

Ray Drabble
Principal Drainage Engineer
Lead Local Flood Authority



www.westsussex.gov.uk

Planning Services
Northleigh
Chichester
West Sussex
PO19 1RG



See Distribution

8 November 2021

Angmering Flood Alleviation Scheme (FAS): Note to update Status of Phase 1 and inform Design Approach and Ecological Survey Requirements for Phase 2

References:

- A. West Sussex LLFA EIA Screening Request for Angmering FAS dated 20 August 2021 (and Appendices).
- B. On line Meeting: D Block, M Bennet, E Pilla (EA) / Drabble (West Sussex LLFA) 26 Oct 21.

Introduction

1. West Sussex LLFA is leading on Angmering FAS. A planning application A/184/21/PL is under consideration for Phase 1 of this scheme that comprises a weir immediately upstream of the culverted road access to the Land South of Water Lane development. A further phase is envisaged to attenuate water upstream of Ecclesden Farm Access. Figure 1 shows the full extent of the proposed scheme, both the extent of proposed physical works and indirect hydrological effects.
2. This note cross-references the key information that has been collated on both the hydrological effects and the ecological data that has been reviewed in support of Phase 1 of the application (Reference A) and provides some context for options under consideration for Phase 2 of the FAS. A view from the statutory regulators, specifically, Natural England, the Environment Agency and the South Downs National Park Authority together with Sussex Wildlife Trust is sought at this point to guide both the scheme and the ecological survey data that will be necessary to support it going forwards. Phase 1 of the FAS has benefited from partnership with the EA, without which the scheme could not have been progressed, and West Sussex LLFA would very much welcome extending the collaboration to include colleagues at SDNPA and NE to deliver an exemplary multi-functional scheme.

