

27 January 2020

# Beckton Sewage Treatment Works

in the London Borough of Newham

planning application no. 19/02768/FUL

## Strategic planning application stage 1 referral

Town & Country Planning Act 1990 (as amended); Greater London Authority Acts 1999 and 2007; Town & Country Planning (Mayor of London) Order 2008.

## The proposal

Construction and operation of an extension to Activated Sludge Plant 4 and the provision of additional sludge plant at Beckton Sewage Treatment Works.

## The applicant

The applicant is **Thames Water** and the agent is **Adams Hendry**.

## Strategic issues summary:

**Principle of development:** The principle of the proposed expansion of capacity at Beckton Sewage Treatment works is supported by the London Plan and the Mayor's intend to publish London Plan (paragraph 29 to 35).

**Sustainable development:** The applicant should address outstanding issues in relation to energy, urban greening and air quality. Conditions are also required (paragraph 37 to 50).

**Transport:** The proposal is acceptable in strategic transport terms. However conditions should be adopted securing the continued safeguarding of the Thames Gateway Crossing land, a construction logistics plan and a travel plan (paragraphs 51 to 52).

## Recommendation

That Newham Council be advised that the application is supported in strategic planning terms, although for the reasons set out in paragraph 56 of this report it does not fully comply with the London Plan and the Mayor's intend to publish London Plan. However, the resolution of those issues could lead to the application becoming compliant with the London Plan and Mayor's intend to publish London Plan.

## Context

1 On 23 October 2019 the Mayor of London received documents from Newham Council notifying him of a planning application of potential strategic importance to develop the above site for the above uses. By agreement with the Council, the Mayor has until 26 January 2020 to provide the Council with a statement setting out whether he considers that the application complies with the London Plan and draft London Plan, and his reasons for taking that view. The Mayor may also provide other comments. This report sets out information for the Mayor's use in deciding what decision to make.

2 The application is referable under Categories 2B of the Schedule to the Order 2008:

2B: Waste development to provide an installation with capacity for a throughput of more than— (a) 5,000 tonnes per annum of hazardous waste; or (b) 50,000 tonnes per annum of waste; produced outside the land in respect of which planning permission is sought. 2. Waste development where the development occupies more than one hectare.

3 Once Newham Council has resolved to determine the application, it is required to refer it back to the Mayor for his decision as to whether to direct refusal; take it over for his own determination; or allow the Council to determine it itself, unless otherwise directed.

4 The environmental information for the purposes of the Town and Country Planning (Environmental Impact Assessment) Regulations 2011 has been taken into account in the consideration of this case.

5 The Mayor of London's statement on this case will be made available on the GLA website [www.london.gov.uk](http://www.london.gov.uk).

## Site description

6 The Beckton Sewage Treatment Works (STW) is located in the London Borough of Newham, covering an area of approximately 131 hectares. The proposals are within the boundaries of the existing treatment works sites and consists of areas of hardstanding, plant, machinery, tanks, facilities and buildings associated with the operation of the STW as well as internal roads and areas of managed grassland, water bodies, and bare ground including areas of designated SINC

7 There are currently three secondary and final treatment streams at Beckton STW. These range in age and are numbered as ASP2, ASP3 and ASP4. Each of the three ASPs include both secondary and final treatment stages. ASP4 currently caters for 29% of the flow through the STW and covers an existing footprint of 100,000 sq.m. (10ha). ASP4 is the most recent of these, having been constructed between 2010 and 2014 as part of the Tidal Thames Quality Improvements (TTQI) programme and has been operational since 2014. ASP4 was delivered as part of the Beckton STW Extension project alongside the delivery of the Lee Tunnel, both of which are consented under the Town and Country Planning Act 1990 in 2009. That development saw a wide range of adjustments to primary, secondary and final stage effluent treatment activities and sludge handling capabilities.

8 The surrounding land use consists primarily of industrial and commercial land uses. This includes Jenkins Lane Recycling and Reuse Centre, the Showcase Cinema leisure park, and numerous light industrial units to the east. Gemini Business Park, Gallions Reach Retail Park and the former Beckton Gas Works lies to the south; and the Beckton Retail Park, Gateway Retail Park and Beckton Triangle Retail Park to the west.

9 The closest residential developments are located approximately 0.48 kilometres south west of the western edge of the ASP4 area of works at Henry Addlington Close and 1.2 kilometres northeast of the Sludge works area at Gallions Drive. The River Roding and Barking Creek lie to the east of the STW and the Creek forms the administrative boundary between the Newham and Barking and Dagenham.

