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Environment Agency

Ms Jenny Barker
Eco Bicester Project Manager
Cherwell District Council
Planning & Development Services
Bodicote House
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OX15 4AA

Our ref: WA/2014/118529/01-L01
Your ref: 14/01384/OUT

Date: 6 October 2014

Dear Ms Barker

Development comprising redevelopment to provide up to 2600 residential dwellings (class c3), commercial floorspace (class a1 - a5, b1 and b2), social and community facilities (class d1), land to accommodate one energy centre, land to accommodate one new primary school (up to 2fe) (class d1) and land to accommodate the extension of the primary school permitted pursuant to application (reference 10/01780/hybrid). Such development to include provision of strategic landscape, provision of new vehicular, cycle and pedestrian access routes, infrastructure, ancillary engineering and other operations.

Bicester Eco Town Exemplar Site, Banbury Road, B4100, Caversfield.

Thank you for consulting the Environment Agency on the above application and for allowing us extra time to fully consider the proposed development.

Policy Context

We have considered this planning application in line with the Planning Policy Statement 1 (PPS1) Eco Town Supplement. This sets out the Government's policies in respect of Eco Towns and details a range of criteria against which proposals should be assessed. We have also considered the proposals in line with the National Planning Policy Framework (NPPF).

The Bicester 1 Policy in the Cherwell Local Plan 2006-2031 also sets the standards that planning applications at the North West Bicester Eco Town site should meet at a local level. We understand that Cherwell District Council is currently consulting on Proposed Modifications to the Local Plan.

Environment Agency Position

The Environment Agency has been consulted at the pre-application stage by Cherwell District Council, the applicant and their consultants. We are pleased to see that the advice we have given over this pre-application period has been fully considered and reflected in this planning application submission. In general we support the application as proposed and raise no objections. However, there are numerous matters which will be subject to detailed design and phasing of the development.

To ensure that the high sustainability standards proposed in this Outline planning application are delivered, appropriate planning controls will need to be incorporated into any planning permission granted.

In the first instance you have asked us to identify what further information is required through planning conditions and planning obligations. This will allow you to draft appropriate conditions and then consult us on their content prior to determining this planning application. We set this out under the headings below as well as recommending drafts of conditions where appropriate.

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We would like to be clear that without adequate planning conditions and planning obligations the development will not meet the requirements of PPS1 or the NPPF. As such we would object to this planning application. It is therefore essential that we are reconsulted on the draft conditions and draft planning obligations prior to the full determination of this planning application.

Flood Risk

Surface water flood risk management

Policy ET 17.3 of PPS1 sets out the requirements for improving water quality and managing surface water, groundwater and local watercourses to prevent surface water flooding. It also requires the incorporation of sustainable urban drainage systems (SUDS).

The surface water drainage strategy and the use of SUDS is not only critical to ensure flood risk is not increased on or off-site. In addition, SUDS are needed to protect water quality and associated biodiversity. This is particularly important to protect the features of special interest for which Wendlebury Meads and Mansmoor Closes SSSI and Otmoor SSSI are notified. The SUDS on site are also needed to contribute to the sites green infrastructure, delivery of a net biodiversity gain and to meet Water Framework Directive (WFD) requirements.

The key documents submitted for surface water management include:

- Appendix 7a (Outline Application NW Bicester Planning Application 1 Flood Risk Assessment and Surface Water Drainage Strategy – Hyder, ref 5040-UA005241-BM-01, Aug 2014), Referred to here as the Application 1 FRA and SWDS, of the Outline Application North West Bicester Planning Application 1 Environmental Statement: Volume 1: Main Text, Hyder, ref 5050-UA005241-UE31R-01, Aug 2014

- Appendix 10 (NW Bicester Masterplan Surface Water Drainage Strategy, Full Site, Hyder, ref 5004-UA005241-BMR-04, May 2014) of the Outline Application NW Bicester Planning Application 1 Flood Risk Assessment and Surface Water Drainage Strategy – Hyder, ref 5040-UA005241-BM-01, Aug 2014. Referred to here as the Masterplan SWDS

It is important that these documents are included in the list of approved plans and documents on the Decision Notice should planning permission be granted. Together, at the Outline stage, these documents have:

- Estimated the Greenfield runoff rate for the site (4.1 l/s/ha) (Masterplan SWDS)

