**Objection to planning application MW.0027/22 including Regulation 25 information.**

**Dear Matthew Case,**

 **We wish to register our objection to the planning application for the channel component of the Oxford Flood Alleviation Scheme including the Regulation 25 information on the following grounds:**

* This channel is the most destructive and expensive part of the plan but the least effective. 85% of the scheme’s flood-risk reduction comes from maintaining existing defences and new floodwalls and other earthworks.
* The EA has admitted that the flood scheme is untested on this scale, that the 2018 flow modelling was limited by available computing power, and their attempts to remedy this have been unsuccessful.
* Failing to create sufficient openings in man-made obstructions – the design would create flood back as a result of obstruction by the proposed bridge decks at old Abingdon Road and by omission of a modern viaduct at the railway in Kennington.
* - Modelling errors according to independent hydrologists and engineers not addressed in the recent consultation. There is no evidence that the peer reviewers understood the issues around sensitivity tests. Nor have there been tests for impact of bunds and defences.
* The EA has failed to model the economic impact or have a fair comparison process of not having a channel. Despite the fact that the channel provides under 3% of benefits mainly reducing flood *risks* to a small number of extra properties and is the most expensive aspect of the scheme.
- The EA needs to demonstrate that the channel is not a risk to the railway and that the twin bridges design in optimal.
* Failure to review the safety of the lowered floodplain in the light of unsuccessful modelling by the EA.

In addition, the following questions raised by the Hinksey and Osney Environment Group in relation to the Regulation 25 letter need to be addressed:

1. OCC Peer Reviewer to report on whether the comparison process with the no channel excavation option proposed b yDr Tim King has been even-handed.
2. OCC Highways to confirm in writing that, in the light of Jacob’s `elegant solution’ for a single off-line bridge, the twin bridges design is optimal.
3. Network Rail chartered engineer to confirm in writing that, in the light of the existence of an additional track, the 0.36m water level difference presented no risk to the railway.
4. OCC Peer Reviewer to report on any impact from the avoidable removal of 10ha from the east flood plain on the effectiveness of the flood alleviation.
5. OCC Peer Reviewer to review the safety of the experimental lowered flood plain in the light of the `unsuccessful’ modelling reported by the EA.

**Other Failures with the Regulation 25 Letter**

Senior hydrological engineers have raised issues that have not been addressed in the Regulation 25 Letter. Roger Bettess formerly Technical Director at HR Wallingford has commented:

“I do think that the Peer Review does refer to some of my objections (Items 20 and 31).  I do not find the comments satisfactory.  Item 20 refers to the Hydrology report making recommendations about sensitivity tests.  The comment is that sensitivity is addressed in later reporting but does not indicate where.  I do not believe it is addressed in any of the later reports that I have seen.  Item 31 refers to my concerns about the application of the Archer Method, but the Comment is that the method has been reviewed and its application to ensure it was appropriate.  I provided a detailed critique of the application of the method in this particular case, but the Peer Review does not provide any evidence that the Reviewers understood the objection nor why they think that for this application the method is appropriate. In general, I feel that a review which provides single sentence responses to the issues raised does not resolve any of the concerns raised.”

So, appropriate sensitivity tests have not been run and as Roger Bettess commented before, “it would be folly to proceed with the Scheme on the available evidence.”

Another senior hydrological engineer has also objected to the scheme which he describes as “fundamentally flawed”. “There are serious technical weaknesses in the scheme that affect the reduction in flooding that will be achieved and the value for money that will be provided by the scheme.”

There are also technical issues with the lack of modelling of the effect of groundwater seepage from bunds and earthworks. “I do not know how much flooding will occur from groundwater flows under the walls and banks during a flood event and no information is provided in the documents. I understand that pumps will be provided to deal with this problem, but no details are given regarding their location and size.

Groundwater modelling has been carried out and the results are provided in the documents. The modelling considers the effect of the new channel but, crucially, does not include any scenarios in which the proposed walls and banks are modelled.”

So therefore, there is inadequate modelling to address the effect of the whole scheme.

