

Summary of Landscape, Conservation, Ecology & Flood Risk Issues for Ruishton and Thornfalcon Parishes

Landscape

Ruishton and Thornfalcon Parishes lie to the South of the River Tone valley, to the South and East of the built up area of Taunton and the M5 corridor, stretching as far South as the sandstone ridge beyond Thornfalcon. The Taunton Deane Landscape Character Assessment map identifies four landscape types within the parishes.

In the North the village of Ruishton is located within (1) the River Tone Floodplain while further South, on both sides of the A358 the landscape is described as belonging to (2) the Farmed and Settled Low Vale of Taunton Deane.

In the South West of the parishes land rises from Thornfalcon village to (3) the North Curry Sandstone Ridge while in the South East, beyond the village of Henlade, lies (4) the Farmed and Wooded Lias Vale of Fivehead.

In terms of agricultural use the area beyond the three main settlements is a mix of arable and dairy/cattle farms, including sheep and chicken farming. The regional agricultural classification map describes the area alongside the River Tone as Poor quality and the rest of the parishes as being Good to Moderate. The detailed post-1988 ALC map provides greater detail of the Ruishton and Henlade areas. The majority of the area is described as being grade 3b with patches of 3a. Higher grade 2 land is found along the route of the A358 and to the south of Henlade and South East of Ruishton, while one patch of grade 1 lies South of Woodlands in Ruishton.

Conservation

In terms of habitat the areas around the Tone, Blackbrook and tributary watercourses are designated as Floodplain Grazing Marsh, with a very small patch of Good Quality Semi-improved Grassland (non priority) near Henlade.

In terms of woodland designations there are areas of Priority Habitat Inventory Deciduous Woodland mainly in the South of the parishes, an extensive area of Broadleaved National Forest Inventory woodland between Henlade and Stoke St Mary, Priority Habitat Inventory Traditional Orchards at Thornfalcon and Bushy Cross Lane, Ruishton, and Wood pasture and Parkland BAP Priority Habitat South of Henlade. Henlade Wood contains areas of Ancient Woodland.

Thorn Hill is designated as Priority Habitat Inventory.

The whole area is important with respect to priority species, the Brown Hairstreak butterfly.

There are a variety of countryside stewardship agreement management areas throughout the parishes and much of the woodland is subject to forestry and woodland schemes.

Ecology

The following evidence is drawn from the “Wildlife of Ruishton and Thornfalcon” Russell and Sarah Gomm, a Millennium Project. A fuller summary is contained in the Environment Topic Paper produced for this Neighbourhood Plan.

A number of protected (Red List) species were identified in the study namely;

- **European Otter (*Lutra lutra*)**
- **Barn Owl (*Tyto alba*)**
- **Kingfisher (*Alcedo atthis*)**
- **Brown Hairstreak (*Thecla betulae*)**
- **Daubenton’s bat (*Myotis daubentoni*)**
- **Black Poplar (*Populus nigra*)** – surveys suggest that only a few thousand of these trees remain in the UK. A study in 1994 showed that there were about 150 in Taunton Deane, of which at least 14 occurred within the Parishes of Ruishton, Thornfalcon and Creech St Michael.

An ecology report was produced in conjunction with the EIA for the proposed M5 Junction 25 up-grade (see Appendix 1) in which two species with the highest level of European protection were also mentioned, namely;

- **Hazel Dormouse (*Muscardinus avellanarius*), and**
- **Bechstein’s Bat (*Myotis bechsteinii*).**
-

In addition up to nine species of bat were identified, together with 81 species of bird, of which 22 are Schedule 1 species, and three species of reptile.

Flood Risk

The area around the River Tone on the North and East fringes of the village of Ruishton are identified as being in Flood Zone 3 which in places is fringed by Flood Zone 2. Zone 3 also runs into the village along Cheats Road, Overlands and Lawn Meadow. Further Zone 3 and 2 areas are identified from the M5 junction along Broughton Brook and its tributary back to Lower Henlade. Virtually the whole M5 corridor is identified as being fringed to the East by Flood Zone 3.

A Flood Defence ring bund is identified to the North and East of Ruishton. Appendix 2 sets out recent experience of flood. Appendix 3 shows the flood risk maps.

