

City Development
Planning Policy Team
Oxford City Council
St Aldate's Chambers
109-113 St Aldate's
Oxford OX1 1DS

By email

28th March 2014

Dear Planning Policy Team,

Northern Gateway AAP, Options Consultation

Response by Dr Judith A Webb

My views are arranged in the order of questions in the leaflet as follows:

Vision and Objectives

My personal view is that this is completely the wrong site for this development, therefore the 'Vision' will not be realisable. Why the wrong site? Traffic issues are so huge, the people already living in the area will have been dealt a very bad hand by the imposition of this development. See other responses and Additional Comments.

Q 1. Mix of Uses

No comment

Q 2 Scale of employment

No comment

Q 3 Scale of Residential

No comment

Q4 Secondary Uses

No comment

Q 5 Housing mix

No comment

Q 6 Transport

All the transport improvement measures you mention are probably needed, except that I cannot comment on '**Environmental improvements to the A40/A44**' as you do not give any detail of what these 'improvements' might be. I can't imagine what you have in mind which might help.

There is a further point it is important you consider, as follows:

Increased traffic along the A40 from Witney is to be expected as a consequence of this proposed development (and of course in addition to the already in-the-pipeline 'Barton Park' development a bit further on around the ring road and maybe also the proposed development at Wolvercote Paper mill). **The 'in combination' traffic effect on the A40 of the three developments must be considered.** New housing developments near Witney will fuel increased commuting from there to work at the proposed Northern Gateway.

The potential detrimental consequences of all this for Oxford Meadows SAC are discussed elsewhere below.

A suggested solution to traffic congestion along the A40 and Wolvercote roundabout is a new proposed strategic relief link road from the A40 to the Loop Farm Roundabout on the A44. Whilst this will provide some relief to the Wolvercote roundabout, traffic will still be going to the overloaded Peartree roundabout and a proportion must be expected to travel on up Frieze Way to the Kidlington roundabout and past Kidlington to the A34. As a resident of Kidlington, I am appalled at the thought of all the extra traffic which will be directed up this a new proposed relief link road.

There is already gridlock here at the Kidlington roundabout in the morning rush hour – people just cannot get out of Kidlington past the roundabout to get to work in Oxford or surrounding areas on time. No bus lanes in the main road through the centre of Kidlington, so not even buses can get easily out of Kidlington and past this roundabout at peak times. Bus lanes after the roundabout help a bit to speed bus users on into Oxford, but car users are stuck. Increased air pollution to houses near the route past Kidlington needs to be considered.

Relief to the Wolvercote roundabout could thus not help Peartree and could result in traffic hell for commuters from Kidlington and much worse air quality in Kidlington. Do the other residents of Kidlington have any idea that this all might be happening to them? I very much doubt it. Residents of Kidlington needed to have been more actively involved in this consultation.

The **combination** of increased traffic from this relief road via Loop Farm roundabout to Kidlington **and** the extra traffic to be generated by the new train station at 'Oxford Parkway' at the Watereaton Park and Ride needs to be considered.

Q 7 Car Parking

No comment

Q 8 Building Scale and Mass

No comment

Q 9 Gateway

I see no need for any kind of 'Gateway' concept.

Q 10 Green Belt

Option 3 Maintain the Green belt at the current position. There are no exceptional circumstances which would justify changing the green belt boundary at all, especially as one of the options suggested is to move the green belt to **beyond the limits of the AAP – this is over-reaching beyond your remit**. The meadows in this area form an essential buffer to Local Wildlife Sites and Oxford Meadows SAC. You give these three options yet you do not spell out to the public the future implications of each one of the options. How can they make any sensible choice if you do not spell out the consequences of each option? This seems extremely devious.

Q 11 Environment and Sustainability

You should not even be asking the general public the questions under this heading! Surely these things are all **statutory requirements**, so what do you think you are doing asking for the public views on them? People might say yes, agreeing with all of the approaches to these issues; enabling you to quote a statistic, which says the public agree with you. This statistic will be meaningless. You have to do all this anyway.