- Estimated the permeable (40%) and non permeable (60%) areas post development and the storage requirement in order to restrict surface water runoff to the Greenfield runoff rate (10904m^3) (para 5.2, Table 5-1 of the Application 1 FRA and SWDS)

- At Figure 5-4 (para 5.2.1) of the Application 1 FRA and SWDS, locations of swales and detention basins are identified. Table 5-2 (para 5.2.1) of the Application 1 FRA and SWDS details the volumes available within the swales (2263m^3) and detention basins (15457m^3) identified in Figure 5-4. This demonstrates that there is adequate attenuation in swales and detention basins to attenuate surface water on site and hold back surface water to the Greenfield runoff rate

- Stated that a further 20% of required surface water storage will be provided within SUDS on individual parcels (5.2.1 and 6.2 of the Application 1 FRA and SWDS)

- Considered the main surface water flow routes which have informed the outline drainage strategy (5.2.1 of the Application 1 FRA and SWDS)

- Assumed infiltration is not possible and designed the surface water drainage strategy based on no infiltration (5.2.1 of the Application 1 FRA and SWDS).

Condition requirement – detailed site wide surface water drainage strategy
In order to meet the flood risk, water quality, green infrastructure and biodiversity requirements of the site (to meet PPS1 and NPPF requirements), prior to submission of any Reserved Matters applications, a site wide detailed surface water drainage strategy is needed. This must be for the whole of the Application 1 site.

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The detailed site wide surface water drainage strategy must:

- Demonstrate control of surface water runoff to the Greenfield runoff rate of 4.1 l/s/ha is achievable as detailed in the Masterplan SWDS

- Review and amend the indicative storage volumes in para 5.2, Table 5-1 of the Application 1 FRA and SWDS in line with detailed design. Indicative storage volumes are based on an estimation of 60% impermeable and 40% permeable area post development. These should be reviewed and amended to reflect the exact development area draining into the surface water system

- Be informed by a detailed assessment of the post-development surface water overland flow routes as recommend in para 5.2.1 and section 7 of the Application 1 FRA and SWDS

- Be informed by site wide soakaway testing to confirm the ground infiltration rates and feasibility of infiltration SUDS measures as recommended in para 5.2.1 of the Application 1 FRA and SWDS and para 4.2.1 and section 5 of the Masterplan SWDS. The drainage strategy should favour infiltration SUDS where shown to be feasible

- Provide the detailed design of all regional SUDS not provided within a development parcel including swales and detention basins (primary and secondary SUDS) to demonstrate their flood risk, water quality, green infrastructure and biodiversity functions

- Demonstrate the use of adequate pollution prevention measures within the SUDS provision to ensure no risks to groundwater or surface water quality

  Advice to applicant
  Run off from roads and areas associated with lorry and car parking areas could contain elevated levels of contaminants. Drainage from these areas could contaminate surface and groundwater unless adequate pollution prevention measures are provided. There must be a sufficient unsaturated zone beneath any infiltration SUDS. As a minimum there should be 1m unsaturated zone between the base of any SUDS feature and winter groundwater levels. There can be some flexibility on the 1m requirement for minor estate roads and very small areas of car parking/driveways. However, some unsaturated zone (c50cm) should always be provided for infiltration SUDS from these areas.

- Provide a SUDS Phasing Plan, as recommended in para 5.2.1 of the Application 1 FRA and SWDS which demonstrates that regional/site wide SUDS (primary and secondary SUDS) are provided ahead of site construction. This is to ensure that regional/site SUDS are in place when needed ahead of development coming forward to ensure adequate surface water attenuation is available to restrict surface water runoff to the Greenfield runoff rate. If adequate surface water attenuation is not available, surface water cannot be restricted to the Greenfield runoff rate which may cause flooding on and off site.

- Demonstrate that exceedence flood flow routes (for rainfall events above the design event) can be safely routed away from buildings and into SUDS as recommended in para 5.2.1 of the 1 FRA and SWDS.

Condition requirement – detailed parcel specific surface water drainage scheme
In addition to the site wide detailed surface water drainage strategy, alongside each Reserved Matters application a detailed surface water drainage scheme will need to be submitted for each individual development parcel. This is needed to meet the flood risk, water quality, green infrastructure and biodiversity requirements of the site (to meet PPS1 and NPPF requirements). The detailed surface water drainage scheme will need to show compliance with the approved Application 1 FRA and SWDS and Masterplan SWDS, and the approved site wide detailed surface water drainage strategy. It is essential that the detailed schemes are submitted alongside the Reserved Matters applications because of the implications on layout and landscaping.

