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Relevant Representations – Cambridge Waste Water Treatment Plant Relocation – Development Consent Order

1 Introduction

- 1.1 These relevant representations have been prepared on behalf of Marshall Group Properties (MGP) following the recent submission of Anglian Water's Cambridge Waste Water Treatment Plant (WWTP) Relocation Development Consent Order (DCO) application to the Secretary of State for Environment, Food and Rural Affairs.
- 1.2 MGP has been involved in all pre-submission stages of the DCO process, providing responses to consultations and liaising with Anglian Water to ensure the proposals have soundly and robustly considered the potential impacts of the scheme, whilst also taking account of current and future development on the eastern side of Cambridge.
- 1.3 Notice has been served that the Secretary of State has accepted Anglian Water's application and this response serves as MGP's Relevant Representations and confirms that it wishes to be included as an Interested Party in the examination process which is to follow.
- 1.4 As the property arm of the Marshall Group, this Relevant Representation also draws upon previous responses submitted to the pre-submission consultations on behalf of the Airport Operator, Cambridge City Airport (also a subsidiary company of Marshall Group).

2 Marshall Group

- 2.1 MGP is the property division of the Marshall Group, which owns and is responsible for 364 hectares of land to the east of Cambridge, a large part of which is operated as Cambridge Airport. MGP has obtained outline planning permission for 2,500 new homes, two primary schools, a secondary school, local centres and other infrastructure across two sites adjacent to the operational airport. Construction has commenced at Marleigh (previously known as 'Wing') on Land North of Newmarket Road. The consented site at Cherry Hinton has since been sold to Bellway and Clarion and construction has commenced (under the name Springstead Village).
- 2.2 In addition, MGP is continuing to promote, through the Local Plan process, the relocation of Marshall Aerospace to allow redevelopment of Cambridge Airport. The proposed development is known as Cambridge East. In the Greater Cambridge Shared Planning (GCSP) service's 'First Proposals' Preferred Options version of the emerging Greater Cambridge Local Plan (published for consultation in November 2021), Cambridge East is identified as a strategic site and included as a Preferred Option for 7,000 new homes and 9,000 new jobs. The joint Council's confirmed in a Committee report in January 2023 their commitment to allocation of the site in the forthcoming Local Plan.
- 2.3 With this in mind, MGP's main interests in the examination of Anglian Water's DCO application for the new WWTP are:
 1. the continuing safe operation of Cambridge Airport, until such a time as Marshall Aerospace has relocated and the runway is no longer in operation;



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2. ensuring that the capacity of the proposed new WWTP is sufficient to accommodate both existing development and future development identified through the emerging Greater Cambridge Local Plan (which extends to 2041, but identifies development beyond the Plan period); and
 3. ensuring that the design and specification of the sewage works is compatible with committed and expected large scale developments to the east of Cambridge, and will not cause undue constraint, nuisance or disturbance to the amenity of any future residents, or fail to optimise opportunities for connectivity between the new facility and Cambridge East.
- 2.4 Having reviewed the DCO application documents, MGP is supportive of the relocation proposals in principle, which will support the growth of Cambridge through the release of the sewage works for redevelopment and the provision of the supporting infrastructure required to serve a successful growing city. Through the pre-application process, however, MGP has engaged with Anglian Water, requesting further technical evidence and detail on the final design of the facility to ensure that MGP can fully assess whether there are any unacceptable impacts on its interests.

3 Aerodrome Safeguarding

- 3.1 In view of MGP's main interests outlined above, Cambridge City Airport has been involved in reviewing pre-submission consultation documents and providing written responses to ensure that the Airport can continue to operate safely in conjunction with Anglian Water's new WWTP, until such a time as Marshall Aerospace has relocated and the runway is no longer in operation. The full response provided in relation to the Phase Three consultation in April 2022 is appended to this note (Appendix 1) and the main points summarised below.
- 3.2 The WWTP site is located beneath an 'Inner Horizontal Surface', which is a horizontal plane above an aerodrome and its environs whereby the height of buildings, plant and roof structures is restricted to ensure they do not interfere with Airport activities. The height of this surface at the proposed site is 55.82m AOD. If any structures exceed this height, then further consultation with Cambridge Airport should be sought to enable further Obstacle Limitation Surface (OLS) aeronautical studies to be completed.
- 3.3 In addition, the proposed site sits beneath the 'Instrument Flight Procedures' associated with Cambridge Airport; therefore, any proposed structure or construction equipment that is proposed above 15m above ground level will require further consultation with Cambridge Airport to enable any further aeronautical studies to be undertaken. It is also requested that MGP has sight of the detailed Construction Environmental Management Plan when this is prepared so it can assess the potential impacts on the safe operation of the Airport.
- 3.4 Waste water transfer facilities, by their operational nature, have the potential to attract large numbers of hazardous birds, including gulls, corvids and Starlings that will be attracted to food sources on site. Increased hazardous bird activity on, or directly over this site will result in increased risk to aircraft and cause potential safety issues.
- 3.5 The proposed location of the new WWTP nearer to Cambridge Airport has the potential to increase the risk of birdstrike with birds looking to utilise both the feeding and breeding