10 Transport infrastructure located in close proximity to the site includes the Docklands Light Railway (DLR) and its stops serving Beckton and Gallions Reach; the A1020 Royal Docks Road, with its links northwards to the North Circular and the M11; and, the A13, with its links into central London to the west and the M25 to the east.

## **Details of the proposal**

11 There are two parts to the application: the ASP4 area of works is located within the western side of the STW, and the sludge area of works is located within the south side of the STW.

12 ASP4 was designed on a modular basis and the proposals are for additions to plant and structures which will utilise physical space adjacent to the ASP4 works to allow for the area of works to be combined with the existing tanks. To increase the treatment capacity, two new aeration lanes and four final settlement tanks (FSTs) will be installed. The new plant will be similar in scale and appearance to the equipment already present on site.

13 To meet the additional sludge processing requirement to cater for growth and resilience, the existing sludge works require the provision of additional sludge thickening capacity. This will be achieved by the construction of a new building to house additional thickening mechanical units and all the ancillary equipment, as well as an additional holding tank. The works will involve the demolition of the redundant tanks within this area to allow construction of two new tanks for sludge liquor treatment. When fully enclosed, the tanks are anticipated to be less than 10 metres in height and up to 20 metres in diameter. Additional work includes an upgraded OCU, the reconfiguration of pipework and upgrades of internals to the existing blend tanks, and a new mixing tank.

## **Case history**

14 The application was the subject of a GLA pre-application meeting and an advice report was issued on 21 August 2019. The principle of intensifying the operation of Beckton Sewage Treatment works through expansion of ASP4 and an additional sludge plant to increase the facility's capacity was supported. The applicant was requested to address issues in relation to biodiversity and urban greening, air quality, odour, flood risk and transport in its application submission.

15 There have been a number of developments to upgrade the STW for which planning permission or development consent has been secured or confirmed. These

include the following: The Lee Tunnel & Beckton STW Extension, Beckton PST Covers project, Beckton Enhanced Sludge Digestion Facility, Thames Tideway Tunnel Sludge Expansion – Siphon Tunnel and Two Adjacent Shafts with works ongoing and Beckton Site Safety and Security Centre.

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#### The Lee Tunnel & Beckton STW Extension

17 In May 2008 Thames Water submitted planning applications to the London Thames Gateway Development Corporation (LTGDC), the London Borough of Newham (LBN) and the Olympic Delivery Authority (ODA) (the Local Planning Authorities) (LPAs) to construct a sewage storage and transfer tunnel (the 'Lee Tunnel') between Abbey Mills Pumping Station and Beckton STW, and an extension to Beckton STW.

18 The project was proposed to improve water quality in both the Tidal Thames and the River Lee by capturing CSO discharges from Abbey Mills within the proposed Lee Tunnel and providing additional sewage treatment capacity at Beckton STW, substantially reducing flows of untreated sewage into the River Lee and the Thames Tideway.

19 The proposals for the Beckton STW Extension and the Lee Tunnel (LTB scheme) included substantial works within Beckton STW including connection shafts and a pumping station associated with the construction and operation of the Lee tunnel as well as additional preliminary, secondary, final sewage treatment and sludge treatment infrastructure and facilities. The applications were approved in December 2009 and works commenced on site in June 2010.

20 Subsequent applications to amend the proposals were submitted and approved by the local planning authorities including the extant planning permission in March 2011, which was granted to vary conditions attached to the original Lee Tunnel and Beckton STW extension planning permission. A number of further non-material amendments to the proposals were also approved under S.96A of the TCPA 1990 as the project was implemented.

#### Primary Settlement Tank (PST) covers

21 The consented Lee Tunnel and Beckton STW Extension permission included as a provision of the associated Section 106 agreement an obligation to implement the covering of the PSTs, following confirmation of corresponding funding authorisation from OFWAT. Once such funding was confirmed, and following a request for an EIA Screening Opinion by Thames Water in April 2010, the London Thames Gateway Development Corporation (LTGDC) confirmed that all works associated with the PST covers project constituted permitted development. These works were completed in 2015.

## Beckton Enhanced Sludge Digestion Facility

22 In March 2011, planning permission was granted for the reintroduction of sewage sludge anaerobic digestion via the installation of an enhanced sludge digestion facility, through the thermal hydrolysis process, and the refurbishment of existing digester tanks. The proposals included digestion of enhanced sludge through the refurbished tanks to produce gas, liquor and digestate or sludge cake. Also, processing of the digestion products to store and use the gas as a source of renewable energy, to return liquors to the STW, and to dewater and store sludge cake prior to export and application onto farm land as fertiliser.