Reserved Matters surface water drainage schemes must:

- Demonstrate 20% of the required attenuation storage for the Application 1 site will be provided by individual developers using source and site control SUDS measures at their individual development plots (as stated at para 5.2.1 of the Application 1 FRA and SWDS). The SUDS Management Train approach detailed in Figure 5-2 of the Application 1 FRA and SWDS shall be taken and it shall be demonstrated how these SUDS contribute to flood risk, water quality, green infrastructure and biodiversity requirements of the site

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- As per the Masterplan SWDS at section 5, Reserved Matters applications shall include further assessment of individual parcels and communal areas to assess if infiltration is possible. Reserved Matters applications should have a detailed surface water drainage scheme which favour infiltration SUDS where feasible, demonstrating that groundwater and surface water quality will be protected through adequate pollution prevention measures

- Provide the detailed drainage layout and detailed design of SUDS of the individual parcel and communal areas including detailed drainage calculations for the 1 in 2, 1 in 30 and 1 in 100 year plus an allowance for climate change storm events

- Demonstrate control of surface water runoff to the Greenfield runoff rate of 4.1 l/s/ha as detailed in the Masterplan SWDS

- Demonstrate that the regional/site wide SUDS the parcel relies upon for surface water attenuation will be available in line with the phasing of development to ensure they are available to perform their flood risk function in a timely manner to prevent an increase in flood risk during construction

Maintenance of the surface water drainage scheme

Section 106 requirement
Para 5.2.1 of the Application 1 FRA and SWDS highlights the importance of maintenance of the surface water drainage features on site to ensure their long term functionality. Without maintenance in perpetuity, drainage features will not be able to provide the required surface water attenuation and restrict surface water runoff to the Greenfield runoff rate. This will increase the risk of flooding on and off site. We understand that a Management Company will be established through a S106 agreement in order to maintain the surface water drainage features. We support the preparation of a S106 agreement as it will be critical to ensure flood risk is not increased to the site and third parties. Policy ET 17.4 of the PPS1 makes clear that planning applications for all Eco-towns should include a strategy for the long term maintenance, management and adoption of the SUDS features.

Fluvial flood risk

Development in flood risk areas

We welcome the commitment in the Application 1 FRA and SWDS to locate all development outside of Flood Zone 2 and 3. This will help meet the requirements set out in Policy ET18 of PPS1. Fluvial hydraulic modelling has been completed to identify flood risk areas within the site. This has been done by adapting the previously approved Exemplar hydraulic model. Due to the limited work completed to make the Exemplar hydraulic model fit to use for the Masterplan site, we do not consider that a detailed review of the revised modelling is needed. We are therefore reliant on the accuracy of the information submitted.

In order to secure no built development in the flood risk areas identified on site, we recommend inclusion of the following condition on any planning permission granted:

Condition: There shall be no built development (buildings) within Flood Zone 2 & 3 as defined in Appendix 6 plans – modelled flood extents for the 100 year and 1000 year events (Flood Zone 2 & 3) of the Outline Application NW Bicester Planning Application 1 Flood Risk Assessment and Surface Water Drainage Strategy –Hyder, ref 5040-UA005241-BM-01, Aug 2014 (Appendix 7a of the Outline Application North West Bicester Planning Application 1 Environmental Statement: Volume 1: Main Text, Hyder (ref 5050-UA005241-UE31R- 01, Aug 2014)

Reason: To reduce the risk of flooding to the proposed development and future occupants and to ensure flood risk is not increased elsewhere. This is a requirement of Policy ET18 of PPS1 and para 103 of the NPPF.

Watercourse crossings

We are pleased with the commitment within para 5.1 and section 7 of the Application 1 FRA and SWDS that watercourse crossings will be designed to ensure flood risk is not increased. However, the design commitment may not be realistically deliverable across the site and we therefore recommend a level of flexibility for the design of watercourse crossings. In order to secure this, we recommend inclusion of the following condition on any planning permission granted:

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Condition: No watercourse crossings shall be constructed until the detailed design has been agreed in writing with the Local Planning Authority. The design shall be informed by para 5.1 and section 7 of the approved Flood Risk Assessment - Outline Application NW Bicester Planning Application 1 Flood Risk Assessment and Surface Water Drainage Strategy – Hyder, ref 5040-UA005241-BM-01, Aug 2014 (Appendix 7a of the Outline Application North West Bicester Planning Application 1 Environmental Statement: Volume 1: Main Text, Hyder (ref 5050-UA005241-UE31R- 01, Aug 2014).

