Sonning Eye Action Group
*Protecting the Oxfordshire hamlet of Sonning Eye*
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Environment & Economy,
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30 September, 2015

Dear Sir,

We would like to make representations about the Minerals and Waste Plan.
We are in the curious situation that because of the grossly drawn out time scale of this whole procedure events have overtaken the adoption of the Strategy locally. Oxfordshire County Council (OCC) had retained policies that precluded gravel extraction locally, but despite this, planning consent has been given for a new area of extraction in zone 3b locally, in the Sonning /Caversham floodplain.
Despite this we believe that many of the points we have been making over the past five years remain very pertinent.

Firstly, and perhaps most importantly, is the issue of how much sand and gravel is necessary. We would like to strongly support the paper submitted by OXAGE. We believe that figures presented there are a compelling case for a vastly decreased demand/need compared to those presented by OCC. As the OXAGE paper covers this in such detail, no further comment will be made about it here.

The second point relates to compliance with NPPF technical guidance on flooding. The attitude of the Council to this guidance has been demonstrated during the planning application and its determination for the Caversham quarry. The Sequential Test is the key element here and is absolutely specific that planning should never be given for a development, including gravel extraction, if other sites with lower flood risk are available. OCC commissioned an independent group (Atkins) to carry out a Sequential Test on their behalf to assess whether the plans submitted for the Caversham quarry passed it. They found it failed the test, there being five other sites with lower flood risk. Despite this, they concluded that the Test should be ignored as the need for gravel was so urgent and immediate that these other sites could not be "properly evaluated", and this is despite having submitted what they previously thought was a complete Minerals and Waste plan. It now seems that the need for gravel is nowhere near as immediate and this interpretation of the Sequential Test has ignored the major risks associated with flooding. (Please see our previous submissions relating to this).

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Thirdly there is the question of site restoration. In our previous submission we covered this issue in relation to gravel extraction in the floodplain, see attached. There are 2 issues here. One is the change in geology that must occur if you replace gravel with inert waste. Floodplain drainage and subterranean water flow must be affected. Its effect on flooding is unknown and apparently cannot be comprehensively modelled. The risk is therefore not calculable. The other is whether this is the best use of inert waste, which is a scarce and diminishing resource as so much of this is now recycled. There will be other sites where it's necessary use is more pressing, for example in areas of outstanding natural beauty, or near airfields where bird strike is an issue, and open water is unacceptable.
One final factor has arisen which casts doubt on the Council to properly interpret planning policy has been its attitude to another part of the NPPF Technical Guidance. This clearly states that any form of waste disposal in the functional floodplain is prohibited. Whilst it may be permissible to use some such waste to allow a sympathetic reconstruction of a gravel pit, it clearly prohibits the import of 600,000 tonnes of waste, as is the case in Caversham. In order to legitimise the decision to allow this OCC has proposed the following view.

"That since the extraction of gravel is a water compatible activity and therefore allowed in the floodplain, the any form of restoration is also water compatible and would therefore be allowed".

This is clearly a non sequitur and shows a cynical disregard for planning guidance in favour of their own ends.

We believe that it is worth bringing these matters to your attention even though the planning consent has been given in respect to this particular planning proposal. We feel it shows that the judgement and impartially of the officers of the Council is not trustworthy and that it is necessary to have clear guidance within the new strategy that does not allow Council officers to circumvent the NPPF guidance relating to flood risk and protection of the floodplain. We enclose our previous submission even though it predates this particular planning consent, as the same points all still apply, and would be pertinent at other sites including adjacent areas in our local Thames floodplain.

Sincerely

Nicholas Marks
Sonning Eye Action Group

# Response to Oxfordshire County Council's New Minerals and Waste Strategy from the residents of Sonning Eye.

## Introduction.

We continue to dispute the appropriateness of the inclusion of Caversham / Sonning Eye in the new minerals strategy, and would like to present evidence to support this.

