Amended Flood Risk Assessment (FRA)
Cherry Lodge Farm, Puddock Road, Warboys
Change of Use of Agricultural Barn to Three Dwellings
Updated: July 2025

1. Introduction

This amended Flood Risk Assessment (FRA) is prepared in support of the change of use of an existing agricultural building to form 3 no. dwellings at Cherry Lodge Farm, Puddock Road, Warboys.

It replaces the previously submitted FRA dated May 2025 and incorporates revised site plans (Refs: Part Q JPT MR 0724 002 Rev A and 003 Rev C).

It addresses specific consultation comments from the Environment Agency dated 20 December 2024 and incorporates further technical advice issued by the EA on 16 June 2025, responding to their objection and confirming flood resilience and mitigation measures.

2. Site Context

- The site is located within the catchment of the Warboys, Somersham Internal Drainage Board.
- It is within Flood Zone 3, as shown on the Environment Agency Flood Map for Planning.
- Revised architectural drawings confirm the proposed dwellings will be two-storey, with all sleeping accommodation on the first floor.

3. Flood Risk Information (Updated)

- EA hazard mapping indicates the maximum flood depth could reach 1.3m on site in a breach/overtopping scenario.
- The attached topographical survey confirms existing site levels. The existing building has a finished floor level of -0.20m AOD.
- Finished Floor Levels (FFL) will be raised to at least +0.25m AOD, aligning with the road level.
- The dwellings include no ground floor sleeping, which mitigates direct risk to life from internal flooding.
- Access to upper floors provides safe internal refuge.
- 3A. Fenland Hazard Mapping and Breach Scenario Analysis
- Based on EA Product 4 data and hazard mapping for the adjacent site, the following applies:
    - The site lies within a modelled breach inundation zone from the Ouse Washes.

    - Maximum flood water levels are expected to reach +0.5m AOD.
    - Predicted floodwater velocities are below 0.3 m/s.
    - Hazard classification is “Danger to All”.
    - Flood onset would be gradual, allowing time for evacuation.
- EA mapping is provided in Appendix A.

4. Climate Change Consideration

- A 100-year lifetime for residential development has been assumed.
- The design accounts for the maximum anticipated climate change uplift.
- Flood depth of 1.3m incorporates a conservative climate change scenario.

5. Flood Resistance and Resilience Measures (Including 600mm flood resilience above FFL)

The following mitigation measures will ensure occupant safety and property resilience:

- No ground floor sleeping accommodation.
- Finished Floor Level raised to +0.25m AOD.
- Flood resistance and resilience measures up to +0.85m AOD (600mm above FFL).
- Electrical sockets and services positioned above +0.85m AOD.
- Water-resistant wall and floor materials used to a minimum of 0.85m AOD.
- Use of sacrificial plasterboard strips below 0.85m AOD.
- Solid concrete floors and sealed skirtings.
- Flood doors or removable barriers to external openings.

6. Emergency Planning and Access

- The site will be registered for the Environment Agency’s Flood Warning Service.
- All occupants will prepare a bespoke flood evacuation plan.
- Safe access via Puddock Road is available in all but extreme breach events.
- In the event of breach, flooding occurs gradually, allowing time to reach safe refuge or evacuate.
- Emergency services will have access during early stages due to elevated road levels.
- EA Surface Water Flood Map shows no significant overland flow or ponding risk affecting the site (Appendix B).

7. Sequential and Exception Tests

- The proposal is a change of use and thus does not require the Sequential Test.
- The Exception Test is passed as:
    - The development is safe for its lifetime.
    - The dwellings provide a beneficial reuse of an existing structure.

- Wider sustainability benefits arise from brownfield redevelopment.

8. Conclusion

This revised FRA demonstrates that the proposed change of use:

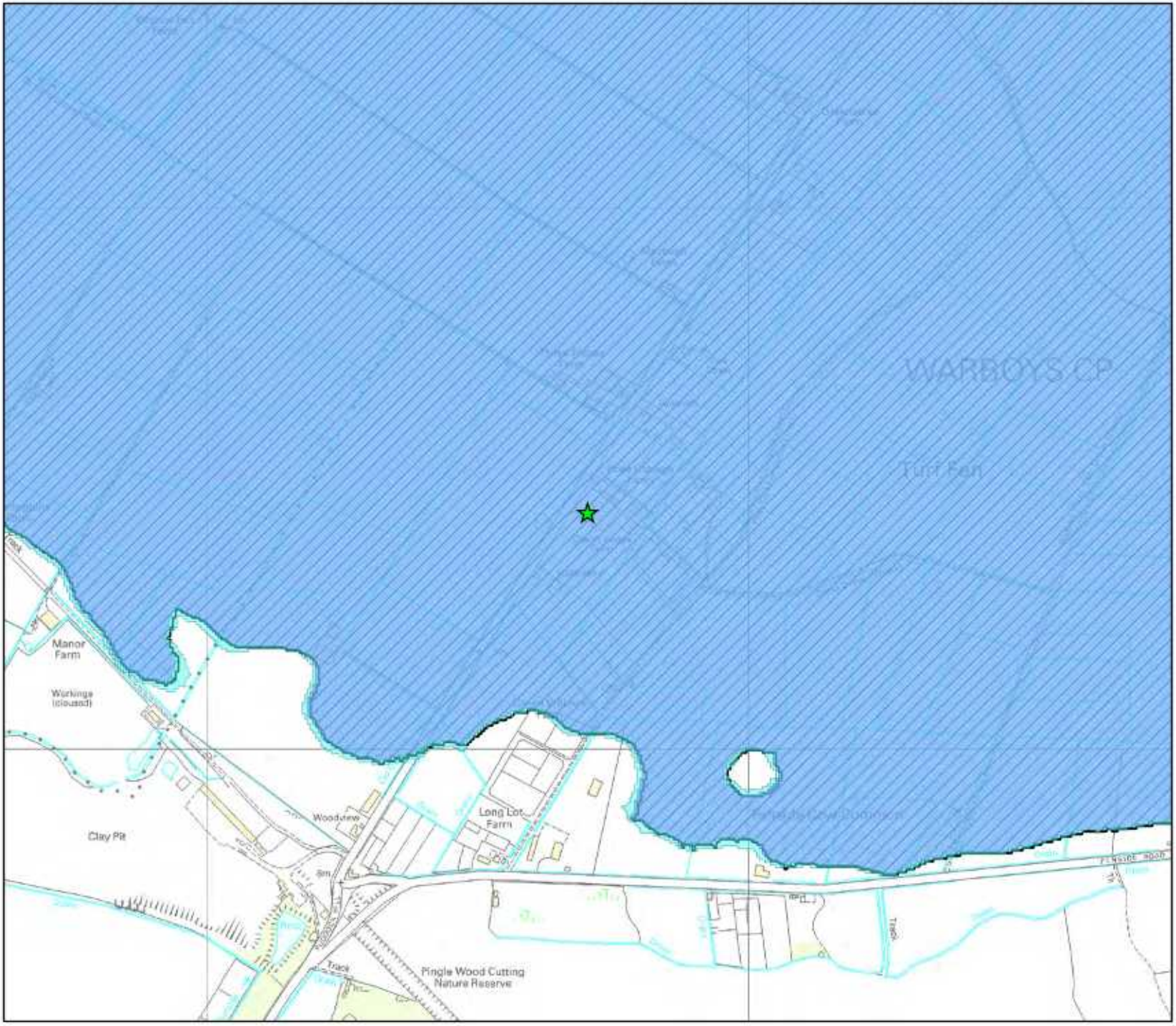
- Appropriately addresses all known flood risks.
- Includes robust mitigation strategies.
- Ensures occupant safety for the lifetime of the development.
- Aligns with National Planning Policy Framework requirements.

We trust this satisfies the Environment Agency's concerns and enables positive determination of the planning application.

Appendix A – Environment Agency Flood Hazard Mapping

Flood Map for Planning (Rivers and Sea)
centred on Cherry Lodge, Puddock Road, Warboys, Huntingdon, PE28 2UB

NGR TL3170382436
Ref 212765
Created 20/04/2021



Environment Agency
Bromholme Lane,
Brampton,
Cambridgeshire
PE28 4NE

Environment Agency

Legend

- Site
- Flood Zone 3
- Flood Zone 2
- Flood Map Defences
- Areas Benefitting from Defences
- Flood Storage Areas

0 0.125 0.25 0.5 km

Information

Flood Map for Planning (assuming no defences)

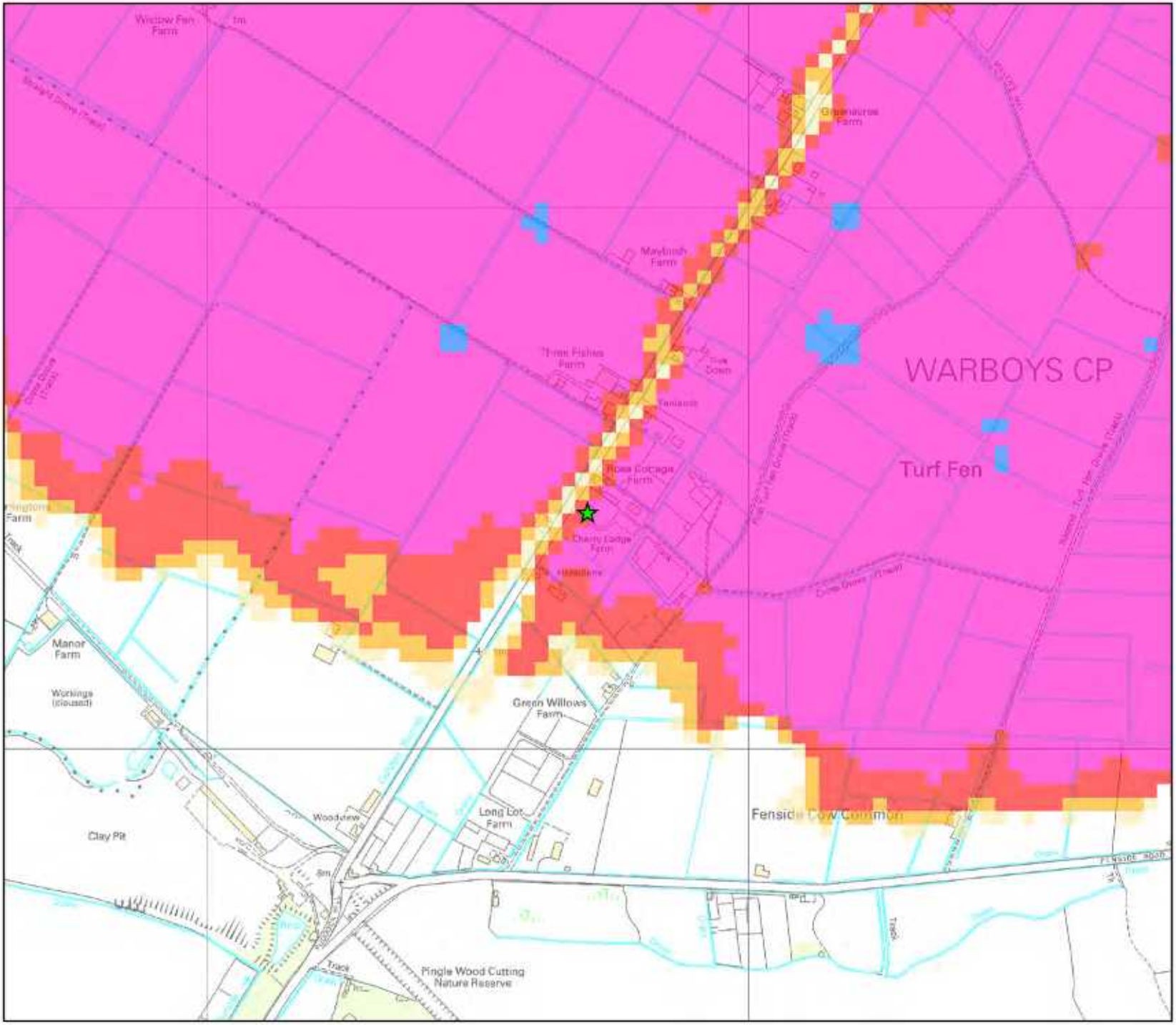
Flood Zone 3 shows the area that could be affected by flooding:
- from the sea with a 1 in 200 or greater chance of happening each year
- or from a river with a 1 in 100 or greater chance of happening each year.

