

TECHNICAL NOTE 1

DATE:	24 November 2022	CONFIDENTIALITY:	Public
SUBJECT:	Response to Environment Agency Comments Regarding Flood Risk at Site B		
PROJECT:	Bognor Golf Course	AUTHOR:	Andy Smith
CHECKED:		APPROVED:	

INTRODUCTION

This Technical Note has been prepared in response to the Environment Agency's objection to the proposed relocation of Bognor Golf Course (Site B) dated 15 November 2022.

The Environment Agency has objected as they consider that the Flood Risk Assessment (FRA) for the Scheme and the associated hydraulic modelling shows "an unacceptable risk to Grevatt's Lane (A259)".

MODEL REVIEW

In light of this comment, the hydraulic model has been reviewed and established that the surface mesh in this area is relatively coarse, as it is the same resolution as that across the majority of the model (approximately 60m²). In some areas around Site A and Site B, the resolution of the surface mesh has been significantly reduced, this is to provide an enhanced representation of the ground surface, flow paths and any obstacles to flow. In these areas the mesh has been reduced to a smaller triangle size.

The surface mesh, is how the ICM model represents the ground surface, it converts the Environment Agency's LiDAR survey into a flexible set of triangles. This approach is common across hydraulic modelling, where the ground surface is converted into triangles or squares. It is not possible to model the whole of the model extents with a smaller and tighter grid, as this would have an adverse impact on computational run times.

MODEL MODIFICATION

To address the Environment Agency's concerns a new mesh zone has been added to the hydraulic model, which reduces the maximum triangle size to ensure that the flow routes across the site and the levels on the A259 along with those adjacent to it are better represented. These changes are shown in Figure 1 and Figure 2, which show the previous and new model mesh configuration respectively.