The issues are as follows:

1. The lack of need for sand and gravel from the Caversham area at this time.
2. Compliance with the principle that there should be no development in the floodplain unless there is an over riding or exceptional need. To suggest that this is the case here is not defensible.
3. The Sequential Test, its use and interpretation. This methodology is quite specifically laid down to guide ALL developments away from areas of flood risk. Having identified these areas it is not sufficient just to look at the risk to the gravel workings and say they are "water compatible", but to consider the sensitivity of local homes and businesses to flooding as well.
4. To acknowledge the lack of precision surrounding the prediction of flood risk, and to have due consideration regarding this. To accept and embrace the "Precautionary Principle", and to work on the basis that "the best risk management is that of avoidance".
5. Now that the county Council is the Lead Local Flood Authority, it has the responsibility for protecting communities from flood risk particularly at the planning stage. This is particularly relevant in the context of minerals strategy.
6. Comments on the appropriate nature of quarry restoration.

The background to these points is set out below and we would hope that it will now be seen that it would be inappropriate to include the Caversham / Sonning Eye area in the new minerals plan.

## A. General Points.

1. There has been a very significant reduction in the amount of sharp sand and gravel likely to be needed as compared with that stated in the now withdrawn Minerals &Waste plan 2011. This last plan put the need at 1.26million tonnes/annum. It now seems likely that 0.8 to 0.9 million tonnes/annum, is more likely. This represents a reduction of around 400,000 tonnes /annum.

   Production proposed at Caversham is of the order of 130,000 tonnes/annum.
   Added to this is the current mothballing of three other quarries in Oxfordshire.
   **There cannot possibly be an overriding or exceptional need here.**
2. Caversham may be an extension for the operator, but is in reality a greenfield site for a new quarry.
3. Reasons for promoting this site in the last Plan suggested easy access to markets compared with the difficulties of road access through some Oxfordshire villages. Access to Reading and Berkshire has to be through the back streets of Caversham and over the Reading

bridges. As you are not the responsible County Council for this area you perhaps do not realize the impact this has. It probably impacts 100 times more people than the comparable traffic through small Oxfordshire villages.

4. Given the duty to cooperate, you will be aware that Berkshire and Reading have resource areas that are just as well sited to supply Reading and better located for the area beyond, as transport would not have to go through the town or over the heavily congested bridges. The operators at Caversham themselves have recently obtained planning consent for a large quarry at Woolhampton and there is also planning consent for a facility at Mortimer and Egham. All of these would be able to better supply the outskirts of Reading with less disruption to people and their homes.

## B. Risk of Flooding.

Sustainable Development is defined as,
*"A development that meets the needs of the present without compromising the ability of future generations to meet their own needs."* (UN Rio 1992)
It therefore follows that any excavation that might lead to an increase risk of flooding to adjacent property must be regarded as failing the test of sustainability.

In October 2011 DEFRA published a paper entitled,
*"Guidance for risk management authorities on sustainable development in relation to their flood and costal erosion risk management functions"*
Within this paper they set out guidance for local flood authorities that includes the following.

1. Planning and development control should be used to reduce the impact on flooding.
2. That they should utilize the environment such as the management of land … to harness wetlands to store water, … and reduce risks to communities.
3. Identify areas suitable for inundation and water storage to reduce the risk of flooding elsewhere.

It goes on to state,
"Many changes need to happen at a local level, ensuring communities work more closely together, using local insight energy and knowledge to develop solutions tailored to local circumstances".
And directs Local Flood Authorities to contribute by

1. Promoting flood resilience and resistance measures at property and community level.
2. Involving local people and community groups in risk assessment to raise awareness of risk from all local sources of flooding … and empowering them to manage those risks.
3. Giving local communities a greater stake in project design.
4. Ensuring that development is located in areas of lowest flood risk, away from areas at highest risk of flooding and the functional floodplain.
5. Ensuring that development does not increase the risk of flooding elsewhere.

Its quite clear from this that OCC the lead local flood authority (LLFA) should be taking due note of the Parish Council and local community groups regarding flood risk and planning that affect them. Indeed they should be proactive in involving them in helping themselves and be listening to their input on how to manage flood risk.

Paul Mustow, the head of the Environment Agency's flood incident management, pointed out that 1 in 6 homes in England are prone to flooding and went on to say that "flooding is the country's number one natural hazard".