Appendix 1:

Summary by Sue Sherry, on behalf of Ruishton and Thornfalton Neighbourhood Plan, of the Ecological Appraisal submitted by First Ecology in November 2017 in relation to Junction 25 developments

Executive Summary

- Protected species surveys
- No statutory or non-statutory designated sites within or adjacent
- 10 statutory designated areas within 5km+
 - o 6 LNRs
 - o 3 SSSIs
 - o 1 SPA
 - o 1 SAC
 - o 1 Ramsar Site
 - o 37 non statutory designated areas within search area including 6 Local Geological Sites and 31 Local Wildlife Sites

- Total of 17 standard Phase 1 habitat types (Blackbrook and hedgerows) – BAP priority habitats

Aims were to establish presence/absence of protected species and allow development of an appropriate mitigation strategy, detailed surveys carried out:

- Badger surveys – 19/6, 20/7, 27/7, 23/8, 1/9 and 20/9
- Bat roost (dusk and dawn) – 19/6, 27/7 and 23/8
- Bat activity – transects 20/6, 27/7 and 15/9 & automated surveys – 20/6, 20/7 and 13/9
- Breeding bird surveys – 27/6, 20/7, 17/8 and 13/9
- Brown hairstreak butterflies – 17/11 – search for eggs carried out on all *P.spinosa (blackthorn)*
- Great crested newts (habitat suitability surveys within 500m radius of site). 21/6 - 10 sites HSI scores
- Hazel dormouse nest tube – 20/7, 17/8 and 22/9. 104 boxes
- Otters - signs indicating presence or absence - 27/7 and 1/9
- Reptiles - artificial refuge – 15 dates between 27/6 and 20/9. Also did population count
- Water vole presence/absence (as otters)

Results

Bats

- No evidence of roosting (one tree only!)
- Transects – 5 species present
 - o Common pipistrelle
 - o Leisler's bat
 - o Noctule
 - o Serotine (less common species and highly protected)
 - o Soprano pipistrelle
- Detectors – mouse eared species
 - o Bechstein's (European protected species with highest protection)

- Natterer's
- Brown long-eared
- Lesser horseshoe
- All bat species and their roosts are protected by the Wildlife and Countryside Act 1981.

Birds

- 29 species seen or heard
- 16 of which were displaying breeding behaviour
- None of the 16 species are Schedule 1

Brown Hairstreak Butterflies

- Total of 9 butterfly eggs found at 3 different locations
- UK Biodiversity Action Plan priority species

Otters and Water Voles

- Evidence of both species using Black Brook
- Both have full legal protection under Schedule 5 of the Wildlife and Countryside Act 1981

Great Crested Newt

- None of the water bodies likely to support them
- Full legal protection under Schedule 5 of the Wildlife and Countryside Act 1981

Reptiles

- Low population of slow worms between Black Brook and Junction 25 roundabout
- Slow worms and grass snakes on opposite side of Black brook, along Northern and Eastern boundaries of arable field
- Population counts carried out

Hazel Dormouse

- Search effort score = 29.12
- Full legal protection under Schedule 5 of the Wildlife and Countryside Act 1981 and Schedule 2 of the Conservation of Habitats and Species Regulations 2010 and, is therefore, a European Protected Species with the highest protection

Detailed Results and Recommendations

Badgers

- Records of badgers within 3km radius
- No evidence of setts, but plenty of tunnels and droppings

Recommendations:

- *Securing of the site at night*
- *Excavations to be covered or fitted with ramps*

Bats

- Data search revealed 8 or 9 species within a 5 km radius
- Poultry farm buildings thought not to be potential roost site
- Site contained an ash tree with several potential roosting features
- No sign of recent bat roost in 2 bat boxes on site
- Transect surveys confirmed 5 species commuting/foraging across the site

- Automated detector surveys confirmed 6 or 7 species within the site, but the results of the automated survey carried out in September were inconclusive as it is difficult to differentiate between Bechstein's and Natterer's bat using this method.

Recommendations:

- *Removal of trees and hedgerows should be compensated (not a threat)*
- *Overall lighting scheme should be minimised*
- *Equipment with fine mesh elements should be covered/stored securely during hours of darkness*

Birds

- Data search revealed 81 species of birds within 3km radius, of which 22 are Schedule 1 birds ie it is an offence to intentionally disturb any of these species during the breeding season without a valid licence
- Total of 29 species were observed or heard during the survey. Of these, 16 species were displaying breeding behaviour (none of them are Schedule 1)
- Hedgerows, dense scrub and trees provide potential nest sites

Recommendations:

- *Removal of hedgerows, dense scrub or trees should be undertaken from 1/09 – 29/02*
- *If it is essential to clear vegetation during main breeding period, a nesting bird check should be carried out 24 hours prior to the work*