There is also failure to adequately model a scenario with removal of the channel:

“It is possible that the Applicant has information on the groundwater flows and is satisfied that the walls and banks will perform satisfactorily. If this is the case, it may be better to make the walls and banks slightly higher and leave the flood channel out of the scheme. This could save money and require much less land.

The document entitled “Oxford FAS – Western Conveyance Channel Review”, dated 26 Jan 2022, considers options for removing the flood channel but does not include options for combining the removal of the flood channel with raising the walls and banks.

**My third concern is, if the walls and banks can provide an effective method of flood protection, the flood channel will not be necessary as it is not very effective at reducing flood risk.”**

There is also the issue of constraints that are not properly explored in the proposal.

“The documents do not explain the constraints that have been imposed on the design of the scheme. One constraint appears to be the need to avoid increasing the flood level downstream of Sandford Lock. This places severe restrictions on what can be achieved in Oxford because any reductions in the volume of flood water in the Oxford area cannot be passed downstream. This means that the flood water must be stored in the Oxford area even though the purpose of the scheme is to reduce flooding in Oxford.”

In other words, the channel is an inefficient way of moving flood water and falls between the stools of a conveyance and a storage channel.

The approach taken by the EA in Oxford is also out of line with measures they are implementing in other parts of the country.

“An alternative would be to allow a small increase in flood levels downstream and provide (small) flood mitigation measures at any locations that are affected. This approach is adopted for the proposed River Thames Scheme, which will provide new flood channels to reduce flood risk between Windsor and Sunbury. In this case the downstream weirs at Molesey and Teddington will be modified to prevent the small increases in downstream flood levels that would otherwise be caused by the proposed flood channels.”

We believe that the multiple failures to model the scheme effectively are grounds to reject the channel component of the scheme.

**Environmental Grounds for Objection**

We object to the considerable environmental devastation that will be caused by the channel.

* Biodiversity loss – a minus 1% Biodiversity loss of over 2,000 trees and miles of hedgerow with mitigation offsite not yet secured.
* Loss of irreplaceable Hinksey Meadow and Kennington Pit Local Wildlife.
* The biodiversity net gain calculations for the scheme show that, *not even including Hinksey Meadows, and despite the much-vaunted increase in wetland habitats that the channel would bring*, there will be a **biodiversity net loss on site**. The only way that the legally required 10% biodiversity net gain can be achieved is by planting off site, at yet-undisclosed locations. This has changed from the previous environmental statement only because local residents have highlighted the biodiversity importance of the fields between North and South Hinksey.

We dispute the EA’s claim in response to the regulation 25 letter “ We will be creating an area of MG4 that is twice the size of the existing area of MG4 in Hinksey Meadow and it will represent a significant uplift in biodiversity value.” This is misleading and inaccurate.

First, the area they are “creating” is already MG15 and good quality grassland, underestimated in their assessment as ‘neutral grassland’. Second, MG grassland is **not** the same as MG4a – which is of international and national significance. There are only 192 ha left in the UK, about the size of Heathrow Airport. It takes hundreds of years to create a meadow of this biodiversity and there is no scientific evidence that it can be translocated. This is one of the top ten remaining sites in the whole of the UK. The claim that they can recreate this extremely rare biodiverse habitat of a community of 26-34 species is at best misguided and delusional. They cannot mitigate it because it **is irreplaceable.**

We dispute the EA claim in response to a question about hedgerows as misleading and inaccurate. They say “Both hedgerows are not an uncommon habitat type and support mature willows as the dominant tree type. It is not technically difficult to recreate either the mix of hedgerow shrubs or the trees because willow is a relatively fast- growing species.”

However, willows take at least 45 years to mature and a mature willow supports around 450 species. This does not qualify as fast growing. Similarly with hedgerows, that include ancient boundaries, they cannot be replaced in a short period. As we face insect and species collapse in the climate crisis the loss of these established habitats is incalculable. Furthermore, the mitigation will be **offsite**, and the removal will lead to the collapse of the West Oxford wildlife corridor impacting species such as bats, kingfisher, and voles.

Regarding the strawberry clover at Oatlands, the EA have provided no evidence that strawberry clover can be successfully transplanted.

