

## Curbridge and Curbridge Creek (SAC/SPA/RAMSAR Site) Flood Risk with the Proposed 'North of Whiteley MDA'

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We have got to wonder with the very large nature of the proposed MDA whether WCC are pre-determining the outcome of the LDF process; creating a self-fulfilling prophecy in terms of the importance of this MDA to the adoption of the LDF and we do wonder if to put such a burden on this proposal really is in the best interests of the planning process, perhaps even prejudicial to it, especially with the council's increase to 3500 dwellings and more recently considering the Council's stand on Barton Farm and not needing 2000 new homes in a City of over 42,000 people.

Whiteley state in their Blueprint feedback "*With reference to housing the requirement for affordable housing is minimal (20 according to WCC's Housing Need Matrix Nov. 09) and yet it is being suggested that the Parish should accept numbers in North Whiteley which far exceed the community's requirements.*" Whiteley is not indicated in the indices of deprivation...indeed it is rather affluent.

Whiteley was conceived as a new community on a 'greenfield' site, **separate from nearby towns and villages**...of 4000 homes; the Principal Scrutiny Committee decided June 2003 to set up an Informal Scrutiny Group to review the current situation in Whiteley ... it was finalised March 2005, its recommendations were quite simple and do not appear to reflect the proposed extension in any way, shape or form.

We also wonder why such an early, extensive and specific consultation was **not** carried out in our Civil Parish as the plans were being set in motion to irrevocably change almost 700 acres of its beautiful and environmentally fragile land with dire consequences for its adjacent internationally important environmental and scientific sites.

We believe Area 1 could be developed in a way that provided the **needed** (rather than overtly created because of excess development) infrastructure for Whiteley and had adequate space for enough flood control ponds. For instance some of Hampshire's secondary schools are quietly making redundancies locally due to falling pupil numbers (and the falling birth-rate is predicted to continue) so is another secondary school actually needed in the area when there is already sufficient capacity? Doubtlessly too the proposed North Fareham ECO Town a few short miles down the road will provide yet another secondary school.

The draft master plan already shows a proposed south of Curbridge exit so traffic impacts through the village would be similar.

### **It is Area 2 that is the real problem.**

Hampshire Ornithological Society describes Curbridge Creek and the National Trust's Nature Reserve in the following way "*The estuary provides Curbridge with an abundance of river and shore life. This area is the most fragile part of the reserve. The action of tides and river flow contribute to this constant change. Mudflat, saltmarsh, woodland - each habitat illustrates the transitional nature of the reserve.*"

Cockermouth Cumbria Flooding Nov 2009: David Balmforth, a flooding expert at the Institution of Civil Engineers, said deluges on a similar scale will become more frequent as a result of climate change.

He said:

*"Climate change means that is only going to get worse. We cannot hope to defend ourselves from flooding on this scale.*

*"Instead we need to make our communities much more resilient to flooding and this must be placed at the heart of the way we plan, design and build our towns and villages."*

Gordon Brown July 2007:

*"We will have to look at what happens with drainage in the future and we will have to look at other areas to be sure that the infrastructure is properly protected and properly safe."*

Our Westminster MP for the Meon Valley, George Hollingbery, former councillor and cabinet member wrote to us (17 June 2010) about the proposed development in reply to our expressed environmental concerns:

*"I very much understand concerns about the fragile nature of the environment but this was considered when the development was planned"*

**which it obviously was not** - as otherwise risk of off-site flooding and a lack of flood defences would have been addressed before April 1<sup>st</sup> this year when it was included in Cabinet's papers as part of our feedback from the Draft Infrastructure Report consultation. So no consideration had been given to the potential impact of this proposed massive development to localised tidal and pluvial flooding for the past 6 years - which we find extraordinary to say the least.

We believe that Area 2 should not be allowed to be developed until the City Council really know what the localised implications of climate change will actually be along with the efficacy of flood control ponds and SuDS in Area 1. Once the land is put irrevocably to urban use it will be too late to back track; several years of information, water flow and combined local tide and flood levels are needed to have any degree of certainty of impacts to the SPA/SAC and flood risks; and we will be the ones living with the consequences.

It is Area 2 that causes the real issue in terms of surrounding the village by development and creating 3 main directions of run-off funnelling into a single, tidal waterway at the bottom of the valley with devastating flood potential to houses and a fragile European protected site that is of international scientific importance; the tidal upper reaches of the Hamble at Curbridge Creek. This we believe is in breach of PPS25. a recipe for disaster— a replay, on a smaller scale, of what happened at both Boscastle and Cockermouth.

### **Flooding/SUDS**

Tidal and fluvial flood combined (including water run-off management, pluvial flood) is one of the most significant issues facing Curbridge as several of the properties are in a 3a or 2 floodzone. These homeowners are deprived of flood insurance and are at significant current and increased future risk due to climate change; let alone due to pluvial flood water, from hard surfaced land, having a short time of concentration before entering the river at the time of spring tides.