23 Following design reviews, amendments were made to the layout of the development, requiring a further application for planning permission in August 2012. Subsequent applications were made to discharge planning conditions and to secure Non-Material Amendments to the final scheme design.

## Thames Tideway Tunnel

24 In 2014 Thames Water was granted a Development Consent Order for the Thames Tideway Tunnel (TTT DCO). Work No. 27 relates to Beckton Sewage Treatment Works (BSTW) and authorised modifications to the sewage treatment works to cater for sewage flows from the Thames Tideway Tunnel Project. The works are for sludge expansion and include a siphon tunnel and two adjacent shafts at Beckton STW. Beckton Site Safety and Security Centre. The consented Lee Tunnel and Beckton STW extension development included the provision of a security compound to be located within Thames Water land on Jenkins Lane within the STW. However, following review it was considered that the consented replacement security kiosk would not be appropriate.

25 In 2015 a planning application was submitted for the retention of the Beckton Sewage Treatment Works Safety and Security Centre and provision of a new security centre building. The proposal included the two existing buildings to be replaced by a single building to provide the permanent security and check-in facility for the whole of Beckton Sewage Treatment Works (consented in July 2015).

## **Strategic planning issues and relevant policies and guidance**

26 For the purposes of Section 38(6) of the Planning and Compulsory Purchase Act 2004, the development plan in force for the area comprises Newham Local Plan (2018) and the London Plan 2016 (Consolidated with Alterations since 2011).

27 The following are also relevant material considerations:

- The Mayor's intend to publish London Plan (December 2019).
- National Planning Policy Framework and National Planning Practice Guidance;
- Principle of development *London Plan*
- Industrial land *London Plan;*
- Water Infrastructure *London Plan;*
- Sustainable development *London Plan; Sustainable Design and Construction SPG;*

*Mayor's Climate Change Adaptation Strategy; Mayor's Climate Change Mitigation and Energy Strategy; Mayor's Water Strategy; Mayor's Ambient Noise Strategy;*

- Transport and parking *London Plan; the Mayor's draft Transport Strategy;*

## **Principle of development**

28 Wastewater treatment plants that exceed capacity of a 500,000-population equivalent (PE) when constructed or are an alteration to existing wastewater treatment plans where the effect or operation is expected to increase by more than a population estimate of 500,000, are classed as a Nationally Significant Infrastructure Project (NSIP). This is determined in accordance with the Planning Act 2008 by the National Planning Inspectorate.

29 In this instance, Beckton sewage treatment works (STW) is an existing operational STW which treats a population equivalent of approximately 3.9 million, over a catchment of 300 sq. kilometres in north and east London. The PE of the proposed development is set to treat is 360,000 – 430,000. This is less than a 500,000 PE and therefore the project is determined under the Town and Country Planning Act 1990.

30 London Plan Policy 5.14 and SI5 Water Infrastructure (D) of the Mayor's intend to publish London Plan promote the protection and improvement of the water environment in line with the Thames River Basin Management Plan and support strategic treatment infrastructure investment to accommodate London's growth and climate change impacts. Such infrastructure should be constructed in a timely and sustainable manner taking into account of new smart technologies, intensification opportunities on existing sites and energy implications. This policy reflects identified need in The National Planning Policy Framework (July 2018), The National Planning Practice Guidance (2018), National Infrastructure Assessment (2018) and the Thames River Basin Management Plan (2015).

31 Beckton SWT is located in a Strategic Industrial location and the proposed extension of the existing facility is an appropriate land use on this protected industrial land.

32 Newham Local Plan (2018) Policy S5 (Beckton) recognises the area will: *'continue to be important for utilities infrastructure, with ongoing investment in the capacity, efficiency and [on and off site] mitigation of environmental and spatial impact at the sewage treatment works, former gasworks, and DLR depot, ensuring that overall development capacity, including in the immediate vicinity, is maximised.'* The policy sets out the spatial policy for Beckton which includes: Beckton Riverside to provide a new hallmark mixed use area; Gallions Reach Retail Park to co-evolve and intensify to become a Major town centre for the area focused around a transport hub; and London Industrial Park and Gemini Business Park to continue to act as a significant component of the Newham's industrial offer.