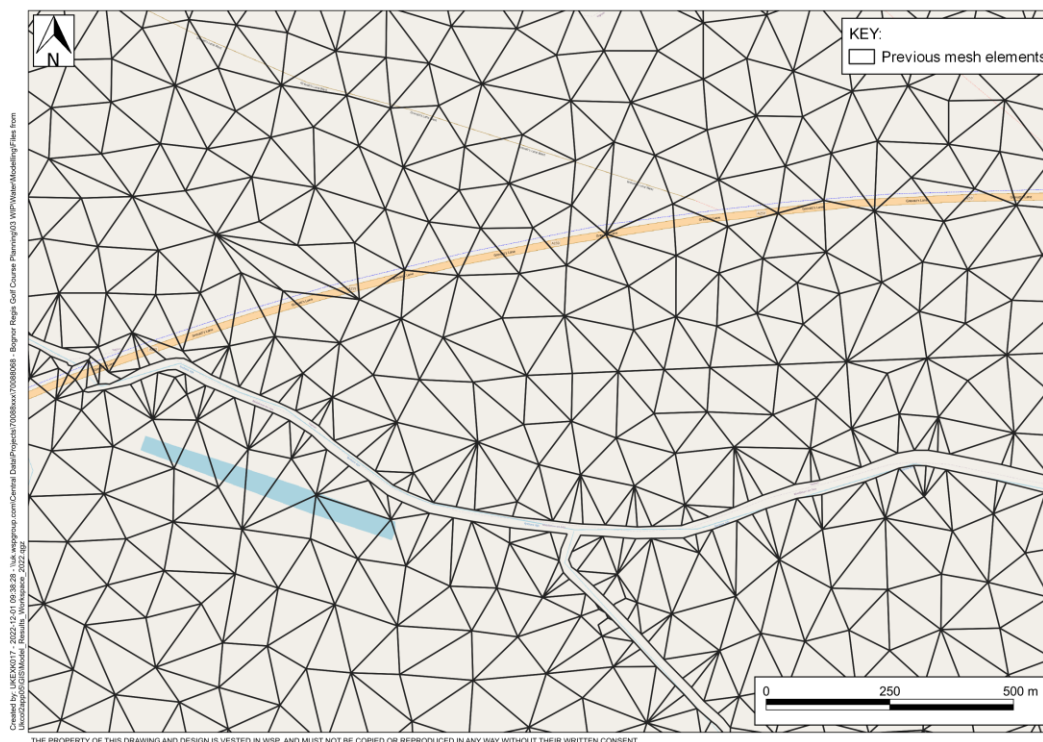


Figure 1 - Model Mesh as submitted to the Environment Agency

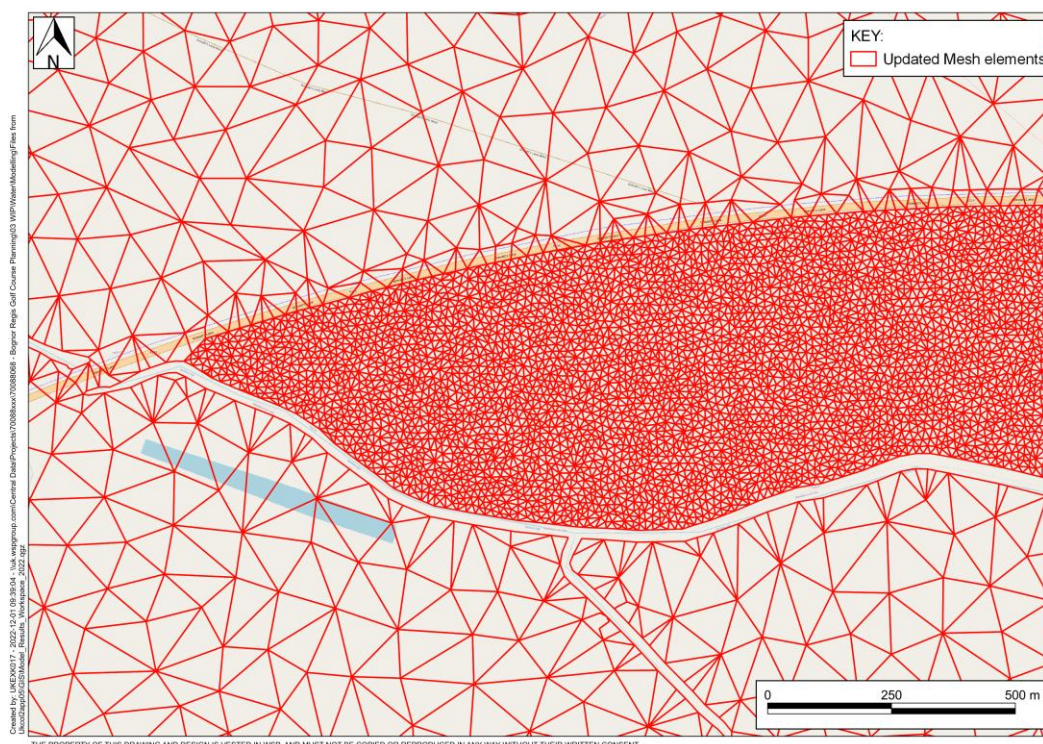


Figure 2 - Revised Model Mesh

REFINED FLOOD RISK

The modifications to the model have refined the flood risk, which demonstrates that there is no change to the flood risk to Grevatt's Lane (A259). This change is shown in the flood difference mapping, Figure 3, shows that originally submitted to the Environment Agency and Figure 4 shows the revised flood difference

mapping along with Figure 5, which shows the revised flood difference mapping for the area of the Environment Agency's concern.

