Information pack for Rebecca Pow MP
for meeting at Melverley Village Hall on 27 July 2021

This pack is based on that provided to participants in the meeting on Thursday 13 May 2021 (starting from Melverley Village Hall) arranged by Owen Paterson MP with Environment Agency staff and Severn/Vyrnwy confluence constituents (including a Shropshire Councillor, members of Melverley Internal Drainage Board and Melverley and Kinnerley Parish Councillors). The main purpose of the meeting was for the Environment Agency staff to see, and gain an understanding of, the whole local flood defence system.

Owen Paterson is not able to attend today's meeting and feels very strongly that Charles Green, who helped to organise the tour on 13 May, should be able to join the meeting.

The contents of this pack are as follows:

1. Map of Severn/Vyrnwy confluence flood defences, northern part. This shows the defences on both the English and Welsh sides, which are part of a single system. Compare this with the "Assets" maps supplied by the Environment Agency (pack items 9 and 10), which show the English side only.

2. Ditto, southern part.

3. Detailed map of the "Morda Gap" i.e. the north-west end of the local defences, where the Vyrnwy first overflows, backs up into the River Morda, and thence flows overland to Melverley and beyond.

4. Detailed map of the south-east end of the local system

5. Flood risk map of the Severn/Vyrnwy confluence area, to Shrewsbury and beyond. Note that this is derived from the Flood Assist website, which is a site that shows all affected areas, whether English or Welsh. The EA flood risk map shows only the English side and the NRW map only the Welsh side. This map also shows the narrowing of the river system as it goes through Shrawardine and Montford on to Shrewsbury. This restriction is partly what causes our area to flood.

6. Flood risk map for Kinnerley Parish and surrounds (as used during the Kinnerley Parish Neighbourhood Plan process) annotated to show the extent of the 1946 flood.

7. Aerial photo showing the extent of the February 2020 flooding in the local area; this was not the height of the flood, which came a few days later.

8. Map showing the area covered by Melverley Internal Drainage Board: this map gives a good idea of the network of internal watercourses.

9. "Assets" map supplied to us by the EA, as mentioned above.

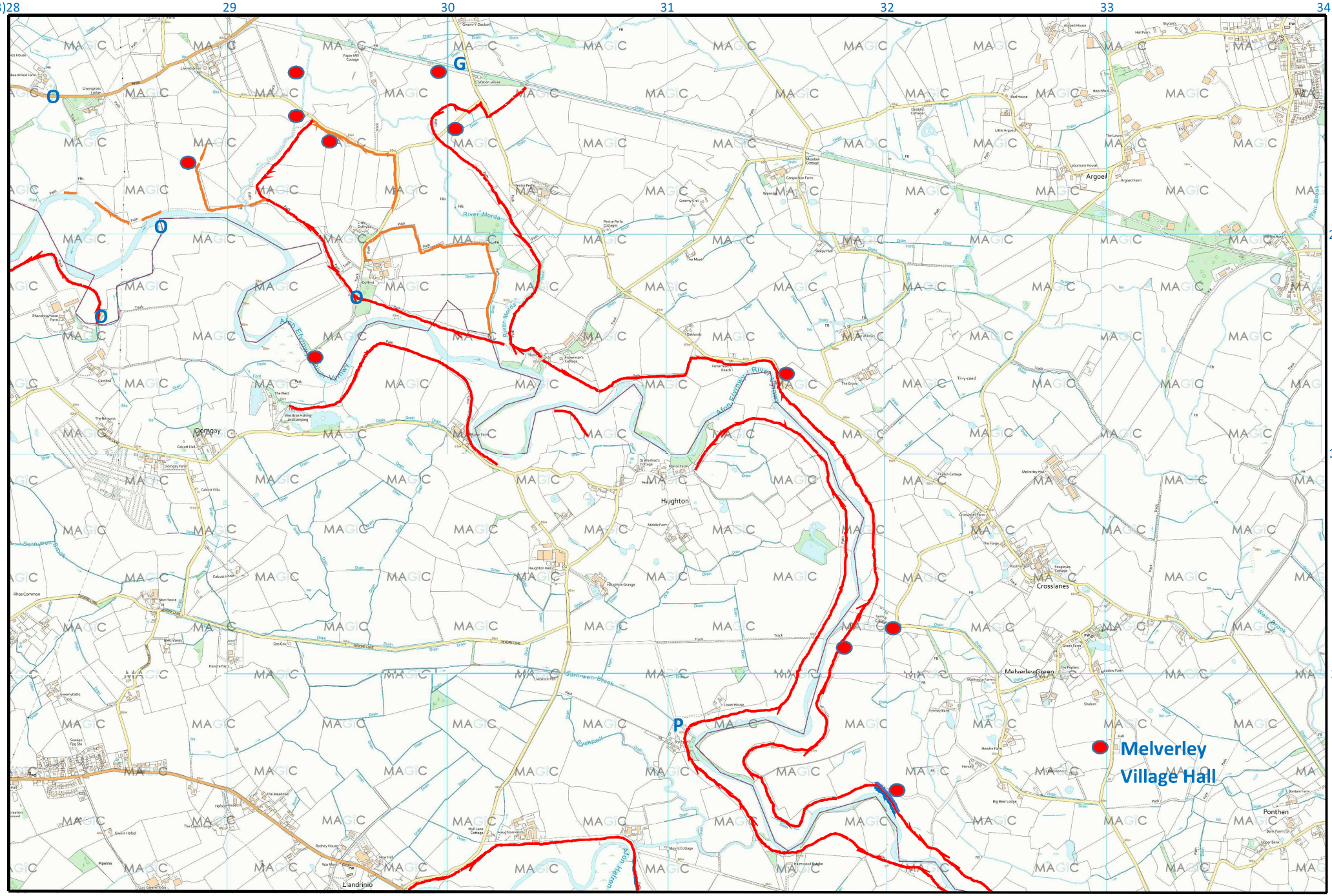
10. Key to that EA Assets map, as supplied

