creating a better place

Environment Agency

Ms Emily Catcheside
Oxfordshire County Council
Planning Implementation
County Hall New Road
Oxford
Oxfordshire
OX1 1ND

Our ref: WA/2021/129485/01-L01
Your ref: R3.0138/21

Date: 14 April 2022

Dear Ms Catcheside

The dualling of the A4130 carriageway (A4130 widening) from the Milton Gate junction eastwards, including the construction of three roundabouts; - a road bridge over the great western mainline (Didcot Science Bridge) and realignment of the A4130 north east of the proposed road bridge including the relocation of a lagoon; - construction of a new road between Didcot and Culham (Didcot to Culham River Crossing) including the construction of three roundabouts, a road bridge over the Appleford railway sidings and road bridge over the river Thames; - construction of a new road between the b4015 and a415 (Clifton Hampden bypass), including the provision of one roundabout and associated junctions; and - controlled crossings, footways and cycleways, landscaping, lighting, noise barriers and sustainable drainage systems

Land between Didcot to Clifton Hampden

Thank you for consulting us on the above application. Please accept my apologies for the delay in responding.

Environment Agency position
In accordance with paragraph(s) 165, 174 and 180 of the National Planning Policy Framework (NPPF), we **object** to the proposed development due to its unacceptable risk to the environment. The proposal as submitted is also contrary to South Oxfordshire District Council Local Plan Policy ENV1, ENV3, ENV4, ENV12 and EP4 and Vale of White Horse District Council Local Plan Policy Core Policy 42, Core Policy 43, Core Policy 46 and Development Policy 30.

We recommend that planning permission is refused for the following reasons:

Reason 1 – Flood risk
The application site contains areas which are within Flood Zones 1, 2, 3a and 3b, which is land defined by the planning practice guidance as having a low, medium and high

probability of flooding. A Flood Risk Assessment (FRA) has been submitted to support the development as required by the National Planning Policy Framework. However, the FRA does not sufficiently demonstrate the likely impact of the development. In particular the FRA fails to:

1. Demonstrate that there will be no increase in flood risk in the surrounding area

Therefore, the proposal as submitted will increase the risk of flooding to the site and the surrounding area contrary to national and local planning policy.

Overcoming our objection
The areas shown to be at risk from fluvial flooding are from the River Thames, the Moor Ditch and the Clifton Hampden Brook. Hydraulic modelling has been undertaken by the applicant to show the baseline risk of flooding and the expected flood risk following development, with allowances for climate change. This modelling has been used to inform the FRA has been agreed with us during pre-application discussions.

Mitigation for the loss of flood storage due to the development is set out Tables 4.1, 4.4, 4.6 and 5.2 of the FRA.

The FRA shows the changes in expected flood levels between the baseline and the 'as built' scheme. It explains that flood level changes are within model tolerance of 10mm of the baseline levels. However, there are some areas where increases in flood depths are identified beyond the model tolerance. We understand that these areas are shown to be away from vulnerable receptors however, increasing flood depth is considered an increased risk and therefore contrary to planning policy.

For any increase in flood risk beyond accepted model tolerance, mitigation is required. While some flood compensation has been proposed throughout the scheme, it does not sufficiently mitigate for the impact the scheme is shown to have on flood levels in other areas, some of which are outside of the planning application boundary.

Our preferred mitigation option is through level for level flood compensation. Level for level compensation is the matching of volumes lost from the floodplain due to increases in built footprint or raised ground levels, with new floodplain volume by reducing ground levels elsewhere. Analysis should be presented in the FRA as a table showing the volumes lost to the development in approximately 100mm increments of level and the volumes gained by the mitigation proposed in the same level increments. It should be demonstrated that there is no loss of floodplain volume in any increment of level, and preferably a net gain (see attached diagram).

Please note for this to be achievable, it requires land on the edge of the floodplain and above the 1% AEP, including an appropriate allowance for climate change, flood extent. The FRA should consider whether level for level compensation is possible and if not explain why and detail how any associated risks from the chosen form of mitigation can be minimised.

Reason 2 – Nature conservation and biodiversity
While the potential impact of the new bridge crossing over the river Thames has been appropriately considered and based on the proposed design in terms of shading and light pollution, would present no measurable harm to the watercourse, other watercourses are likely to be directly impacted by the proposed road.

The proposed new outfalls, works to existing watercourse outfalls which discharge into various tributaries of the river Thames and other associated works to these watercourses including alterations to the channel width, depth and alignment will present a significant loss of riparian and in-channel semi-natural habitat. This impact is recognised within the Biodiversity Net Gain Assessment but insufficient mitigation is provided to address this and enhancements to local river habitats have not been considered.

The impact of the development is therefore contrary to both national and local planning policy due to its impact on nature conservation and physical habitats of local watercourses.

