

9th February 2010

Dear Mrs. LeCointe,

Grove Airfield Development

Your attention is drawn to a matter that was raised during the Local Plan Inquiry held during Summer 2005. It relates to drainage of the Grove site, which as you are aware, is a major concern for local residents. A number of copies of this submission were provided at the time, so that your office will have the information on file.

It seems clear that the reason this subject was summarily dismissed at the time was your department's wholehearted acceptance of the myth that the site slopes towards the south and drains into Letcombe Brook. That stance was maintained despite the attention drawn by local residents to the frequent occurrence of flooding at the north part of the site. That fundamental error inevitably means that no consideration was given to the real drainage situation. Now that you recognize the northward slope, perhaps aspects such as this one that were previously discounted will be given the detailed attention they should have had before the site was selected for development.

At the Inquiry, the inspector's attention and that of the VoWHDC planning officers present was drawn to a 1973 MAFF report entitled 'The Soils of Wantage and Abingdon', copies of which are held in Oxfordshire libraries. It was explained that this report describes the soil in and around Grove as consisting of a clay layer 0.5 - 2 metres thick, beneath which is a layer of shale. Obviously, the contours of this shale layer closely follow those of the surface. You are aware the airfield site has a high point (ca. 87m above mean sea level) to the south, and that its lowest point, at ca. 71m above mean sea level, is near its northern boundary. It was also pointed out that borehole studies of the site had been performed during WW 2, prior to construction of the airfield, and the results are held at Hydraulics Research, Wallingford. These showed that the ca.10m-thick layer beneath the former runways normally retains around 6 inches (150mm) of water. Thus the total quantity of water contained in the shale beneath this area is more than 200ha x 150mm deep, i.e.300 Million litres. Much of the former runway area, including the development site, does not drain directly into local brooks, and hence a substantial fraction of this water is retained within the shale layer.

This feature may mean that the Grove airfield site is among the county's least suitable locations for major housing development.

It is highly likely that any excavation that penetrates the clay layer will allow this retained water to be released. If such a breach occurred near the northern boundary, there would be a height difference of at least 12 metres to force water to the surface. Hence any excavations that may take place at the northern end of the site (e.g. house foundations or a drainage system) would be likely to result in an outflow of this water. No normal drainage system (not even the extensive system needed to deal with the surface water problem on the site) would confine more than a small fraction of the retained volume and a release of this magnitude would seriously affect not just the

site itself, but also the communities downstream. Moreover, this would not be a single event. Because the layer is replenished by rainfall onto the whole area of the former airfield, and not merely onto the development site, large volumes of water that accumulate in the shale layer would flow through any breach during and after periods of rain. This in turn would mean long periods during which part of the site would be inundated, even after modest rainfall.

Initial base-line studies of the site conducted within the recent past included borehole investigation of subsoil water flows. Unfortunately those investigations were undertaken towards the end of an 18-month period of exceptionally low rainfall, when groundwater levels were abnormally low. In such circumstances it is unsurprising that subsoil water flow conditions could not reliably be established.

Hence the likelihood of a water release as described remains unknown.

It appears that neither VoWHDC nor the developer has devoted the requisite level of expertise to this important issue, leaving unanswered fears that the development could result in local communities being left at risk of major flood damage. In view of these potentially calamitous consequences, the possibility of this event should be fully and independently investigated prior to consideration of planning consent. You will appreciate that such an investigation is in the public interest, and every effort should be made to avoid possible conflicts of interest. An organisation such as HR Wallingford would be able to provide impartial expert advice on this matter and any necessary drainage requirements, with the additional benefit that local residents would have confidence in its findings.

It is regrettable that this matter has not been thoroughly investigated before. Now that it has been brought to your notice a second time, I hope you will give it your department's urgent attention, and look forward to hearing from you what measures you intend to take.

Yours sincerely

D. Summers

cc. Other parties.