

1. How will the drainage of surface water from the east of the embankment be handled when the river is flooded?

Under normal conditions (I.e., when the river is not in flood) surface water drainage will be managed in much the same way as it is now. The existing drainage ditches will be maintained and linked to flapped culverts that will run through the flood bank. When the river is in flood, with water against the flood bank, the flaps on the culverts will be closed with an area behind the bank for water to pond. The EA would look to deploy mobile pumps, if required, during flood events, on a best endeavours effort. This is the same approach as is taken at neighbouring schemes such as Upton Upon Severn, Powick and Uckinghall.

2. How will the embankment be constructed to prevent water seeping through the existing sandy soils to the dry side of the structure?

Ground investigation studies were undertaken prior to the development of the design and planning application. The results were used to inform an engineering assessment of potential seepage rates, and to design a clay cut off which will go below ground level to minimise seepage. The use of a clay cut off below the embankment is the same design principles as used at Uckinghall and Upton Upon Severn.

3. Will the embankment be designed to withstand erosion during flood conditions?

We ensure our embankments have a good grass coverage to help prevent erosion from wave action during periods of flooding. We inspect all our assets to ensure that the grass is in good condition and will look to repair any damage areas when required.

The embankment is being designed with relatively shallow gradient of approximately 1 in 5. This is to help enable maintenance of the embankment and also reduce erosion risks through having shallower angled embankments.

4. Do the proposals impact on the government pipeline or any other services?

The Environment Agency (EA) have liaised with the relevant stakeholders to ensure that we have a thorough understanding of all services in the area and the associated exclusion zones. The design is being produced to avoid impacts with all utilities in the area. With regards to the oil pipeline, the EA have met with representatives on site to discuss the design and have had confirmation that it will not impact on the existing infrastructure.

5. Has a Flood Risk Assessment been produced for this scheme?

A detailed flood risk assessment has been undertaken for the proposals to ensure that all sources of flood risk are adequately accounted for. The assessment has made use of detailed hydraulic modelling of both the river and surface water networks, as well as looking at the interaction between the two. A copy of that assessment will be available through the planning portal.

6. Will the scheme result in long term impacts to access arrangements?

Access points will be maintained as they are currently. The EA and contractors on site are happy to have discussions with landowners/tenants regarding any other

requirements and deliver mitigation works if it is demonstrated that the works will impact on current arrangements.

7. Who will maintain the bund both in terms of annual vegetation management and structural issues?

The EA will inspect the embankment and undertake any maintenance activities, as required and as funding allows. We are working with local community groups to confirm the best way to maintain the grass on the flood banks once it is fully established.