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opportunities present on site, thereby, increasing the strike risk due to movement of these birds through the critical airspace.

- 3.6 Given Marshall Group's commitment to relocation of its Aerospace business, and ultimately closure of the Airport no later than 2030, MGP recognise that the construction phase commencing in the second half of 2024 and early stages of operation from 2028 onwards may coincide for a relatively short duration. However, the safe operation of the Airport remains a priority, and MGP would recommend continued close liaison between Anglian Water and Cambridge Airport to ensure these matters are considered and addressed. Cambridge Airport recommends that a Bird Hazard Management Plan is required to cover both the construction and operational phases. The precise content of this may vary depending on the respective phasing of construction of operations at the new plant, relative to the status of ongoing operations at Cambridge Airport and the timescale for closure of the Airport.
- 3.7 If any of the above factors trigger a requirement for additional aeronautical studies to be undertaken, the cost of these studies will need to be covered by Anglian Water.
- 3.8 Please see the full response from Cambridge City Airport, written in response to the Phase Three consultation, for full details relating to the continued safe operation at the Airport.

4 Overall Capacity of the Plant

- 4.1 Throughout the pre-submission consultations, MGP has closely monitored the information published by Anglian Water in relation to the proposed capacity of the new WWTP and, in particular, the assumptions allowed for in relation to Cambridge East.
- 4.2 Quod has reviewed the DCO application documents in this context. The Planning Statement asserts that capacity for Phases 1 and 2 will be sufficient to serve all existing and planned residential and commercial development within the Cambridge catchment as a minimum to 2041, based on existing commitments and emerging needs and allocations identified in the emerging Local Plan (with headroom should the housing requirement / target increase), as well as from strategic sites (i.e. Cambridge East, NEC and Waterbeach) beyond the next Local Plan period.
- 4.3 In relation to the emerging Local Plan and the emerging needs and allocations contained therein, Greater Cambridge Shared Planning (GCSP) has made clear the critical importance of clarity on the sustainable supply of water to make meaningful progress with the Draft Local Plan (Regulation 18). GCSP is working with the water authorities and with Government to resolve the current concerns around water supply to the area.
- 4.4 However, given there remains a degree of uncertainty about short and medium term growth requirements. It is incumbent on Anglian Water to demonstrate that the new facility is being planned and phased to meet the full range of reasonably predictable scenarios for short, medium and long term growth in the catchment areas. The January 2023 committee papers published by GCSP identified an increase in the objectively assessed need for jobs and homes in Greater Cambridge in the plan period above those identified in the First Proposals. Given that the Plan is at an early stage of preparation and objectively assessed needs for homes and jobs are yet to be fixed, and work relating to the capacity of the proposed strategic sites is



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ongoing, a significant margin for error and / or for additional currently unplanned growth should be factored into the capacity modelling.

- 4.5 From a review of the DCO application documentation, it is not immediately clear as to what assumptions have been made in the capacity modelling in relation to the future development of Cambridge East. Whilst the emerging Greater Cambridge Local Plan 'First Proposals' identifies the site for 7,000 homes and 9,000 jobs, MGP are exploring with GCSP a number of technical and design assumptions that could influence site capacity in future stages of the emerging Local Plan. As identified in the emerging Greater Cambridge Local Plan, a significant proportion of development identified in the 'First Proposals' is due to be delivered beyond the Local Plan period.
- 4.6 Given the national importance of Cambridge, there can be no risk that the new facility is undersized and no risk that it could impose a constraint on future growth of the area. Anglian Water must be able to demonstrate the ability of the plant and the site to accommodate longer term growth.
- 4.7 Consequently, Marshall wishes to register its interest in relation to the examination of plant capacity and it will seek absolute clarity that the scale of the new facility will be sufficient to cater, not only for the development of Cambridge East and North East Cambridge, but also for all other likely planned development in the catchment.
- 4.8 Further, Marshall seeks clarity around how and when expansion of the facility may occur should development be delivered at a faster rate than is assumed within the emerging Local Plan.