**WCC Draft Infrastructure Plan Page 128 "Flood Defences: Strategy yet to be devised (dependant on master plan) so costs unknown... Flood defences not required. Development will be restricted to flood zone 1 areas."**

This is wholly inadequate and high risk and we believe against PPS 25 – it is not just about the houses yet to be developed; but existing properties that are in the floodzones and the European protected sites. Rectification, rather than ‘mitigation’, of these risks must be achieved especially with consideration to combined flood risks as well as climate change.

**Topography:** The centre of Curbridge, bordering the river, is situated at the bottom of a valley and has a height of 3m (OS) with the raised ground to the north, east and south of it rising to 20m giving a maximum 17m drop over approximately 500m. With storm water/significant rainfall events (0.1m or more) there are significant flood risk issues that will come with hard surfacing of former agricultural land. It is not believed that SuDS would be able to cope with significant rainfall and a shorter time of concentration of water accelerating down such slopes to the river, feeding into the 2 streams that join at Curbridge Creek’s bridge, a tidal river/estuary. Indeed our flood risk/management expert has recently confirmed that no delivered SuDS ‘fully mitigates’ the development of greenfield land let alone at times of significant (1/10 years) rainfall events.

Curbridge is already experiencing significantly increased levels of water run-off coming down the Whiteley Stream, through higher low tide water levels before the bridge, since the lower part of Bluebell Way has been developed, so either the SuDS in Whiteley is probably not fit for purpose; or we have already had some significant and very localised climate change effects.

Whilst there are steps that can be taken by those homeowners to minimise the slow effects of climate change and naturally occurring water level rises, there are not adequate steps to be taken to ‘mitigate’ the effect of hard surfacing the land for 3500 houses plus the built infrastructure such as schools.

There is an agreement between the government and the insurance industry, called the Statement of Principles for homes built prior to 1 Jan 2009, this obliges insurance companies to offer flood cover as part of standard policies where the flood risk is no worse than a 1 in 75 [1.3%] annual risk *providing there are plans to reduce the risk to an acceptable level within five years* – this does not cover grade 3b and 3a flood risk areas where the risk is around 5%.

A senior underwriter at a major insurance company said of the postcode area the whole area of Curbridge and the MDA:

*‘that postcode (SO30 2HB) is a 10/10 bad one for flooding and subsidence – we wouldn’t even quote for flood – some firms might ask for further information, but without flood defences etc and evidence – no way, and without adequate insurance you cannot get a mortgage’...*

There is no obligation for insurers to offer cover for flood risk to newly-built property; the responsibility is on developers and customers purchasing a property in a new development to make sure it is insurable for flooding.

**We believe that the following aspects of PPS25 (Appendices B [5, 9, 11 and 12] and C [4, 5 and 6] ) have not been taken into consideration in the planning to date and that these significantly affect the sustainability of the proposed development; including in terms of potentially significant joint and several financial liability by WCC, through case law “brings, collects and keeps” and its ability to cause “mischief and escape” due to a “non-natural” use (Rylands**

v Fletcher [1868]) to both existing homeowners, SAC/SPA/RAMSAR sites and the National Trust's Nature Reserve.

#### PPS25:

#### Appendix B

*"B5. Global sea level will continue to rise, depending on greenhouse gas emissions and the sensitivity of the climate system. The relative sea level rise in England also depends on the local vertical movement of the land, which is generally falling in the south-east and rising in the north and west. Allowances for the regional rates of relative sea level rise shown in Table B.1 should be used as a starting point for considering flooding from the sea, along with the sensitivity ranges for wave height and wind speed in Table B.2, in preparing flood risk assessments.*

*B9. In making an assessment of the impacts of climate change on flooding from the land, rivers and sea as part of a flood risk assessment, the sensitivity ranges in Table B.2 may provide an appropriate precautionary response to the uncertainty about climate change impacts on rainfall intensities, river flow, wave height and wind speed.*

*B11. Flooding in estuaries may result from the combined effects of high river flows and high sea surges. When taking account of impacts of climate change in flood risk assessments covering tidal estuaries, it will be necessary for the allowances for sea level rise in Table B.1 (see para. B5) and the allowances for peak flow, wave height and wind speed in Table B.2 (see para. B9) should be combined.*

*B12. Indirect impacts of climate change on land use and land management may change future flood risk. For example, changes in crop type, methods of cultivation and harvesting could affect the porosity and surface of the ground and hence the volume, speed and direction of storm run-off."*