11. February 1946 flood map (prepared from aerial photography by EA's predecessor and acquired locally): this map was used in the briefing before the tour on 13 May to demonstrate the converging flows of the rivers Vyrnwy and Severn, and the constriction in the defences (argaes) west of Maesbrook which results in the "Morda Gap" flows.

12. Sequence of photographs showing how the Vyrnwy waters rise and flow into the "Morda Gap".

13. Hand coloured map showing directions of flow of water as it rises through the "Morda Gap".

Further detail about local flooding is on the Flooding page of the Kinnerley Parish Council website at https://www.kinnerleyparishcouncil.org.uk/flooding , particularly the 11 February 2021 presentation.



Severn / Vyrnwy confluence flood defences – Sheet 1

EA/NRW maintained argaes

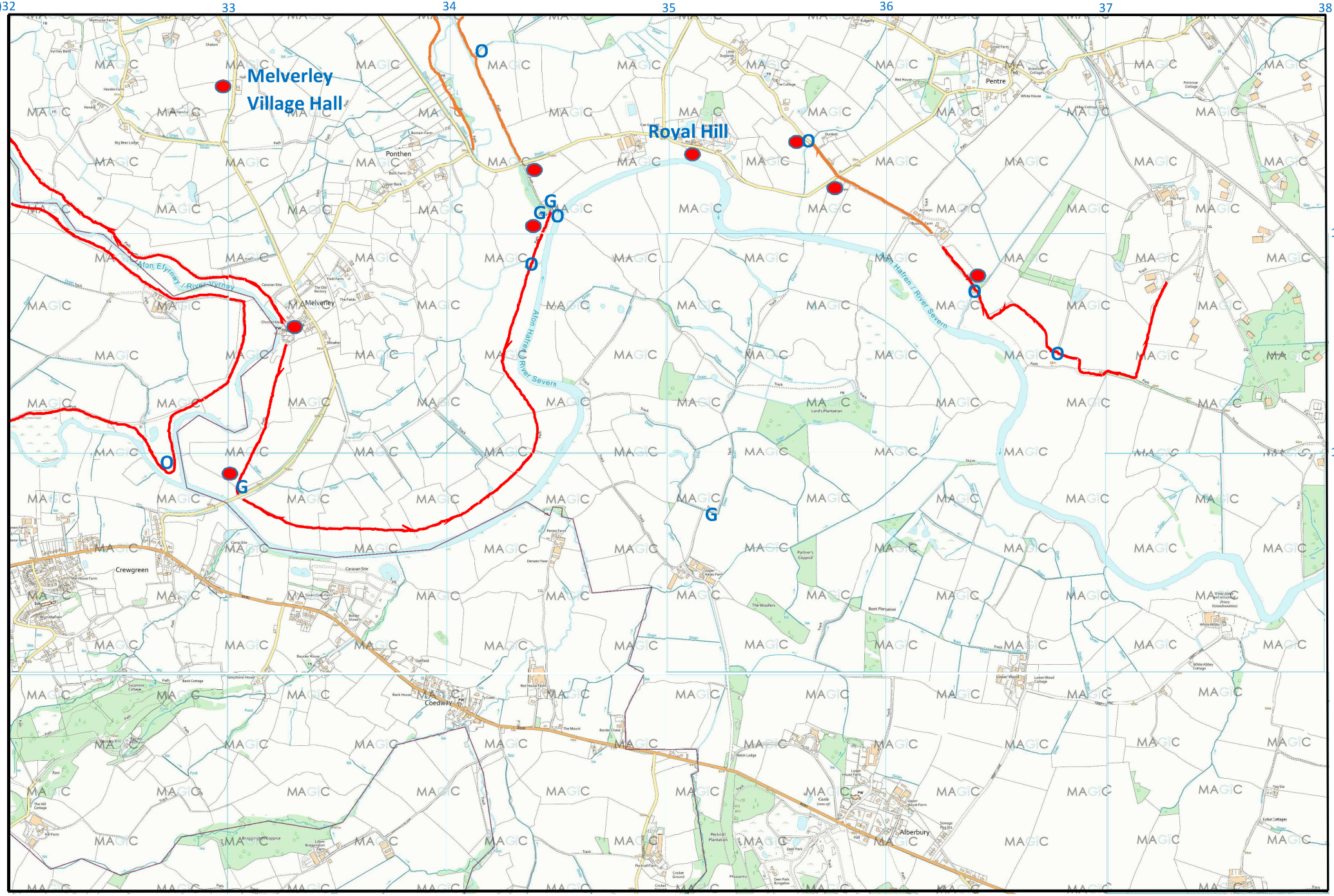
Other argaes influencing flooding

O Outfall / sluice doors

G Gauge

P Pumps

Sites to visit/discuss/meet/park



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Severn / Vyrnwy confluence flood defences – Sheet 2