Flood Zone 2 shows the extent of an extreme flood from rivers or the sea with up to a 1 in 1000 chance of occurring each year.

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Email: enquiries@environment-agency.gov.uk

Map Showing the Maximum Flood Depth (combined breach) centred on Cherry Lodge, Puddock Road, Warboys, Huntingdon, PE28 2UB

NGR TL3170382436
Ref 212765
Created 20/04/2021



Environment Agency
Bromholme Lane,
Brampton,
Cambridgeshire
PE28 4NE

Environment Agency

Legend

- Site
- 0m to 0.25m
- 0.25m to 0.5m
- 0.5m to 1m
- 1m to 2m
- >2m

0 0.125 0.25 0.5 km

Information

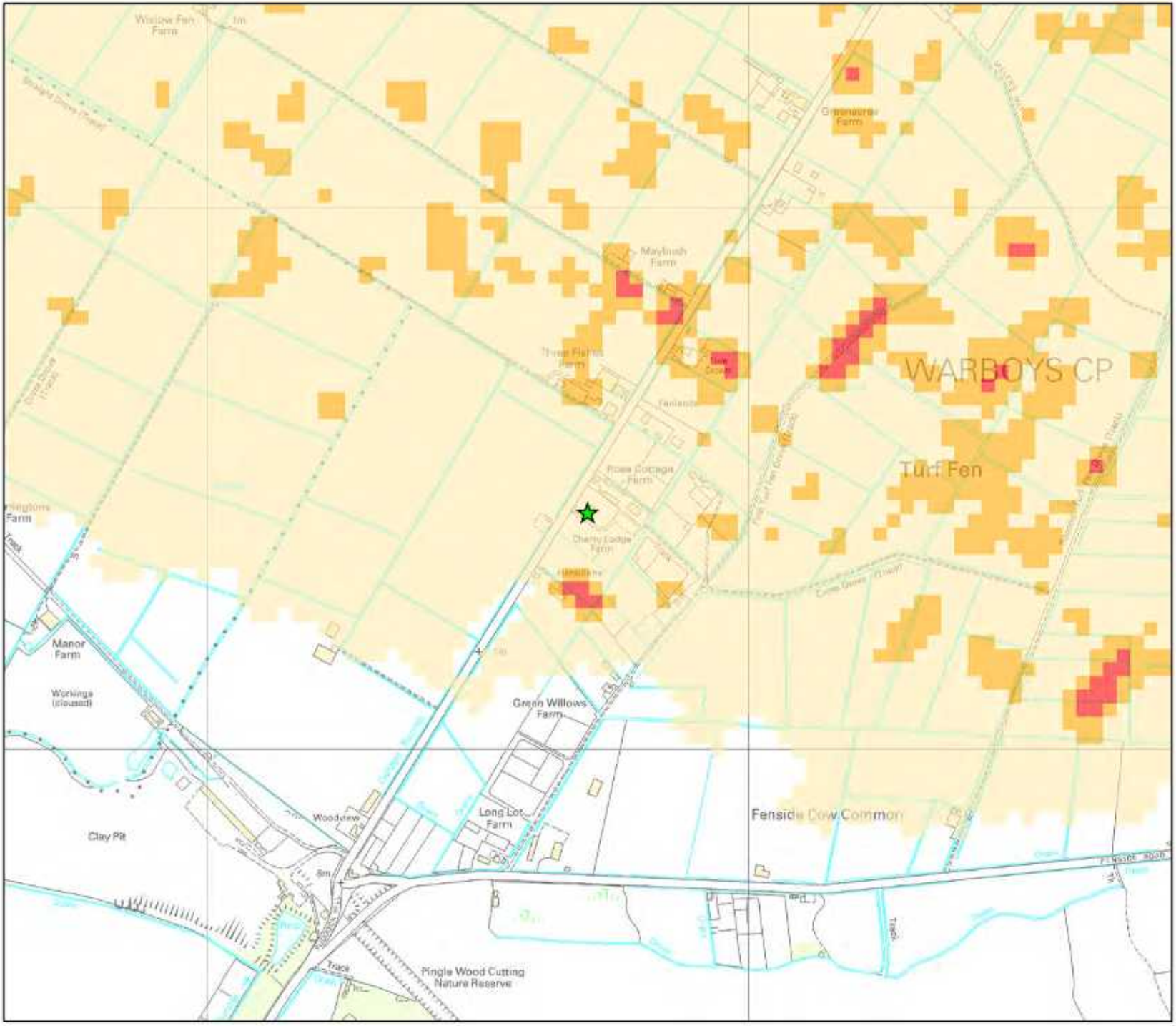
1. The map is based on computer modelling of simulated breaches at specific locations and a failure of Earith Sluice for the 1% AEP event. Each breach/failure has been modelled individually and the results combined to create this map. Multiple breaches, other combinations of breaches, or different flood flows may all give different results.
2. The map only considers the consequences of a breach, it does not make any assumption about the likelihood of a breach occurring.
3. An allowance for climate change has only been incorporated into the modelling for a limited number of breaches. If available, these outlines have been provided, but are based on a 20% increase in flows to account for climate change impacts.