The design shall demonstrate that flood risk will not be increased or biodiversity negatively impacted as a result of any watercourse crossing.

Reason: To ensure watercourse crossings do not increase the risk of flooding on or off site. This is a requirement of Policy ET18 of PPS1 and para 103 of the NPPF. To ensure watercourse crossings do not negatively impact on biodiversity as required by para 109 and 118 of the NPPF and ET16 of PPS1.

Advice – watercourse crossings
As set out in para 5.1 and section 7 of the Application 1 FRA and SWDS the following should be considered for the watercourse crossing design:

- *Setting the soffit level to a minimum of 600mm above the modelled 1 in 100 plus climate change level*
- *A clear spanning crossing*
- *Setting the crossing abutments outside the modelled 1 in 100 plus climate change level*

Advice – consent requirements
Erection of flow control structures or any culverting of the ordinary watercourses on site require consent from Oxfordshire County Council as Lead Local Flood Authority. We recommend that the applicant discusses proposals for any works with them at an early stage.

Advice – residual flood risks
We note and support at para 5.5 of the Application 1 FRA and SWDS the recommendation to mitigate residual flood risk to buildings within the site by setting finished flood levels of buildings 300mm above ground level of the surrounding area to protect against any surface water ponding. Such ponding may occur during a storm event that generates runoff which exceeds the design capacity of the drainage system.

Advice – groundwater flood risk
Para 4.2.4 of the Application 1 FRA and SWDS identifies potential risk to the site from groundwater flooding and states that a specific ground investigation will be undertaken to inform the detailed design process. Para 5.2.1 and section 7 of the Application 1 FRA and SWDS recommends further investigation into the potential for shallow groundwater flooding during detailed design. The results of this further work could impact the layout of the development if locations are identified that are susceptible to groundwater flooding. Oxfordshire County Council are the Lead Local Flood Authority and have responsibility for groundwater flood risk under the Flood and Water Management Act. Oxfordshire County Council should therefore be satisfied with this approach.

Water resources and waste water disposal

The PPS1 policy requirements are set out in Policy ET17.

The key documents for water resources and waste water disposal include:

- Outline Application NW Bicester Planning Application 1 Water Cycle Study – Detailed Report – Hyder, ref 5012-UA005241-UU71R-01, Aug 2014. Referred to here as the Application 1 WCS

- Appendix A (NW Bicester Masterplan Water Cycle Study Detailed Report - Hyder, ref 5010-UA005241-UU71R-02, May 2014) of the Outline Application NW Bicester Planning Application 1 Water Cycle Study – Detailed Report – Hyder, ref 5012-UA005241-UU71R-01, Aug 2014. Referred to here as the Masterplan WCS

It is important that these documents are included in the list of approved plans and documents on the Decision Notice should planning permission be granted.

The Application 1 WCS and Masterplan WCS appraise a number of water resource and waste water disposal options and conclude that there are feasible options available. The Application 1 WCS and Masterplan WCS therefore set out a number of options/strategies at the Outline planning application

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stage for water supply and disposal, but do not commit to which option or strategy will be taken forward. Your Authority will need to have confidence at this Outline planning application stage that the options in the Application 1 WCS and Masterplan WCS can be delivered and we recommend that the detailed strategies for water supply and disposal are agreed before development begins. This is to ensure that the water infrastructure that the development relies upon is available in line with the proposed phasing of the development. The timely provision of new water infrastructure, or upgrades to existing water infrastructure is of vital importance in order to protect water quality and the environment and meet the requirements of PPS1 Policy ET17 and the NPPF.

Water efficiency – condition requirement
We are pleased to see the commitment at section 4.2 of the Application 1 WCS that the design standard for the Application 1 area will incorporate a water efficiency target to limit average per capita consumption to 105l/p/d in all new homes. Water recycling technologies will also be required to supplement domestic supplies and further reduce the demand of potable water to 80l/p/d in all homes (i.e. at least 25l/p/d potable water will be replaced by non potable). We understand that this 80l/p/d potable water per capita consumption design standard must be applied to non-residential development on site as well.