Brown Hairstreak

- Found nine eggs on blackthorns in 3 different locations

Recommendations

- *Most of the original habitats will stay*
- *Blackthorn near Park and Ride will be removed but new blackthorn will be planted to compensate*

Otters and Water Voles

- Data search revealed otters and water voles within a 3km radius
- Otter spraint and "slides" along Black Brook. None in Henlade stream
- Droppings and latrines of Water Voles along Black Brook. None in Henlade stream

Recommendations

- *Main disturbance will occur when building the bridge over the Black Brook*
- *Plenty of recommendations to reduce impact*

Great Crested Newts

- Data search revealed records of Great Crested newts within a 3 km radius
- Review of Ordnance Survey maps showed 12 standing water bodies within a 500m radius of site
- HIS assessments of 8 waterbodies indicated "poor" suitability

Recommendations

- *No further survey or mitigation work required*
- *(NB one pond was on private land and not surveyed. Three ponds were on the other side of the M5 and not surveyed)*

Hazel Dormice

- Data search revealed records of Hazel Dormice within 3 km radius.
- Nest tube survey recorded no signs of dormice activity on the site BUT
- Nests of yellow-necked mouse recorded in September

Recommendations

- *No further survey or mitigation works*

Reptiles

- Data search revealed records of common lizard, grass snake and slow worm within a 3km radius
- Artificial refuge search – grass snake and slow worm within the site. Slow worms between Black Brook and Junction 25
- Slow worms and grass snakes on the Brook along North and Eastern boundaries

Recommendations

- *Sward height in arable fields maintained at less than 15cm*
- *Slow worms in area between Black Brook and Junction 25 need to be trapped and relocated*
- *Prior to trapping, exclusion fences need to be installed*
- *Vegetation clearance needs to be carried out carefully before bridge is constructed (quite complex recommendations here)*

Particularly vulnerable species

Serotine Bat - *Eptesicus serotinus*

- One of the UK's less common species
- Decline due to loss of feeding habitat
- Roosts in buildings (entirely) – subject to effects of building work and use of toxic chemicals in remedial timber treatment

Bechstein's Bat – *Myotis bechsteinii* (native and very rare with European protected species status)

- Rare tree-dwelling bat
- Mostly associated with old growth broad leaved woodland
- Most recent population estimates are around 1,500 in the UK
- Southern England

Natterer's Bat – *Myotis nattereri*

- Scarce and poorly known species
- UK population is of international importance

Hazel Dormouse – *Muscardinus avellanarius* (endangered species with European protected species status)

- Native and localised
- Rare and vulnerable to extinction in the UK
- Priority species in the UK Biodiversity Action Plan
- Protected under the Wildlife and Countryside Act 1981

Dated: 18/10/18

Appendix 2:

Flood Risk in the Parishes of Ruishton and Thornfalcon

The villages of Ruishton and Lower Henlade, the network of roads surrounding the villages and the proposed Nexus 25 development site lie mainly within the high risk Flood Zone 3 (ref : Environment Agency Flood Risk Map).

The well documented flood events of 2011 and 2012 caused chaos on the roads within the Parishes of Ruishton and Thornfalcon. Flood water, some of which was contaminated, entered houses in Lower Henlade and the centre of Ruishton.

Residents at the end of Church Lane in Ruishton only managed to prevent flood water entering their properties by operating pumps to remove water from Church Lane back over the flood bank. The poorly maintained flood defences around the village of Ruishton were put to the test and found to be seriously inadequate.

On the recommendation of the Parish Council, a Flood Committee was formed in 2013. Volunteers from Ruishton and Lower Henlade took on various roles and residents of Church Lane compiled a report of the 2012 flood event. A copy of this report was sent to the Environment Agency and other accountable groups.

The Environment Agency responded by carrying out major repair works to the flood bank at the end of Church Lane in the spring of 2015. Since the new flood defences have been in place, they have not yet been 'put to the test', but the scale of the flooding in 2011 and 2012 was extensive and the water level rose quickly (ref: Report on 2012 flood event). Photographs within the report capture the scale of the flood.

The Environment Agency now have pre-recorded telephone messages which are relayed to householders within the Flood Risk Zones. They have also created an interactive web-site from which residents can monitor the rising river levels and prepare for evacuation.

Since 2013, the Ruishton Flood Committee* has worked closely with flood risk management agencies to develop an emergency plan involving road closures, installation of flood gates, delivery of sand-bags and the use of named evacuation centres. There are also arrangements in place for a large, mobile pump to be brought to the end of Cheats Road near the centre of Ruishton in order to prevent water entering houses in this area.

