

## SUSTAINABLE DEVELOPMENT COMMITTEE

8<sup>TH</sup> December 2008

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**References:** P/2008/1873 00768/H/P24

**Address:** Mogden Sewage Treatment Works

**Ward:** Isleworth

**Proposal:** Development of a new waste treatment stream, including sewage treatment plant, odour control units, re-profiling of existing embankments, landscaping and associated works, renewable energy generation (enhancement of existing CHP plant) and enclosure of existing West Side Works Primary Settlement Tanks.

**Drawing numbers:** 5X8F-A1-04500-IN, 5X8F-A1-04501-IN, 5X8F-A1-04502-IN, 5X8F-A1-04503-IN, 5X8F-A1-04504-IN, 5X8F-A1-04505-IN, 5X8F-A1-04506-IN, 5X8F-A1-04508-IN, 5X8F-A1-04509-IN, 5X8F-A1-04510-IN, 5X8F-A1-04511-IN, 5X8F-A1-04512-IN, 5X8F-A1-04513-IN, 5X8F-A1-04514-IN, 5X8F-A1-04515-IN, 5X8F-A1-04516-IN, 5X8F-A1-04517-IN, 5X8F-A1-04518-IN, 5X8F-A1-04519-IN, 5X8F-A1-04520-IN, 5X8F-A1-04521-IN, 5X8F-A1-04522-IN, 5X8F-A1-04523-IN, 5X8F-A1-04524-IN, 5X8F-A1-04525-IN, 5X8F-A1-04526-IN, 5X8F-A1-04528-IN, 5X8F-A1-04529-IN, 5X8F-A1-04530-IN, 5X8F-A1-04531-IN, 5X8F-A1-04532-IN, 5X8F-A1-04533-IN, 5X8F-A1-04534-IN, 5X8F-A1-04535-IN, 5X8F-A1-04536-IN, 5X8F-A1-04537-IN, 5X8F-A1-04538-IN, 5X8F-A1-04540-IN, 5X8F-A1-04541-IN, 5X8F-A1-04542-IN, 5X8F-A1-04544-IN, 5X8F-A1-04547-IN, 5X8F-A1-04548-IN, 5X8F-A1-04549-IN, 5X8F-A1-04550-IN, 5X8F-A1-04551-IN, 5X8F-A1-04552-IN, 5X8F-A1-04553-IN, 5X8F-A1-04554-IN, 5X8F-A1-04555-IN, 5X8F-A1-04556-IN, 5X8F-A1-04604-IN, 5X8F-A1-04605-IN, 5X8F-A1-04606-IN, 5X8F-A1-04607-IN, and LSP-02, together with Planning Design and Access and Involvement Statement, and accompanying Environmental Statement (ES) Volume 1 – Main Text, Volume 2 – Appendices, Volume 3 – Transport Assessment, Volume 4 – Flood Risk Assessment, and Volume 5 – Non-Technical Summary, and Energy Assessment and Sustainability Statement received 2<sup>nd</sup> June 2008, and 5X8F-A1-04560-1N and related ‘proposed sections’ drawings sheets 1-4 received 19<sup>th</sup> November 2008.

**Application received:** 2<sup>nd</sup> June 2008

The application was presented to the Isleworth and Brentford Area Committee on 17 July 2008 for comment, following a presentation by the agents for Thames Water. It was subsequently requested by members that it be taken back to that Committee when more information had become available, and was presented again for comment on 23<sup>rd</sup> October 2008. It was also presented to the Central Hounslow Area Committee for comment on 23<sup>rd</sup> October 2008. In addition, members of the SDC Committee were invited to a presentation of the proposal by the applicants following the 26<sup>th</sup> November SDC.

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## **1.0 SUMMARY**

- 1.1 This application, by Thames Water Utilities (TW), is a full application for works to improve the capacity of the plant to deal with and treat the existing level of flow through the sewage treatment works. The applicants advise that it is not proposed to increase the actual level of flow through the plant.
- 1.2 The application is accompanied by an extensive Environmental Impact Assessment (EIA). The main planning issues to be assessed are neighbouring amenity (particularly in respect of air pollution/odours and whether there is any undue impact on visual amenity), the effect on local ecology/nature conservation, and the loss of designated Local Open Space. The Local Planning Authority has a period of 16 weeks to decide any planning application accompanied by an EIA.
- 1.3 The development takes account of an anticipated 10% future growth in demand is considered acceptable in principle.

## **2.0 SITE DESCRIPTION**

- 2.1 The Mogden Sewage Treatment Works covers an area of 55 hectares close to the boundary of Hounslow with the Borough of Richmond. The treatment works are bounded by residential properties to the north, east and west, and by light industrial and retail (a large Tesco) to the south. Twickenham Rugby Football Stadium lies further to the south. There are also industrial estates adjoining both the north east and north west boundaries of the site. A heavily planted embankment around the perimeter of the works assists in separating adjoining residential properties from the site.
- 2.2 In the east of the site, the embankment rises approximately 6 metres above ground level in this part of Mogden STW (which is approximately 11 metres Above Ordnance Datum 'AOD'). In the west half of the complex, subject of the submitted planning application, the area of vacant operational land is approximately 16 metres AOD, rising to 22 metres AOD at the top of the western embankment and then down to approximately 10 metres AOD at the most western existing aeration lanes. The western embankment currently extends 580 metres from the north west corner of the site to the south west corner and varies in depth/width between 70 and 220 metres. The southern embankment is approximately 300 metres long by approximately 90 metres wide/deep.
- 2.3 The site is accessed by a private road leading from a roundabout to the south, between Whitton Dene Road and Mogden Lane.

- 2.4 The works are currently split into two parts, the East Side Works and the West Side Works.
- 2.5 The East Side Works comprise in the main:
- Fine screens;
  - Grit removal by constant velocity channels;
  - Primary sedimentation tanks; aeration tanks (diffused air) and final settlement tanks.
  - 8 Storm tanks.
- 2.6 The West Side Works comprise:
- Fine screens,
  - Grit removal in two detritors (cross flow settlement tanks with centre drive scrapers at the bottom), and a screw pumping station which lifts flow to two sets of primary tanks,
  - Two sets of aeration tanks (diffused air) and final settlement tanks.
- 2.7 The plant equipment on both the east and west side is generally low level tanks and other apparatus, though this is punctuated on the east side by an existing odour control unit stack (14.75 metres high), and, on the west side, by a similar height odour control unit stack, and much higher telecommunications tower.
- 2.8 The detailed layout of the West Side Works comprises:
- Screens and pre aeration tanks in the north, and then (moving south):
  - Odour control unit;
  - Pumping station No.6;
  - 4 rectangular and 4 circular primary sedimentation tanks;
  - The aeration tanks;
  - The final effluent pumping station;
  - 30 final settlement tanks;
  - 2 primary sludge holding tanks;
  - Pumping station No.14;
  - Pasteurisation units;
  - Sludge thickening units;
  - Odour control unit
  - Pumping station No.8;
  - 4 returned activated sludge pre thickening tanks; and
  - At the very southern end of the complex, 20 sludge digestion tanks.