5 Water Management

- 5.1 Hilson Moran have been instructed by Marshall to advise in respect of the water cycle and water management at Cambridge East. Hilson Moran have reviewed relevant documents submitted with the DCO in respect of these matters and are broadly supportive of the application from a water management perspective.
- 5.2 However, the potential to explore how MGP and Anglian Water might mutually benefit from opportunities to share finite resources that improve environmental and economic outcomes has been identified. Primarily MGP wishes to understand if treated sewage effluent can be procured as a valuable 'recycled' water product for Cambridge East, thus supporting its water efficiency ambitions. Specifically, the use of Treated Sewage Effluent (TSE) or Black-Water could significantly reduce the demand for potable water, which is ultimately abstracted from finite groundwater resources. Currently the new WWTP will process sewage and discharge to local watercourses. Opportunities for the recycling of water by Anglian or Cambridge Water should be explored.
- 5.3 MGP would also wish to understand any opportunity for the direct conveyance of foul water from Cambridge East. For example, it might be possible for MGP to convey foul sewage directly to the treatment works from any new proposed adoptable pumping stations and bypass the existing Anglian Water sewerage network (should it prove difficult for Anglian Water to accommodate the foul flows from Cambridge East into its existing sewerage network). Would the timelines for the two projects allow this?



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- 5.4 There are two other opportunities that any ‘mechanism for exploring innovation’ might initially consider. Both of these would be subject to their own techno-economic viability and regulatory appraisal to determine applicability:
1. Procurement of waste heat or perhaps biomethane for Cambridge East: Hilson Moran understand that biomethane will be exported from the new WWTP and injected into the local gas network. Could this be conveyed to Cambridge East and combusted to provide heat and power? Alternatively, it is assumed the biomethane will be generated from Anaerobic Digestion process, which would also likely generate heat, which might also be used as a valuable waste product.
 2. Procurement of renewable electricity for Cambridge East. The WWTP will generate renewable electricity. This renewable electricity could be conveyed to Cambridge East via an engineered connection, or perhaps virtual via a Power Purchase Agreement, to support the electrification of heat and transport at Cambridge and in support of Cambridge East’s net zero-carbon ambition.
- 5.5 MGP would welcome a mechanism to explore possible innovation in the shared use of finite resources across two major built environment projects in relative proximity.

6 Transport

- 6.1 KMC Transport / Stantec are instructed to advise Marshall in respect of transport matters at Cambridge East and have reviewed Anglian Water’s DCO documentation to ensure the proposed access and transport arrangements are robust and do not conflict with any proposals at Cambridge East.
- 6.2 The proposal for a Community Liaison Group and a Construction Forum to communicate activities during construction stages is welcomed as it is likely that construction activities at the Airport (including Marleigh, Springstead Village and the redevelopment of the airport itself) could coincide with construction at the Proposed Development (2024 – 2028), particularly if there are delays in starting construction. Marshall must be part of this group representing development at Cambridge East and Marleigh, and also ensuring close coordination with the developers at Springstead Village, particularly as traffic management measures around the site has potential to impact construction routings and users at Marshall sites.
- 6.3 The pedestrian and cycle improvements along Horningsea Road between A14 J34 and the site are supported, including the widened shared pedestrian/cycle track, improved crossing facilities at J34, the upgraded bridge parapet, new crossing on Horningsea Road and segregation of active users from HGV and car traffic, as well as the recreational opportunities through and beyond the site.
- 6.4 The proposals that construction traffic will not coincide with the peak hours and ANPR will monitor the assignment of traffic locally are also supported.
- 6.5 Future expansion of the facility beyond 2050 would be key to enable continued growth in Cambridge; however, the site access arrangements already appear to be close to capacity up to 2038. KMC Transport / Stantec are concerned that sufficient flexibility may not have been built into the site access proposals and operational access strategy to facilitate longer term



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growth beyond the Phase 1 operational phase, or in a situation where the volume or origins of vehicles entering and exiting the site differs from that tested within the Transport Assessment.