These works will be require Environment Agency approval under the Environmental Permitting (England and Wales) Regulations 2016 and an impoundment licence under Section 25 of the Water Resources Act 1991. Based on the submitted proposals, it is unlikely that we would grant these applications.

Overcoming our objection

To overcome our objection the applicant will need to address our concerns and ensure that the Defra Metric 3.0 is being properly applied. Revisions to the submitted Landscape and Biodiversity Management Plan should be submitted.

We welcome the use of sustainable drainage proposals however, where there are proposals to realign or otherwise modify existing watercourses (e.g., by realigning or inserting hydrobrakes), the ecological impacts, including habitat severance, need to be properly considered.

Some of the described modifications in the drainage strategy were not described in the ecological walkovers for each watercourse, including ditches. Whilst these ditches may not support priority species or habitats, especially when dry, they may be used when wet (e.g. by amphibians) and their predators (e.g. grass-snakes, otters, etc).

It is also stated that Otters are unlikely to frequent watercourses in the area due to the lack of large fish. However, Otters will feed on amphibians such as frogs and toads and will also use minor watercourses as exploratory and commuting routes. Therefore, their potential presence should not be discounted, and these watercourses should be protected or improved to ensure these species can continue to use or are enabled to use these routes.

We recognise that the replacement culvert on the Moor Ditch being shorter in length is an improvement, in addition to areas of Otter and Badger fencing to reduce the risk of road casualties however, overall, there remains a net deficit in river habitat units as identified in the Biodiversity Net Gain assessment. There is insufficient assessment regarding the choice of the river Thames bank adjacent to the Hansons restoration site as a biodiversity enhancement site and there is a lack of assessment regarding the quality of the current habitat and reasoning as to why the site currently does not support the range of common marginal aquatic plants that are proposed here.

The proposed mitigation is currently inadequate as it ignores the likely impact and opportunities to make more localised improvements to watercourses being directly affected by the scheme. This would remove the penalty applied by the net gain metric due to the impact and mitigation being on different waterbodies.

Cont/d..

Reason 3 – Water Quality and Water Framework Directive
The application is not supported by adequate information to demonstrate that the risks of pollution posed to water quality can be safely managed and the application is therefore contrary to national and local planning policy which seek to minimise impact in relation to water pollution.

Overcoming our objection
In this case we consider that the proposed development may pose an unacceptable risk of causing a detrimental impact to water quality because the applicant has not provided a full WFD assessment as was proposed within the EIA scoping report. This assessment should be undertaken and submitted to support the application and must be sufficient to fully consider all impacts of the development on water quality and provide comprehensive mitigation measures as considered necessary.

Advice to Planning Authority

Sequential test
What is the sequential test and does it apply to this application?
In accordance with the National Planning Policy Framework (paragraph 162), development in flood risk areas should not be permitted if there are reasonably available alternative sites, appropriate for the proposed development, in areas with a lower risk of flooding. The sequential test establishes if this is the case.
Development is in a flood risk area if it is in Flood Zone 2 or 3, or it is within Flood Zone 1 and your strategic flood risk assessment shows it to be at future flood risk or at risk from other sources of flooding such as surface water or groundwater.

The only developments exempt from the sequential test in flood risk areas are:

- Householder developments such as residential extensions, conservatories or loft conversions
- Small non-residential extensions with a footprint of less than 250sqm
- Changes of use (except changes of use to a caravan, camping or chalet site, or to a mobile home or park home site)
- Applications for development on sites allocated in the development plan through the sequential test, which are consistent with the use for which the site was allocated.

Avoiding flood risk through the sequential test is the most effective way of addressing flood risk because it places the least reliance on measures such as flood defences, flood warnings and property level resilience.

Who undertakes the sequential test?
It is for you, as the local planning authority, to decide whether the sequential test has been satisfied, but the applicant should demonstrate to you, with evidence, what area of search has been used. Further guidance on the area of search can be found in the planning practice guidance here .

What is our role in the sequential test?
We can advise on the relative flood risk between the proposed site and any alternative sites identified - although your strategic flood risk assessment should allow you to do this yourself in most cases. We won't advise on whether alternative sites are reasonably available or whether they would be suitable for the proposed development. We also won't advise on whether there are sustainable development objectives that mean steering the development to any alternative sites would be inappropriate. Further

guidance on how to apply the sequential test to site specific applications can be found in the planning practice guidance here.

Exception test
The exception test should only be applied as set out in flood risk table 3 of the Planning Practice Guidance (PPG) following application of the sequential test. The exception test should not be used to justify the grant of planning permission in flood risk areas when the sequential test has shown that there are reasonably available, lower risk sites, appropriate for the proposed development.

In those circumstances, planning permission should be refused, unless you consider that sustainable development objectives make steering development to these lower risk sites inappropriate as outlined in PPG (ref ID: 7-033-20140306).