33 The information provided by the applicant establishes the case for the site expansion. This is based on modelling of population growth which has identified that there is a forecast need to increase the treatment capacity within the secondary and final treatment streams at Beckton STW to ensure ongoing future resilience. To accommodate this estimated growth and need for ongoing resilience additional capacity

is required which can be accommodated through extending the existing ASP4. These proposals will provide for an increase in the population equivalent (PE) capacity of the STW in excess of 150,000 PE for the growth period through to 2036. This clearly demonstrates the need for further expansion of the existing sewage treatment works capacity.

34 The principle of development the proposed expansion of capacity at Beckton Sewage Treatment works is therefore supported by the London Plan and the Mayor's intend to publish London Plan. It is an intensification of use on an existing strategically important facility and responds to the need for water supply infrastructure being provided ahead of need which is also supported by Newham Local Plan Policy as well national and regional guidance.

## **Heritage**

35 The only surviving part of the original industrial buildings formerly associated with the STW is a Grade II listed chimney (MM001) which is temporarily in storage to avoid damage from infrastructure redevelopment within the STW. The chimney will be reinstated in accordance with existing planning and listed building consents. There are no other Scheduled Ancient Monuments, Listed Buildings or other designated sites of archaeological importance within or adjacent to any part of the Beckton STW.

## **Sustainable development**

36 Detailed comments have been provided to the applicant and the Council on energy, flood risk and air quality which should be fully addressed before the application is referred back to the Mayor at Stage 2. A summary of these comments are provided below.

## **Circular economy**

37 The Mayor's intend to publish London Plan (2019) aims to reduce waste and support the circular economy through Policy S17. Promoting a more circular economy improves resource efficiency and innovation to keep products and materials at their highest use for as long as possible, encouraging waste minimisation and waste prevention through reuse and using fewer resources and ensuring that there is zero biodegradable or recyclable waste to landfill by 2026.

38 Both Beckton STW and the proposed development will form part of a resource efficient circular economy. the management of sewage at Beckton STW is an example of a closed circular economy that generates effluent for discharge to river, sludge cake for application to farmland, biogas and heat for the production of renewable energy, and bottom ash for re-use as aggregate.

## **Biodiversity and urban greening**

39 The development proposals will not result in incursion into Metropolitan Open Land, which is located to the north of the site. However, the proposals would result in the loss of part of an established SINC and mature landscape. London Plan Policy 7.19 and the Mayor's intend to publish London Plan Policy G6 Biodiversity and access to nature states that where harm to a SINC is unavoidable a three step approach should be adopted to minimise development impacts: (1) avoid adverse impacts to the special

bio-diversity interest of the site; (2) minimise the spatial impact and mitigate it by improving the quality or management of the rest of the site; and (3) seek appropriate off-site compensation only in exceptional cases where the benefits of the development proposals clearly outweigh the biodiversity impacts.

40 The proposals seek to replace and improve upon the soft landscaping and biodiversity which would be lost. Overall, the proposed development includes well-considered landscape proposals that respond to the surrounding context. It is important that the landscape proposals are brought to fruition to protect the surrounding network of Sites of Importance for Nature Conservation, in line with the Landscape and Ecology Masterplan, Volume 4 - Appendix A Outline Environmental Management Plan; and Volume 4 – Appendix G Addendum Landscape and Ecology Management Plan and Masterplan. The application proposals overall have been designed to deliver ‘no net loss’ and this is welcomed.

41 The proposed development’s Urban Greening Factor (UGF) should be calculated and submitted prior to Stage 2. The ecological chapter of the ES states that an appropriate lighting plan for the proposed development will be implemented to avoid light spill onto designated sites, and details of this mitigation should be provided.

### **Flood risk and sustainable drainage**

42 The approach to flood risk management for the proposed development complies with London Plan policy 5.12 and the Mayor’s intend to publish London Plan policy SI.12 and SI5

43 The proposal includes only a small area of new works that will drain to the site surface water system. The surface water system is returned to the treatment plant headworks and specific SuDS measures are not considered necessary in this instance.

### **Air quality**

44 The submitted air quality assessment confirms that there will be no significant impacts on local air quality expected as a result of the development as there will no increase in road traffic. It however has identified local air quality impacts during the construction phase and suitable mitigation measures have been proposed and are set out in table 3 of the “Outline Environmental Management Plan” (OEMP) including all construction vehicles meeting the low emission zone standards. However, this has not been followed through into the OEMP or the outline Construction Logistics Plan.