- 2.9 The existing bunding is located to the west and south west of the plant.
- 2.10 The applicants advise that the sludge treatment located on the West Side Works at the southern end, provides for a thickening of raw sludge using drum thickeners and thickening of surplus activated sludge using picket fence thickeners for pre-thickening then centrifuges. The sludge is blended and fed to 8 pasteurisation units before feeding to anaerobic digesters. Digested sludge is then pumped via a pipeline to Iver Sludge Disposal Works located close to junction 4a of the M4, where it is dewatered and transferred to land as fertiliser.
- 2.11 There is a red brick administration building in the centre of the Mogden site and adjacent offices to the north in the form of portacabins. A large brick building to the north of the Mogden site, on the East Side is the main pumping station.
- 2.12 The application site (19.45 hectares) mainly comprises an area of vacant scrub land within the overall boundary of the 55 hectare works, between (and including) the embankment, and residential properties to the west.
- 2.13 The Duke of Northumberland River crosses the site from north to south. Adjoining this to the west, also running north to south, is a footpath open to the general public (the only part of the site that is). It is fenced off from the works, and, in the main, extensively screened by vegetation.
- 2.14 The site is not in a Conservation Area, but part is designated in the UDP as Local Open Space, a Site of Local Nature Conservation Importance and a Green Corridor. Additionally, the Duke of Northumberland River is part of a Green Chain.

### **3.0 HISTORY**

- 3.1 There is no recent planning history for the embankment and the vacant operational land in the west of the Works, which comprises the majority of the application site.
- 3.2 Recent planning history for the whole works is:-
- In June 2002 new office buildings were approved in the north of the site (**ref. 00768/H/P20**). This was a renewal of a temporary consent for temporary office buildings given on 4<sup>th</sup> May 1999.
  - In **October 2002** sludge treatment and handling plant and buildings were approved under (**ref. 00768/H/P21**). This included removal of a number of trees, a sludge transfer pumping station set into the embankment, a sludge thickening building, a pasteurisation motor control centre and a boiler house and associated plant.
  - On **22<sup>nd</sup> July 2005**, a Certificate of Lawfulness (LDC) for proposed odour control measures was granted under (**ref. 00768/H/LAW2**). The odour control measures comprised the enclosure of parts of the existing waste water treatment plant and the installation of a new odour control plant. The Certificate application was submitted

following the serving of an Odour Abatement Notice and all works included in the Certificate application that are required to be completed under the terms of that notice have now been completed. However, the Certificate application was far more extensive, but not needed to comply with the Notice. This included covering of other tanks and apparatus which has not yet been done, including the West Side rectangular primary settlement tanks, which are to be covered as part of the current application. This is discussed in more detail below under 'Odour Abatement Notice and Certificate Application'.

- The applicant also advises that other works have been completed under Thames Water's **permitted development rights**, including the installation of 3 metre high dosing tanks in **2004**.

3.3 The Council's Pollution Control officers advise that, further to many years of odour complaints, Thames Water was issued with an Odour Abatement Notice in 2001.

### **Odour Abatement Notice and Certificate Application**

3.4 Following the serving of the notice, Thames Water appealed, and subsequent to that, the courts agreed a notice with time-banded conditions. Thames Water had to comply with the conditions of the notice, including significant capital works, by the 25 August 2008.

3.5 These works comprised an extensive 'cover and treat' programme, including covering the inlet works, the two 'first-fill' storm tanks, and secondary settlement tanks, and the construction of odour control units in both the east and west parts of the works.

3.6 The letter attached to the application for the related Certificate stated:-

"Thames Water intends to implement the proposed works as part of its Asset Management Plan (AMP) process. Thames Water's regulator (Ofwat - Office of Water Services) has agreed to the investment required to implement a significant part of the proposed odour control measures for the AMP4 period 2005-2010. Thames Water is in discussions with Ofwat to seek agreement that the following measures can be implemented over the AMP4 period 2005-2010.

East. Cover 2 first fill storm tanks, cover East Side First Stage Circular Primary Settlement Tanks, cover East Side Second Stage Rectangular Primary Settlement Tanks, cover East Inlet Works, erect and install Odour Control Unit to treat odorous air from the plant covered under the East Stream.

West. Cover West Inlet Works (excluding the pre-aeration channels). Erect and install a bio-scrubber to treat odorous air from the covered inlet area.

Future additional funding will be required for the other measures proposed in this submission to be implemented."

- 3.7 Thames advises that the works identified above, for which funding was to be provided, were subsequently agreed by Ofwat and attached to the odour abatement notice. These are the works that were, therefore, completed.
- 3.8 The application for the Certificate in 2005 sought to confirm that the wider (more extensive) works, which were included in the application (which included the covering of both the circular and rectangular west side primary settlement tanks, and all the east side storm tanks) were also Permitted Development, as the works required to address the abatement notice were not finalised at that point in time. Thames Water further advises that it considers that the ongoing monitoring of the site demonstrates that the odour improvement works (subsequently carried out) have addressed the odour abatement notice issue. Therefore, it is not Thames Water's intention to cover the additional areas of plant (other than the West Side Primary Settlement Tanks, identified in the planning application) as funding will not be forthcoming for these works.
- 3.9 On the question of compliance with the odour abatement notice the comments of the Head of Pollution Control are reported below, and under 'Air Quality' in 'PLANNING ISSUES'.
- 3.10 The Head of Pollution Control comments as follows:- "By way of amplification, the Council (and Thames Water) is of the opinion that the capital engineering works, as approved by OFWAT, are complete. The Council is of the opinion that these 'cover and treat' works have contributed to a reduction in odour from these plant and reduced the frequency of incidents of odour generally." "However, the site continues to cause complaints of odour."
- "We are of the opinion that odour is likely to continue at some level and cause complaint in the future. It appears that there are a fewer number of incidents which cause odour but that when they occur, they can lead to significant numbers of complaints. It is also probable that there is now a raised level of public expectation regarding the works. In other words, an increased expectation that the works should not cause odour nuisance as there is a strong case that the population around Mogden is sensitised to odour."
- 3.11 Regarding the abatement notice (and the conditions attached by Judge Day at Brentford Magistrates Court on 8<sup>th</sup> June 2005), Pollution Control advises that it believes that there is broad compliance with section 1 of the schedule to the Notice, marked 'operational activities': and, where there are continuing obligations on Thames to undertake weekly tests (in the case of odour abatement plant), or carry out annual odour performance tests on plant, these are also being complied with. Also, it is considered (as reported above) that the engineering works set out in section 2 'engineering programme' are complete and Thames Water has complied with the programme agreed by OFWAT. With regard to Section 3 of the Notice 'general requirements', which sets out an on-going requirement on Thames Water to use best practicable means to avoid or restrict odorous emissions at all times, Pollution Control advises that OdourNet UK Ltd has been

commissioned by Thames, to evaluate the effectiveness of the capital works.