- 6.6 The CTMP is welcomed, although emergency access routing for the Proposed Development should be agreed with Marshall in the event of issues on the A14 and options may directly impact Marshall sites in the east of Cambridge.
- 6.7 As the performance of the site access and A14 J33 in particular are critical to longer term expansion beyond 2050 and the ability to accommodate committed (and future) Marshall developments, there are some queries on the methodology that supports the current conclusions for the capacity assessment at these junctions. Specifically:
- Why the traffic data for the strategic road network junctions collected in December 2021 hasn't been re-validated with data from 2022 and whether there are implications for the capacity conclusions?
 - Whether the future forecast year flows through these junctions include robust forecasts of consented flows from Springstead Village and Marleigh as Appendix K of the TA is missing which sets out the growth assumptions.
 - What assumptions were included for Cambridge East within the junction modelling?
 - How sensitive the conclusions regarding the performance of A14 J33 are in the event that the volume, timing or assignment of operational traffic varies from those within the Transport Assessment?
- 6.8 Marshall seeks further clarity in respect of these queries as the examination process progresses.

7 Green Infrastructure & Biodiversity

- 7.1 MGP is committed to ensuring that any future development at Cambridge East forms an integrated piece of both the City and its countryside and is exploring opportunities on-site and off-site to enhance biodiversity, recreational opportunities and connectivity to open space. MGP has been engaging with Anglian Water through a series of workshops to explore how the respective green infrastructure strategies could be conjoined.
- 7.2 Logika, on behalf of MGP, has reviewed all relevant documentation submitted with the DCO with regards to Green Infrastructure and Biodiversity. The review has not identified any potential concerns that need to be investigated at this stage with Anglian Water with regards to biodiversity and Green Infrastructure. Logika are supportive of the proposed major new green infrastructure that could, together with future green infrastructure proposals at Cambridge East, support a significantly enhanced green infrastructure resource for both people and wildlife within the local area, including by contributing to the local nature recovery network.
- 7.3 More specifically, in reviewing the access proposals for recreation and open countryside proposed within the DCO submission documentation, it is clear that there is opportunity for green route / byway / footpath linkages through the area to link the green infrastructure associated with the WWTP with that intended to occur at Cambridge East. Discussions should



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continue between relevant parties including MGP, Anglian Water, the National Trust and GCSP (as well as other interested stakeholders) to optimise outcomes and to investigate a solution to achieving delivery of the Wicken Fen vision in this specific area.

8 Odour

- 8.1 The latest information provided by Anglian Water provides an odour assessment. Air Quality Consultants, on behalf of MGP, has reviewed the odour assessment. The assessment includes modelling of potential odour emissions and operating conditions from a fully functioning sewage treatment works.
- 8.2 The approach taken by Anglian Water has been to embed odour mitigation in the design of the WWTP to reduce odours at source. Odours are much more effectively mitigated at source, as opposed to at a receptor and measures would be detailed in the Site's Odour Management Plan. Air Quality Consultants are supportive of this approach as it demonstrates a high level of confidence in Anglian Water's odour management and control at the site.
- 8.3 Whilst the approach will reduce the potential for odour generation, there are a number of minor technical issues with the submitted odour assessment that have the potential to combine to alter conclusions or reduce the headroom of the assessment. These includes a lack of consideration of the odour impacts during less-than-optimal conditions, missing details relating to the operational of the storm tanks, lack of clarity on the whole site's status under the Environmental Permitting Regulations and the impacts from decommissioning. These issues could impact on appropriate mitigations strategies; therefore, MGP seek clarification of the following:
 - the organisation who is responsible for ensuring the site's Odour Management Plan is sufficient and the process for resolving any issues relating to odours from the site, regardless of the operational cause; and
 - the likely frequency of storm tank usage and the procedure for drawdown and cleaning.
- 8.4 Whilst it is appreciated that the odour impacts are likely to be low at the nearest Marshall landholding, given the distance from the main works of the WWTP (approximately 1.5 km), the above details are considered a critical component of any sustainable odour management plan.



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Anglian Water Services
By Email

21/04/22

Development Control Order (DCO) - Phase Three Consultation for the Cambridge Waste Water Transfer Facility

Cambridge Airport Reference: EGSC-22-029

Cambridge Airport has reviewed the concept design for the above DCO project and would recommend that the following should be taken into account when considering the final design.

1.0 Obstacle Limitation Surfaces

The site is located beneath the following Obstacle Limitation Surface (OLS) for Cambridge Airport:

Inner Horizontal Surface (IHS), The IHS is a surface located in a horizontal plane above an aerodrome and its environs and is established for every aerodrome. The outer limits of the IHS are defined by circular arcs centred on the geometric centre of the runway, on the intersection of the extended runway centre line with the end of the runway strip joined tangentially by straight lines or points established for such purpose. The height of this surface at the site is 55.82m Above Ordnance Datum (AOD).

