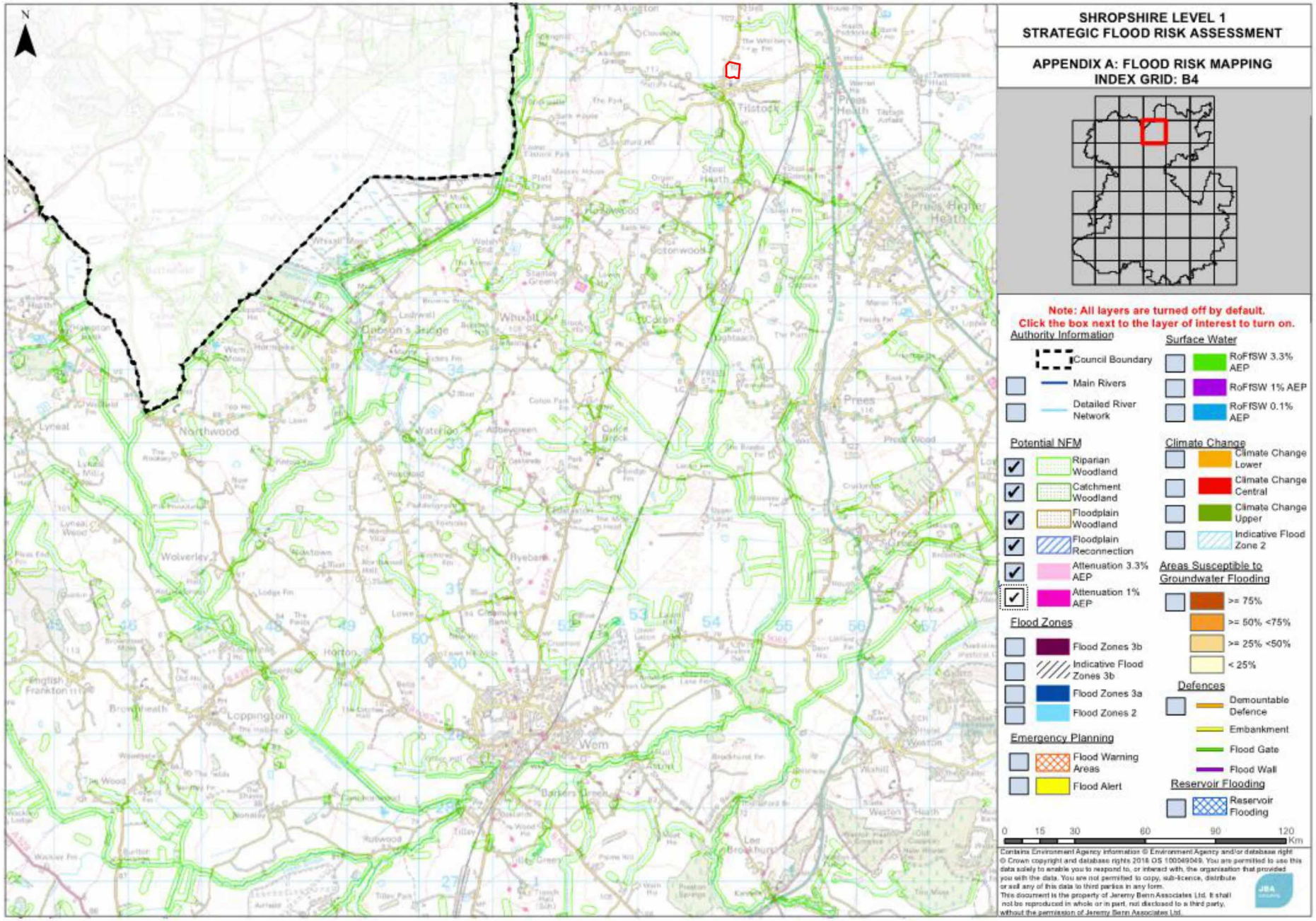


Flood Zone





Surface Water Flooding


N
SHROPSHIRE LEVEL 1
STRATEGIC FLOOD RISK ASSESSMENT
APPENDIX A: FLOOD RISK MAPPING
INDEX GRID: B4
Note: All layers are turned off by default.
Click the box next to the layer of interest to turn on.
Authority Information
Council Boundary
Main Rivers
Detailed River Network
Surface Water