- 3.12 The applicants advise that Odournet's initial summary of the 2008 odour survey concludes that odour has reduced at Mogden by up to 82% from 2005 (66.2% directly attributable to the specified odour control measures). This meets the target of 66% reduction of odour set at the time of the serving of the Odour Abatement Notice.

A table showing the scope of the LDC works and the 'cover and treat' programme (which has been completed) is included below:-

<b>LDC works to cover and treat – with OFWAT approval to carry out</b>	<b>Works undertaken?</b>	<b>Works included in LDC but not undertaken as not within scope of works agreed by OFWAT -</b>
		<p>6 storm tanks</p> <p>west side rectangular primary settlement tanks (To be covered as part of this planning application)</p> <p>west side circular primary settlement tanks.</p>
East side pumping station	Yes	
Penstock chamber	Yes	
Screen house	Yes	
Screenings transfer pumping station	Yes	
Screenings treatment area	Yes	
Grit channels	Yes	
Flume channels	Yes	
Grit transfer pumping station	Yes	
Grit classifier	Yes	

Storm weir	Yes	
Storm tanks	Yes (2 out of 8)	
East side first stage circular primary settlement tanks	No – tanks decommissioned	
East side second stage rectangular primary settlement tanks	Yes	
Flow distribution chamber	Yes	
East side and west side odour control units	Yes	
High level inlet chamber	Yes	
Lucifer's gate inlet	Yes	
Sample chamber	Yes	
Screen area and open channels	Yes	
Cross flow grit separators	Yes	
Screw pumps	Yes	
Pre-aeration channels	Yes	
West side inlet area bio-scrubber	Yes	

3.13 Pollution Control consider that the completion of the capital works under the notice has resulted in a benefit. However, there remain some areas that cause continuing concern in terms of odour. These include the remaining six uncovered storm tanks on the east side of the works, the uncovered west side rectangular primary settlement tanks (to be covered as part of current application) and some of the sludge handling and digestion processes. The Council continues to receive complaints about smells. Some of these appear to be linked to use of the uncovered storm water tanks, the use of the uncovered west side primary settlement tanks and some aspects of the on-site sludge handling in the south-west corner of the site.

- 3.14 The Council has appointed a consultant to review the pollution control aspects of this application. The air pollution considerations are set out in the section of this report entitled 'Air Quality' in 'PLANNING ISSUES'.

## **4.0 DETAILS**

### **Overview**

- 4.1 This application is made by Thames Water Utilities Ltd.
- 4.2 Mogden Sewage Treatment Works is, in exceptional circumstances, unable to cope with the volume of effluent that may enter the site. As a result, storm sewage discharges enter the Tidal Thames from time to time.
- 4.3 Under the Urban Wastewater Treatment Directive 1991, there is a requirement on Government to ensure that sewage discharges do not have an unacceptable impact on river quality in towns and cities. The proposed development seeks to improve the quality of water within the Tidal River Thames, by reducing the volume of storm sewage discharges.
- 4.4 The applicant's regulators, Ofwat and the Environment Agency (EA), require Mogden to increase the maximum full treatment capacity at the works to 1064 million litres per day. This would reduce the frequency with which the existing storm water storage tanks are used and the discharges of storm sewage into the River Thames. This includes a contingency of 10% to allow for future population growth to the year 2021
- 4.5 The applicant advises that improvement works are required to achieve this. It would involve a new waste water treatment stream, using activated sludge technology, and improvements to the existing sludge treatment process.
- 4.6 An overview of the proposed works is shown on drawings 5X8F-A1-04501-IN and 5X8F-A1-04502-IN. These drawings are appended to the end of this report. These would be to the west or south west of the existing plant referred to in paragraph 2.8. In summary, they are:-
1. Construction of new plant and enclosures to create a new wastewater treatment stream to increase capacity to fully treat 1064Ml/d of the existing waste water flow (1064 million litres per day), instead of the present 690 million litres.
  2. The provision of new plant and enclosures to enhance the works' sludge treatment capacity;
  3. Excavation and re-profiling/repositioning (including landscaping) of the western embankment;
  4. Re-profiling (including landscaping) of the south-western embankment;  
and
  5. Relocation of the existing raw sludge holding tanks and their associated raw sludge pumping station.

(See also paragraphs 4.10 – 4.14)

## **Purpose**

- 4.7 Thames Water informs that the proposed development is part of a programme of improvement works to London's major sewage treatment works (the Tidal Thames Quality Improvements) which will lead to desired improvements in the water quality of the Thames. These improvements, and a proposed 'Super Sewer' are described in response to IBAC comment in the 'CONSULTATION' section of this report.
- 4.8 In respect of Mogden, Thames Water advise that the improvements would enable it to increase the amount of sewage that can be fully treated within the existing level of flow. As a consequence it would be able to reduce the number of times it uses storm tanks during heavy or persistent rainfall. As a result, potential for overflows of sewage into the tidal Thames would also be reduced. This would also help boost the oxygen levels in the tidal Thames – improving the water quality and the habitats for fish and other aquatic life.
- 4.9 With regard to the need for the proposed development the applicant further advises:-

*“Mogden STW currently comprises four activated sludge treatment streams with a current full treatment capacity of 690 mega litres per day (Ml/d). During periods of heavy rainfall, flow into Mogden STW can exceed the existing full treatment capacity of the works, and during ... exceptionally heavy or prolonged rainfall, the storm tanks can reach full capacity and, in these circumstances, partially treated storm sewage is discharged from the STW direct to the River Thames. Accordingly it is necessary to increase the treatment capacity of the STW to 1064 Ml/d (defined by the Environment Agency). The Environment Agency has also set a new Suspended Solids Effluent Consent that the STW is required to meet.*

*To provide this new treatment capacity, Thames Water has first optimised the treatment capacity of the existing Works process. However, it is also necessary to introduce a new treatment stream to Mogden STW to enable the Works to fully treat a flow of 1064 Ml/d and meet the new Suspended Solids Effluent Consent as set by the Environment Agency. Thames Water is required to implement these improvement works so that they are operational by March 2012. It has been estimated that construction will be required to commence on site in early 2009.”*