Section 5 of the Masterplan WCS sets out potential strategies being appraised to deliver the 80l/p/d potable water per capita consumption design standard. This includes property level and neighbourhood rain water recycling, property level and neighbourhood grey water recycling and local reclamation and treatment of wastewater (if an onsite waste water treatment works is provided as part of the waste water disposal strategy for the site).

It is essential that a detailed strategy to achieve the 80l/p/d potable water per capita consumption design standard in homes and non-residential buildings is agreed before development on site begins. This is to ensure that the design standard is understood ahead of construction, especially if achieving the required standard relies on the provision of property level or neighbourhood solutions.

Advice – re-use of grey water
Although we have no in principle objection to the use of grey water for non-mains drainage activities which have been highlighted in the Masterplan WCS (such as garden and communal area irrigation), we would need more details to ensure there are no risks to surface water and groundwater quality.

Water supply – condition requirement
The Application 1 WCS and Masterplan WCS highlight that the existing Thames Water Ltd water supply infrastructure needs upgrades in order to supply the proposed development. We also note the Thames Water Ltd consultation response to this planning application dated 12 September 2014. They state that the existing water supply infrastructure has insufficient capacity to meet the additional demands for the proposed development and that upgrades are needed. This supports the importance that the development must be phased in line with the required infrastructure upgrades to ensure water can be supplied to the development and the environment protected. It is therefore critical that a condition is imposed on any permission granted to secure the upgrades in relation to this phasing.

Water neutrality

Policy ET 17.5 of the PPS1 states that Eco-towns in areas of serious water stress such as Bicester should aspire to water neutrality (achieving development without increasing overall water use across a wider area). Although the 80l/p/d potable water per capita consumption design standard if delivered in homes and non-residential development is considered a high water efficiency standard, it does not constitute water neutrality. We are pleased to see at para 6.2 of the Application 1 WCS that the site will aspire to achieve water neutrality with suggested strategies to do so. In particular, we consider that there is a real opportunity for partnership working within Bicester to reduce water consumption across the whole town to meet water neutrality at North West Bicester. The reuse of water from an on-site waste water treatment works if used as part of the waste water disposal strategy for the site could also offer another opportunity to meet water neutrality. If water neutrality is achieved this would be the first development in the Country to meet such high standards in water demand management on such a large scale, putting North West Bicester at the forefront of high sustainability standards.

Waste water disposal

Waste water disposal options are discussed in the Application 1 WCS and Masterplan WCS. These include on-site waste water treatment, on-site waste water treatment to a non-potable standard, disposal of waste water to the existing Bicester Waste Water Treatment Works or a new waste treatment works provided by Thames Water Ltd.

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Condition requirement – waste water disposal
Should waste water be sent to the existing Bicester Waste Water Treatment Works, the Application 1 FRA and SWDS at para 4.2.5 identifies a limited capacity within the existing sewer network and a history of known sewer flooding in Bicester. Para 5.4 and section 7 of the Application 1 FRA and SWDS identifies that new infrastructure will be required within the site to prevent potential exacerbation of any existing sewer flooding problems. We also note the Thames Water Ltd consultation response to this planning application dated 12 September 2014. They state that the existing waste water infrastructure cannot accommodate the needs of the application without upgrades which could lead to sewage flooding. Although the Application 1 WCS and Masterplan WCS conclude that the needed upgrades can be feasibly delivered, this supports the importance that the development must be phased in line with the required infrastructure upgrades on and off site. This is to ensure that waste water from the development can be conveyed and treated without increasing the risk of flooding, impacting on water quality and the associated biodiversity and resulting in a deterioration under the WFD.

We note that the Application 1 site includes a land parcel specifically designated for accommodating the on-site waste water treatment infrastructure should this water disposal option be taken forward. Section 2 of the Application 1 WCS also comments that reedbeds/wetland habitats could be used as a final water quality polishing stage. Should this onsite waste water treatment option be taken forward, it should be clearly demonstrated how this will contribute to the green infrastructure and the biodiversity strategy for the site.