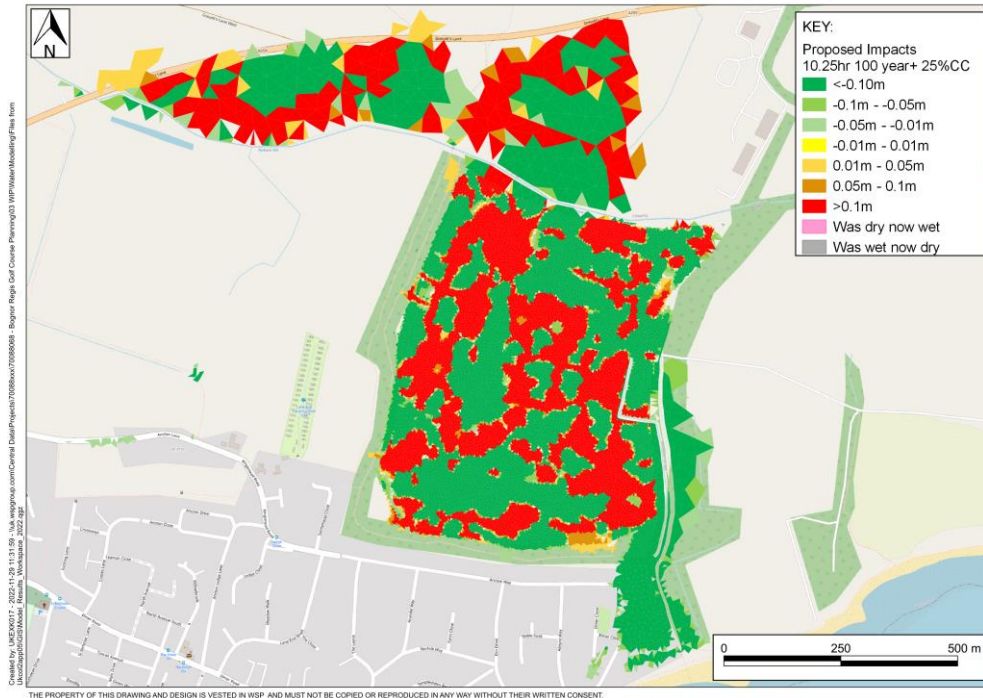


Figure 3 - Original Flood Difference Map

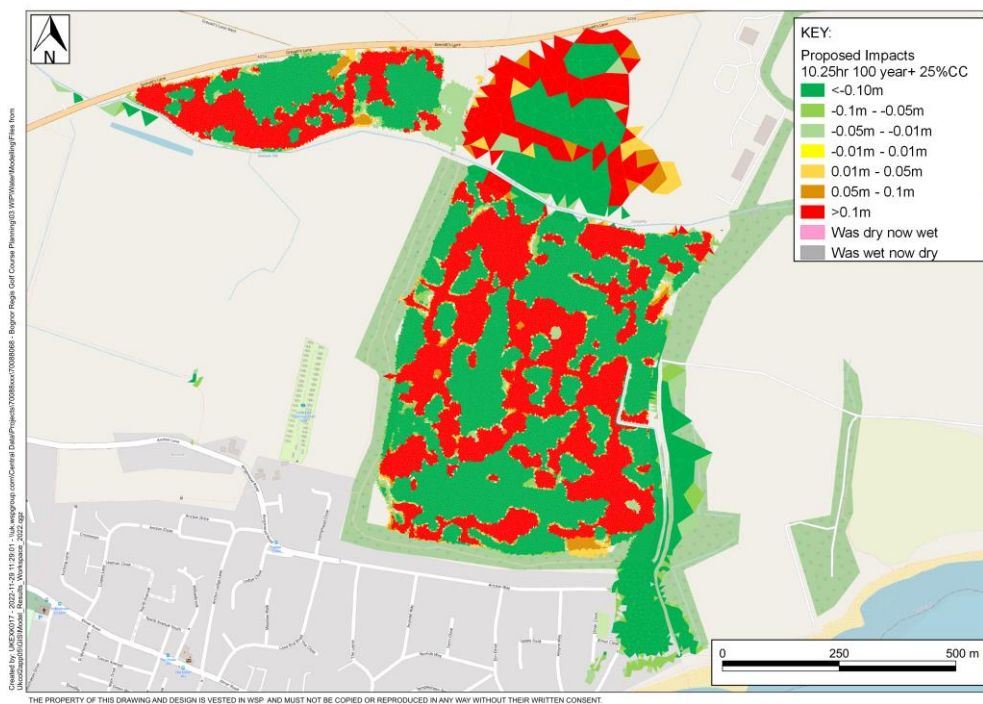


Figure 4 - Revised Flood Difference Mapping

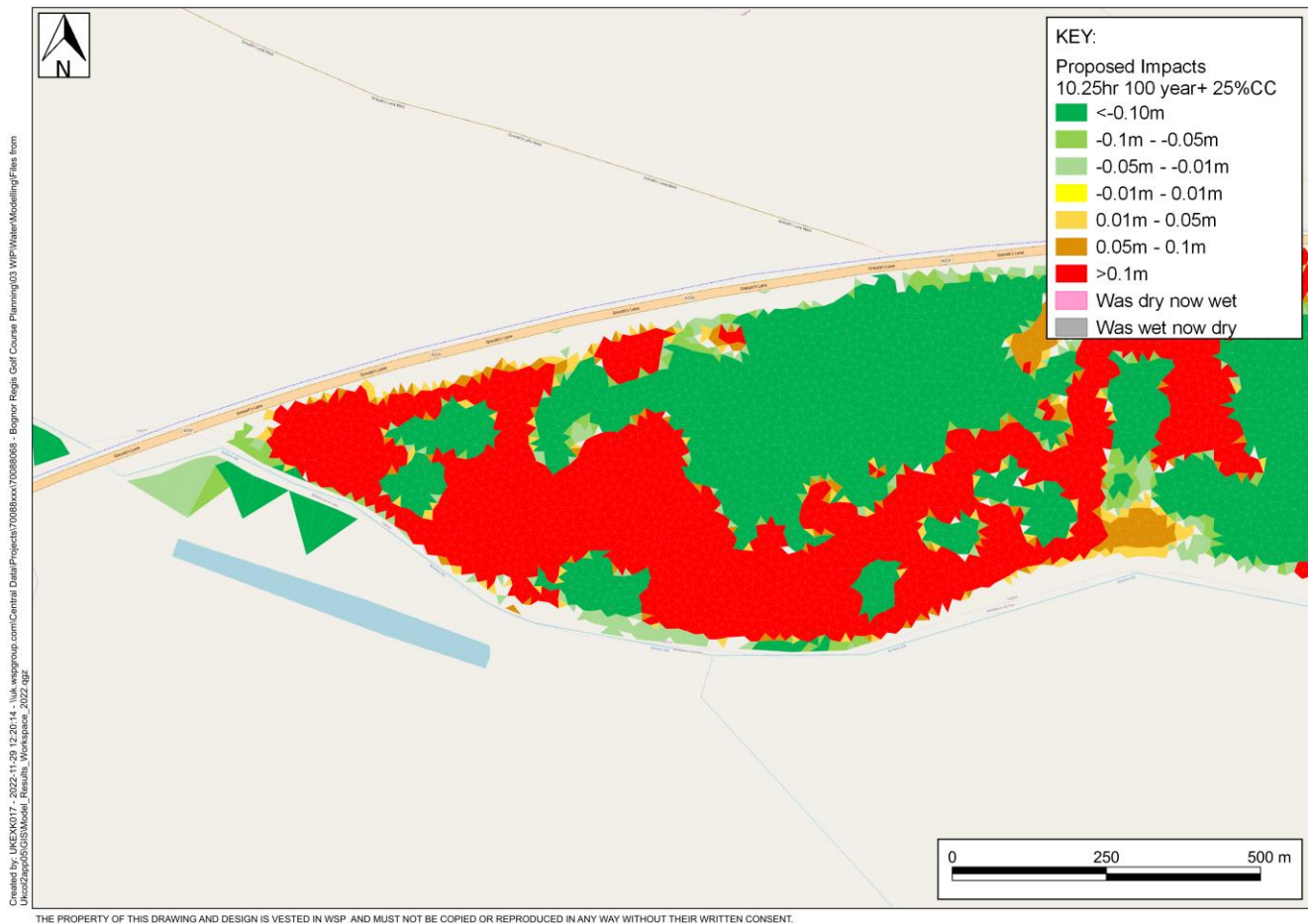


Figure 5 - Revised Flood Difference Mapping for the area in question

CONCLUSION

The revised flood mapping demonstrates that there is no change in flood risk to Grevatt's Lane (A259), therefore the Scheme is acceptable in planning policy terms and the Environment Agency's objection should be removed.