We have recently released updated guidance on climate change allowances for flood risk assessments.

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Map Showing the Maximum Flood Velocity (combined breach) centred on Cherry Lodge, Puddock Road, Warboys, Huntingdon, PE28 2UB

NGR TL3170382436
Ref 212765
Created 20/04/2021



Environment Agency
Bromholme Lane,
Brampton,
Cambridgeshire
PE28 4NE

Environment Agency

Legend

- Site
- 0m/s to 0.3m/s
- 0.3m/s to 1m/s
- 1m/s to 1.5m/s
- 1.5m/s to 2.5m/s
- >2.5m/s

Information

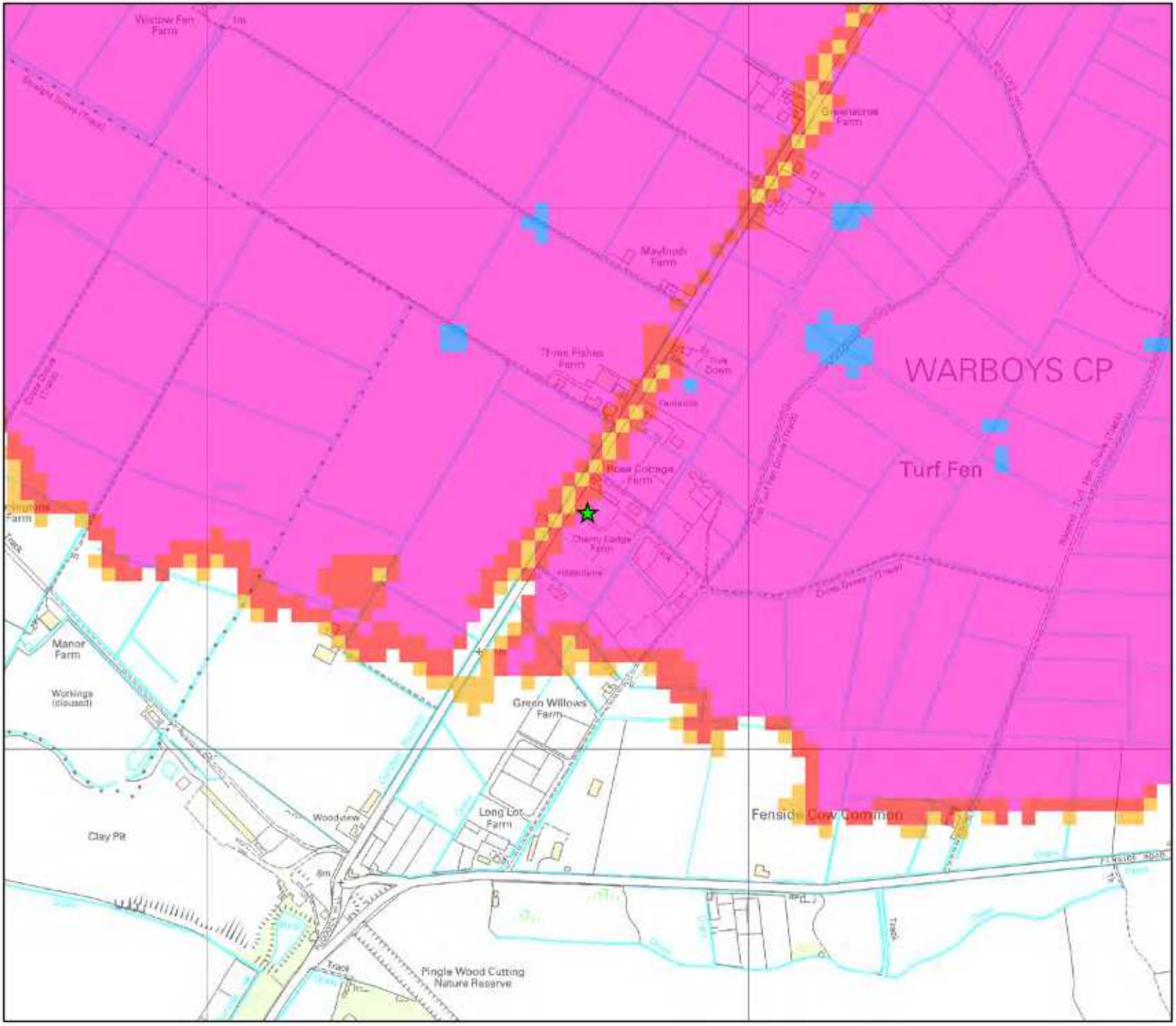
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Map Showing the Maximum Hazard Rating (combined breach) centred on Cherry Lodge, Puddock Road, Warboys, Huntingdon, PE28 2UB

