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| <div>KEY PLAN</div> <div><div><div></div></div><div>Key Structure Failures (labelled in order of priority)</div></div> | <div>NOTES</div> <div>Contains OS data © Crown copyright and database right (2025)</div> | REVISIONS | | | | <div><div><div></div></div><div>Stantec</div></div> <div>172 Edmund Street, Birmingham B3 2HB, United Kingdom</div> | TITLE West Meon Mitigation Summary | | |
| | | P01 | | | | | 34101-WENV | SCALE @ A3 1:2,500 | |
| | | P01 | FIRST ISSUE EXAMPLE | | | | West Meon Parish Council | PURPOSE OF ISSUE SUITABLE FOR INFORMATION | STATUS S2 |
| | | | DRAWN BY AP | CHECKED BY AP | APPROVED BY AP | DATE 10/06/2025 | | | |
| REV. | REVISION NOTES/COMMENTS | | | | PROJECT River Meon, West Meon | DRAWING NO. 34101-HYD-XX-XX-DR-WENV-0001 | REVISION P01 | | |
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1 Area 1

Structure 1 is located under an access road to Hall Place Farm. It is a twin 650mm diameter plastic pipe at the upstream (eastern end), and a singular 650mm diameter plastic pipe at the downstream (western end). As shown in the photo below, the structure is inefficient and greatly reduces the capacity of the channel in this area. This, coupled with the fact that the culvert itself reduces in width under the road, either due to blockage or being poorly laid, is a significant cause of flooding to the surrounding area (Vinnells Lane, West Meon Road) and requires attention.

Replacement of this structure to a slot or boxed culvert would improve the capacity of the channel in this area, which is 4.5m wide from top of bank to top of bank. Consent would need to be sought from the Environment Agency to do this as they are responsible for maintaining the river, as it is designated as a Main River.



2 Area 2

Structure 2 is another twin 650mm diameter plastic pipe to a parcel of land located 135m east of Coombe Lane, that is currently undergoing construction. The pipe that has been laid is undersized and appears to have greatly reduced the channel capacity and width in this area. It is responsible for causing flooding to West Meon Road, Coombe Lane and Vinnells Lane.

As the River Meon is a designated Main River, consultation should have been undertaken with the Environment Agency to obtain the necessary permits to lay this culvert. Depending on whether this structure is temporary or permanent, consideration should be given to either removing or upgrading this structure to a slot or boxed culvert that has less impact on channel capacity. The channel is 3.5m to 4m wide in this location.



3 Area 3

This is an arched culvert under Lynch Lane that is approximately 1.7m wide at it's widest point, and approximately 1m high. The culvert becomes full during high flow conditions and is not suitably sized, causing backing up of flows and flooding to properties surrounding Lynch Lane.

Replacement of the culvert to a boxed type structure that matches the channel width of 3.5m in this location would improve flow conveyance under Lynch Lane. Further hydraulic modelling would be required by the Environment Agency to prove that this does not push the problem downstream or make flood risk worse elsewhere. A photo of this culvert is shown below.



4 Area 4

This is a small irregular shaped culvert that is 1.9m wide at its widest point and 0.8m high. Due to the age of this structure, it will not have been bespoke designed to take the flow of the River Meon during larger storm events and the culvert becomes full and overtops, with a flood route that eventually leads to Lynch Lane. The river channel is over 5m wide at this point, which demonstrates how this structure greatly reduces channel capacity.

Consultation with the Environment Agency and landowner would need to be undertaken to obtain a permit and replace this structure to something that is wider and has less of an impact on channel capacity. Other areas of floodplain may need to be lowered to compensate for any increase in flows passed downstream.



5 Area 5

This is an Environment Agency owned weir in poor condition. Whilst the model shows that there are other causes of flooding in the area, this feature should be monitored by the Environment Agency and any repair works undertaken as the feature is at risk of collapse, which would lead to accumulation of debris in the channel and a resultant blockage and flood risk.