RoFfSW 3.3% AEP
RoFfSW 1% AEP
RoFfSW 0.1% AEP
Potential NFM
Riparian Woodland
Catchment Woodland
Floodplain Woodland
Floodplain Reconnection
Attenuation 3.3% AEP
Attenuation 1% AEP
Climate Change
Climate Change Lower
Climate Change Central
Climate Change Upper
Indicative Flood Zone 2
Areas Susceptible to Groundwater Flooding
>= 75%
>= 50% <75%
>= 25% <50%
< 25%
Flood Zones
Flood Zones 3b
Indicative Flood Zones 3b
Flood Zones 3a
Flood Zones 2
Defences
Demountable Defence
Embankment
Flood Gate
Flood Wall
Emergency Planning
Flood Warning Areas
Flood Alert
Reservoir Flooding
Reservoir Flooding
0 15 30 60 90 120
Km
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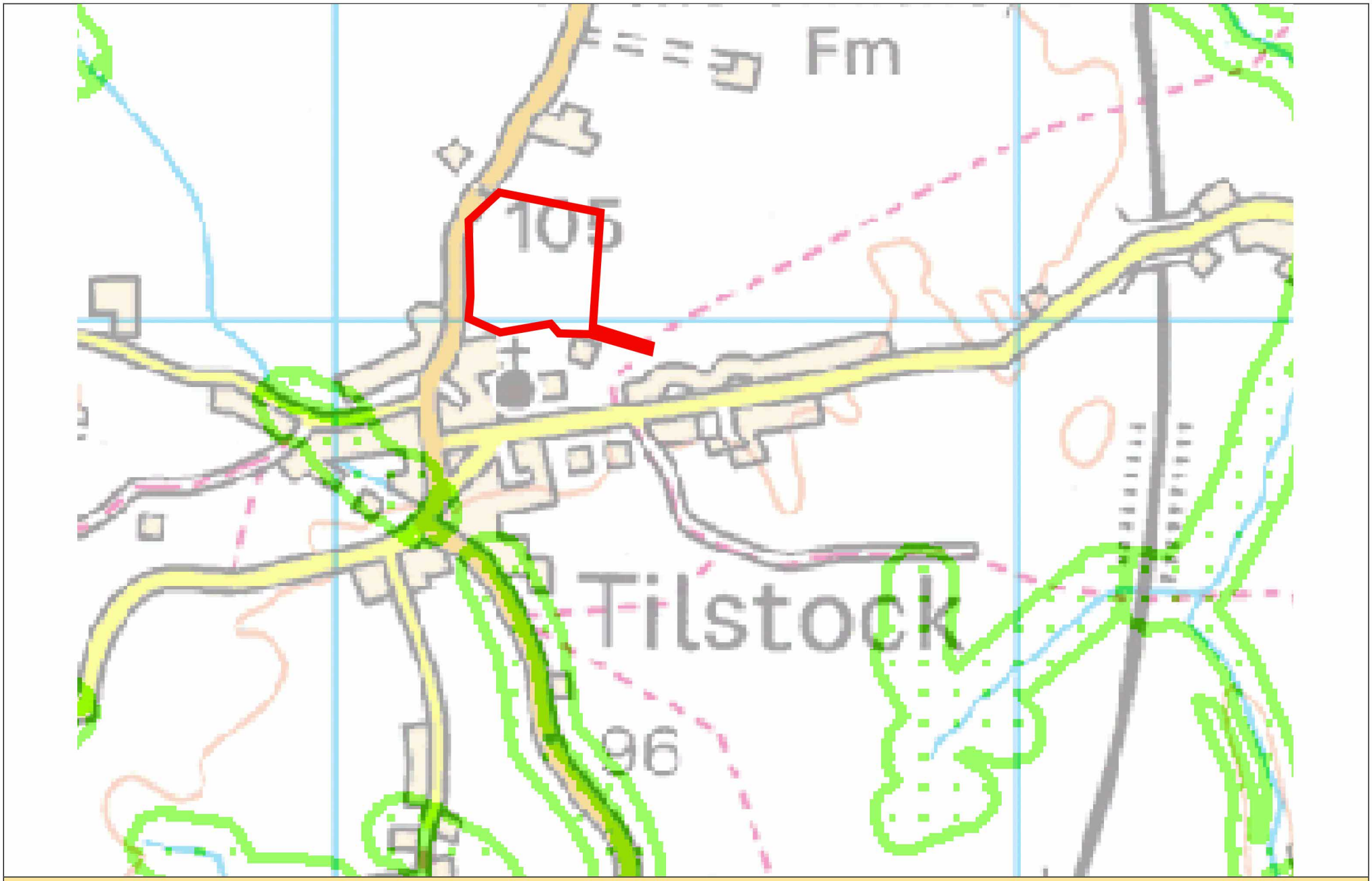
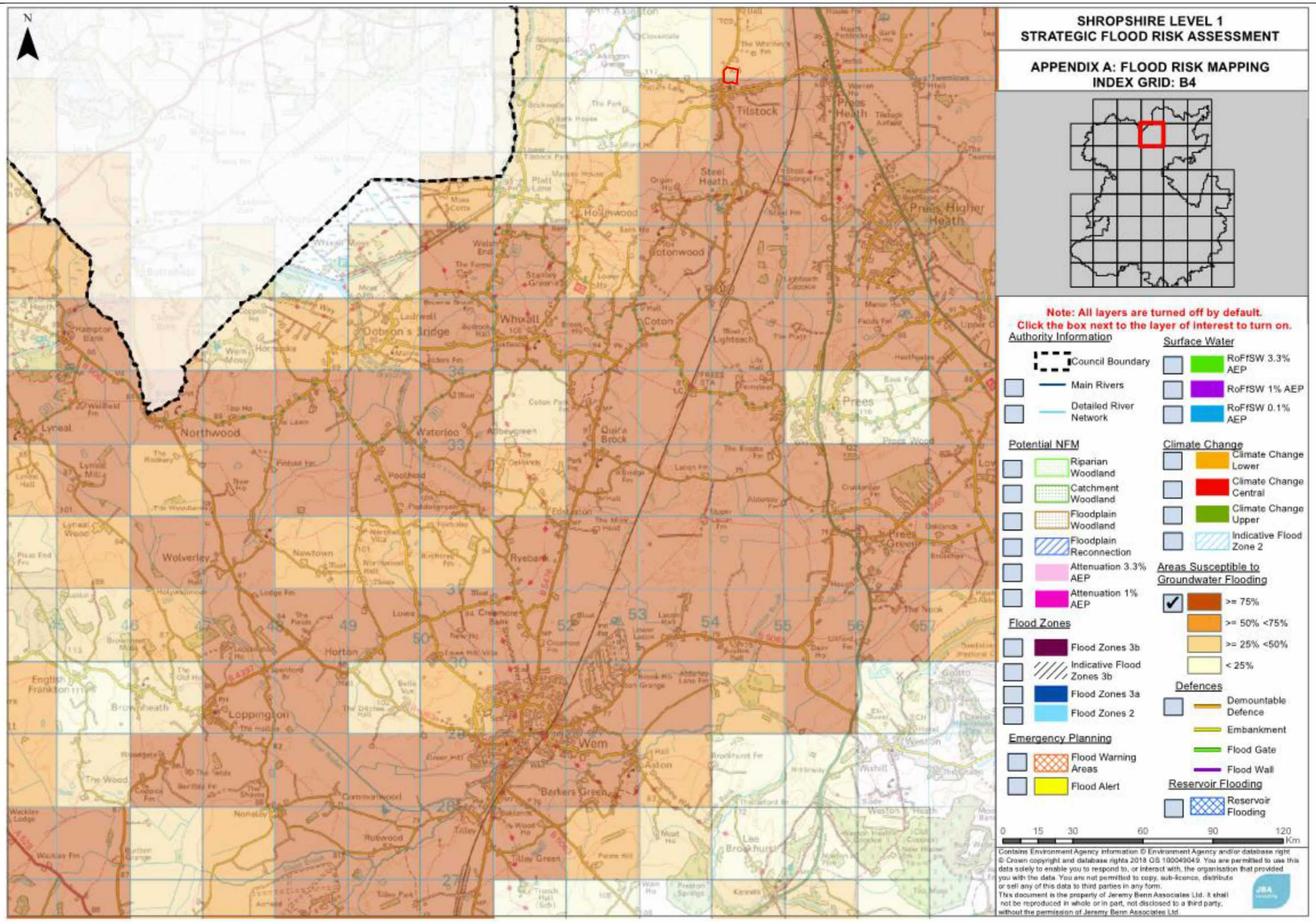