NGR TL3170382436
Ref 212765
Created 20/04/2021



Environment Agency
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Brampton,
Cambridgeshire
PE28 4NE

Environment Agency

Legend

- Site
- Low Hazard
- Danger For Some
- Danger For Most
- Danger For All

0 0.125 0.25 0.5 km

Information

1.This map shows the level of flood hazard to people (hazard rating) if our flood defences are breached at certain locations and a failure of Earith Sluice. The hazard rating depends on the depth and velocity of floodwater and maximum values of these are also mapped.

2.The map is based on computer modelling of simulated breaches at specific locations. Each breach has been modelled individually and the results combined to create this map. Multiple breaches, other combinations of breaches, or different flood flows may all give different results.

3.The map only considers the consequences of a breach, it does not make any assumption about the likelihood of a breach occurring.

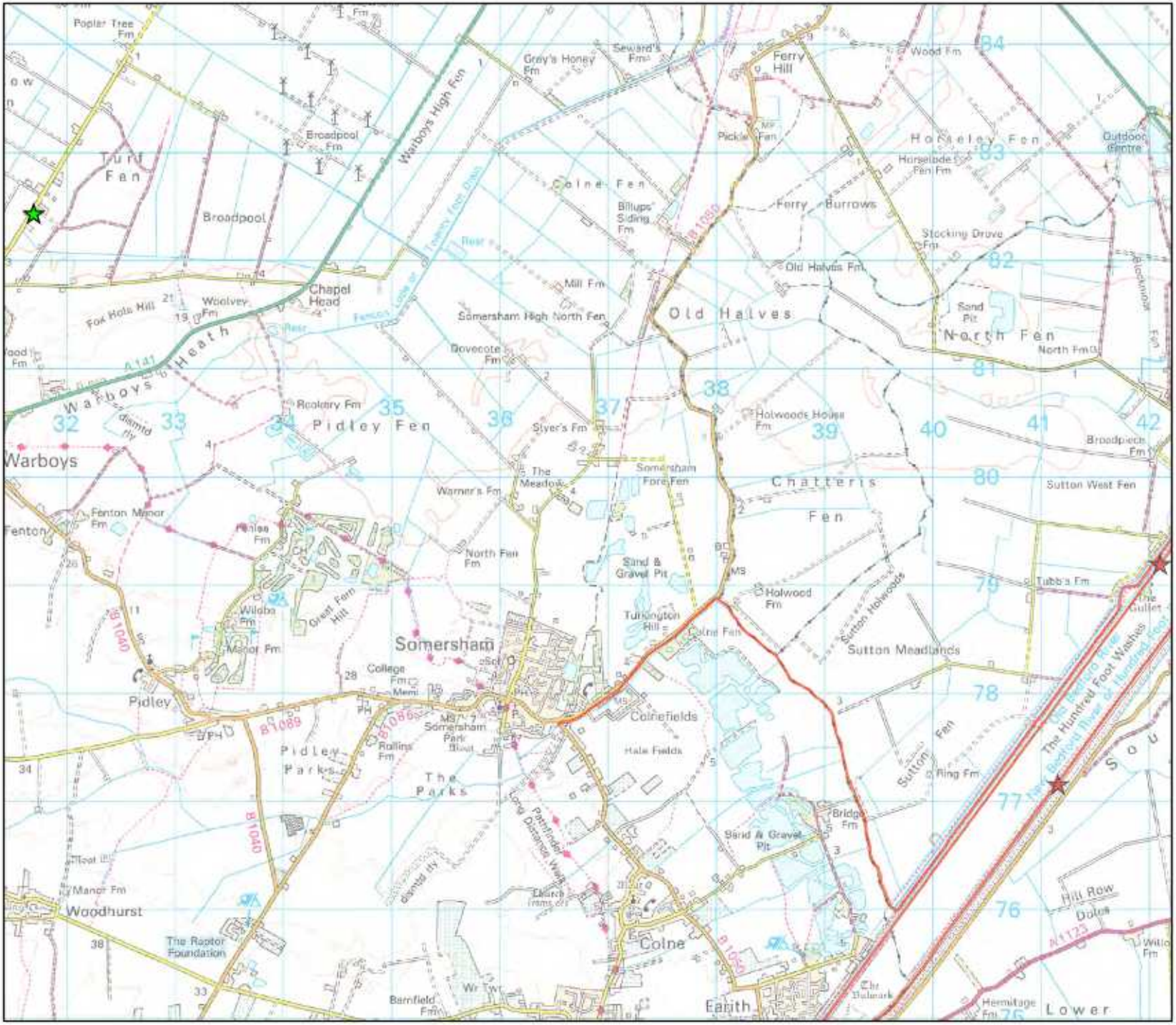
4. An allowance for climate change has only been incorporated into the modelling for a limited number of breaches. If available, these outlines have been provided, but are based on a 20% increase in flows to account for climate change impacts. We have recently released updated guidance on climate change allowances for flood risk assessments.