## **Physical Works**

- 4.10 In more detail the new works would comprise:-
- new inlet works (screens, grit removal units and grit skips);
  - two odour control units (a wastewater stream OCU to the north with a 20 metre high stack, and a sludge stream OCU more centrally situated to the south with a thinner stack of 15.9 metres high);
  - 5 primary settlement tanks to be covered by an aluminium panelled portal frame;
  - an intermediate pumping station;

- an activated sludge plant;
- 10 new final settlement tanks;
- a Blower House (containing air blowers) and Control Room;
- 8 new pasteurisation units;
- 2 slightly relocated raw sludge holding tanks (covered);
- an extension to the sludge thickening building,
- 6 motor control centre kiosks,
- a sludge screening building;
- a relocated raw sludge pumping station;
- an electrical sub-station;
- sludge digestion gas pipework;
- a Returned Activated Sludge pumping station;
- a washwater pumping station;
- a primary substation;
- a gas compressor house;
- distribution chambers feeding the final settlement tanks; and
- a crude sewage pumping station.

4.11 The submission also stated that, where required, the proposed improvement works incorporate odour control measures to ensure that the development would not have the potential to increase odour emissions to the surrounding area above the level to be achieved when the East and West Side odour improvements (required by the Abatement Notice 'cover and treat' programme) are fully installed and operational (as has since occurred).

4.12 The odour control operation includes enclosure of the existing West Side Primary Settlement Tanks.

4.13 It is also stated that the improvement works have been designed to enhance existing Combined Heat and Power (CHP) plant and ensure that more than 20% of the anticipated energy use can be generated from on-site renewable energy sources (bio gas). Up to 40% is anticipated by the applicant.

4.14 The re-profiling to enable the proposed works would require excavation of approximately 220,000 cubic metres of spoil from the eastern face of the western embankment. Of this, approximately 182,000 cubic metres would be used to backfill around proposed new plant, to create a new landscaped embankment within the area of vacant operational land adjacent to the western perimeter of the site, and to raise the level of the south western embankment to the south of existing digestion tanks. The embankment to the west would be brought closer to the boundary with neighbouring residential properties to the west and south west. Re-profiling the embankment and raising its height in part (primarily between 3 and 6 metres) would help protect neighbours' outlook.

## **Environmental Impact Assessment.**

- 4.15 The applicant has submitted an EIA with the application as the works fall within the definition of Schedule 2-13 (a) of the Act.
- 4.16 At the start of the environmental assessment process, a scoping study was carried out to identify relevant environmental issues, establish the extent of baseline information available and determine the appropriate approach. An environmental scoping letter was submitted to Hounslow in December 2005, describing the results of the scoping study, seeking comments.
- 4.17 The Council responded in February 2006 that:
- The EIA should include odour, air quality and dust, archaeology and heritage, ecology, noise and vibration, ground resources (including contaminated land and hydrology), transport, visual impact and townscape, waste and water resources.
  - Energy and sustainability should be considered as discrete topics and their cumulative and interactive effects assessed.
  - Regard was also to be had to statutory consultees' responses – the Countryside Agency, English Nature (now Natural England), Transport for London (TfL) and the Environment Agency (EA).
  - Each topic should have regard and reference to the UDP, The London Plan, the Mayor's Strategies, and the Government's PPSs and PPGs.
  - Odour analysis should identify the sources of odour and analyse potential for, or predictions against the criteria for, a statutory nuisance.
  - Noise disturbance and vibration assessments were to have regard to relevant British Standards.
  - Particular regard was to be paid to assessing the land's value as Local Open Space.
  - The Council accepted that Socio-economics, Sunlight and Daylight, and Microclimate could be scoped out of the EIA.
- 4.18 The submitted EIA contains the topical information as requested. The EIA documents comprise the Environmental Statement (ES) Volume 1 – Main Text, Volume 2 – Appendices, Volume 3 – Transport Assessment, Volume 4 – Flood Risk Assessment, and Volume 5 – Non-Technical Summary, and an Energy Assessment and Sustainability Statement. The EIA has been assessed as part of the consideration of the planning application.

## **5.0 CONSULTATIONS**

- 5.1 The application was advertised by site notice as a major/significant development on 18<sup>th</sup> June 2008 and on 7<sup>th</sup> July 2008, and in the press on 26<sup>th</sup> June 2008. It was also advertised as a departure from the development plan, by site notice on 9<sup>th</sup> July 2008, and in the press on 17<sup>th</sup> July 2008.

5.2 In addition, the owners/occupiers of 950 neighbouring properties in Hounslow were notified. Letters were also sent to two adjoining properties in Richmond. As a result of the publicity and consultation, 39 responses have been received, as follows:-

### 5.3 Individual responses:

1 *The proposed development will only make existing odour problems worse. Current problems have been held in the Courts to constitute a statutory nuisance, and follow previous expansion of sewage treatment capacity.*

- *In 2004 the judge gave TW until August 2008 to address the existing odour problems;*
- *These problems remain despite the long running Odour Improvement Project, which will not, in any event, properly remedy the situation because it only proposes to cover two of the eight storm tanks.*
- *There is also separate Group Litigation against TW in relation to operation at Mogden, due to be heard in February 2009*
- *Until TW address the current problems, no expansion should be permitted. It has only ever agreed to get rid of 50% of the pollution problem, never 100%. Promises are not kept. Expansion will spread the problem over a wider area. The Council should get an independent assessment of the odour implications.*

**Response:-** The ability to address air pollution/odour is of fundamental concern and a full assessment of the technical details of odour mitigation has had to be made to ensure that neighbouring amenity is not unduly prejudiced. This is addressed in the main body of the report under PLANNING ISSUES – Air Quality.

2 *There has been an unacceptable increase in mosquitoes arising from sewage treatment operations. These cause distress to neighbours, who cannot sit in their gardens or have windows open in the summer.*

**Response:-** This is disputed by the applicant, but is, in any event, an environmental health matter that may be more appropriately addressed under legislation other than planning. However, the advice of the Council's Pest Control Officer is included below, in response to comments by Mogden Residents Action Group (MRAG). A safeguarding planning condition (31) is also recommended to address any subsequent concerns.

The applicants advise that the new development would have no potential area for standing water, which is the breeding ground for mosquitoes, and the existing mosquito control methods on site would be extended to the new development. Physical control (removing breeding grounds) includes unblocking drains and any areas where standing water might be

found. This is followed by biological control where mosquito larvae are sprayed with bacteria that contain a larvicide, which kills the larvae. Although not so sustainable, there is also mechanical control (the use of ultra-violet insect traps) and chemical control (pesticides) for killing adult mosquitoes. The applicants also advise that they use national experts, bioscan, to look for breeding sites, and a pest control company, Greenhunter, to undertake biological and chemical control.