In light of all the above, the Ruishton Flood Committee continues to work hard to mitigate the risk of flooding in the Parishes of Ruishton and Thornfalcon. Due to the fact that these Parishes lie within Flood Risk Zone 3, it is of the utmost importance that any new developments must show due consideration for the likely impact of increased flood risk to this area and improve it. It is also essential that as climate change kicks in, the authorities, the developers and civic society plan for the future. A future in which 1 in 50 year events become normal.

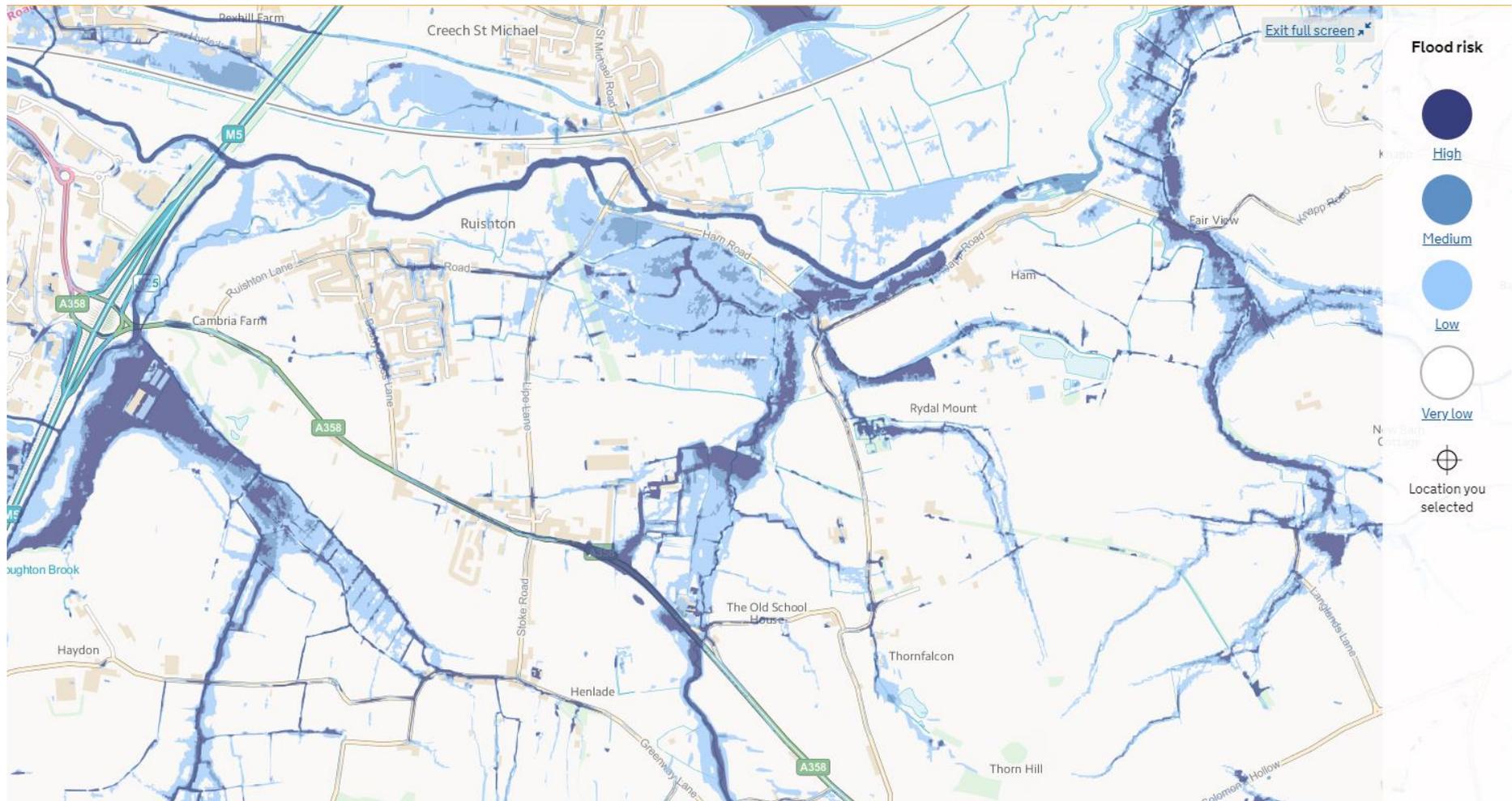
In summary, all intervention should be aimed at improving the situation rather than just mitigating present threats as run-off entering the river is likely to increase as a result of new developments such as improvements to Junction 25, the A358 and Nexus 25. These developments are likely to have a significant impact on an already precarious situation. In view of the vulnerability of flooding in Ruishton, it is essential that the downstream impact of the proposed developments be assessed. According to the Environmental Statement of 2017, a downstream impact assessment has not been carried out and it needs to be done before any new development goes ahead.