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Modelled Breach Locations
centred on Cherry Lodge, Puddock Road, Warboys, Huntingdon, PE28 2UB

NGR TL3170382436
Ref 212765
Created 20/04/2021



Environment Agency
Bromholme Lane,
Brampton,
Cambridgeshire
PE28 4NE

Environment Agency

Legend

- Site
- Breach Locations 1% AEP

0 0.5 1 2 km

Information

1.The map shows the locations of computer simulated breaches. Each breach has been modelled individually and the results combined to create this map. Multiple breaches, other combinations of breaches, or different flood flows may all give different results.

2. If you require the results from individual breach simulations, please request these by emailing Enquiries_EastAnglia@environment-agency.gov.uk

3.The map only considers the consequences of a breach, it does not make any assumption about the likelihood of a breach occurring.

4. AEP - Annual Exceedance Probability - The probability of a given event occurring in any one year. Please note this is not a return period.

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Datasheet - Product 4

20 April 2021

Reference Number	212765
Site	Cherry Lodge, Puddock Road, Warboys, Huntingdon, PE28 2UB
Customer	Esther Gentle
NGR	TL3170382436

This datasheet provides supporting information for your Product 4. It will be clearly indicated if we are unable to provide information to fulfil any part of your request.

Model Summary

Important Information

The following information should considered when using the material provided to fulfil this request.

No Modelled Water Levels and Flows

Unfortunately we do not hold any modelled level and flow data that is relevant for this site.

Recorded Flood Events

Where included, the Recorded Flood Event Outlines map provides an indication of areas which have flooded. Not all properties shown to be within the outline will have flooded.

Flood Event	Start	End	Source	Cause
None			N/A	We have no historic flood event information for this area. It is possible that other flooding may have occurred that we do not have records for, and other organisations such as: local authorities or IDBs may have records.