Catchment, Floodplain and Attenuation mapping



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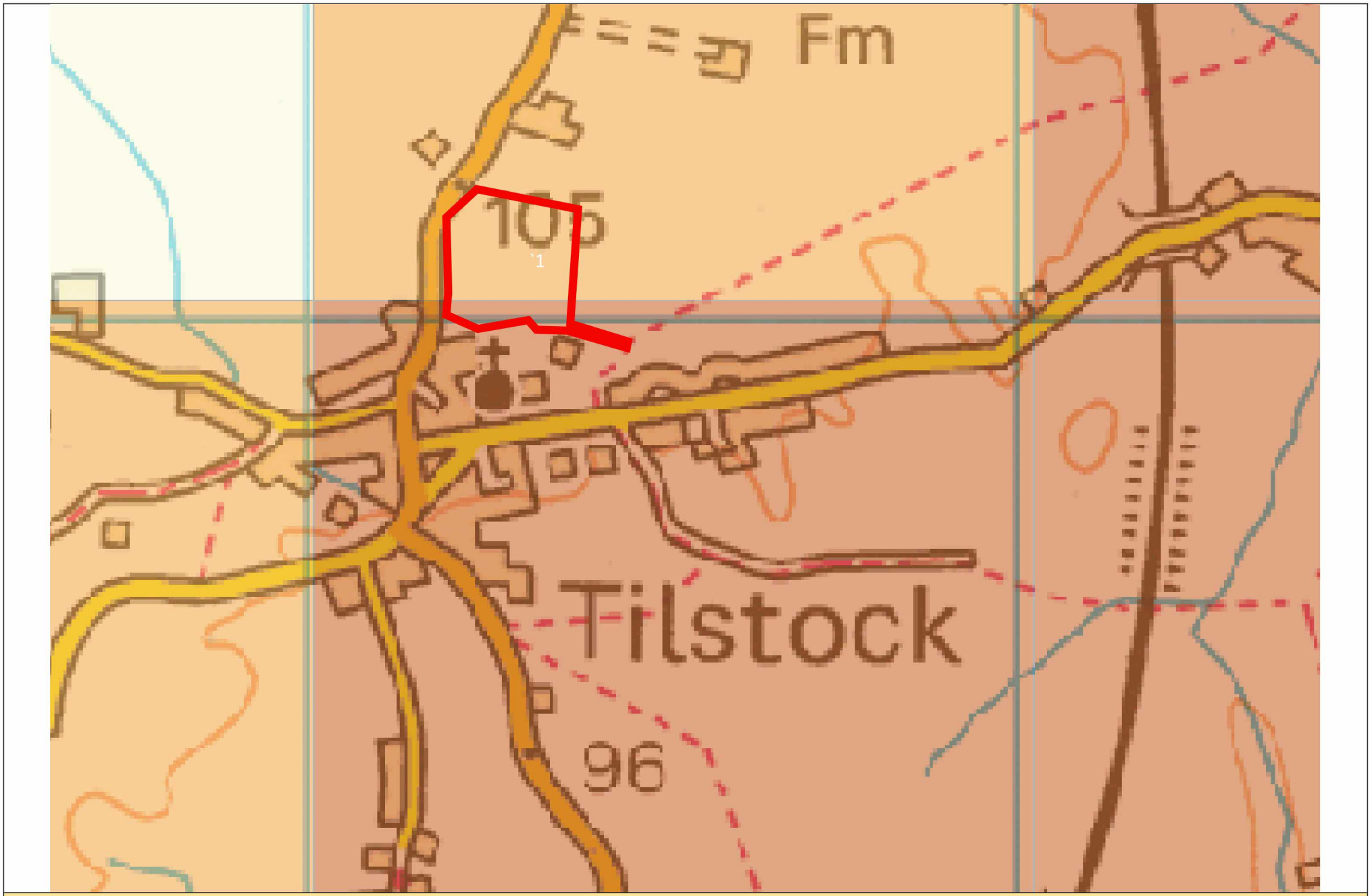
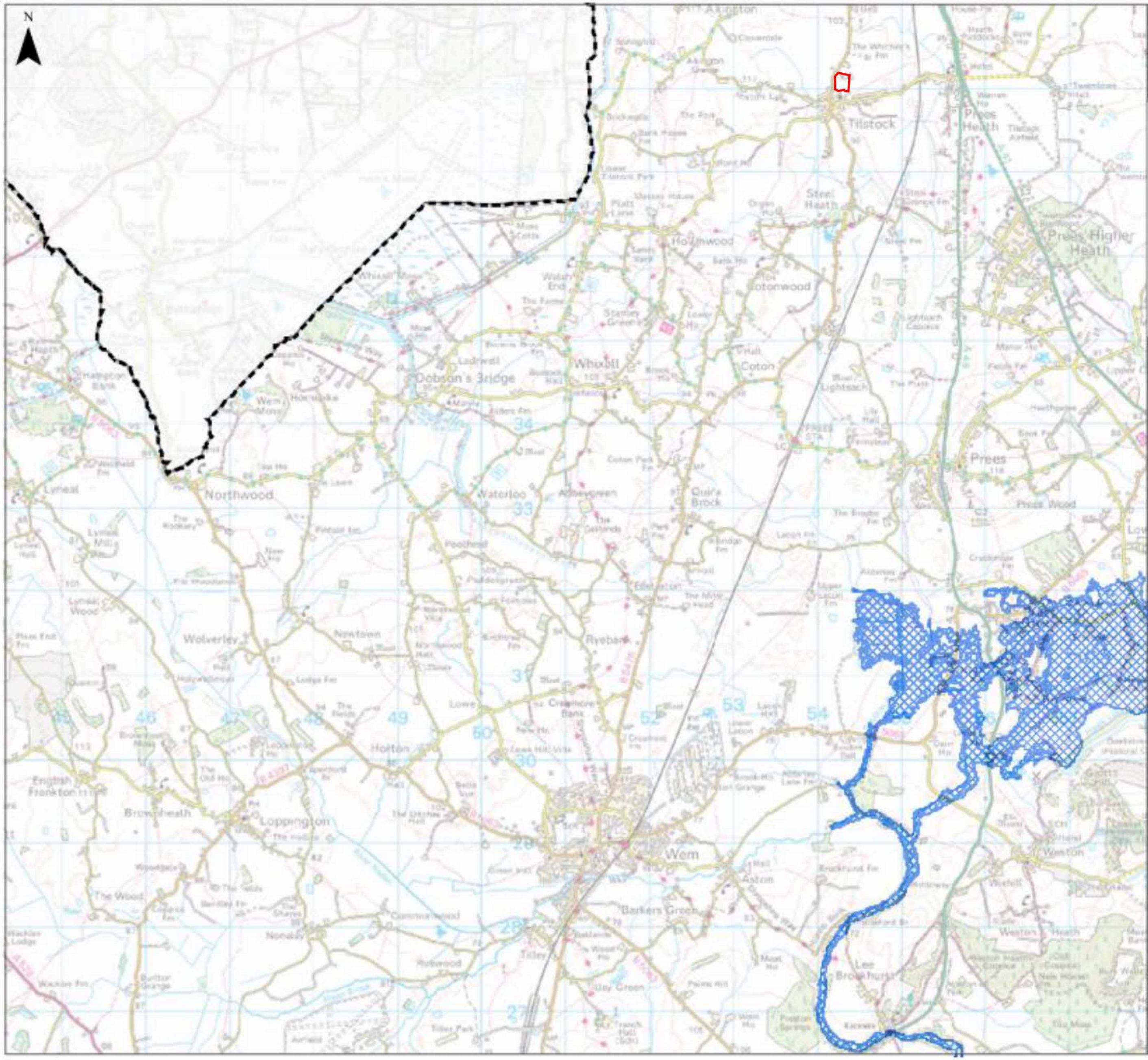
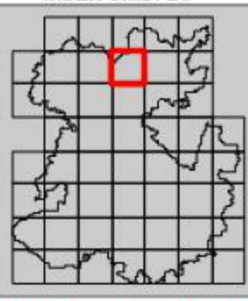