In summary, before development begins, it is critical that a waste water disposal strategy is provided which demonstrates that there is the adequate conveyance and treatment infrastructure on or offsite to treat waste water from the development in line with phasing of the development. It must be demonstrated that water quality and the WFD status will not be deteriorated. We recommend the inclusion of the following condition on any planning permission granted:

Condition: No development shall begin until a scheme for the disposal of waste water from the development has been approved in writing by the local planning authority. The waste water disposal scheme shall demonstrate that there is, or will be ahead of occupation of buildings, adequate water infrastructure on and off site, in line with the phasing of the development, to convey and treat waste water flows from the development.

The scheme shall be implemented as approved.

Reasons: To protect the environment from flooding and pollution by ensuring the provision of adequate and timely waste water infrastructure as required by PPS1 Policy ET17 and the NPPF. Under the WFD, the Thames River Basin Management Plan requires the restoration and enhancement of water bodies to prevent deterioration and promote recovery of water bodies. Without this condition, waste water from the development could cause deterioration of a quality element to a lower status class and prevent the recovery of the water body to good status.

Contamination

We recommend the following condition be included on any planning permission granted:

Condition: If, during development, contamination not previously identified is found to be present at the site then no further development (unless otherwise agreed in writing with the local planning authority) shall be carried out until a remediation strategy has been submitted to the local planning authority. The remediation strategy shall details how this unsuspected contamination shall be dealt with and written approval from the local planning authority shall be obtained. The remediation strategy shall be implemented as approved.

Reasons: To ensure that any unexpected contamination encountered is dealt with, such that it does not pose an unacceptable risk to ground or surface water quality as required by PPS1 Policy ET17 and the NPPF.

Advice to LPA and applicant
Site investigations to date, which have been supplied with earlier pre-application consultations on the proposed North West Bicester site, have not identified many potential sources of contamination within the current Outline planning application area. The main potential source identified within this area (Application 1) is a small quarry in the south of the site. This has been considered as part of Chapter 11 'Contaminated Land' (and its Appendices) of the Outline Application North West Bicester Planning Application 1 Environmental Statement: Volume 1: Main Text, Hyder (ref 5050-UA005241-UE31R- 01, Aug 2014).

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This investigation did not identify any evidence of contaminating materials/soils or groundwater within the area of the quarry. However, the supplied investigation only considers the fields containing the small quarry. While information on the site as a whole has been supplied in earlier pre-application consultations there is no information within the documents submitted to support this Outline planning application (Application 1). Given the absence of potential sources of contamination we are not overly concerned by the omission. However, for completeness, we recommend that the earlier site wide investigation to be submitted to support this planning application.

Green Infrastructure and Net Biodiversity Gain

ET14 and ET16 set out the PPS1 Green Infrastructure and Biodiversity requirements for the site.

Again, we are pleased that the Outline planning application as submitted reflects the broad principles discussed during the pre-application period. This includes the measures that have been discussed with respect to the environmental impacts of the development, the mitigation requirements for these impacts, the design principles required to offset biodiversity impacts, and the measures needed to secure a network of green infrastructure characteristics which should provide for an attractive and biodiverse environment, as required by ET14 and ET16 of PPS1.

Condition requirement – Landscape & Habitat Management Plan
The appropriate management and monitoring of the site will be crucial to ensure the proposed development is able to deliver a net gain in biodiversity. The applicant proposes in section 9 of the Biodiversity Strategy that a Landscape & Habitat Management Plan (LHMP) will be produced for each Reserved Matters application. The LHMPs would contain both management and monitoring proposals.

The LHMP is critical to ensure that the design principles set out at this Outline planning application stage can be translated into the detailed design. It must be produced together with the detailed design for the hard infrastructure including buildings, roads, paths, service infrastructure etc. Only when all these elements are fully worked up will it be possible to assess whether the safeguards and measures required to minimise losses, create habitat features and provide habitat buffering can be delivered on the ground. It is imperative that the LHMP is produced in tandem with the detailed design for the built infrastructure to provide confidence that the green infrastructure will deliver on its intended objectives, given how critical this is in meeting the objective of net biodiversity gain and in providing an environment which meets with the Eco Town principles.

The site then needs to be managed for biodiversity in perpetuity to avoid the loss of potential benefits from the mitigation and enhancement measures. Ecological monitoring is vital to ensure that the management is successful in meeting its objectives for biodiversity and to enable remedial action to be identified, if necessary.