EA/NRW maintained argaes

Other argaes influencing flooding

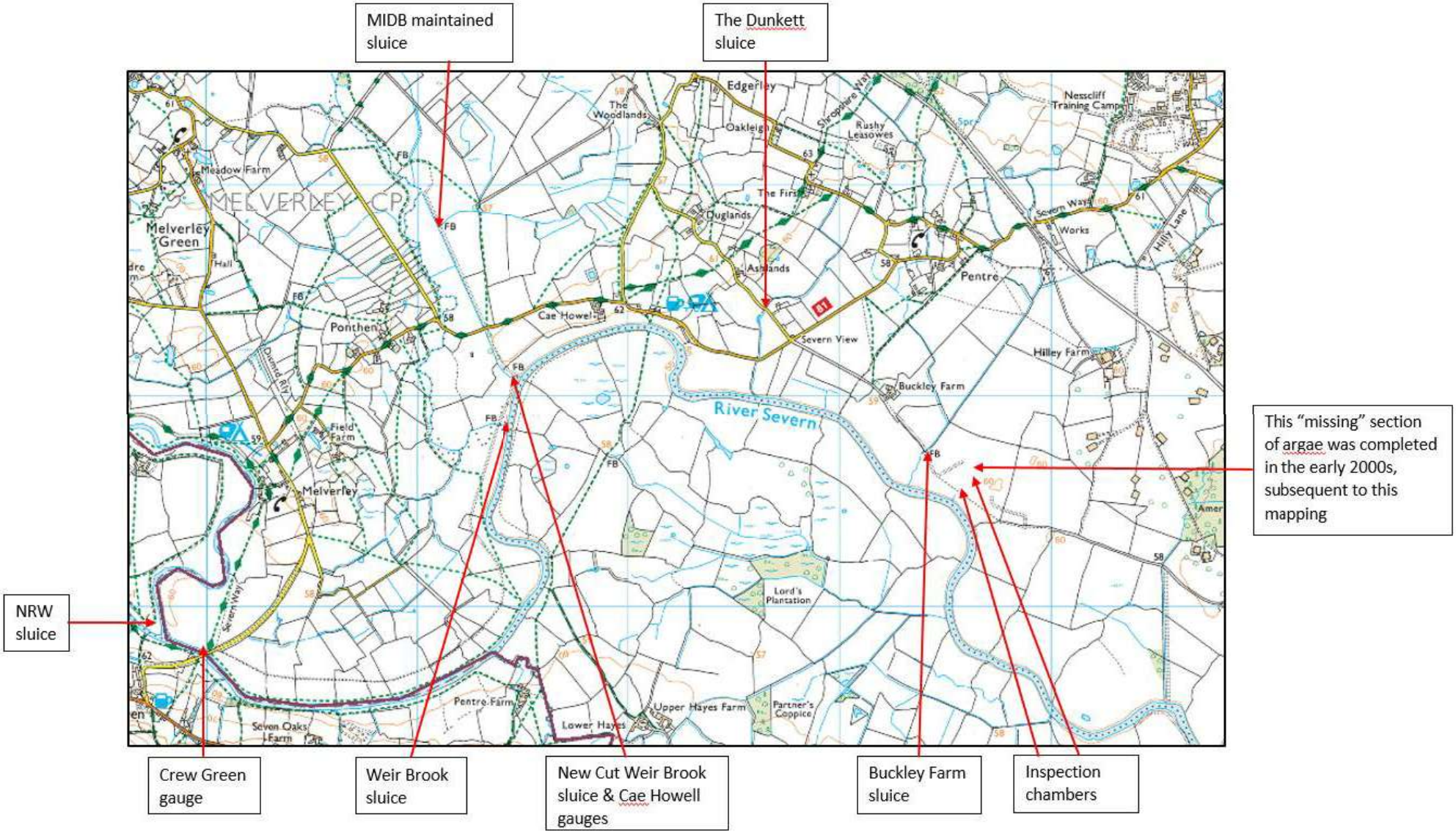