Groundwater Flooding



SHROPSHIRE LEVEL 1
STRATEGIC FLOOD RISK ASSESSMENT

APPENDIX A: FLOOD RISK MAPPING
INDEX GRID: B4



Note: All layers are turned off by default.
Click the box next to the layer of interest to turn on.

Authority Information
- Council Boundary
- Main Rivers
- Detailed River Network

Potential NFM
- Riparian Woodland
- Catchment Woodland
- Floodplain Woodland
- Floodplain Reconnection
- Attenuation 3.3% AEP
- Attenuation 1% AEP

Flood Zones
- Flood Zones 3b
- Indicative Flood Zones 3b
- Flood Zones 3a
- Flood Zones 2

Emergency Planning
- Flood Warning Areas
- Flood Alert

Surface Water
- RoFfSW 3.3% AEP
- RoFfSW 1% AEP
- RoFfSW 0.1% AEP

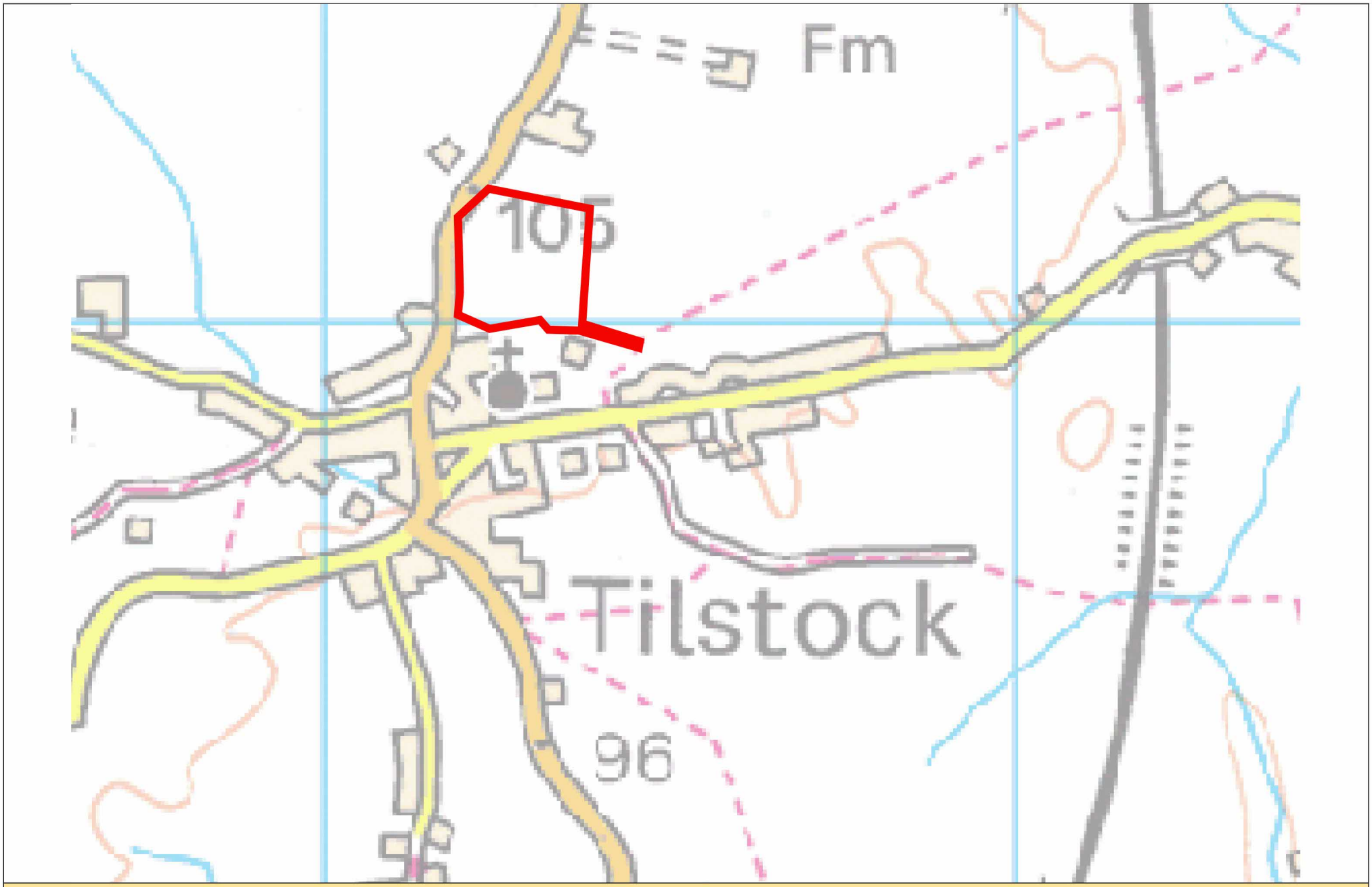
Climate Change
- Climate Change Lower
- Climate Change Central
- Climate Change Upper
- Indicative Flood Zone 2

Areas Susceptible to Groundwater Flooding
- >= 75%
- >= 50% <75%
- >= 25% <50%
- < 25%