- 3 *The embankment would be moved closer to Harvester Close, and would be taller than a house only 10 metres from residents' gardens, blocking light and outlook. There would be a loss of trees and general outlook/views from their back gardens. In addition, placing tanks and other machinery closer to the western boundary, especially with the re-landscaping, would cause the odour control unit to be visible from outside the boundary.*

**Response:-** Section drawings (in particular 5X8F-A1-04508-IN, 5X8F-A1-04510-IN, 5X8F-A1-04511-IN and 5X8F-A104512-IN) submitted with that application as originally submitted, show that, although the embankment would be closer to houses to the west, this would have a minimal impact on light and outlook. The submitted sections show clearly the relationship between neighbouring existing houses and the position and inclination of the proposed and existing embankments. Properties in Hill Road, Harvester Grove, and Harvester Close would be most affected, but even here the effect would only be slight. The most marked effects would be to some properties in Hill Road and Harvester Close. In Hill Road the beginning of the embankment would come within 35 metres of the rear wall of the houses (presently 130 metres) but only rise to its maximum 6 metre height, at a point 51 metres from the houses. In Harvester Close the beginning of the embankment would also be 35 metres from the rear wall of the nearest house (presently 107 metres), and reach its full 6 metre height 61 metres from the houses. This is not onerous. Further south the position of the embankment would not change much, and would be 35 metres from the nearest walls of the houses (as now) to where the embankment is proposed to start increasing in height by 6 metres.

The applicant has also submitted additional section drawings showing the relationship of properties around the proposed works to the Waste Water Stream Odour Control Unit in the north of the site - drawings 5X8F-A1-04560-1N and related 'proposed sections' drawings sheets 1-4 received 19<sup>th</sup> November 2008. A minimum of plant would be visible from the neighbouring homes to the west, the top of the Wastewater Odour Control Unit being the most prominent, and this would only be seen alongside a higher mobile phone mast. Montages have been requested for the SDC meeting to consider this application.

- 4 *The loss of woodland is unsustainable. Wildlife and bio-diversity/local ecology will be adversely affected, with a loss of habitat for local wildlife including the greater and lesser-spotted woodpecker. Some wildlife will be forced to migrate into people's gardens. The last time the bank was re-profiled wildlife moved closer to the residential properties.*

**Response:** - the applicants have satisfactorily addressed the bio diversity issues. Where habitat is to be directly affected, it is proposed that this would be compensated for by the establishment of new habitats. See under heading Nature Conservation and Open Space.

- 5 *There will be more noise from plant and from transportation within the site night and day, especially from lorries and trucks which will come nearer to neighbouring occupiers. Will new plant/buildings be suitably insulated against noise? Noise is already a problem, sometimes overnight, when people need their windows open.*

**Response:** - Safeguarding planning conditions (12 & 13) would ensure that new plant does not pose undue noise/vibration nuisance. Similarly the activities within the site would need to be regulated in the interests of neighbouring amenity. See also 'response' under 6.

- 6 There will be a particular loss of amenity while work is going on, noise and general disturbance and air/dust pollution from building operations, land recontouring and construction traffic. This will go on for 3-4 years. This must not happen at night while people are trying to sleep. The increase of traffic and other heavy machinery using local roads is made worse by the fact that these roads are badly maintained. More traffic will also mean more danger.

**Response:** -

The applicants have prepared a Construction Method Statement dealing with construction activities, including noise. They have advised that the plant used would be the best available and be properly maintained for the duration of the project. Alternatives for the noisier activities would be sought (e.g. quieter piling methods will be selected when completing the inlet works). Static plant would be located as far as possible from sensitive receptors, being further screened where required. To help screen the whole site it is advisable to create a bund along the west side of the vacant operational area between the housing and the works, to offer visual and acoustic protection throughout construction. The contractor's compound close to residents in the north west corner of the site would be enclosed by suitable hoarding, and the parking area would be asphalted to reduce noise. Construction traffic would use the existing site access on Mogden Lane.

Safeguarding planning conditions can be used and informatives given to mitigate nuisance. A Construction Management Plan would need to be submitted and agreed. It is recommended that this be secured by planning condition. Other planning conditions are also recommended to mitigate nuisance during construction. There are also statutory nuisance controls outside of Planning. The Pollution Control Officer has commented that:

Night working can be controlled by a planning condition. For example, to restrict construction hours to between 08.00 - 17.00 Monday-Friday

and between the hours of 09.00 and 13.00 on Saturdays only. This gives the residents quiet periods during night time periods, Saturday afternoons and all day on Sundays and Bank Holidays

This is an unusual case in that Thames would need to keep the site fully operational throughout construction. There may be occasions, due to operational requirements, when construction work (including vehicle movements) may fall outside working hours. This is most likely to occur if the working hours are too restrictive.

Compliance with BS 5228:1997: Noise and Vibration Control on Construction and Open Sites, should be a condition. Thames Water (its contractors and sub-contractors), should be familiar with the requirements of this code of practice for basic procedures for noise and vibration control be prepared to comply with it. It provides protection for neighbours and people working on the site against noise and vibration.

Because of the size, complexity and timeframe of the development, Thames Water should work to a noise (and vibration) management plan. This could also be a condition or of any planning approval. The noise management plan should be agreed by Hounslow Council.

The comments of the Pollution Control Officer are acknowledged and safeguarding planning conditions are recommended to address the concerns. The Head of Traffic and Parking has advised that the Construction Management Plan should include a restriction of deliveries to the site during peak periods.

- 7 *The development may lead to flooding. Construction of the settlement tanks may dam an underground stream close to the front of 30-35 Harvesters Close or otherwise cause water levels to rise.*

**Response:-** A Flood Risk Assessment is part of the applicant's submission. The applicant's agent has advised that they have no information on any such stream. In addition, the Environment Agency has not raised any objection to the proposal, subject to appropriate safeguarding planning conditions.

- 8 *The use of the field behind Harvesters Close for dumping excavated soil is unacceptable. This will destroy wildlife, including meadow brown butterflies, mistle thrushes and tawny owls, and also possibly badgers. This land is presently a 'buffer zone' against the sewage plant and a wildlife 'stepping stone'.*

**Response:-** It is considered that there would be adequate buffering between existing residential properties and any new sewerage plant and that mitigation measures on ecology/biodiversity are acceptable.

- 9 *There will be a loss of security by bringing the development closer to homes. A plateau of trees close to the boundary is also a security risk.*

**Response: -** The site boundary remains in the same position. Although

plant would be moved closer to residential properties, this should pose no additional security problem. Trees to be retained and new tree planting are important visual screening features. Trees do not give rise to any undue concerns about security in normal circumstances.

