

Hammonds Mill Farm Estate Hassocks West Sussex BN6 9NB

Proposed Class Q Barn Conversions

Flood Risk Assessment

in support of Class Q planning application

**Reviewed and reissued 22 February 2025
(no material change)**

David Hutchison B Arch PG Dip TP

8 February 2022

CONTENTS

Class Q Planning Application_Location Plan

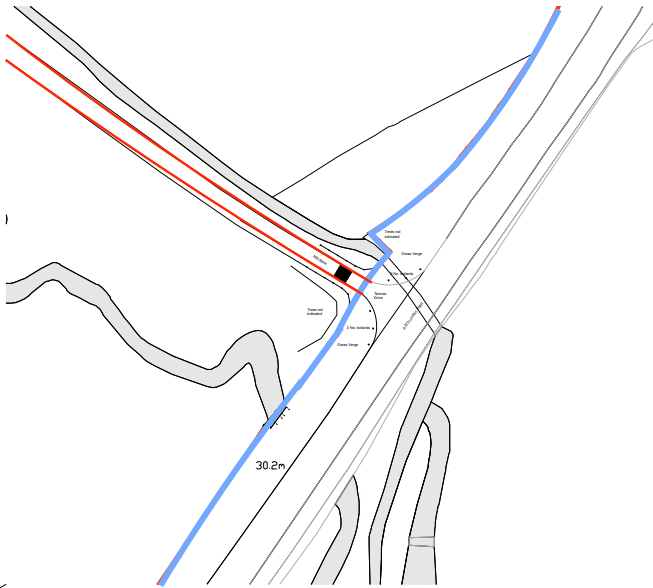
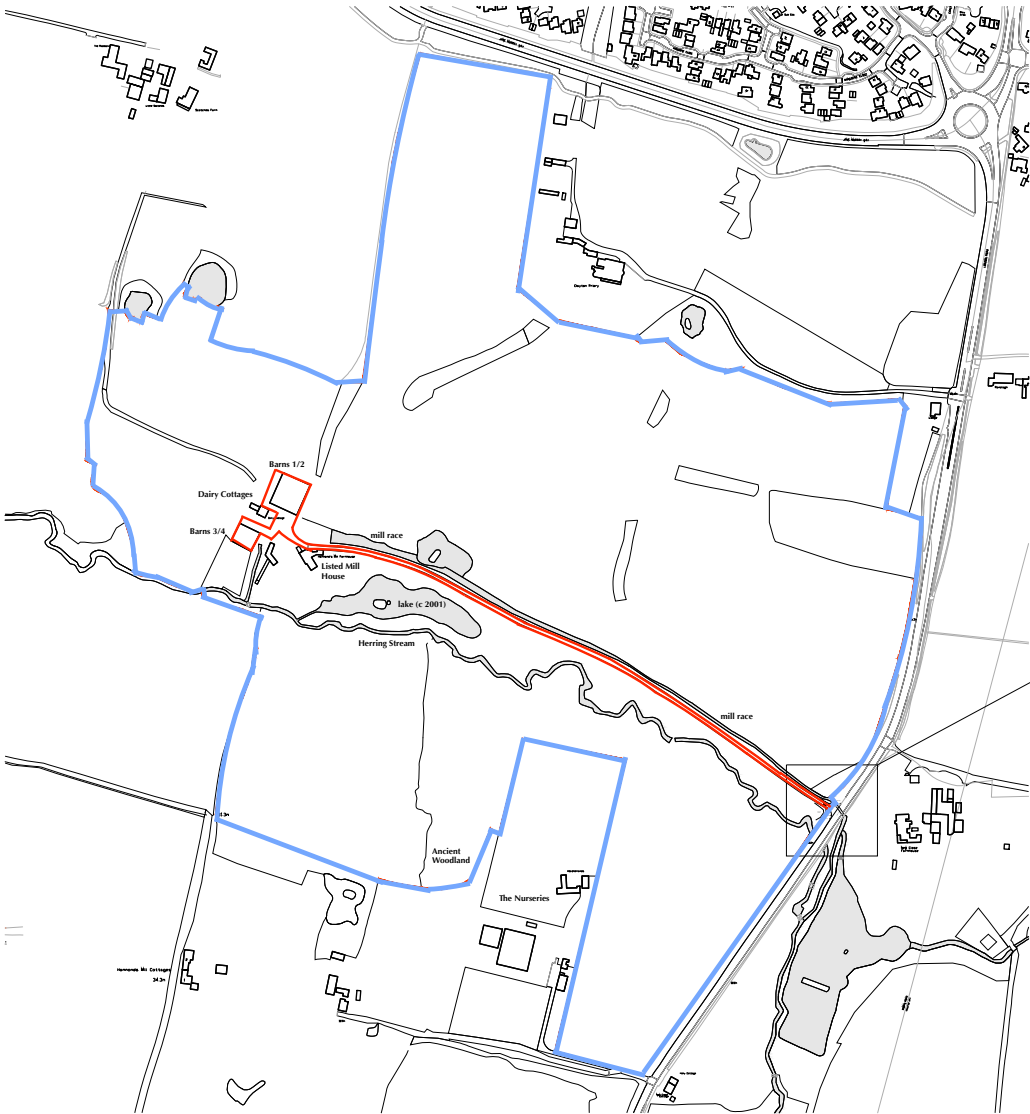
Environment Agency Flood Risk Assessment with Flood Zones Map and Class Q application barn locations show.