O Outfall / sluice doors

G Gauge

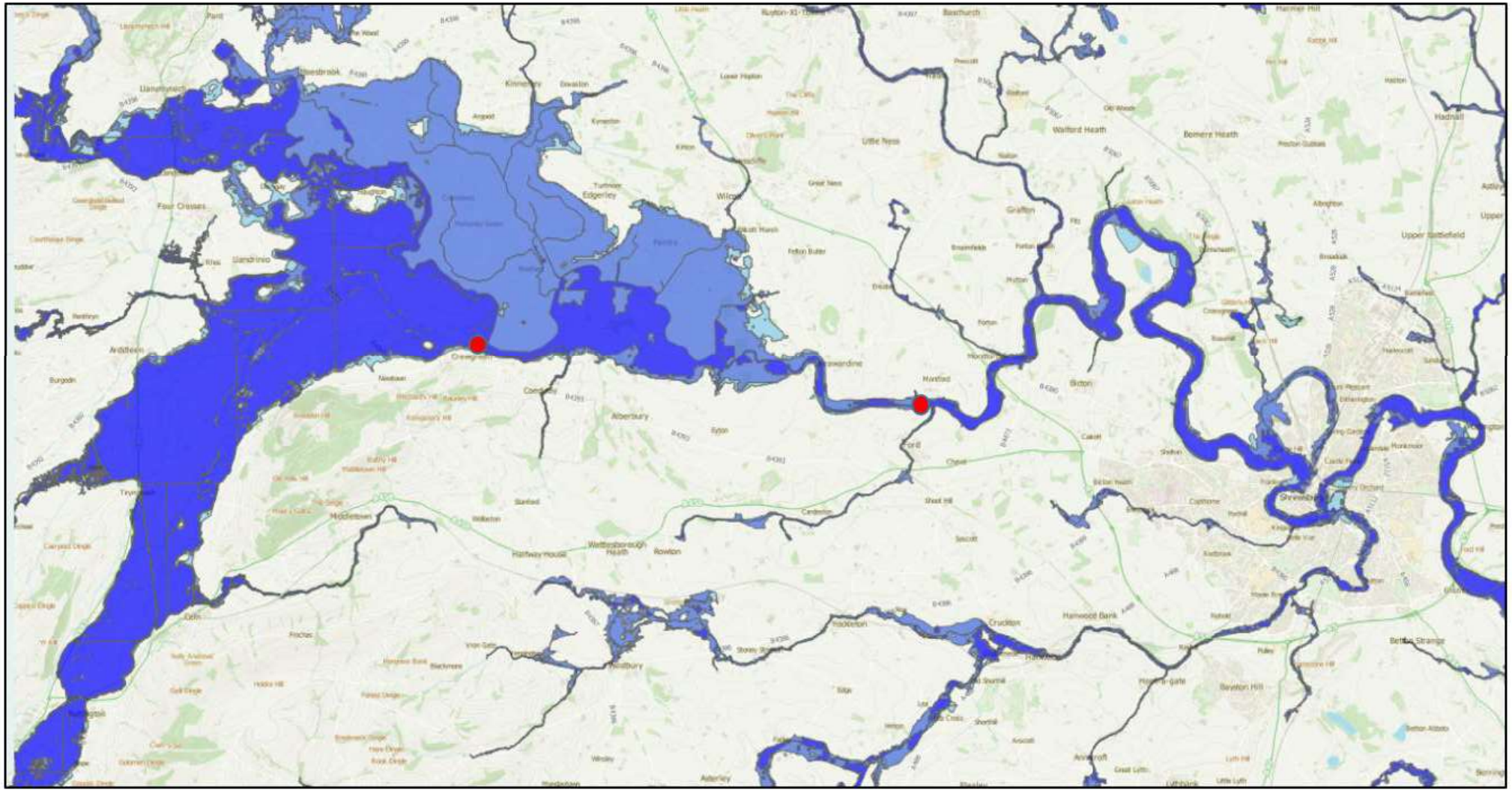
P Pumps

Sites to