Appendix B – Surface Water Flood Risk Map

Flood risk

Extent of flooding

Location

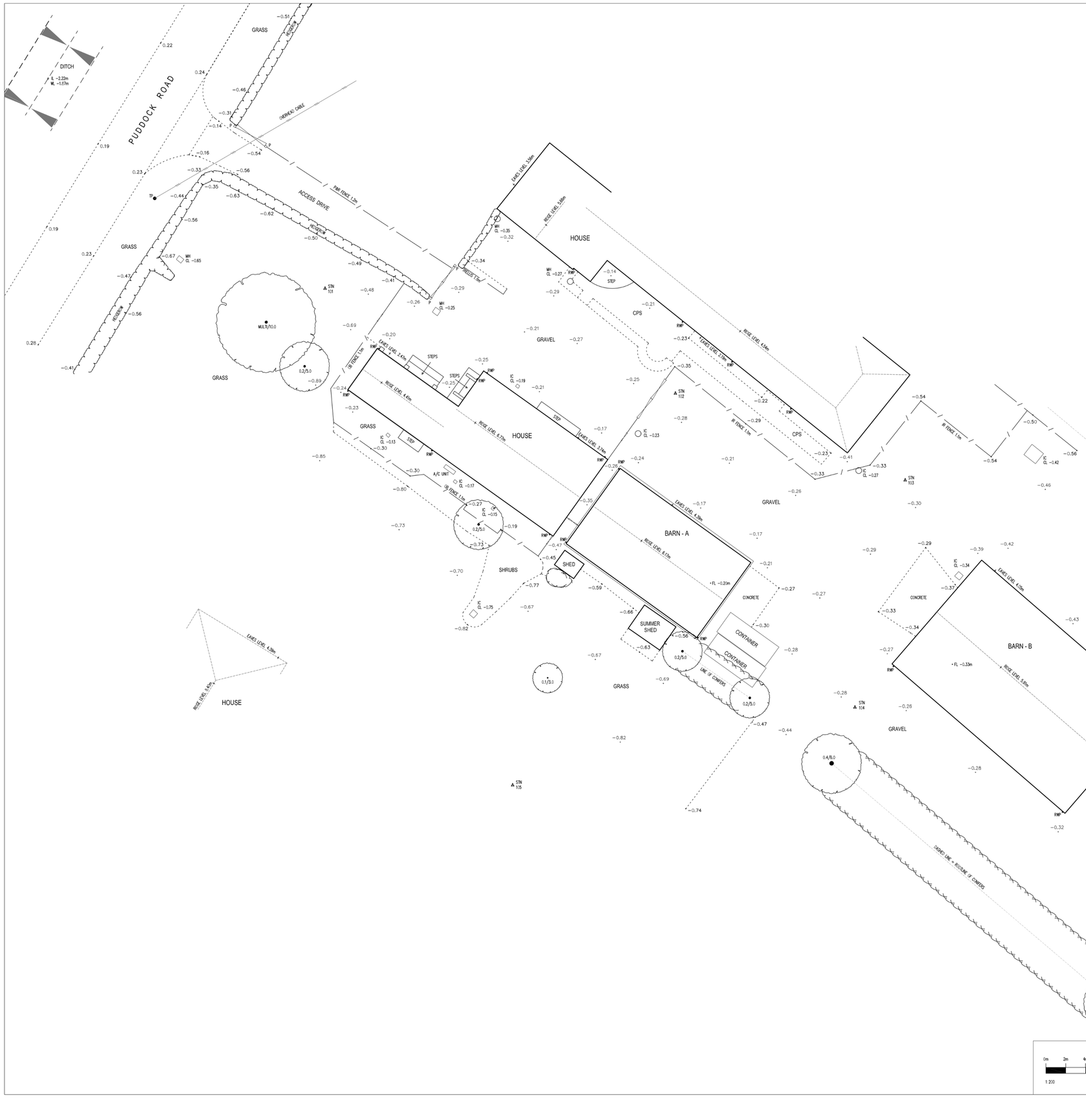
Enter a place or postcode



Extent of flooding from surface water

High Medium Low Very low Location you selected

Appendix C – Topographical Survey



LEGEND

- Survey Station
- 26.43 — Level (cross indicates position unless arrowed)
- Kerb
- Drop Kerb
- Change of Surface
- Top / Bottom — Banking
- Hedge / Bush Canopy
- Gate
- Wall
- Fence
- Foul Drainage With dia. in mm
- Storm Drainage
- OH — Overhead Electricity Line
- UG — Underground Electricity Line
- OH — Overhead Telephone Line
- UG — Underground Telephone Line
- 0.4/8.0 12m — Tree with trunk(dia.)/ Ave spread(.dia.) Height if specified
- Sapling

ABBREVIATIONS (Where applicable)

GENERAL

- AV. Air Valve
- BB. Belisha Beacon
- BC. Box Gully
- BL. Bollard
- BP. Boundary Post
- BS. Bus Stop
- CD. Cable Duct
- CL. Cover Level
- CM. Cable Marker
- CPS. Concrete Paving Slabs
- DP. Down Pipe
- ECB. Electricity Control Box
- ECP. Electricity Cable Pit
- EJB. Electricity Cable Junction Box
- EP. Electricity Pole
- ERP. Earthing Point
- FB. Flower Bed
- FH. Fire Hydrant
- FIG. Feeds into Ground
- FP. Footpath
- G. Gully
- GP. Gate Post
- GV. Gas Valve
- H. Hydrant
- IC. Inspection Cover
- IL. Invert Level
- KO. Kerb Outlet
- LP. Lamp Post
- MH. Manhole
- MKR. Marker
- NB. Notice Board
- NFI. No Further Information
- NSIF. Not Surveyed - Information From
- P. Post
- PM. Parking Meter
- PRV. Pressure Reducing Valve
- RE. Rodding Eye
- RG. Road Gully
- RS. Road Sign
- RWP. Rain Water Pipe
- SC. Stop Cock
- SP. Signpost
- SV. Sluice Valve
- T. Tree
- TCB. Telephone Call Box
- THL. Threshold Level
- TIC. Telephone Inspection Cover
- TJB. Telephone Junction Box
- TL. Traffic Light
- TP. Telephone Pole
- UTL. Unable to Lift
- VP. Vent Pipe
- WL. Water Level
- WM. Water Meter
- WV. Water Valve

FENCES AND WALLS

- BKW. Brick Wall
- BLW. Block Wall
- BW. Post & Barbed Wire Fence
- CB. Close Boarded Fence
- CI. Corrugated Iron Fence
- CP. Chestnut Paling Fence
- CW. Concrete Wall
- DSW. Dry Stone Wall
- IR. Iron Railing Fence
- OB. Open Boarded Fence
- PC. Post & Chain Fence
- PCL. Post & Chain Link Fence
- PF. Panel Fence
- PR. Post & Rail Fence
- PW. Post & Wire Fence
- PWM. Post & Wire Mesh Fence
- RW. Retaining Wall
- SF. Security Fence
- STW. Stone Wall
- SW. Sheep Wire Fence

OTHER ABBREVIATIONS USED ON THIS SURVEY

NOTES

SURVEY TIED INTO NATIONAL GRID OSTN15 AND OSGM15 DATUM FOR HEIGHT USING GPS EQUIPMENT UTILIZING THE TRIMBLE VRS NOW SYSTEM FOR REAL TIME KINEMATIC (RTK) CORRECTIONS
NATIONAL GRID SCALE FACTOR HAS NOT BEEN APPLIED TO THE SURVEY UNLESS SPECIFIED

DRAINAGE AND SERVICE INFORMATION SHOWN ON THIS SURVEY HAS BEEN OBTAINED BY VISUAL INSPECTION ONLY. ALTHOUGH ALL POSSIBLE CARE HAS BEEN TAKEN TO ENSURE THAT DETAILS SHOWN ARE CORRECT, WE ARE UNABLE TO ACCEPT ANY RESPONSIBILITY FOR COSTS ARISING OUT OF ANY ERRORS OR OMISSIONS.