1. Summary
2. Existing ground levels, datums, Herring Stream water and flood levels, proposed finished floor levels

Environment Agency Flood Zone Map with existing ground levels, existing and proposed floor levels, flood water levels, including Climate Change prediction, shown.

amendments					auth	chkd
rev	date	comment				

AS EXISTING
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-  Planning Application Site Area
0.48 hectares
-  Hammonds Mill Farm Estate land
(in same ownership)

Site Location Plan
scale in metres 1:2500

Block Plan
scale in metres 1:500

Flood map for planning

Your reference
Hammonds Mill

Location (easting/northing)
529959/117730

Created
4 Feb 2022 10:04

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

This means:

- you don't need to do a flood risk assessment if your development is smaller than 1 hectare and not affected by other sources of flooding
- you may need to do a flood risk assessment if your development is larger than 1 hectare or affected by other sources of flooding or in an area with critical drainage problems

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/>

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Flood map for planning

Your reference
Hammonds Mill

Location (easting/northing)
529959/117730

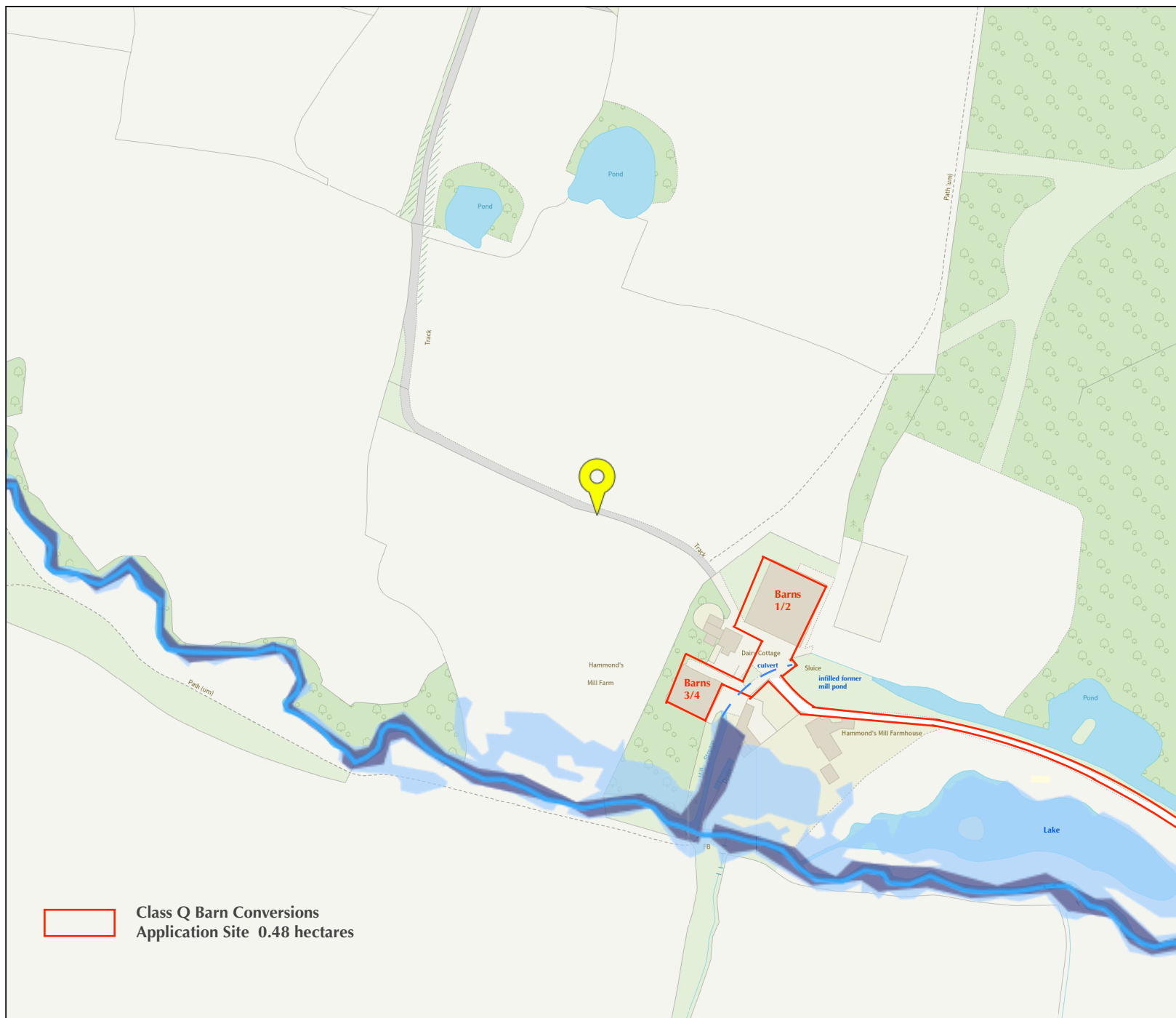
Scale
1:2500

Created
4 Feb 2022 10:04

-  Selected point
-  Flood zone 3
-  Flood zone 3: areas benefitting from flood defences
-  Flood zone 2
-  Flood zone 1
-  Flood defence
-  Main river
-  Flood storage area

0 20 40 60m

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1. Summary

- 1.1 The proposal is to convert two existing pairs of adjoining barns to form 3 small houses and 1 large house, within the existing barn footprints and following other restrictions applicable to a T&CP Act Class Q planning application, on the 93 acre holding known as Hammonds Mill Farm Estate.
- 1.2 The applicant and MSDC, the LPA, have agreed the extent of the planning application site, which is limited to the footprint of the barns, access to the barns and access to the public highway. This is shown within the red line on the revised, submitted Location Plan. The full extent of the estate is shown bounded by the blue line as it is within the same ownership as the planning application site.
- 1.3 Although the planning application (red line) site of 0.48 hectares lies entirely within Flood Zone 1, where a full, flood risk assessment is not required to be submitted with a planning application, the Environment Agency have asked that the impact of future climate change on flood levels associated with the Herring Stream, a classified river is assessed.