- 10** *A smaller buffer zone between residents and sewage plant, including tanks of sewage, will lead to more nuisance.*

**Response:** - A reduction in the buffer zone between neighbouring residents and the new plant would be mitigated by the re-contoured embankment and other measures to prevent additional nuisance.

- 11** *There must be safeguards to clean up any carcinogens in dust and other pollution and continuous dust control after the building operations, especially before planting becomes established and seals the soil.*

**Response:** - Approximately 21,000 cubic metres of embankment fill would be classified as hazardous waste if it were to be disposed off-site to landfill, because of concentrations of lead, chromium and petroleum compounds. A Soil Management Plan has been submitted detailing the location and sensitivity of local receptors. Appropriate treatment for dealing with 'hot spots' is included. With planning conditions on dust control and safeguarding land quality (in particular a number of conditions recommended by the Environment Agency), to protect the environment during construction, and to provide regular monitoring of plant thereafter, it is considered that there should be no unacceptable pollution arising.

- 12** *The development is contrary to Human Rights.*

**Response:** - 'How' it is contrary is not specified.

#### 5.4 Mogden Residents Action Group (MRAG):-

It advises that Thames Water was previously granted permission to expand its capacity to treat waste water on the site from 450 ml/d to 810 ml/d, but that the Environment Agency only consented to 690 ml/d being treated.

Following completion of the project, sewage odour increased to such a degree that in 2001 Hounslow served an Abatement Notice on Thames Water. 'I' (name not given) appeared as a witness for the Council and Judge Stephen Day ruled in September 2004 that he was satisfied that there existed and continues to exist an odour which amounted to a nuisance. The judge agreed 42 months for Thames to address the odour problem, which expired in August 2008. Experts believe that there are in excess of 10,000 dwellings within the area affected by odour and/ or mosquitoes.

Running separately to the statutory nuisance case is a Group Litigation which is listed for a 6 week trial on 6<sup>th</sup> February 2009.

'I' believe (not clear whether this is also on behalf of MRAG) that until the current odour improvement results have been analysed by the Council's

independent odour expert, it is inappropriate for Thames to be considering further expansion whilst under statutory court order and when it is due to face charges of negligence in February 2009.

'I' believe that Thames has refused to employ latest technology in odour abatement, so it is doubtful that site expansion will reduce odour. Thames has not produced any evidence to show that odour would not increase if expansion were to go ahead.

The application should not be considered until the Council has evaluated the situation on completion of the odour improvement project and the Court has ruled on the Group Litigation in 2009.

*Response:-*

*Thames has responded that it is proposing to improve Mogden because its regulators (EA) requires it to increase the maximum flow to full treatment standard by 2012, to reduce untreated storm flow discharges into the River Thames, and improved water quality. The EA has also issued a new Suspended Solid Effluent Discharge consent. It advises that the EA's requirements will be met, and without increasing odour levels. The Civil Claim does not prevent Thames Water from operating its sewage plant or from seeking improvements. The proposals do include the latest odour abatement technology, and the method has been tried and tested across the water industry. The planning application includes an Environmental Statement with an appended Odour Assessment. This Assessment clearly demonstrates that the proposal will be odour neutral; not increasing the level over the level achieved on completion of the odour improvement works.*

*The Council's Head of Pollution Control has commented:- "Much of this has already been covered in earlier correspondence.... The preamble regarding MRAG's own case is noted, but it is not a LBH matter."*

*See also the Council's response on 'Air Quality', under 'PLANNING ISSUES'.*

The objector also lists a number of other questions:

1. TW states that the Mogden STW serves over 1.8 million people. This is the figure given in 1999. Has it not increased? What is the source for this information?

*Response: Thames Water has responded that the figure is an approximate one. It reviews Government and local authority population data, and any increases in the population of the catchment area have been factored into the requirements of the consents issued by the EA.*

2. TW states it is installing equipment to significantly reduce odour by summer 2008. This includes covering some tanks. As it has only agreed to cover 2 of the 8 storm tanks and it agrees that odour would only be reduced

by 50% why does it believe planning permission should be given before all the odorous tanks are covered, or at least until it has proved that covering only 2 tanks is sufficient.

*Response: Thames Water has responded referring to its table on Odour Emission Rates from Existing STW and the Future Baseline (Table 38) of the ES, which sets out the 'existing operations' and future baseline odour emission rates. It comments that now that the odour improvement works have been completed the site is operating at 'future baseline' level. Table 38 demonstrates the reduction in odour emissions, from an estimated 326,308ouE/s to an estimated 136886 – a reduction of much more than 50%. The 2 storm tanks covered were the most odorous.*

*The Local Planning Authority notes that the applicants have complied with the terms of the Odour Abatement Notice and the odour situation has subsequently improved significantly since the notice was served. In addition, it is of the view that the odour implications arising from the new plant in the current planning application will be 'odour neutral'. Plus there is the additional benefit of the covering of the west side primary settlement rectangular tanks, which will improve the odour situation.*

3. TW states once that it will extract and clean the air from the 2 covered stormwater tanks before releasing it back into the atmosphere. What about the odour off the other 6 tanks?

*Response: The applicants respond that the uncovered tanks will be used much less. Also cleaning systems, to reduce the build-up of odorous sludge, were added as part of the odour improvement programme. In addition, operational teams closely monitor the tanks to ensure the pumps are working and the tanks remain as fresh and odour-free as possible.*

*The Local Planning Authority notes and accepts that less use of these tanks, and better cleaning systems, and proper monitoring, will mean that there will be less odour from them.*

4. TW states it is covering an area larger than 3.5 football pitches, but the site is mainly uncovered and extends to 120 acres.

*Response: The applicant responds that only part of the site is covered by plant, extensive parts being covered by landscaping, roads, building, parking etc.*

*The Local Planning Authority would stress that the point at issue is whether the main sources of odour are covered. The Local Planning Authority is satisfied that the main sources are being addressed.*

5. TW states that neighbours will begin to notice the benefits of the odour reduction work before the final completion date. When? The programme is 3 months from completion and few benefits have been noticed, arguably the problem is worse than before. TW admits that the process of sewage treatment can be an odorous one.