2012 was described, as the wettest summer for 100 years should be a lesson to all in the context of flooding.
The Environment Agency stated,
*"Its experts were very surprised by the results of the summer rain. The earth was saturated and there was no more space left in the aquifers to store water that seeps through the surface."*
(Peter Fox 2/11/12 Risk Manager at the EA)

*"The ability to cope with heavy rainfall after this, has been significantly reduced and as a result the risk of flooding is elevated compared to a normal year"*
(Paul Mustow)

2012 has demonstrated the close relationship between rising groundwater, water storage and the increased risk of flooding from all sources.
What is remarkable is that the flooding experts and risk managers of the Environment Agency continue to be surprised by the cumulative effects of rain and how saturated ground, water run off, fluvial flood and high groundwater all come together to produce flooding.

In a recent letter to OCC the EA confirmed that
*"Currently there are no models that can replicate both groundwater flow modeling and fluvial flood modeling within a single composite model."*

In summary the prediction of flooding remains approximate and is bedeviled by multiple uncertainties. There is no overarching model that combines all the different inputs to a flood, and the experts continue to be taken by surprise as to how these interactions and uncertainties still give unexpected results.

In OCC's paper "Background Paper on Flooding" section 3.2 it states…
*"A quantified risk of groundwater flooding is difficult to undertake especially on a strategic scale due to the lack of groundwater level records, variability of geology and lack of predictive tools to assess groundwater flow."*

Hence as is clearly stated in the Sequential Test …

**"*The most effective risk management measure of all is that of avoidance."***

The Sequential Test is designed to achieve just that; to direct all development to areas of lowest flood risk.
Sustainability benefits must outweigh flood risk and that flood risk is specifically stated as including flooding elsewhere. The issue whether the land from which sand and gravel is taken may or may not flood is not a sustainability issue, but a minerals development that leads to increased flooding to adjacent property is.

The target for any such development should be
*"to reduce overall flood risk".*
Again this strongly implies the concern is for surrounding property and not the gravel workings, which are always stated as being "water compatible".

It must therefore follow the primary concern in assessing the outcome of the Sequential Test is to consider whether the proposed development could affect any adjacent property and it must be the risk to this that is paramount and not just the proportion on the minerals site that lies in the specific flood zone. The latter is just an indicator of where there is likely to be a problem.

The EA now have data on most if not all housing at flood risk in floodplain areas and hence it is becoming possible to assess comparable risks within broad parameters.

The current OCC policy on flooding page 11 section 5.15 fully acknowledges this essential point

"The sequential approach to development in flood risk areas set out in PPS25 will be followed. Inappropriate development should not be allocated or permitted in flood zones 2 and 3, areas at risk of surface water flooding (critical drainage areas) or areas with a history of groundwater flooding, or where it would increase flood risk elsewhere, **unless there is over-riding need and absence of suitable alternatives"**

In his letter of 21st May 2012 Matt Edwards made the same point on behalf of DEFRA.
*"Development in areas of flood risk is only permitted **exceptionally** where there are wider sustainability considerations and in all cases must be safe and must not increase flood risk elsewhere"*

In the case of Caversham it would be absurd to contend that there was an over-riding need and an absence of any alternative. There is however **significant and real uncertainty as to the flood risk to homes and businesses** when carrying out a development of this kind.

## C. Quarry Restoration

The OCC *Background Paper 3* on quarry restoration makes a number of statements to guide the Council. Some points need comment as the points as written do not always seem to be properly interpreted.

*1.5 Restoration should be determined in relation to land use context.*

Floodplain is just that. It is space for water to go and should be regarded as its **primary** use, and nothing should be done to it to jeopardize this irreplaceable function.

*3.3.5 Notes …"Large number of water filled gravel managed … collectively support a rich invertebrate fauna associated with lowland meadow wet grassland floodplain grazing marsh and reed bed"*

*3.7.5 The majority of sand and gravel sites in Oxfordshire have become lakes used for leisure. This is a common form of restoration*.

It therefore follows that their effect on ground water and flooding should be well documented. Thus evidence of any adverse effects in this respect should already be evident.
Conversely there are no other examples of **floodplain** restoration using inert waste to bring ground levels back to preexisting levels. The effects of such a plan are therefore speculative and unpredictable as to how it might alter the prime function of the floodplain. Prior to allowing or recommending such a course of action **the LLFA has a duty to obtain good evidence, and not just opinion**, **that this practice will not adversely affect the flood protection functions of the flood plain.**

3.8.1 Notes that extraction sites in the floodplain can afford the opportunity to use the voids created to store water, either on a permanent or temporary basis.
It goes on to say there are no examples of former quarries being used for flood alleviation to date in Oxfordshire.