- 1.4 The EA flood zone map for the location has been overlaid with the planning application (red line) site and the barn buildings are identified. The flood zone map confirms that barn buildings 3/4 are located, on higher ground, 42 metres from the Herring Stream and barn buildings 1/2 are located on further higher ground, 87 metres from the Herring Stream. The development proposals are therefore not within 20 metres of the Herring Stream, a classified river.
- 1.5 The EA flood zone map has also been overlaid with site surveyed (2021/2022) existing ground levels, existing barn floor levels, proposed barn floor levels and the extent of a predicted flood level for future climate change (37% - 55% allowance).

- 1.6 Barns 3/4 and Barns 1/2, are shown to be **not likely to be subject to any flood risk from rising water levels in the Herring Stream associated with future climate change** that may impact on the Flood Zone 2 and 3 areas of Hammonds Mill Farm Estate. The predicted further rise of water levels in Flood Zone 2 and 3 areas on the estate will not however extend to the locations of the barns which will still remain within Flood Zone 1.
- 1.7 Barns 3/4 which are closest to Flood Zone 2 and 3 have existing floor levels that are more than 350mm above the predicted climate change water levels associated with Flood Zones 2 and 3, and proposed finished floor levels will be a further 150 mm higher, both to allow the new floors to incorporate insulation and provide a 150mm level change between finished floor level and existing surrounding ground levels, to meet Building Regulations requirements. As a result the **proposed finished floor levels in Barns 3/4 will be 500mm above the predicted climate change water levels associated with Flood Zones 2 and 3.**
- 1.8 Existing floor levels of Barns 1/2 are higher, being 1.07 metres above the existing floor levels in Barns 3/4, with the result that the **proposed finished floor levels in Barns 1/2 will be 1.57 metres above the predicted climate change water levels associated with Flood Zones 2 and 3.**
- 1.9 Surface water flood risk is assessed in the West Sussex County Council Surface Water Risk Strategy and associated maps. Surface water flood risk at Old Dairy Cottage (existing finished floor level below Barns 1/2 and above Barns 3/4) is classified as low risk and river flood risk is classified as very low risk.
- 1.10 Surface water flood risk at Hammonds Mill Farmhouse (originally the Mill House) is classified as medium risk and river flood risk as low risk. The existing finished floor level at Hammonds Mill Farmhouse however, is 320mm below the existing floor level in Barns 3/4 and 470mm below the proposed finished floor level in Barns 3/4.