visit/discuss/meet/park

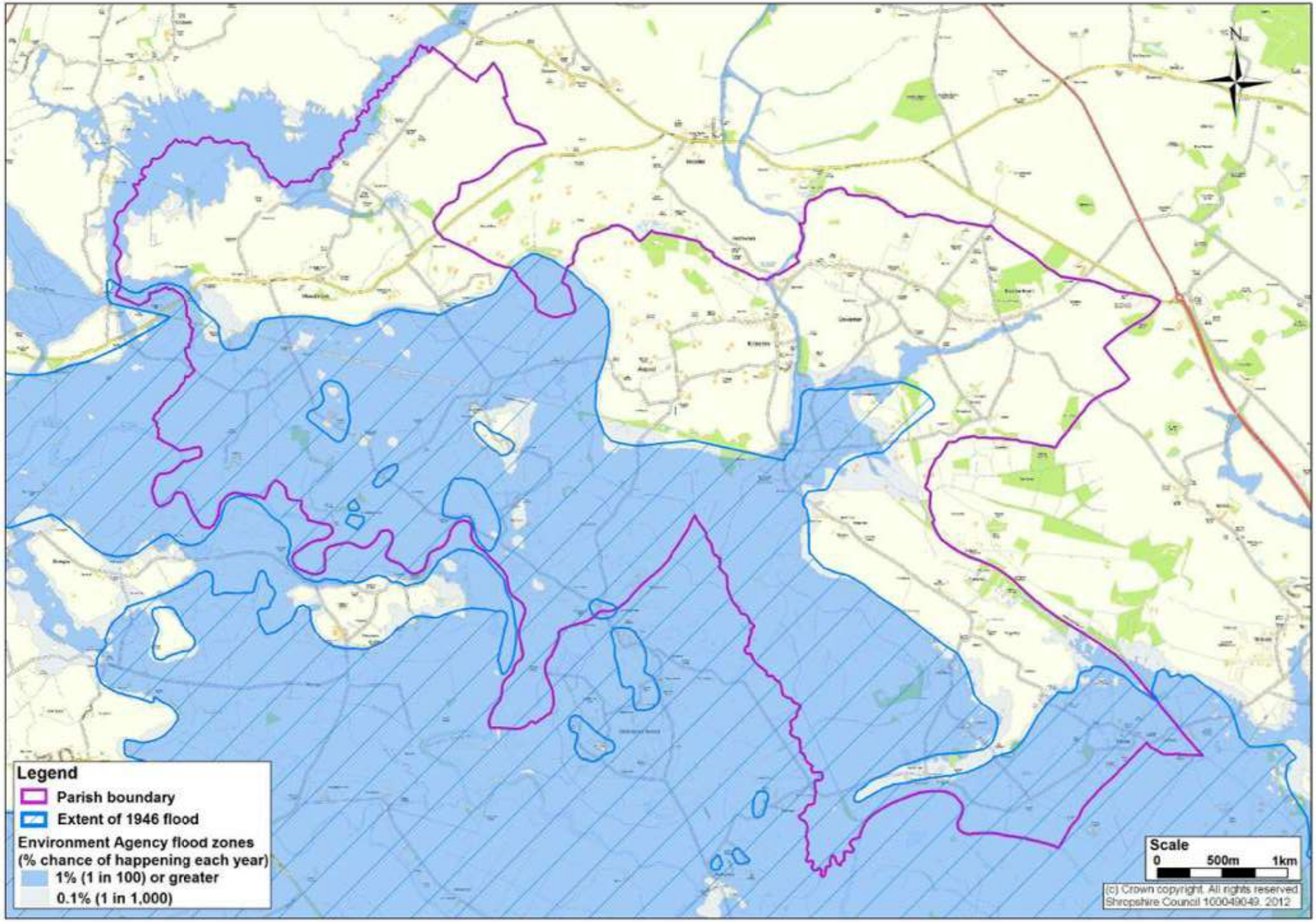
Partial Lidar image (www.lidarfinder.com)