Additional Comments

General

This consultation is flawed. You have been asking people to choose between options, yet you do not spell out the consequences of the various choices on offer. Many people may be responding on the basis of the very limited information in the brief leaflet, so they might not be making informed choices. Residents of Kidlington have not been involved, but they could be much impacted via traffic increase and thus should have been involved.

Too many developments and changes will be happening all within a short time frame in this small area to the north of Oxford. Predicting effects with any confidence in this extremely complicated situation will very likely be impossible. The **'in combination effects'** could be serious, even if each development is assessed as 'minimal harm'. Predictions of no harm overall might not be worth much because the situation is **just too complex**.

What is needed is certainly a 'Vision' - not for this project, but for the whole area north and east of Oxford - will it be liveable in 50 year's time? Will Oxford Meadows SAC survive intact with its full biodiversity?

Specific issues

I am extremely concerned about the potential of 'in combination' effects on Oxford Meadow SAC and this seems the place to discuss this further.

Potential effects on Oxford Meadows SAC

A. Haymeadows and Nitrogen Deposition

The haymeadows in the SAC are quoted as being valuable because of their MG4 community which is much reduced nationally. The quoted figure for the national resource of this community is only 1500Ha remaining. However this figure is out of date. My own researches and calculations in Marston Meadows SSSI indicate significant reduction in MG4 and replacement by less valuable swamp communities. Personal communication on 27.03.2014 with Miles King, meadow expert and ex-Grasslands Trust, indicates the amount of MG4 currently remaining nationally is now estimable at nearer 1000Ha, a significant proportion of which is in Oxford Meadows SAC. With on-going losses elsewhere, this means Oxford Meadows remaining MG4 is of ever-increasing importance and value and needs the most stringent protection possible. I am not convinced the air quality monitoring you are currently running is giving good enough information to make decisions on developments relevant to this SAC.

Nitrogen deposition

Some nitrogen is necessary for plant growth. Nitrogen deposition can be from air or water and excess causes damaging ecosystem enrichment and a change in meadow communities to a less valuable one where scarce species are lost/ reduced and common rank species become dominant. The Oxford Meadows SAC is already experiencing detrimental community change because of frequent flooding events, excessive water-logging and nitrogen enrichment from poor quality Thames flood water, enriched by sewage treated effluent and fertilizer washing from arable fields up stream. Flooding events have stopped or reduced essential hay cutting and removal and aftermath grazing several times in the last few years. This means nitrogen is not being effectively removed in management. The meadows have not yet recovered species diversity they had before the damaging summer flooding in 2007, and they are nowhere near the good condition they exhibited in the 1980s. I have known these meadows since first contracted to survey them for the NCC in 1978 and have studied them much more frequently in the last three years. Air pollution as NOX is an additional important source of N deposition from the A40 and A34 where they run adjacent to the meadows.

Yarnton Mead and Pixey Mead are being monitored by Prof David Gowing of the Open University for floristic composition and soil, water and climate variables. This study has been going on for some years. He should be contacted for information on the current state of the meadows and any current estimates of N deposition. It is possible he may be able to release some information of use. David Gowing: <http://science-people.open.ac.uk/d.j.gowing>
Emma Rothero of the Floodplain Meadows Partnership may also be helpful as regards useful information: Emma.Rothero@open.ac.uk

The important point from the above discussion is that, considering the meadows are already suffering detrimental N – enrichment from various sources, any additional N deposition from any increased traffic generated by the Northern Gateway, on its own or in combination with the numerous other developments, is completely unacceptable.