Our role in the exception test
The exception test is in two parts, described in the NPPF (paragraph 164). In order for the test to be passed it must be demonstrated that

1. The development would provide wider sustainability benefits to the community that outweigh flood risk; and

2. The development will be safe for its lifetime taking account of the vulnerability of its users, without increasing flood risk elsewhere, and, where possible, will reduce flood risk overall.

Paragraph 165 of the NPPF makes clear that both parts need to be met for the test to be satisfied. It is for the applicant to demonstrate this.

We provide advice on the second part of the test, but it is for you, as the local planning authority, to consider the first part of the test, accounting for the findings of the flood risk assessment and our flood risk advice, and to determine whether the test, overall, has been satisfied. Development that does not satisfy both parts of the exception test should be refused.

Where the flood risk assessment shows the development will be safe throughout its lifetime without increasing flood risk elsewhere
Even where a flood risk assessment shows the development can be made safe throughout its lifetime without increasing risk elsewhere, there will always be some remaining risk that the development will be affected either directly or indirectly by flooding. You will need to weigh these risks against any wider sustainability benefits to the community.

Flood warning and emergency response
We do not normally comment on or approve the adequacy of flood emergency response procedures accompanying development proposals, as we do not carry out these roles during a flood. Our involvement with this development during an emergency will be limited to delivering flood warnings to occupants/users covered by our flood warning network.

The planning practice guidance (PPG) to the National Planning Policy Framework states that, in determining whether a development is safe, the ability of residents and users to safely access and exit a building during a design flood and to evacuate before an extreme flood needs to be considered. One of the key considerations to ensure that

any new development is safe is whether adequate flood warnings would be available to people using the development.

In all circumstances where warning and emergency response is fundamental to managing flood risk, we advise local planning authorities to formally consider the emergency planning and rescue implications of new development in making their decisions. As such, we recommend you refer to 'Flood risk emergency plans for new development' and undertake appropriate consultation with your emergency planners and the emergency services to determine whether the proposals are safe in accordance with paragraph 167 of the NPPF and the guiding principles of the PPG.

Other environmental impacts considered
The likely impacts of the proposed development in relation to contaminated land and navigation of the river Thames have also been considered within this application. We are confident that these matters can be managed through appropriately worded conditions should our objections be resolved. I have included some comments on these aspects for completeness and transparency.

Contaminated land and groundwater quality
We have reviewed the Ground Investigation Report and note that investigations have only yielded low level exceedences of water quality standards in the groundwater samples. We note that Controlled Waters Risk Assessments for different sections of the road development yield low risks. This is in part due to the levels of contaminants detected but also due to the lower sensitivities of the aquifers which range from secondary for the superficial deposits through to unproductive strata for the Gault Clay.

We do however note that further groundwater sampling rounds are proposed and also note that there are a few sections where no samples were taken e.g. where the road appears to cross the 90 acre Landfill site to the west of Appleford on Thames.

Therefore, while we do not consider there is a significant cause for concern, we are likely to request that additional investigations are undertaken prior to the development going ahead.

Navigation
We are pleased to see the bridge has been designed to be a single span bridge with no permanent works or structures in the river or directly on the river banks. Any permanent works, piers, piles, bank protection works, structures etc added into future changes in plans would require a licence under Section 60 of the Thames Conservancy Act 1932. Further information can be found here: https://www.gov.uk/government/collections/river-thames-accommodation-licence

We are pleased to see the bridge has been designed to provide a sufficient headway of 4.10 metres for boats passing underneath. This will ensure that there will be no detriment to the maximum available air draft for boaters navigating in this stretch of the river.

It is difficult to tell from the current plans if the parapets of the bridge have been designed so as to discourage bridge jumping – this is a very dangerous activity for people to partake in and has led to many tragedies along the river over the years. At the very least warning signs, warning of the dangers of bridge jumping should be installed on the bridge.

Cont/d..

Currently there is little light pollution in this area so a boater's eyes will be adapted to dark conditions, and we consider that lighting has been carefully designed to avoid affecting the night vision of any boaters passing underneath.

We do however recommend that consideration should be given to improvements that could be made for boaters, such as the creation of some short stay moorings as part of the scheme.

The following requirements in terms of the bridge construction over the river Thames will need to be included within a Construction Environmental Management Plan.

The local waterways team will need to be involved in the planning for the construction phase. The time of year and methods of construction can have big consequences in terms of the impact on navigating boats. By involving the local waterways team early on in the construction planning a method can be formulated that will allow the bridge to be constructed efficiently with the minimal possible impact on navigation.

Before the works commence and throughout the period of the works at least at weekly intervals, contact is to be made with local Waterways Officer to appraise them of progress and discuss navigation requirements with the local officer.