MIDB maintained sluice
The Dunkett sluice
MELVERLEY CP
Melverley Green
Meadow Farm
Ponthen
Cae Howel
Edgerley
The Woodlands
Oakleigh
Rushy Leasowes
Nesscliff Training Camp
The First
Duglands
Ashlands
Severn View
Pentre
Severn Way
Works
Hilly Lane
Hilley Farm
Buckley Farm
River Severn
Field Farm
Melverley
Lord's Plantation
Pentre Farm
Upper Hayes Farm
Lower Hayes
Partner's Coppice
Seven Oaks Farm
This "missing" section of argae was completed in the early 2000s, subsequent to this mapping
NRW sluice
Crew Green gauge
Weir Brook sluice
New Cut Weir Brook sluice & Cae Howell gauges
Buckley Farm sluice
Inspection chambers

Flood risk https://floodassist.co.uk/resources/flood-risk (England and Wales)

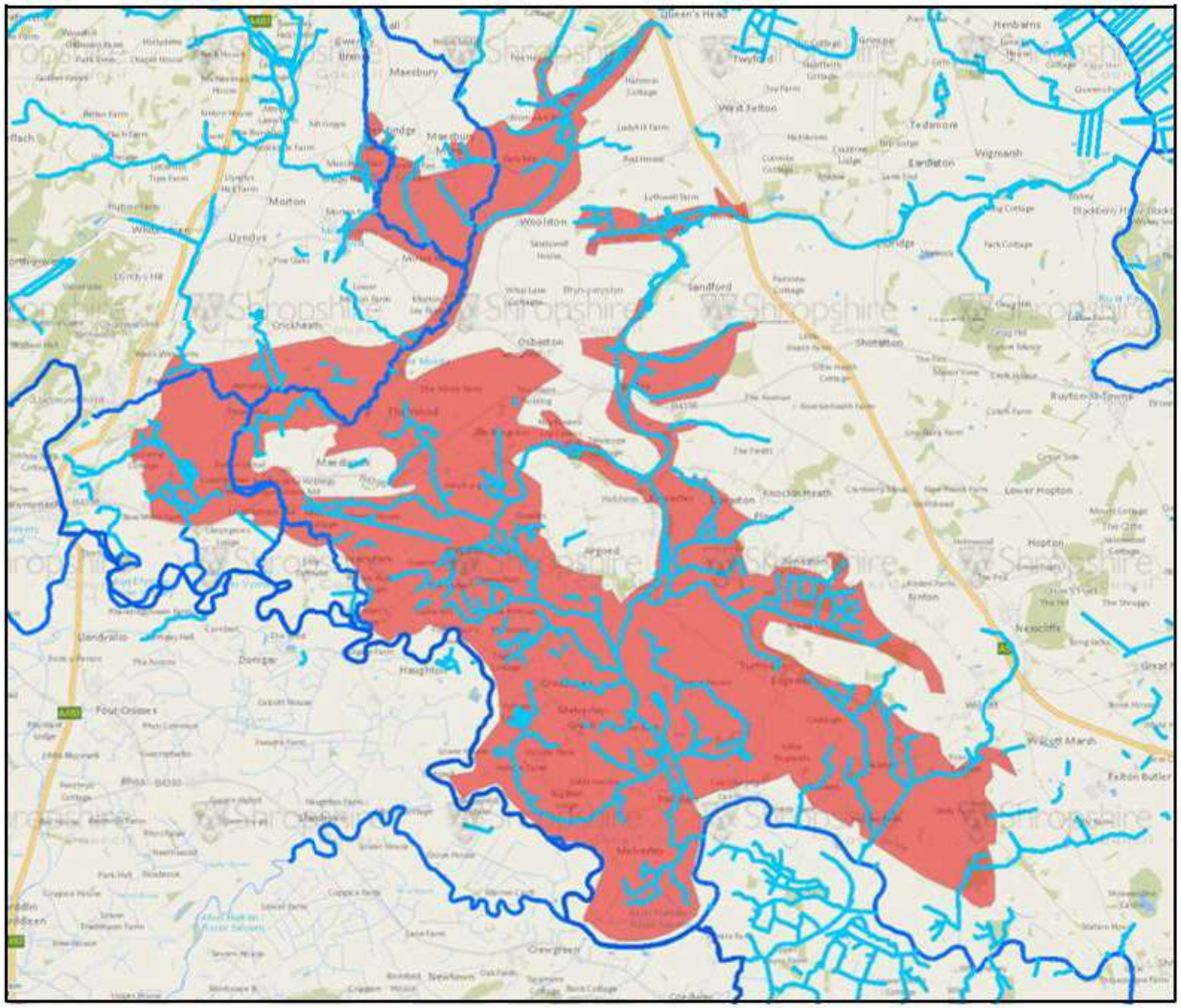


Extent of February 1946 flood



Aerial photograph of February 2020 flooding, taken over the Royal Hill

Melverley Internal Drainage Board area (and watercourses)



Flood & Water Management (arcgis.com)