*Response: The applicants respond that an odour assessment is being carried out on site to confirm the reductions in odour that have been achieved by the odour improvements works, and that the initial summary of the 2008 odour survey concludes that odour has reduced at Mogden by up to 82% from 2005 (66.2% directly attributable to the specified odour control measures), and that the proposed development will ensure that odour reduction levels will be maintained.*

*The Local Planning Authority would comment that it is not agreed that the odour situation has not improved or is worse. As reported, there is compliance with the Odour Abatement Notice. The full benefits of the recent odour control programme are still being investigated by Odournet, but the initial findings are noted, and welcomed. In addition, the odour situation should be further improved as a result of the proposed development because of the covering of the existing west side rectangular primary settlement tanks (which are a current odour source).*

6. Proposed new plant included in the application i.e. new west side inlet works, new screens and grit removal channels, 4 additional primary settlement tanks, one new aeration plant, 10 new final settlement tanks and odour control of the inlet works and primary settlement tanks, have all been identified by Odournet to be significant sources of odour. Why should the number of potential sources of odour be increased before the final analysis of the current project is complete?

*Response: The applicants respond that the majority of this plant is to be covered, in line with the odour improvement works that have recently been completed on site. The final settlement tanks are not considered to be a significant source of odour based on Odournet's assessment (though these will be covered).*

*The Local Planning Authority notes and accepts that the Odour Abatement Notice has been complied with, and that the overall impact of the proposed development will be 'odour neutral'. It welcomes the improvements which will arise with the covering of the west side rectangular primary settlement tanks.*

7. Is the EIA available to be distributed to the community?

*Response: The Local Planning authority would comment that the EIA is available to view as part of the planning application in the normal way – in libraries, at the Council's office. It is a substantial document with numerous volumes. There is nothing to prevent interested parties requesting personal hard copies or CD's for their own use from the applicant.*

8. TW says it needs to start work in Spring 2009 and wants to be operational by spring 2012. Does it not accept that the current programme results should be considered first?

*Response: The applicant's respond that their programme is in line with the*

*timeframe for upgrading which has been set by the EA.*

*The Local Planning Authority would say that although the odour problem has not been eradicated, it is satisfied that the proposed new development will not worsen the current situation that is itself now within reasonable limits.*

9. TW states it will include odour control equipment to the same standard as the new equipment that is currently being installed. However, TW have given the same assurances in the past and current odour equipment has been found to be inadequate, which resulted in the abatement notice being served.

*Response: Thames advises that the proposed odour control equipment will be to the same standard as the equipment installed for the odour improvement works, which is the latest modern technology, and will be monitored by LB Hounslow.*

*The Council's Head of Pollution Control has advised:- "the question about the efficacy of the odour control equipment... as phrased is unclear. While LBH would accept that prior to the issue of the abatement notice and the subsequent 'cover and treat' works, the site was causing serious odour nuisance, subsequent to the construction of the specialised odour control units used in connection with the covered areas of the works, LBH takes the view that the situation has improved and the number of odour incidents (as distinct from complaints) has reduced."*

*A planning condition will require robust equipment to be provided, and the regular maintenance and monitoring of the new equipment.*

10. TW says that the improvement works are designed to accommodate population growth.

*Response: The applicants state that they will be treating more of the existing flow (by increasing the full treatment capacity), but the overall flow will not be increased (albeit that there is a growth contingency built into the proposal (see paragraph 4.4).*

11. How many days a year are the storm tanks currently being used and how many days a year will they be used if the development goes ahead?

*Response: The applicant's advise that the use of the storm tanks depends on weather patterns, but from reviewing past flows into the STW against the proposed new full treatment capacity, it is anticipated that the proposed development will significantly reduce the frequency of use of these tanks.*

*The Local Planning Authority also accepts that the use of these odorous tanks will be far less in future than at present. See PLANNING ISSUES, Air Quality, Storm Tanks.*

12. Besides improving the habitat for fish and other aquatic life, and

boosting river water quality, what will be the benefits to local residents in Hounslow and Richmond?

*Response: The applicant's respond that this would result in less use of the stormwater tanks (therefore, less odour), and more economic and social/leisure use of the River Thames.*

*The Local Planning Authority accepts these points.*

13. Where will the odour control unit be visible from outside the boundary and will it be visible from the public footpath through the site?

*Response: Thames advises that the wastewater odour control unit is situated in the north of the site, and that only the top of the vent will be visible, its height being dictated by odour modelling. It will be seen against a commercial setting with commercial buildings to the north west of the STW. There are already significant structural elements on show from the public footpath. The additional structures will not have a significant impact on views from the public footpath.*

*The Local Planning Authority notes that the odour control unit in the north west of the site will be visible in part to the west, north west and south west of the site. This is referred to further under 'Visual Amenity and Outlook' in the 'PLANNING ISSUES' section of this report, and in para. 5.3 in the response to point '3 of the individual responses'. It will also be visible in part from the public footpath. The main view will be against a backdrop of commercial buildings in an industrial estate to the north, where the stack will be visible alongside an existing mobile phone mast. Although the footpath is generally well screened by vegetation, there will be glimpses of the stack in the vicinity of the odour control unit. The footpath runs through the very heart of this utility site, so users of the footpath should expect to view some operational plant. Indeed, the very location provides an interest for users. It is not considered that any glimpses of this stack from the footpath will be unacceptable in visual terms. It is also noted, and welcomed, that the applicant has agreed to fund improvements to this footpath.*

*The southern, sludge-stream odour control unit is more centrally situated within the southern part of the site, away from any site boundary, and it will rest among existing sludge plant. Its stack will be much thinner than the stack of the northern ODC and will be lower (15.9 metres, as against 20 metres). It will not be prominent from any site boundary, and because there is extensive evergreen planting adjoining the public footpath, it will not be prominent to the footpath either.*

14. How does TW know that the improvements will not attract mosquitoes? Independent surveys and statements from LB Hounslow Environmental Services have provided evidence that the new tanks will provide additional breeding environments which will be almost impossible to check or survey because it will not be possible to get into every nook and cranny around the tanks which will no doubt contain stagnant water, a perfect breeding ground.

*Response: The applicants advise that the current mosquito prevention measures will be extended over the proposed development area, and that the opportunities for standing water have been minimised. It also points out that additional details on mosquito prevention have been set out in a briefing note provided to members and offices at the Area Planning Committees*

*The Local Planning Authority notes that plant will be designed to minimise any opportunities for mosquitoes to breed, and that conditions which provide breeding grounds for mosquitoes e.g. stagnant water will be removed. The comments of the Council's Pest Control Officer are reported at para. 5.20 of this report under the heading 'Odour and Mosquitoes' in response to comments by FORCE.*

15. TW states that it follows a strict programme to treat mosquitoes all year round, including weekly checks in the summer months and fortnightly in the winter, and that this is audited by the Council's environmental health officers, and is based on independent expert advice. In addition, Hounslow cleans gullies within 400 metres of the site in summer. As TW has admitted huge additional funding is required on-site to control mosquitoes this year, does it agree that the problem is far worse than it has been since 2005?