45 It is proposed that the OEMP will be developed into a more detailed construction environmental management plan prior to the commencement of the development. In order to ensure that the controls suggested are followed through in practice during the development, any planning permission should:

- include a separate condition requiring compliance with the non-road mobile machinery low emission zone, including the use of the online register at [nrmm.london](http://nrmm.london) to record all NRMM on site.
- include a condition requiring that the detailed construction environmental plan is consistent with the submitted OEMP and Air Quality Assessment, complied with during construction and subject to approval by the local planning authority.



- ensure the air quality assessment recommendation that all construction vehicles comply with the low emission zone requirements is adopted. Implementation of this recommendation can be done either through the construction environment management plan or through the construction logistics plan.

### Sludge incinerator

46 At pre-application it was requested that the applicant should consider if the sludge incinerator could be upgraded to reduce existing emissions, however it was also noted that the incinerator lies outside the red line for the development as proposed. The covering letter accompanying the application confirms that proposals will not lead to any increase in sludge incinerator capacity.

### Air quality neutral

47 It was agreed at pre-application that a full air quality neutral assessment would not be required for this development. For the avoidance of doubt, it should be noted that the completed development is not anticipated to result in additional operational emissions above those from the existing installation.

### Odour

48 Odour is not assessed under the same requirements as air quality, but the application includes a detailed assessment of likely odour impacts and control measures. The key measure involves ensuring expelled odorous gases are routed through an odour control unit prior to release and this approach is supported. The Council must ensure that the recommendations for odour management measures contained in the application are secured and implemented as part of any planning permission.

## **Energy**

49 There are no serviced buildings so the applicant has provided a simplified energy statement and this is acceptable in this instance. The applicant has reviewed on-site activities and the increased energy demand of the proposals and there is a significant increase in demand. The applicant should consider whether the proposals provide any opportunities for the export of waste heat off-site and provide additional details. Existing and potential renewable energy sources have been reviewed and the applicant should clarify whether the proposals will increase the production of renewable energy from the waste sludge as it appears there is no increase in renewable energy generation proposed. The applicant should provide further detail on the potential for PV.

## **Transport**

### Network Impact and mitigation

50 No changes to the existing highway access points are proposed and nor is the development expected to generate any additional trips once operational. The outline construction logistics plan (CLP) is acceptable in strategic terms. A full CLP should be secured by condition and should set out measures to ensure that during construction with its temporary highway access works there will be no significant impact on bus

operations on nearby highway and arrangements for maximising vehicle movements outside peak hours. A travel plan for the construction workers should also be secured.

### Thames Gateway Crossing safeguarding and design

51 The application site lies within the safeguarded area for the Thames Gateway Crossing. Although TfL is not currently actively progressing this crossing, the scheme remains safeguarded by the Secretary of State. The operational part of the development would be located approximately 30 metres from the road crossing itself, as identified in the previous reference design, with grassland proposed for the remainder of the site. As such the development should not conflict with proposals for a future road crossing in the safeguarded area.

### **Local planning authority's position**

52 Newham Council is assessing the application and a committee date has not yet been set.

### **Legal considerations**

53 Under the arrangements set out in Article 4 of the Town and Country Planning (Mayor of London) Order 2008 the Mayor is required to provide the local planning authority with a statement setting out whether he considers that the application complies with the London Plan, and his reasons for taking that view. Unless notified otherwise by the Mayor, the Council must consult the Mayor again under Article 5 of the Order if it subsequently resolves to make a draft decision on the application, in order that the Mayor may decide whether to allow the draft decision to proceed unchanged, or direct the Council under Article 6 of the Order to refuse the application, or issue a direction under Article 7 of the Order that he is to act as the local planning authority for the purpose of determining the application (the next bit is optional). There is no obligation at this present stage for the Mayor to indicate his intentions regarding a possible direction, and no such decision should be inferred from the Mayor's statement and comments.

### **Financial considerations**

54 There are no financial considerations at this stage.

### **Conclusion**

55 London Plan and the Mayor's intend to publish London Plan policies on water infrastructure, SIL, sustainable development and transport are relevant to this application. The principle of the proposal is supported, however the scheme is not currently fully compliant with the London Plan and the Mayor's intend to publish London Plan and the following matters should be addressed:

- **Principle of development:** The principle of the proposed expansion of capacity at Beckton Sewage Treatment works is supported by the London Plan and the Mayor's intend to publish London Plan.

- **Sustainable development:** The applicant should address outstanding issues in relation to energy, urban greening and air quality. Conditions are required as part of the grant of any planning permission.
- **Transport:** There are overall no objections to the principle of the proposed development. However, conditions should be adopted securing the continued safeguarding of the Thames Gateway Crossing land, a construction logistics plan and a travel plan.

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