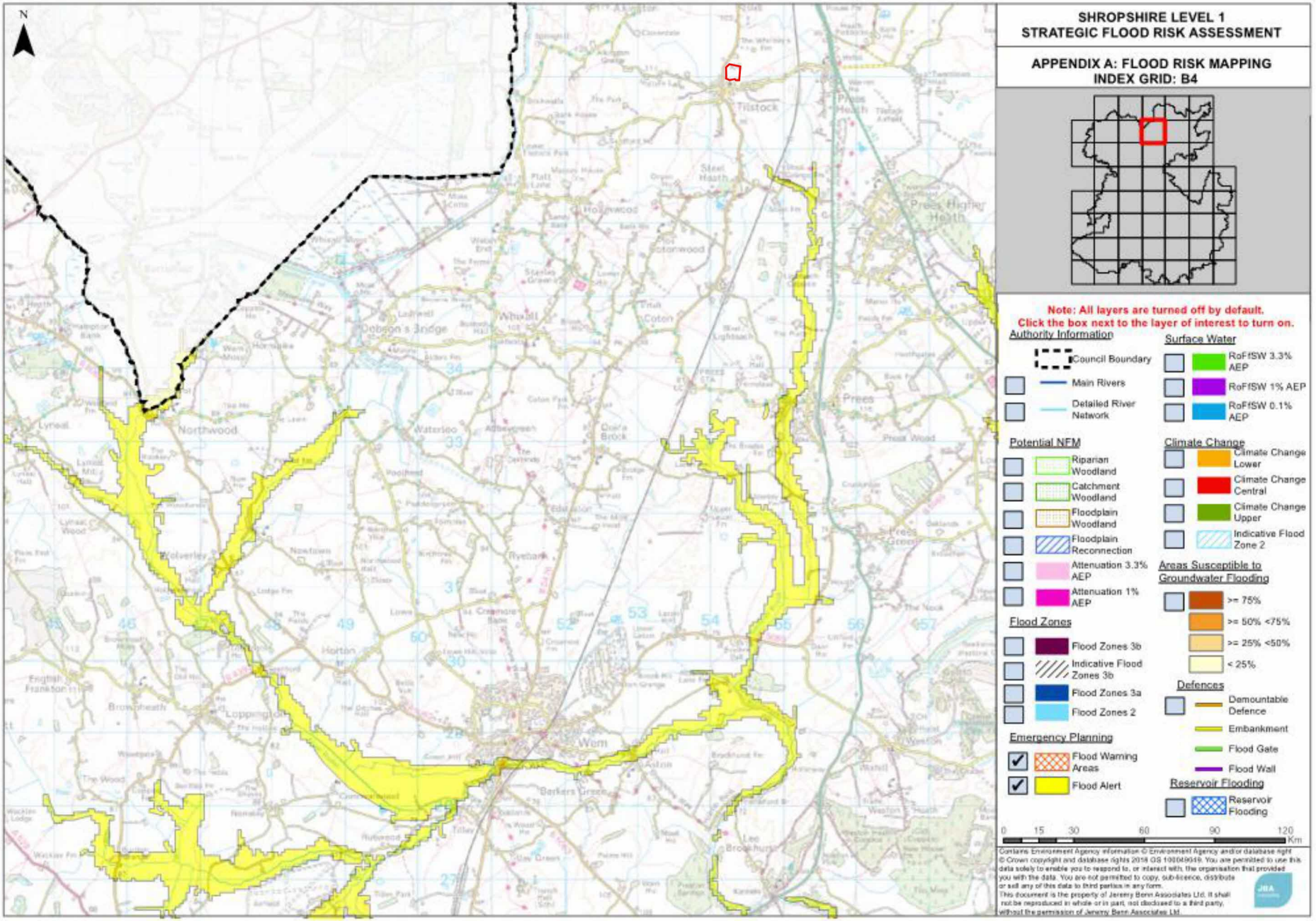
Defences
- Demountable Defence
- Embankment
- Flood Gate
- Flood Wall

Reservoir Flooding
- ✓ Reservoir Flooding

0 15 30 60 90 120 Km



Reservoir Flooding


N
SHROPSHIRE LEVEL 1
STRATEGIC FLOOD RISK ASSESSMENT
APPENDIX A: FLOOD RISK MAPPING
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Reservoir Flooding
0 15 30 60 90 120
Km
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Flood Warning Areas

https://www.shropshire.gov.uk/planning-policy/local-planning/local-plan-review/strategic-flood-risk-assessment-level-1-appendix-a/