The critical load for MG4 community (presume 'low and medium altitude hay meadows') is quoted in APIS as **20-30kg/ha/yr**. This does not mean that below this level the community will be alright and damage starts above that level. Damage starts well below the critical level. Back in the 1850s the deposition would have been **less than 10kg/ha/yr** as nitrogen compounds from the air dissolved in rain. This would have been when the meadows would have been at their most diverse. I sat in a Floodplain Meadows Conference locally on 26.05.2011 when Prof David Gowing was asked for an estimate of aerial N deposition on Oxford Meadows and he stated **20-25kg/ha/yr**. When asked what the fertilizing effect this was equivalent to, he explained it was the same as the meadows having a single dressing of manure annually. This would be additional to all the N they are now receiving in floodwater, which would have been much lower in the past. If you compare his quote with the APIS figure, **it would seem the meadows are at critical N load already**. This is at variance with the figures for N deposition quoted in the Northern Gateway Habitats Regulation Screening Document of Feb 2014. Who is correct?

Vehicle exhaust and traffic density

As mentioned under another question, increased traffic along the A40 from Witney is to be expected as a consequence of this proposed development (and of course in addition to the already in-the-pipeline 'Barton Park' development a bit further on around the ring road and maybe also the proposed development at Wolvercote Paper mill). Network rail line up grading and thus more frequent diesel train journeys near the meadows will result in extra NOX until electrification. **The 'in combination' traffic effect on the A40 of the three developments and the rail improvements must be considered.** New housing developments near Witney will fuel increased commuting from there to work at the proposed Northern Gateway businesses and Oxford.

An average of 22,000 vehicles per day were assessed as travelling along the A40 in May 2013 (source local news programme, BBC South Today TV news, 16.05.2013). Such average figures hide the real impact of heavy traffic on the Oxford Meadows SAC. Cars cannot be counted as passing a point if they are stationary and much of the traffic problems of the A40 are because cars are slowed to a standstill and are not progressing. The vehicle number per day figure underestimates the real current impact of cars on the SAC, because much of the time vehicles are not moving but are still emitting exhaust fumes.

As a voluntary plant surveyor for BBOWT and Natural England I have been in Oxey Mead, part of the SAC immediately adjacent to the A40, in summer 2013 on a Friday afternoon and witnessed traffic to Witney so heavy it has slowed to a crawl, or is intermittently actually stationary from as early as 3.30pm in the afternoon for hours until the early evening. Engines were idling and car exhaust pollution at maximum only a few metres from the meadow. Only a hedge is present as a barrier/buffer to restrict pollution reaching the meadow adjacent. The majority (possibly all) of Oxey Mead is within 200m of the A40. This Friday afternoon congestion will have resulted in peak NOX production, impacting the meadow only a few metres away. In the mornings, the congestion and stationary polluting traffic is mostly on the other carriageway of the A40, as people attempt to commute towards Oxford.

A possible scenario is that the relief of frustrating congestion by the link road to Loop Farm roundabout is likely to encourage more people to tackle the A40 route (previously these people would have been deterred by the current congestion). Human behaviour needs to be considered in traffic predictions. Relief of congestion might create **more vehicle use, not less, along this road.**

You do not have any air quality monitoring station in this really important position **on the edge of the SAC at the northern boundary of Oxey Mead** therefore you do not have the important baseline information to enable you to calculate the potential effect of the traffic implications of the proposed Northern Gateway development.

An exactly similar situation exists in Pixey Mead, the part of the SAC meadow that is actually bisected by the western by-pass/A34. A considerable proportion of Pixey mead is within 200m of the A34. Average traffic numbers will not reflect the numbers of hours vehicles are actually stationary or crawling on this road at peak times, pumping out exhaust which has only a few metres to travel to impact the meadow. You do not have any air quality monitoring station in the critical area of the SAC, where this road passes through Pixey Mead. The one monitoring station you have is located too far to the south.

The remaining hay meadows within the SAC, namely Yarnton West Mead and Cassington Meadows, may be slightly protected from A40 vehicle exhaust by having a buffer of other meadows between them and the A40. But they will still be receiving a lower rate of N aerial deposition. Wolvercote Meadows SSSI might be protected by not being directly next to the A34, but since these meadows are going to be directly up against the Wolvercote Paper mill development, some effects of that may be expected. They will still be receiving a lower rate of N deposition from roads.