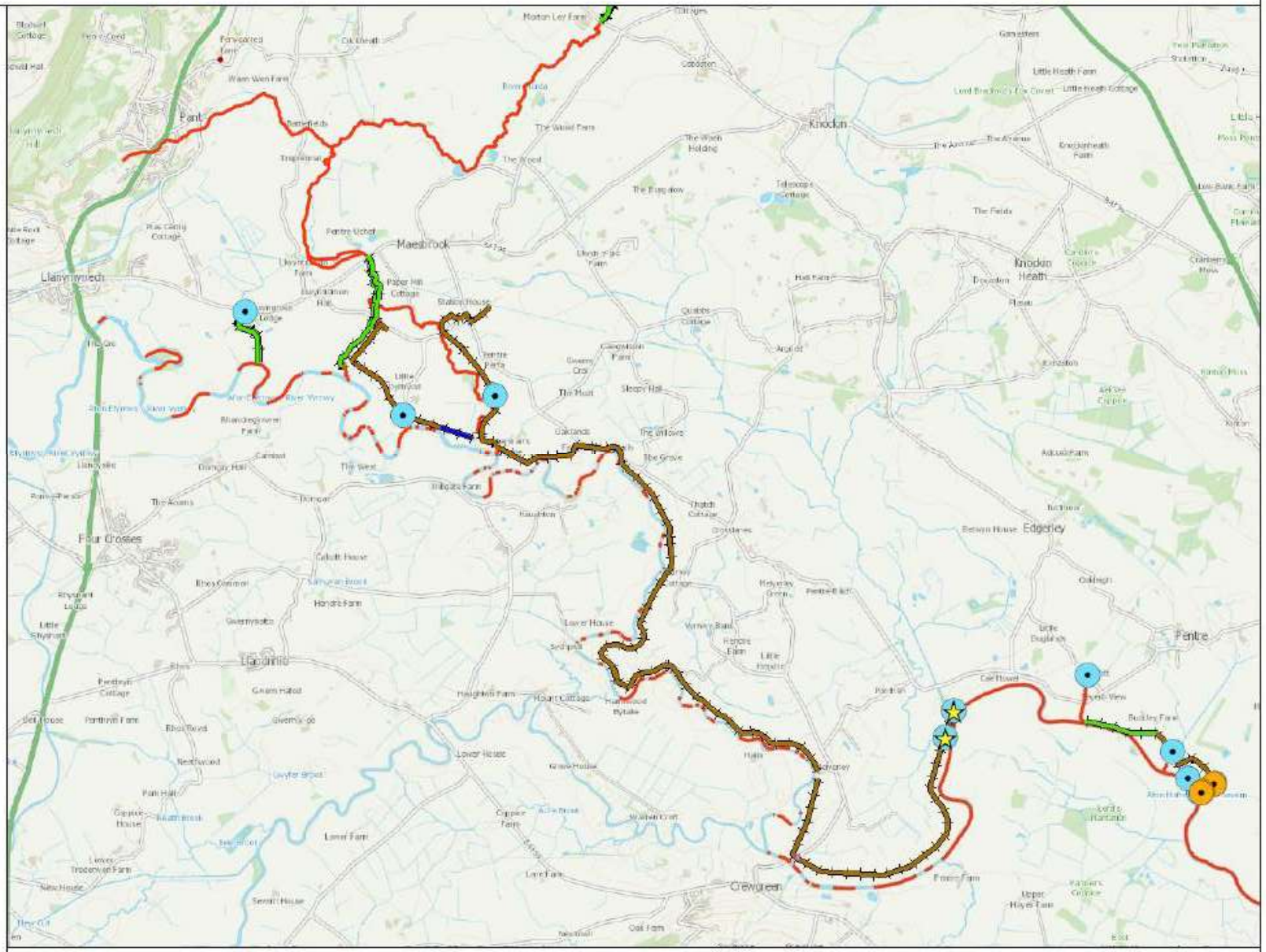
English maintained assets and main river

Environment Agency

Legend

Please see page 2 for asset symbology

— Statutory Main Rivers



1: 50,000

0 1,250

Metres

N W E S

Structures

- Control Gate
- Draw Off Tower
- Fish Pass
- Hydrobrake
- In Channel Stoplogs
- Inspection Chamber
- Jetty
- Outfall
- Screen
- Spillway
- Stilling Basin
- Weir

Beach Structures

- Breakwater
- Ramp
- Slipway
- Steps
- Groyne

Instruments

- Active Monitoring
- Passive Monitoring

Channel Crossings

- Bridge
- Utility Services

Aids to Navigation

- Beacon
- Buoy
- Dolphin
- Signage
- Signal

Building Assets

- Pump House

Major Civils

- Abutment
- Central Pier

Defences

- Embankment
- Wall
- Flood Gate
- Demountable defence
- Bridge abutment
- High Ground
- Beach
- Barrier Beach
- Promenade
- Quay
- Cliff
- Dunes

Channels

- Open channel
- Simple culvert
- Complex culvert

Land

- Mudflats
- Saltmarsh
- Washland

Sites

- Amenity
- Control Structure
- Erosion Protection
- General
- Harbour
- Monitoring
- Navigation Lock
- Pumping Station
- Reservoir
- Tidal Barrier

February 1946 flood map

Morda Bridge, new cut, sequence

1: Normal

2: Backed up; all flow down Mill stream

3: At point of out-of-channel flow

4: Vyrnwy rising more; start of overland flow

Floodwater containment at River Morda /River Vyrnwy Confluence (prior to any overtopping)