But what has been done to assess the contribution to local flood prevention where this method of reconstruction has been so commonly adopted?

In *Section 4*, Regional Policy on Flood Defense, it is stated that much of Oxfordshire is denied the use of open water restoration due to the potential of "Bird Strike" affecting aircraft. Caversham however is outside this area and hence open water is not a problem and has proved to be the method of choice in the past.

*Section 6*, highlights the increasing scarcity of inert infill that is available for site restoration.
It should therefore be the Council's policy that it is targeted to those areas that cannot leave open water due to bird strike or lie within Areas of Outstanding Natural Beauty. Restoration in such sites will therefore be by infilling gravel pits.

6.2 goes on to say …

> *Inert wastes have been used widely in the restoration of sand and gravel workings, especially those which are located in areas with a high water table;*
> (The reference given to support this incorrect contention is a position paper on behalf of the Quarry Products association lobbying for a relaxation of waste disposal rules.)

Nowhere does this document say that inert infill is especially suitable for areas with high groundwater levels! Indeed it is the inability to use this method of reconstruction against which they are campaigning. The prohibition of waste for this use is clearly stated in the NPPF Sequential Test where all forms of waste disposal are classed as

either less vulnerable (Inert) or more vulnerable (hazardous). They are quite definitely NOT "Water Compatible" and therefore should not be permitted in Flood Zone 3b.

In communications with the Environment Agency it has not been possible to identify any gravel pit dug in the functional floodplain (Flood Zone 3b) that has been restored back to pre excavation ground level using inert waste. It is therefore speculative as to how this will affect underground water flow and therefore local flooding.

## D. Flood Risk Regulations Act (2010)

In the Preliminary Flood Risk Assessment prepared by JBA consulting they make the point

. *3.5.3. Predictive mapping for future flood events is reliant on the underlying assumptions and level of detail that any flood modelling study will necessarily take, since modelling is a simplification of reality. Hence it is common to describe flooding locations by street or community and show flood mapping at a scale at which individual properties cannot be identified, especially where this is being used in a strategic context, such as to inform the PFRA.*

Also they make the point

*4.2 Interaction between sources of flooding*

. *4.2.1. Interaction between different sources of local flooding, and between local sources and main river sources is common, and it is often difficult to determine exactly what source is responsible for any impact.*

. *4.2.2. There is often a timing factor associated with this interaction. For example:*
*High intensity rainfall may initially result in water that runs across the land and causes surface water flooding. This flood water eventually is collected in drainage systems and causes flows in rivers and channels to increase, resulting in flooding hours or days later that is a result of the capacity of the river channels being exceeded (thus the flooding can change from surface runoff flooding to river flooding).*
*Where rainfall occurs over a longer period, river levels may start to rise slowly. This causes groundwater levels in alluvial gravels to rise, and groundwater flooding may occur before the river itself floods, and persist after the river level has receded. This is an interaction that occurs along the River Thames.*

. *4.5.6. Groundwater/fluvial interaction such as that experienced in Oxford is a particularly „grey" area in terms of responsibility. Although the responsibility for groundwater flooding lies with the LLFA, the Environment Agency recognises the interaction with river flooding and expects to work in partnership to reduce flood risk. The Oxford Flood Risk Management Strategy has included an examination of*

*information relating to groundwater and its interaction with fluvial flooding.*

. *5.7.12 Although the broad climate change picture is clear, we have to make local decisions against deeper uncertainty. We will therefore consider a range of measures and retain flexibility to adapt. This approach, embodied within flood risk appraisal guidance, will help to ensure that we do not increase our vulnerability to flooding.*

It is clear from these expert instructions to the County Council as LLFA, that all modeling is a simplification of reality and cannot be relied upon to predict what will happen to local properties that might be at risk.
There is clearly a complex interaction between all sources of flooding and this makes the risk assessment all the more complex and unreliable.
This interaction is well recognized along the Thames and underground water flow is an integral part of the dynamics of flooding. They particularly go on to say that the river and ground water flow is an especially grey or uncertain area.

These are points that SEAG have made repeatedly in relation to Sonning Eye.