#### Appendix C

#### "Flooding from Rivers

*C4. Rivers flood when the amount of water in them exceeds the flow capacity of the river channel. Most rivers have a natural floodplain into which the water spills in times of flood. Flooding can either develop gradually or rapidly according to how steeply the ground rises in the catchment and how fast water runs off into surface watercourses. In a large, relatively flat catchment, flood levels will rise slowly and natural floodplains may remain flooded for several days, acting as the natural regulator of the flow. This is a function that the planning system should promote and enhance. In small, steep catchments, local intense rainfall can result in the rapid onset of deep and fast-flowing flooding with little warning. Such "flash" flooding, which may only last a few hours, can cause considerable damage and possible threat to life. Land use, topography and the form of local development can have a strong influence on the velocity and volume of water and its direction of flow at particular points. Flooding can occur when culverts and bridges are blocked by debris.*

#### Flooding from the Sea

*C5. Flooding to low-lying land from the sea and tidal estuaries is caused by storm surges and high tides. Where tidal defences exist, they can be overtopped or breached during a severe storm, which may be more likely with climate change. The onset of flooding from the sea can be extremely rapid. Deep, fast-flowing water can create an extreme hazard. The severity of such flooding will depend on a number of factors, often in combination: the height of tides; weather systems; wind and wave conditions; topography; the effectiveness of drainage systems; and the condition of*

flood defences. The consequences and impacts of flooding from the sea and tidal waters are more severe than flooding from rivers. It is for this reason that Flood Zone 3a (see Table D.1, Annex D) has a 0.5 per cent annual probability boundary for flooding from the sea and tidal waters while from rivers it has a 1.0 per cent annual probability boundary.

### **Flooding from Land**

C6. Intense rainfall, often of short duration, that is unable to soak into the ground or enter drainage systems can run quickly off land and result in local flooding. In developed areas, this flood water can be polluted with domestic sewage where foul sewers surcharge and overflow. Local topography and built form can have a strong influence on the direction and depth of flow. The design of development down to a micro-level can influence or exacerbate this. Overland flow paths should be taken into account in spatial planning for urban developments. Flooding can be exacerbated if development increases the percentage of impervious area.”

- Existing, old, properties in Grade 3a,b and 2 floodplains should not be negatively impacted on by pluvial flooding from the hard surfacing of fields that will have a small time of concentration for rainfall before entering the tidal river where tidal and fluvial flooding combined will have devastating effects on property and the home owners who have no flood insurance available to them.
- Tidal levels are rising as shown by the Highest Equinoctial Spring Tide Predictions from the National Oceanography Centre. All the dates below (and 3 days either side of them) are very high flood risk dates, twice a day, for Curbridge if there is any combination of pluvial flooding, low air pressure and a westerly gale with the high tides:

• 4.97m	• 20/Mar/2011	• 5.08m	• 27/Oct/2011
• 4.94m	• 9/Apr/2012	• 5.06m	• 15/Nov/2012
• 4.89m	• 13/Jan/2013	• 4.99m	• 4/Dec/2013
• 4.99m	• 3/Jan/2014	• 5.06m	• 9/Oct/2014
• 5.01m	• 22/Mar/2015	• 5.13m	• 28/Oct/2015
• 5.01m	• 9/Apr/2016	• 5.13m	• 15/Nov/2016
• 4.95m	• 28/Apr/2017	• 5.04m	• 5/Dec/2017

- The particular risk from the MDA is that all the ground is raised, and water flows downhill. Therefore at a time of high rainfall levels SuDS will not cope and the pluvial flooding, from the hard surfaced areas of the MDA, will have a very short time of concentration before they hit Curbridge from 3 sides and down both the streams, and have only one direction to escape; however that will be full of the high tidal water – which will also be exacerbated by downstream pluvial flood water entering the river.
- The Environment Agency has expressed its concerns over SuDS issues for Area 2 and water quality run-off into the Hamble SAC. These concerns should be heeded and the quality of water flowing into an SAC be protected.
- Southern Water have concerns over capacity issues of the 24” water main that crosses the site and supplies Whiteley to cope with the additional demands and the situation if the pipe fails.

In closing...

We believe with the very size of this MDA that WCC are pre-determining the outcome of the LDF in a way that could be considered unhelpful to the proper planning process.

Secondly this proposed development of the MDA will also affect the rights of individuals already owning houses and living in Curbridge to have '*peaceful enjoyment of their property*', a human right enshrined in statute, by increasing the risk of flood, ignoring climate change effects and the very real combination of pluvial/fluviial flood and tidal flood, that is well known to residents of the village.

Thirdly by the planning authority at some point in time giving consent to such a development they will be creating a clear and ongoing risk of significant financial liability by them to existing homeowners **and more importantly, and costly, also to rectifying damage caused to the European protected and National Trust sites.**

And finally we have to ask whether any lessons have actually been learned from the floods at Farringdon, Boscastle and Cockermouth?