The overall assessment of the floodplain fails to take into account the management and maintenance of the lowered floodplain and channel component of the scheme. Despite assurances, funding is still not secured. The EA said. “For wider landscape and habitat maintenance, we will partner with an environmental organisation to deliver this on our behalf.” This does not guarantee that the habitat maintenance will be funded or carried out satisfactorily. Likewise, a significant part of the responsibility for maintenance of the flood scheme will be in private hands and a complex array of third parties. There is considerable evidence that private landowners fail to maintain flood defences, nor can their compliance be enforced.

Despite assurances, the best the EA can manage for the long-term maintenance of the scheme is that it will come out of existing budgets. “Beyond this (10 year) period, maintenance (operational and landscape) will be funded from Environment Agency annual budgets.” As the EA has been defunded by 2/3 over the last few years, the continued maintenance budgeting is by no means guaranteed. In fact, the EA has said that it needs an extra £1 billion to build and maintain existing flood defences – significantly more than the budget already afforded up to 2027.

There is still the lack of a level playing field between the comparisons of the channel and “no channel alternative” in the EA’s modelling. First, according to the peer reviewer, they did not carry out economic analysis because the EA will not consider a scheme without the channel. This shows that the EA is refusing to consider alternatives, which they are legally required to do by law.

Secondly some of their reasoning re comparisons is disingenuous: “Lowered beds at the 3 new bridge locations have not been omitted for environmental reasons. The OFAS provides a new continuous channel, including under these bridges, the bed level of which is below the existing surrounding field levels to provide additional flow capacity through the floodplain and is therefore included within the model. In the no-channel scenarios the bed level at these locations is set at the surrounding field levels as localised lowering will provide no hydraulic benefit and will silt up to the surrounding field levels over time.”

Is this to suggest that the new OFAS channel won’t silt up? It will be subject to the same laws of silting as the current stream. If the argument is that it will be continuously dredged, then there is no reason why the current stream would not be dredged also.

* There is still a glaring omission in the calculation of loss of flood alleviation due to the reduction of soil by digging out alluvium and gravel for the channel. Soil is considered by flood experts a vital part of the flood plain and there are no calculations to assess the loss of 450 thousand cubic metres (around 700 thousand tonnes) of flood services. The loss of over two thousand threes and miles of hedgerow will also significantly reduce flood water storage.
* Likewise, there is no calculation about the loss and release of embodied carbon. Floodplains are second only to peat as a means of carbon storage and more robust than forest as not prone to fire and decay.
* We do not agree with the Environment Agency’s claim that OFAS has “exceptional reasons” which outweigh the irreplaceable nature of Hinksey Meadow.
* Such is the seriousness of the loss of irreplaceable habitat that the scheme should be subject to a public inquiry.
* Other objections include:
* Loss of access for at least 5 years and loss of public land long-term
* Assault on greenbelt – loss of 133 acres and 250 acres of farmland. Breaks several National Planning and Policy Framework directives and fails to demonstrate “exceptional circumstances in light of new requirements about protecting green belt.
* The Scheme is not future proof – it will not keep up with climate change.
* Harm to people’s health, particularly in South Hinksey, from pollution, noise, vibration, dust.
* Does not follow the ‘mitigation hierarchy’ of first avoiding impacts (e.g., no channel through Hinksey Meadow), then mitigating (narrower channel) and then compensating (trying to create new sites).
* Democratic deficit - inadequate public consultation.
* Waste of money and resources that could be used for a better flood scheme.
* Better alternatives available that have not properly considered – eg pump and whole catchment solution.
* Unacceptable impacts on traffic on the A34, including a 40mph speed restriction.
* Uncertainty about the effectiveness of a temporary bridge at Kennington.

In conclusion, a ‘no channel’ option would avoid most of the OFAS impacts. **We would support Option A2 (OFAS minus channel)** as described in Appendix Q of the environmental statement. However, **we strongly oppose the channel component of the scheme** and thus the current planning application. We do not feel that the replies to the Regulation 25 letter have been satisfactory.

Yours sincerely,

Patricia Murphy and Professor Jocelyn Wogan Browne

Oxford Flood and Environment Group

[www.oxfordfloodandenvironmentgroup](http://www.oxfordfloodandenvironmentgroup)