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SURVEY STATION SCHEDULE

STN	EASTINGS	NORTHINGS	LEVEL	REMARKS
101	531717.596	282484.029	−0.620	TEMP NAIL
102	531752.916	282473.455	−0.276	MAG NAIL IN GRAVEL
103	531776.080	282464.704	−0.344	MAG NAIL IN GRAVEL
104	531771.016	282441.805	−0.290	MAG NAIL IN ASPHALT
105	531736.507	282433.957	−0.769	TEMP NAIL

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DATE	DRAWN	SHEET SIZE	SCALE
MAY 2021	CJ	A1	1:200

PROJECT TOPOGRAPHIC SURVEY
CHERRY LODGE, PUDDOCK ROAD, WARBOYS

DRAWING NO. 05721/T1

Appendix D – Proposed Plans

DRAWING BY JPT DESIGN

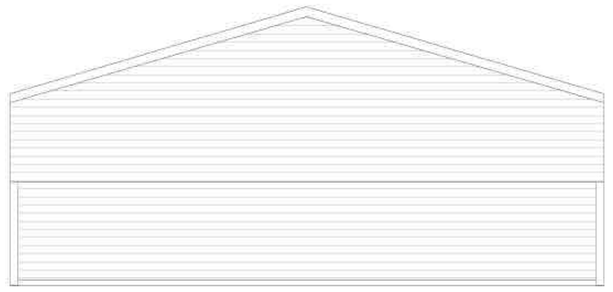
WWW.JPTDESIGN.CO.UK

NOTES :

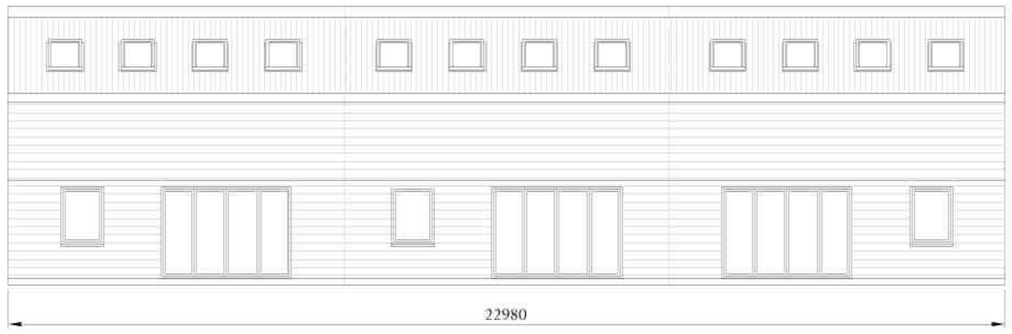
1. ALL DIMENSIONS IN MILLIMETRES UNLESS OTHERWISE STATED.



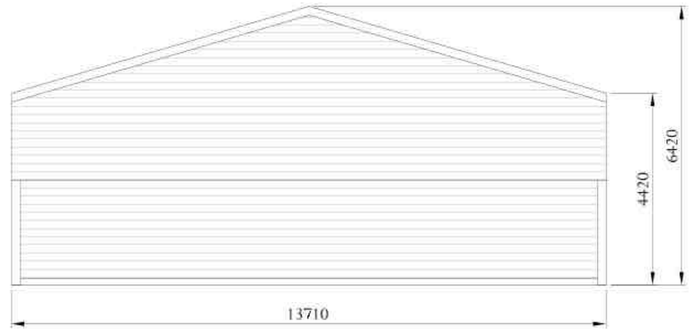
PROPOSED FRONT ELEVATION
SCALE 1:100



PROPOSED SIDE ELEVATION
SCALE 1:100



PROPOSED REAR ELEVATION
SCALE 1:100



PROPOSED SIDE ELEVATION
SCALE 1:100

PROPOSED GROUND FLOOR PLAN
SCALE 1:50

PROPOSED GROUND FLOOR PLAN
SCALE 1:50

SCALE RULER

1:1 0 10mm 20 30 40 50 60 70 80 90 100
1:100 0 1m 2 3 4 5 6 7 8 9 10
1:20 0 200mm 400 600 800 1000 1200 1400 1600 1800 2000
1:200 0 2m 4 6 8 10 12 14 16 18 20
1:5 0 100mm 200 300 400 500
1:50 0 1m 2 3 4 5
1:1250 0 10m 20 30 40 50 60 70 80 90 100 110 120
1:2500 0 20m 40 60 80 100 120 140 160 180 200 220 240

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RESIDENTIAL PLANNING & DEVELOPMENT ENGINEERING
THE STUDIO, 23 HALIFAX ROAD, UPPER CAMBOURNE CB23 6AX
WWW.JPTDESIGN.CO.UK

Drawing Title -

PROPOSED ELEVATIONS AND FLOOR PLANS

Client - MR & MRS ROBINSON

Address - CHERRY LODGE FARM, PUDDOCK ROAD, WARBOYS, PE28 2UB

Scale - AS SHOWN @ A1 Date - JULY 24

Dwg. No. - JPT/MR/0724/003 Rev. C

partner LABC