



WILTSHIRE HOUSING SITE ALLOCATION PLAN - EXAMINATION IN PUBLIC

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Dear Mr Inspector

My name is Malcolm Oliver Read, and I object to the housing allocation to the north of the Netherhampton Road Salisbury, which I believe is site S1027. I was a member of Salisbury District Council during the eighties, and as such I took a keen and prolonged interest in the Avon catchment. I have also submitted written evidence to a House of Commons Select Committee's inquiry into flooding. Then in 1993-4 I was the lead witness on hydrology for the objectors to the proposed Salisbury Bypass. Had this hearing today been held in Salisbury I would have attended in person. However, as I am 82 years old I feel it is too far to travel to Trowbridge (the folly of having only one unitary authority in the County). I hope that not being present will not detract from my evidence. Indeed I would be happy to try to respond to any questions if the Programme Officer was able to convey them to me.

Over the past two or three decades we have become familiar with pictures, on the television, of people's houses disastrously being flooded by several feet of water. In many cases this has been due to the houses having been built on the river floodplain. So what is a floodplain and what does it do? The answer is that it is a large area of flat, low-lying land, usually on both sides of a river. In periods of prolonged rainfall the floodwater in the river rises and overtops the bank, and it then spreads harmlessly out onto the floodplain. Then when the level in the river channel eventually drops the water on the floodplain drains back into the channel. If that floodwater has not been able to spread harmlessly out onto the natural floodplain, because the level has been raised for whatever reason, then it will raise the river level downstream, breaking the bank and causing flooding in a built-up area.

If you take the area of a natural floodplain, before any development has encroached upon it, then that is likely to be the right area of flood storage for that particular location. Its having evolved over many centuries. For example, the undeveloped, green area bounded by the Netherhampton Road to the south, and the road from Quidhampton to Lower Bemerton in the north, may seem rather ample, (let us call it the Nadder floodplain). However, in the event of a severe flood, it would have to cope with floodwater from the rivers Till, Wylye, Nadder, and then the Avon, no less, which enters this floodplain by the Cathedral Close.

Based on the evidence presented to the Salisbury Bypass Inquiry, I calculated that the "100 year" flood flow - when all of the floodwater from the Nadder floodplain is joined by the floodwater from the river Bourne on the other side of the city - would be 132 cubic metres per second. Compare that to the flood flow on the river Lavant in the 1993-4 Chichester "100 year" flood event, which was just 7.9 cubic metres per second. That is to say 16 ½ times less than for a similar flood event in Salisbury. The reason why Salisbury needs to protect its EXISTING floodplain areas is that the Avon and its tributaries drain a huge catchment area, with all of this floodwater then having to pass through the city. We just cannot afford to allow development to start eating away at the edges of the floodplain. Bite by bite! And the proposed housing allocation is a pretty large bite!

As far as hydrologists are concerned, and those experts employed by developers, a floodplain is not simply as I've described; an area of flat green land beside the river, preferably bounded on either side by a decent road, so as to be easily recognisable, easily defended from encroaching development, and easily defined as a no-go area for development. No, these experts would produce three floodplains instead of one. Albeit they are paper ones. A 100 year floodplain; a 200 year floodplain; and a 1000 year floodplain. And the flood maps for each of these "floodplains", showing the areas required to store floodwater safely in each of these flood events, is determined by feeding, into a hydraulic computer model, what are estimated to be the 100, 200, and 1000 year flood flows, in terms of cubic metres per second.

The fatal problem with this approach is that these flood flows are only ESTIMATES. There is absolutely no way of knowing what an AVERAGE 100, 200, 1000 return period flood flow would be. (And of course it has to be an average because it is not unknown for a so-called 100 year flood to occur two years running). One would need at least a thousand years of records to establish, with any hope of accuracy, what 100 and 200 year return period flood flows would be. Let alone a 1000 flood flow! And then of course, over that period the climate would have changed, so the whole exercise would be futile even if it were possible.

But does this deter the experts from engaging in this methodology? Of course not! Not being in possession of hundreds of years of records, they nevertheless claim they have very sophisticated ways of calculating the requisite return period flood flows, from just 50 or 60 years of records. Armed with these spurious estimates, which they then feed into their hydraulic model, they will claim that the flood map, produced by the model, shows that an area of land towards the edge of the natural floodplain would not after all be required for flood storage, and could therefore be built on.

And then, a few years later, possibly these same experts would come forward and claim that they have developed an even more sophisticated, and accurate, way of calculating, say, the definitive 100 year flood flow. And guess what? - this more sophisticated and accurate way of calculating the 100 year flood flow shows that even more land towards the boundary of the floodplain would not be required to store floodwater in a 100 year event. And could therefore be built upon.

This then is the blueprint for destroying a floodplain - for destroying vital flood storage in an extreme event; thereby greatly increasing devastating flooding in built-up areas downstream. The development on the floodplain at Chichester was such that they only had flood storage left to accommodate a 25 return period flood. Sainsbury's supermarket standing forlornly in a large lake was my enduring memory of that event. Their solution to the problem of having destroyed their floodplain storage was to dig an artificial flood channel to take flooding directly out to sea. I'm afraid Salisbury is not near enough to the sea to do that!

As I've said, it is much easier to defend a pristine, un-encroached upon, clearly defined, natural floodplain, such as the Nadder floodplain, than to try to defend it once it has been eaten away by development, on the back of spurious and misleading computer modelling. It is acknowledged that the allocation site is very slightly higher than the remainder of this natural floodplain, but who can say that it would not provide vital flood storage in the event of a severe flood. Enough flood storage to prevent flooding in a marginally at-risk built-up area downstream. The Environment Agency calls the site "lowest flood risk".

In the past, when it has been claimed that the risk of flooding at a particular location on a natural floodplain has been "low", the benefit of the doubt has gone in favour of development; and we have seen the disastrous results. Why, when all the regulations which affect our daily lives seem to be determined by the precautionary principle and the elimination of risk, does the precautionary principle not apply to building on floodplains? Particularly when flooding people's homes causes so much human distress and suffering.

Thank you very much Mr Inspector.