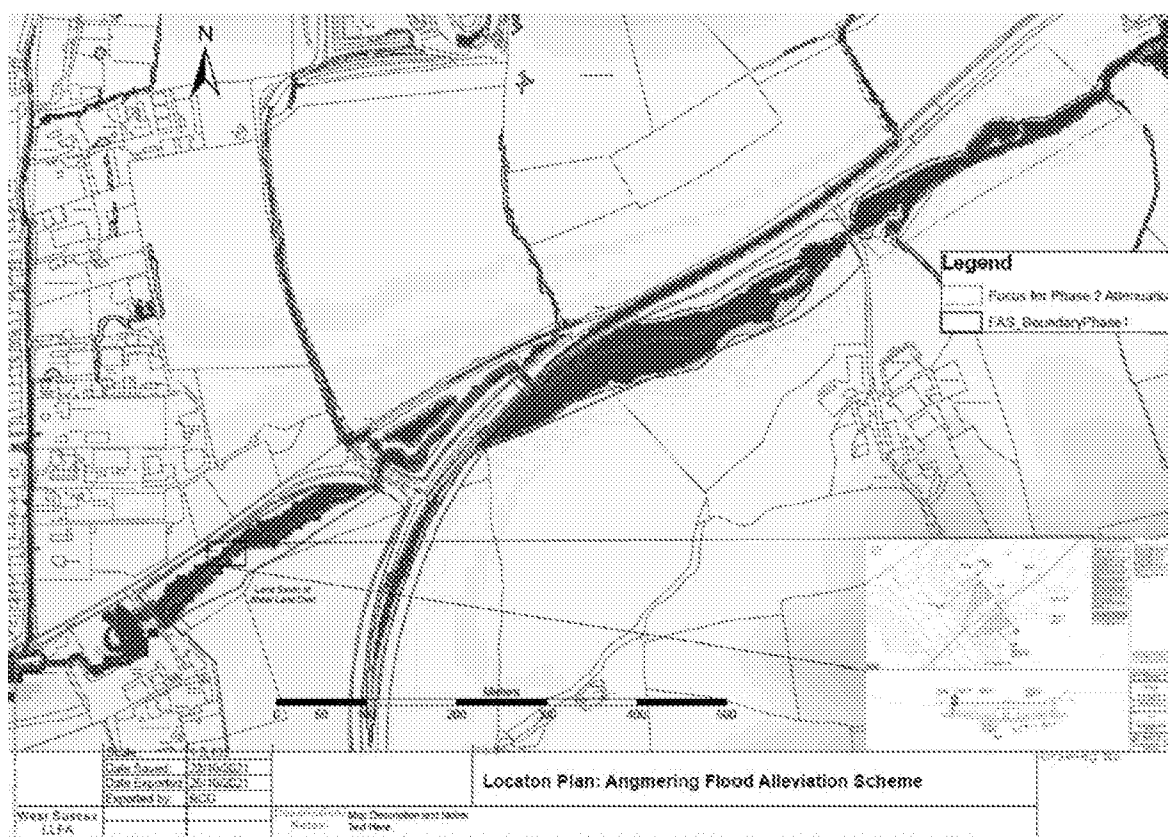


Figure 1 Extent of Angmering Flood Alleviation Scheme

Rationale for Phase 2

3. Flooding of Water Lane and parts of the centre of Angmering Village are estimated to occur for storm events with a 20% Annual Exceedance Probability (AEP) or less. The opportunistic construction of a weir upstream of the culverted road access to the land south of Water Lane development is aimed at storing water for fairly frequent storms of 20% AEP or higher. As such, it was only ever envisaged as part of a wider scheme to reduce flood risk in Angmering. Further attenuation storage is required in the upstream catchment to achieve a reduction in flooding during less frequent and more severe storms.

Location for Phase 2

4. The area provisionally under consideration for Phase 2 is the area shown in the dashed line in Figure 1, i.e. the area upstream of Ecclesden Farm track approximately 2.8 ha in extent. However, it is recognised that there may be merit in extending the area under consideration for proposed flow restriction to potentially include sections of the feeder streams to the Black ditch arriving from the south east. The area as currently shown forms the flood plain for the Black ditch which is designated as an ordinary watercourse upstream of the original Water Lane culvert. The area upstream of the A280 culvert predominantly falls within the South Downs National Park (SDNP) and Phase 2 of the FAS is targeting an area entirely within the SDNP.

Characterisation of the Site for Phase 2

5. The bulk of the north west bank comprises semi-improved grassland providing grazing for cattle across the bank that extends up to the A280 (plate 1). An area of mature, broad-leaved woodland hugs the channel and includes an off-line pond in the downstream half of the area of interest (Figures 2 and 3). The pond had originally been dug by the father of the land owner and was groundwater fed. However, since construction of the A280, it has largely dried up. There is dense undergrowth and the land owner is keen to see the water level in the pond restored and linked with the watercourse. The bank to the south east is now predominantly under cultivation as arable land that extends almost to the channel of the Black ditch itself; this is a change from the mapping shown in Figures 2 and 3 that show two distinct areas; one of arable and the other of improved grassland.

Approach to Phase 2

6. As mentioned earlier, West Sussex LLFA is very keen to work with the landowner and statutory regulators to consider a range of options for upstream attenuation and from this identify a preferred option that achieves a significant reduction in flood risk for Angmering while benefiting biodiversity and enhancing the environment. To date, the LLFA has had initial discussions regarding the range of options that has included:
 - Clearance and storage within the off-line pond including consideration of incorporating it as an in-line pond;
 - Channel widening to increase capacity; and
 - Use of woody dams both in the black ditch itself and in feeder streams.
 - Raising the level of Eccleseden Farm track and increasing the flow restriction at this point.



Plate 1: view of north west bank of the Black ditch within the area of interest for Angmering FAS Phase 2.



Plate 2: view of north west bank of the Black ditch within the area of interest for Angmering FAS Phase 2



Plate 3: View of pond from north edge.



Plate 4: view downstream; just south of Ecclesden Farm track.



Figure 2: Habitat Map of area upstream of Ecclesden Farm (southern portion)

7. To this end, the LLFA would welcome a response from addressees on the following points:
 - a. Pre-application guidance on the ecological survey requirements that will be needed to support the scheme; the intention would be for the LLFA to let contracts for surveys commencing spring 2022;
 - b. Whether addressees would be prepared to participate in a workshop to discuss the approach to Angmering FAS Phase 2?
8. The LLFA appreciates the consideration given by addressees to this project.

Enclosures:

1. Correspondence with Natural England regarding Angmering Flood Alleviation Scheme.

Distribution:

Clem Somerset	Land owner
Hazel Stanworth	Natural England
Ele Pilla	Environment Agency
Richard Ferguson	SDNPA
Katharine Stuart	SDNPA
Michael Eastham	Arun District Council
Fran Southgate	Sussex Wildlife Trust