This surface restricts the height of buildings, plant, and roof structures such as aerials and flagpoles. Cambridge Airport therefore recommends that no part of the development exceeds this height. However, if a structure is deemed integral to the development and is required to exceed the height of this surface. Then further consultation with Cambridge Airport should be sought to enable further OLS aeronautical studies to be completed.

2.0 Instrument Flight Procedures

The site sits beneath the Instrument Flight Procedures (IFPs) associated to Cambridge Airport and will need protecting. Therefore, any proposed structure or construction equipment that is proposed above 15m Above Ground Level (AGL) will require further consultation with Cambridge Airport to enable further aeronautical studies to be completed.

The Approved Procedural Designers for Cambridge Airport are Cyrrus Ltd. Therefore, any necessary IFP aeronautical studies will need to be carried out by Cyrrus Ltd at an additional cost.

3.0 Bird Hazard Management

The relocation of the Water Transfer Facility even closer to Cambridge Airport has the potential to increase the risk of bird strike with hazardous birds looking to utilise both the feeding and breeding opportunities present on site, thereby, increasing the strike risk due to the movement of these birds through the critical airspace.

The Marshall Group is committed to relocation of its Aerospace business, and ultimately closure of the Airport by 2030, and we recognise that the construction phase and early stages of operation may only coincide for a relatively short duration. The safe operation of the Airport remains a priority, and we would recommend continued close liaison between Anglian Water and Cambridge Airport to ensure the following matters are addressed.

Should any buildings on site include areas of flat and/or shallow-pitched roof space then a robust Bird Hazard Management Plan will be required detailing the mitigation measures in place to deter roof nesting species. Measures could include such things as:

- Safe roof access to allow for bird dispersal and egg/nest removal
- A monitoring programme to quickly learn if birds are utilising any roof space
- Control measures to disperse birds should they become attracted
- A communication process with Cambridge Airport to quickly report any issues with hazardous birds

The landscaping scheme includes the planting of up to 25 hectares of new woodland and up to 9500 linear metres of hedgerow. Fruit/berry and nut bearing species of plant such as Hawthorn and Rowan used within the new hedgerow planting have the potential to attract hazardous birds such as Starlings and Thrushes, which, in this location, should be minimised. Tree species selection will include Field Maple, Birch, Hornbeam, Oak and Rowan, planted at varying sizes (up to approximately 5m height when installed). Species such as Oak and Scots Pine can provide a breeding/roosting habitat for birds such as Corvids and Pigeons due to their dense canopy. However, this consideration may be discharged if the airport ceases to operate before the trees are matured.

The creation of areas of wetland should be minimised as this type of habitat may have the potential to attract waterfowl species such as Mallard and other waterbirds such as Grey Heron. Given the sites proximity to the aerodrome, ideally all waterbodies would be underground to remove the attractant, however, if this is not possible then mitigation will be required to reduce the attractants to hazardous bird species.

The creation of temporary lagoons should also be minimised and where necessary, further mitigation put in place to prevent their attraction to hazardous birds.

We recommend that a robust Bird Hazard Management Plan is put in place to prevent the presence of hazardous birds both during the construction and operational phases. The precise content of this may vary depending on the relative phasing of construction of operations at the new plant, relative to the status of ongoing operations at Cambridge Airport and the timescale for closure of the Airport.

4.0 Cranes and Construction

To enable a thorough and adequate assessment of any crane operations at the site, we would request a detailed Construction Management Plan, detailing any planned crane operations is

provided to Cambridge Airport, to enable them to carry out the necessary OLS and IFP aeronautical assessments.

The Approved Procedural Designers for Cambridge Airport are Cyrrus Ltd. Therefore, any necessary IFP aeronautical studies will need to be carried out by Cyrrus Ltd at an additional cost.

5.0 Renewable Energy

The use of renewable energy's such as Photo Voltaic Cells (PVC's) or Wind turbines could have the potential to impact the operations at Cambridge Airport. If such technologies are being adopted, then further details should be provided to Cambridge Airport to allow the necessary aeronautical studies to be completed.

The Approved Procedural Designers for Cambridge Airport are Cyrrus Ltd. Therefore, any necessary IFP aeronautical studies will need to be carried out by Cyrrus Ltd at an additional cost.

Yours sincerely



Gary Renault

For and on behalf of Cambridge City Airport