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Oxted and Limpsfield Residents Group
Correspondence by e-mail

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Dear group members,

This work follows the Review of Flood Risk submitted by Hydro-GIS Ltd in May 2025 relating to the initial applications documents. Since this review was undertaken, the Lead Local Flood Authority (Surrey County Council) have responded to the Flood Risk Assessment and Drainage Strategy by Motion, and in turn Motion (the applicants consultant) have provided additional information as a technical note. The technical note includes each of the points for objection raised by the LLFA and provides a response.

The technical note includes a revised SuDS design following discussions between Motion and the LLFA. In their initial response the LLFA requested more information on infiltration rates and depth to groundwater across the site. However, following discussions the revised SuDS incorporates surface water storage features rather than infiltration measures across parts of the site where the groundwater was likely to be too high to enable infiltration. As an alternative four detention ponds have been included in the SuDS design along the western edges of the site where surface runoff from the site can be temporarily stored and released to the stream flowing into The Bogs at a controlled rate. The new design and other features such as exceedance flow paths and outlet locations are shown in the drainage layout plan in Appendix B of the response. This also includes the full detailed layout of the development and the topography and is difficult to view at the A4 size in the technical note. It would be easier to read and understand if Motion could have separate drawings showing the different features, for example a map of just the detention ponds, drainage and exceedance flow routes, with a separate drawing showing the full development, and another showing the topography of the developed site. In addition, there are no design drawings of the ponds with cross-sections and details of the inlet and outlet arrangements.

The LLFA also requested more details on the greenfield runoff estimates and reasons why the MicroDrainage software (used simulating the performance of the proposed drainage design) had output listed as “Flood Risk”. The technical note has included an extract from the HR Wallingford web application showing the greenfield flow estimates, which - as was identified in the earlier Hydro-GIS Ltd review- are based on information and data from the 1970s and should not be approved.

The response of the consultant as to why the MicroDrainage software gave “Flood Risk” as an output was that the flood risk was only in landscaped areas of the site, not in the residential areas and it had been caused because some of the SuDS features have not been included in the software simulations. An examination of the current MicroDrainage output in the technical note still has “Flood Risk” listed on pages 34 and 80-85. A further admission by the Motion was that additional measures would be included for more MicroDrainage simulations so it appears they are premature in providing the simulation output and that the work is incomplete.

The final area of concern raised by the LLFA is the inspection and maintenance schedule as proposed by Motion. This needed to consider the discharge into the existing watercourse which has now been covered in a revised 10-page inspection and maintenance schedule shown in Appendix D.

In conclusion, Motion say they have worked to overturn the objection and this should no longer be an impediment. However, it is considered that the technical note does not adequately address the concerns raised by the LLFA namely:

- Clear individual maps are required to highlight the SuDS features, existing hydrological features and the topography and flow pathways;
- Drawings showing details of the SuDS features in cross-section with the inlet and outlet structures;
- The MicroDrainage simulations are still showing “Flood Risk” as a status in the output which needs to be explained;
- Motion themselves have stated that some SuDS components are missing from the MicroDrainage simulations so these need to be included and the simulations revised.

The technical note still has not addressed concerns raised in the initial Hydro-GIS Ltd review, which were not fully including a lack of information on historical flooding and catchment hydrology, and using an outdated method for estimating greenfield flows from the application site. Furthermore, there is nothing in the technical note to consider the impacts of the development on the hydrology of The Bogs. It appears that the SuDS design has been optimized to consider the flood risk at the site without considering the role that both surface and groundwater flowing from the site plays in sustaining the environment of The Bogs. A programme of monitoring should be undertaken to understand the seasonal variation in groundwater level and flows in The Bogs and surrounding area, which would at least provide an idea of the baseline conditions. The potential impacts on these from the development during the construction and operation phase could then be better understood.

With the SuDS design including detention ponds which are sealed to prevent the upwelling of groundwater Motion should make an assessment of how this and the impermeable roads and building slabs of the site may affect the groundwater. The location of the spring which was identified may then move as the groundwater would take the path of least resistance to the lowest ground elevation. Also, with the ponds being designed to store the surface runoff from the site and only have an outflow when levels reach a certain height under extreme conditions, a significant volume of surface water may be prevented from reaching The Bogs and instead would be stored and lost through evaporation. Motion should also undertake an annual pond water balance assessment over a number of years to identify how much water typically would be prevented from reaching The Bogs under the proposed design. Overall, the total storage capacity of the four ponds to the western side of the site is 2452 m³, according to the information in the layout drawing in Appendix B of the technical note which is a significant volume potentially lost from inflow to The Bogs.

Yours faithfully,



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