Relying on air quality measurements near these roads collected several years ago in respect of other development such as the proposed Weston Otmoor Eco town is not acceptable. Traffic volumes have increased since then. It is the current situation that is needed.

How you are measuring air quality currently

I have been to see the air quality sampling position adjacent to Wolvercote Green. I note that 'Palmer' type diffusion tubes are being used. **Peak** NOX production is not being measured by your diffusion tube air quality monitoring stations (these give only **average** values for nitrogen dioxide concentration) yet **peak production** is critical for plant communities. What you should be measuring is Nitrogen accumulation on leaves and in the soil adjacent i.e. total **Nitrogen Deposition measured directly**. In your diffusion tubes you are not measuring Nitrogen Deposition, merely average nitrogen dioxide concentration. This is being used as a proxy measure of N Deposition, and N deposition will have been calculated from the average concentration. This can result in considerable underestimation of the effect of NOX output by vehicles as you do not measure other forms of nitrogen oxides (e.g. NO) and total N accumulation.

What would I like to see in terms of air quality monitoring with respect to potential impacts of the proposed Northern Gateway development on Oxford Meadows SAC?

I would like to see air quality current measurements for a full year in the following positions:

- **Edge of Oxey Mead** midway along, nearest A40
- **Edge of Pixey Mead** – either side of the A34 where it bisects the meadow – two stations one north side and one south side, of relevance also to Wolvercote Meadows SSSI on the south side.
- **Middle of Yarnton west mead** at the David Gowing/Open University Climate monitoring station already in place (somewhere to fix the tube). Then the results can be correlated with all the other things he is measuring and has been measuring for some years.

What you should really be measuring is total Nitrogen Deposition, not the proxy measure of nitrogen dioxide concentration. If this site is of European importance (which it is) you should be carrying out the most accurate measures and not the cheapest, less accurate version.

B Potential effects on Oxford Meadows SAC via hydrological issues

Port Meadow is already experiencing in recent years prolonged summer flooding in the southern section which has already seriously reduced the populations of creeping marshwort, Apium repens there. I am part of Oxfordshire Flora Group (Rare Plants Group) of the Ashmolean Natural History Society of Oxfordshire which regularly voluntarily monitors the locations and numbers of creeping marshwort on this site. In fact I have just taken over as '**Flora Guardian**' within this group for creeping marshwort. There are now only two locations for this plant in the whole country – Port Meadow and North Hinksey Meadow nearby. The Port Meadow population is doing extremely poorly. Whilst the north Hinksey population is doing reasonably well, there is the potential for it to be negatively impacted if the flood relief Western Conveyance channel goes ahead in the future.

Predicted run-off and drainage from this proposed Northern Gateway development needs to be extremely carefully assessed. **NO extra run-off from this development should go to any drainage courses that could communicate with Port Meadow and increase the flooding in the creeping marshwort area there. All roof/paving/road water should be infiltrated.**

If this cannot be achieved, the development should not go ahead.

Loop Farm Roundabout

I note that the strategic relief link road from the A40 to the Loop Farm roundabout will require enlargement of the Loop Farm roundabout. Verges adjacent to this roundabout

have been surveyed by the ANHSO Verge survey group and found to have conservation interest with Bee and Pyramidal orchids as well as numerous other species (data available from TVERC). Any loss of the wildflower verges next to this roundabout should require mitigation measures which could involve relocation of identified orchids and should certainly involve creation of flower-rich sites of at least equal biodiversity worth and preferably with enhanced wildlife value.

Name/ company :

Dr Judith A. Webb,

Ashmolean Natural History Society of Oxon (ANHSO) Rare Plants Group (now Oxfordshire Flora Group) within which I am voluntary 'Flora Guardian' for Creeping Marshwort, *Apium repens*.

ANHSO Floodplain Meadows Study Group.

Website: www.judithwebb.weebly.com