- 1.11 As the structure and building form of the existing barns has to be retained (Class Q rules) and barn roof rainwater currently discharges either to the former mill overflow stream culvert (Barns 1/2) or via soakaways (Barns 3/4), collection and disposal of rainwater, after installation of replacement roof sheeting, will be unchanged.
- 1.12 In summary, **the river and surface water flood risk at Barns 1/2 is very low and very low, at Barns 1/2 very low and low**, and disposal of rainwater will be as existing. **Therefore no flood water or surface water mitigation measures are considered necessary, or are proposed.**
- 1.13 Stream water interventions associated with the former Hammonds Mill characterise the site, the former millpond having been infilled and soft landscaped with a culvert under the soft landscape and the later concrete 'farm yard' linking the remaining section of the mill race to the remaining part of the overflow stream which flows back to the Herring Stream near the estate bridge to the south. It is the location of this overflow stream from the original mill pond and mill race that results in the local area of Zone 2/3 flood risk which is shown on the flood map coming relatively close to the southern side of Barns 3/4 (backing up from the Herring Stream to the south). However the predicted climate change water level in the overflow stream at the location near the southern end of Barns 3/4 is 600mm below the proposed finished floor level in Barns 3/4.
- 1.14 The soft landscape infilling of the mill pond associated with the formation of the new lake to the south east, c 2001, which is fed from a new weir outlet in the mill race, prevents any significant increase in water flow in the culverted parts of the mill race and the overflow stream, when the Herring Stream water levels rise. The lake discharges back to the Herring Stream via another weir and return stream (EA approved and licensed) with the result that the lake, in effect, acts as a local flood area for high rising waters in the Herring Stream, where the existing ground and bank levels are lower than the existing ground levels immediately to the south of Barns 3/4. In other words, climate change increased river water levels will further 'flood' the lake and its surrounds, not the existing, higher surrounding ground at the south of Barns 3/4

2. Existing ground levels, datums, Herring Stream water and flood levels, proposed finished floor levels

2.1 Level datums used:

O/S bench mark where Herring Stream passes under London Road near main entrance (top of brick wall)	31.24
WSCC road level where Herring Stream passes under London Road near main entrance	30.20
O/S bench mark where Herring Stream passes under Hurstpierpoint Road near Ruckford Mill	22.50

2.2 Herring Stream water levels/bed levels (09 Feb 2022, 10.30 am)

At London Road (brick culvert crossing) near main entrance, water level	27.50
water depth	250 mm
At Hurstpierpoint (culvert crossing) near Ruckford Mill entrance, water level	20.20
water depth	400 mm
At private bridge 45 metres south west of Barns 3/4	
water level	25.20
water depth	250 mm
bridge level	26.74

2.3 Mill Race stream/overflow stream water levels/bed levels (09 Feb 2022, 11.00 am)

At London Road (culvert crossing) near main entrance, water level	28.75
water depth	400 mm
At exit from culvert below farmyard (opposite southern end of Barn 3), water level	25.43
water depth	200 mm

2.4	<u>Existing ground levels, existing and proposed floor levels</u>	
	High ground level at Barns 1/2 (at O/S contour 30.48)	30.48
	Low ground level at Barns 1/2	28.50
	Existing floor level, Barns 1/2	28.48
	Higher level farm yard	28.43
	Existing floor level Old Dairy Cottage	28.43
	Lower level farmyard	28.15
	Existing floor level, Barns 3/4	27.35
	Proposed floor level, Barns 3/4	27.50
	Existing ground level, south west side, Barns 3/4	27.20
	Existing ground level, south west side, at top of Herring Stream bank	26.65
2.5	Zone 2/3 flood level (from EA map)	26.80
	Climate change allowance, flood level (existing ground lower to south east)	26.90



B1/2 Barns 1/2 Ex FL 28.48 Proposed FL 28.63

B3/4 Barns 3/4 Ex FL 27.35 Proposed FL 27.60

note: levels referenced to OS BM 30.2 at London Road entrance ex ground levels site surveyed June 2021/Feb 2022

--- Climate change flood zone line

■ Flood Zone 2

■ Flood Zone 3

~ Herring Stream

— Mill overflow stream (culverted under farmyard and infilled mill pond)