Condition requirement – Construction Environment Management Plan
The Construction Environment Management Plan (CEMP) is also a critical document with respect to ensuring that the design principles are secured on site and that the appropriate measures are in place to minimise environmental damage during the construction phases. This includes safeguarding of watercourses and ponds and associated buffer zones, pollution prevention measures and water quality sampling, ongoing environmental monitoring etc. This should link closely with the LHMP to ensure that design principles are translated across the site. The CEMP is needed before the start of construction to ensure there is adequate time to assess its compliance with the design principles, and that all the relevant control measures are in place to prevent adverse construction impacts on the water environment in particular.

Advice - Biodiversity Strategy
There is still some concern about how the off-site improvements for farmland birds will be secured. Other consultees (Natural England and Oxfordshire County Council) have commented on this in response to this consultation, re-iterating earlier concerns about the length of time that such off-setting will receive financial support and whether this will provide an in-perpetuity compensation for these impacts. It is imperative that off-site mitigation is properly and robustly secured. We are comfortable that these other consultees are well-placed to continue this discussion.

Advice - Defra Biodiversity off-setting metrics
The Biodiversity Strategy relies on the Defra Biodiversity off-setting metrics to demonstrate that net biodiversity gain will be secured. Although we have cautiously accepted this approach in this particular case, quantity of habitat created cannot be the sole measure of success, and it must be understood that the achievement of net gain is highly dependent on both the quality of the habitats which are

safeguarded, enhanced and created, and also on the extent to which the target species benefit from the habitat which is created. This requires a robust monitoring protocol to ensure that the objectives of the Biodiversity Strategy are met and that habitats are established successfully according to the design criteria.

Further advice

Burial ground

We note that a potential location for a burial ground has been identified on various plans for approval including BIMP6 108D NW Bicester Application – Parameter Plan, Rev D – 25/07/14. However, the burial ground is not included in the description of this planning application. Following discussions with your Authority, we understand that Cherwell District Council is considering securing the land identified for the burial ground through a S106 agreement. A separate planning application for the burial ground will then need to be submitted.

We have no in principle objection to the location identified for the burial ground. However, no site specific risk assessment has been supplied for the proposed burial ground location with this planning application and therefore we cannot confirm that the area identified is suitable.
As part of any planning application submitted for a burial ground in the identified location, we would require a detailed risk assessment which includes groundwater level and quality monitoring.

Guidance on carrying out such a risk assessment can be found in the following publication:

Assessing the Groundwater Pollution Potential of Cemetery Developments, Environment Agency, April 2004
https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/290462/scho0404bgla-e-e.pdf

Our key concern for the location identified is that further investigation could demonstrate that there is insufficient unsaturated zone, due to the potentially shallow depth to groundwater. This may pose unacceptable risks to groundwater quality. However, the location identified is one of the most elevated areas on the site which should mean there is likely to be a deeper unsaturated zone compared to lower elevated areas.

In summary, although we have no in principle objection to the location identified for the burial ground, there are still outstanding environmental concerns. Further environmental assessment will be needed to support any planning application for the burial ground and there is a risk that this further assessment may identify that the location identified is not suitable for a burial ground due to unacceptable risks to groundwater and surface water quality.

Energy Strategy

We are pleased that the Energy Strategy (Outline Application NW Bicester Planning Application 1 Energy Statement Report No 5023-UA005241-UE21R-02 Date August 2014) at section 2 (Preferred Strategic Approach) has considered the inclusion of a District Heating Network which will enable future proofing relative to new technology (which can be plugged into the energy centres) such as the potential connection to the waste heat from the Ardley Energy from Waste (EfW) facility. Utilising waste heat from the Ardley EfW facility would see huge carbon savings, has the potential to lower energy prices for residents and will see the reduction of fossil fuel use, putting the North West Bicester development at the forefront of sustainability in the UK and we fully support this approach.

Summary

In summary we have no objection to the development as proposed. As highlighted in our consultation response, there are numerous matters which will be subject to detailed design and phasing of the development. To ensure that the high sustainability standards proposed in this Outline planning application are delivered, and to ensure that the development meets the policy requirements of the NPPF and PPS1, appropriate planning controls will need to be incorporated into any planning permission granted. It is essential that we are reconsulted on the draft conditions and draft planning obligations prior to the full determination of this planning application which we understand will be in December 2014.

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Should I be of further assistance please do not hesitate to contact me on the number below.

Yours sincerely,

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cc Barton Willmore LLP
cc Gerry Walker – A2Dominions