Any works that require a restriction to width or navigable height of the river or a river closure must be submitted to the Environment Agency in advance of the proposed restriction or closure for publication on our website and in accordance with our Customer Charter. Any such restrictions or closures will need to be discussed and agreed with the local Waterways Officer.

- Planned restrictions to navigation width/channel – minimum 4 weeks' notice
- Full river closures lasting less than 4 hours - minimum 4 weeks' notice
- Full river closures lasting over 4 hours – minimum 14 weeks' notice

Full river closures are only permitted from 1 November to 31 March. They will only be granted when there is no other option but to close the river. All options to carry out works without the need for a river closure must be explored and ruled out before a closure will be considered.

We publish our river closure programme to the general public in July/August this contains our planned winter lock closures and other major closures / restrictions. http://www.environment-agency.gov.uk/homeandleisure/recreation/135254.aspx

A contact number for the site supervisor during working hours and out of hours must be provided to the local Waterways Officer.

No unauthorised obstruction shall be caused to river traffic or to other river or towpath users.

All instructions given by the Environment Agency Waterways Officers must be observed. The contractor will allow an Environment Agency Waterways representative reasonable access to inspect the progress of the works.

The Environment Agency reserve the right to order the cancellation, postponement or suspension of the works if extreme river conditions or other circumstances dictate this.

Cont/d..

Temporary structures shall not be placed on the river without prior approval from the Environment Agency.

The following warning signs must be displayed on temporary works: -

a) BY NIGHT AND WHEN VISIBILITY IS POOR: Yellow warning lights to be fixed to the temporary works to clearly indicate their extent. A yellow light on each of the yellow buoys.
b) AT ALL TIMES: a warning sign shall be displayed on the head gates at Clifton Lock, on the tail gates at Culham Lock.
c) The Contractor will ensure that all warning signs and lights are maintained in a sound and serviceable condition.

The contractor shall ensure all personnel comply with the provisions of the Health & Safety at Work Act 1974, including equipment for lifesaving in water.

a) All diving operations must be confined to week days.
b) The dates and times of the diving work shall be agreed by the local Waterways Officer.
c) A competent diver, in full diving equipment, is to be in attendance on the surface, in close proximity to the diving area for safety purposes, at all times.
d) The International Code Flag “A”is to be clearly exhibited in the diving area at all times, and a lookout system is to be established to warn participants in the dive, and on coming vessels, of any danger which may present itself.
e) An adequate number of safety boats, suitable for the task of rescue/and or traffic management are to be in attendance at all times.
f) All craft used in connection with the works must first be registered with the Environment Agency. Information can be found about registration here: http://www.environment-agency.gov.uk/homeandleisure/recreation/129937.aspx
g) All archaeological artefacts found in the river shall be handed to the Agency, pending establishment of ownership.

Barges, floating plant or other vessels used during the works shall be moored securely and in such a manner so as not to obstruct navigation of the channel. They shall be appropriately lit if left in the water overnight.

All necessary precautions must be taken to prevent debris and other materials entering the river.

On completion of the works the contractor shall make good any damage to the banks or riverbed and shall restore the river and towpath to a clean and tidy condition to the satisfaction of the Environment Agency.

River Conditions and Red and Yellow Stream Warning Boards
The Environment Agency (EA) identifies the river conditions through the use of red or yellow boards at our locks to inform river users of the conditions. The definitions are summarised below:

Red Board Strong Stream: When displaying these boards on lock gates, the EA advise users of **all boats** not to navigate because the strong flows make it difficult and dangerous.

Yellow Board Stream ‘Increasing’: When the EA display these boards on lock gates, we advise users of all **unpowered boats** not to navigate and users of **powered boats** to

find a safe mooring. This is because river flows are likely to strengthen and red boards could be displayed very soon and without warning.

Yellow Board Stream 'Decreasing': When the EA display these boards on lock gates, we advise users of all **unpowered boats** not to navigate and users of powered **boats** to navigate with caution.

The proposed road bridge is located between Clifton and Culham Locks and therefore is dependent on the river conditions / boards recorded at Clifton Lock.

Closing comments
If you are minded to approve this application for major development contrary to our flood risk objection, we request that you contact us to allow further discussion and/or representations from us in line with the Town and Country Planning (Consultation) (England) Direction 2021.

This statutory instrument prevents you from issuing planning permission without first referring the application to the Secretary of State for Housing, Communities and Local Government (via the National Planning Casework Unit) to give them the opportunity to call-in the application for their own determination. This process must be followed unless we are able to withdraw our objection to you in writing. A failure to follow this statutory process could render any decision unlawful, and the resultant permission vulnerable to legal challenge.

Should you require any additional information, or wish to discuss these matters further, please do not hesitate to contact me on the number below.

Yours sincerely

Miss Sarah Green
Sustainable Places - Planning Advisor

Direct dial 0208 474 9253
Direct e-mail planning_THM@environment-agency.gov.uk

End