* - Flood Committee website

Sue Sherry (October 4th 2018)

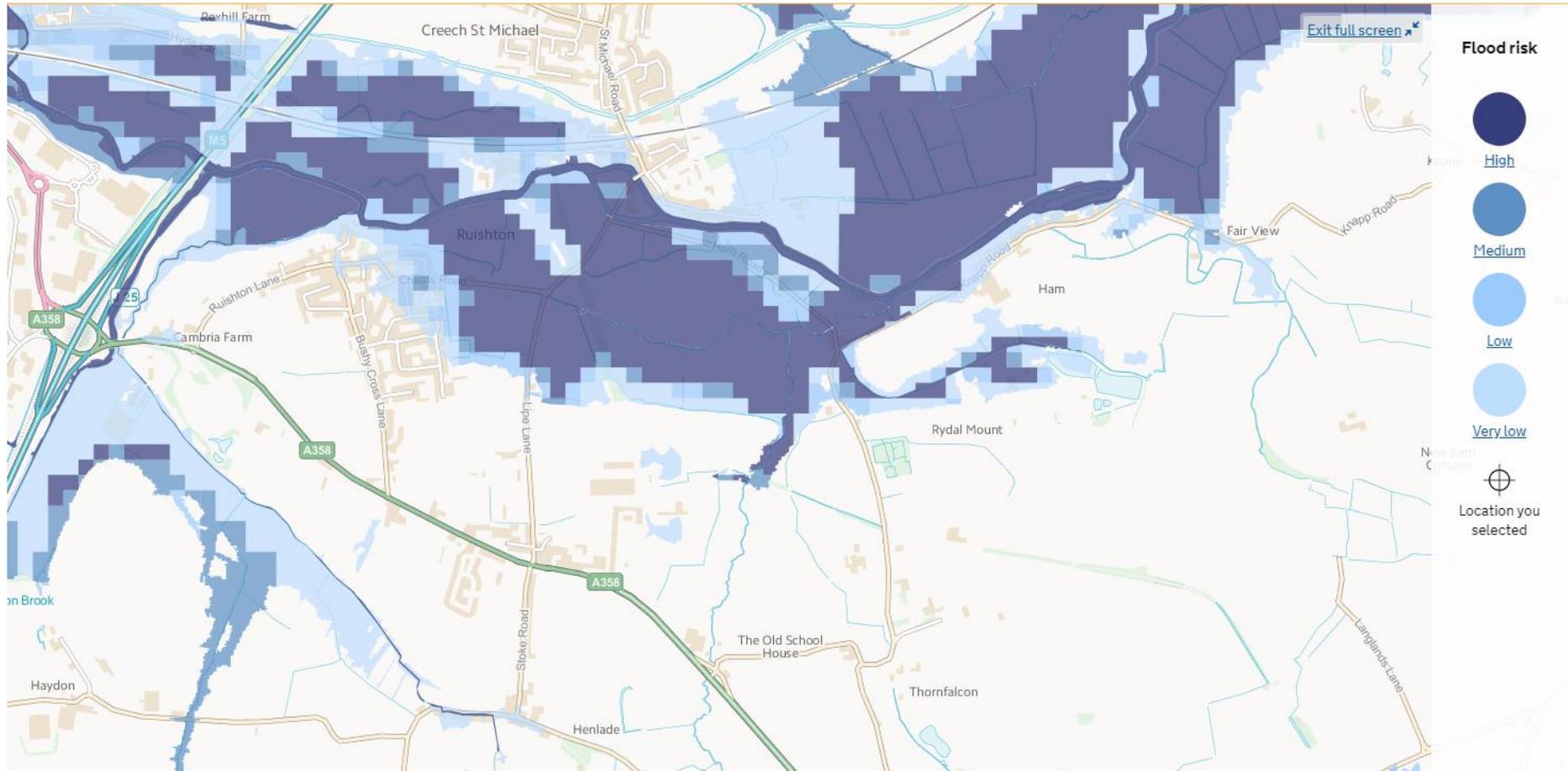
Appendix 3:

Flood risk from rivers or sea



OS PSMA licence number 0100060332

Flood risk from surface water



OS PSMA licence number 0100060332