*Response: The applicant's advise that its independent mosquito experts confirm that mosquito levels have reduced, not increased, over the last year. Compared to the same period last year complaints received by Thames Water are lower.*

*The Local Planning Authority is recommending a planning condition to ensure that the issue of mosquitoes is robustly addressed, and notes that the applicant has agreed to provide additional funding to Hounslow Council for it to assist in removing potential mosquito habitats by e.g. cleaning gullies.*

17. As it has been proven that mosquito complaints are being received from residents far beyond the 400 metre gully cleansing boundary, does TW agree that it should agree to fund cleansing beyond the 400 metre limit before it submits a planning application which it cannot guarantee will not increase breeding environments?

*Response: Again, a safeguarding planning condition to deal with mosquitoes is recommended by the Local Planning Authority, and the additional funding for the cleaning of gullies.*

- 5.5 **Ivybridge United Residents Association**:- no response at time of writing.
- 5.6 **Hounslow Homes** (In respect of the Ivybridge Estate to the south-east of the application site): - no response at time of writing.
- 5.7 **Twickenham Rugby Club**: - no response at time of writing.

- 5.8 **Greater London Authority (Mayor of London):** - advises extensively on the proposal. A copy of the letter and report is provided as an appendix to this report. This letter and report was also appended to earlier 'for comment' reports to both the Isleworth and Brentford and the Central Area Committees.

*"...The Deputy Mayor considers that the application does not comply with the London Plan...but that ....possible remedies set out in (accompanying)...report could address these deficiencies...If your Council subsequently resolves to make a draft decision on the application, it must consult the Mayor again .....and allow him fourteen days to decide whether to allow the draft decision to proceed unchanged, or direct the Council ..... to refuse the application, or issue a direction ....that he is to act as the local planning authority for the purposes of determining the application and any connected application....."*

The report details relevant policies and guidance. It considers the proposal under the headings of water and sewerage infrastructure, design and visual impact of the development, biodiversity, air quality, dust and odour, energy, the London Development Agency's comments and Transport for London's comments. It concludes that, notwithstanding that the application generally complies with the London Plan, it would be improved by the following changes:

1. Ensuring that the environmental impacts of construction are mitigated by measures from the Best Practice Guidance, implemented through a Construction Environmental Management Plan.
2. Ensuring that implementation of the biodiversity mitigation strategy is secured by conditions.
3. Confirmation that the CHP system would be 'Good Quality', as defined under the Government's CHPQA system.
4. Confirmation that all the additional heat produced by the CHP would be used on site and, if not, whether there are opportunities to supply heat to sites nearby.
5. Possible inclusion of a micro-hydro turbine.
6. A financial contribution towards social infrastructure and committing to an employment and training strategy, under a Section 106 Agreement.
7. Addressing issues raised by Transport for London – i. The use of Section 106 agreements to secure a Delivery and Servicing Plan and a Construction Management Plan; ii. Further information on employee numbers and cycle parking; iii. Clarification of current parking levels, including justification of any increase associated with the development to encourage sustainable travel and limit vehicle trips; and iv. Details of any plans for additional cycle parking spaces.

- **Environment Agency:** - has advised as follows:-

*"Much of London has a combined sewerage system, draining both sewage and surface water runoff to the sewage treatment works (STW) before treating and discharging to the tidal Thames. During wet weather, ... works can be overloaded, and partially treated storm sewage is discharged to the tidal ... Thames. This ... [harms] ecology, kills fish, elevates the health risk ... and results in aesthetic pollution.*

*The Thames Tideway Strategic Study confirmed that increasing capacity at this and other sewage works along the Thames Tideway, combined with ... a storage tunnel to intercept combined sewer overflows, would provide the best solution to this ... impact.*

*This application represents one of the five STWs along the tideway which require improvements. This development should be considered an essential part ... of water quality improvements for the River Thames.*

*We are fully supportive of the principle of this development as it will result in significant improvements in the quality of the water within the ... Thames, for both people and the environment. ... will greatly benefit ecology and fisheries as well as ... reducing the health risk to river users. This development will also provide additional capacity for sewage treatment, helping to facilitate future development through the timely provision of waste water infrastructure. The success of improvements to water quality in the ... Thames will rely on the cooperative working of ourselves, the planning authorities, the water and sewerage companies and other partners."*

Therefore, the agency raised **NO OBJECTION** subject to conditions:

- 1:** All planting to be of locally native plant species
- 2:** External lighting to be directed away from the Duke of Northumberland River and screened
- 3:** A Contamination risk management scheme to be provided
- 4:** A verification report demonstrating contamination remediation works to be provided.
- 5:** A monitoring, maintenance and contingency plan to be submitted to the local planning authority and implemented.
- 6:** Prevention of piling or any other foundation designs using penetrative methods unless it has been demonstrated that there is no resultant unacceptable risk to groundwater.

The Agency also advises that, in applying the conditions 3, 4, 5 and 6 it should provide informatives to the developers to ensure that risks are appropriately addressed prior to development commencing. These

informatives are to:

- 1) Follow appropriate risk management framework procedures relating to the land affected by contamination;
- 2) Follow Agency Guidance on Requirements for Land Contamination Reports for the type of information needed in order to assess risks to controlled waters from the site and other relevant matters;

and note that:

Recovery, treatment and disposal of contaminated soils and groundwater is regulated by waste legislation and requires a Waste Management Licence or Pollution Prevention and Control permit;

Treatment of contaminated soil by mobile plant requires a mobile treatment licence and it may be re-used on-site as with Environment Agency consent or by obtaining a Waste Management Licence;

Contaminated materials are adequately characterised both chemically and physically, and that the permitting status of any proposed on site operations are clear; and

The developer should consult the Agency on measures to prevent pollution, particularly during construction.

- 5.9 **Natural England**:- Is satisfied that ecological issues have been dealt with effectively. Requests use of planning conditions/ obligations to secure this.
- 5.10 **English Heritage (Archaeology)**: - No further archaeological work is necessary.
- 5.11 **Countryside Agency**: - no response at time of writing.
- 5.12 **Transport for London**: - responded as part of the GLA's letter and report (see above). It also responded separately as follows:

Public Transport Accessibility is very poor (ranging from 0-1b). However, no objection to the impact of the development on the operation of the TLRN.

The Transport Assessment (TA) only briefly mentions walking and cycling, and only includes a summary of local routes forming part of the London Cycle Network. A cycle route runs through the site. Proposed level of new cycle parking, if any, is not provided. Secure cycle parking and associated facilities should be made available in accordance with TfL Standards.

There is no mention of car parking. TfL requires to know how many spaces there are now, and if extra are proposed. If so, this needs to be justified.

In respect of 'freight', TfL advises the applicants to submit a Delivery and Servicing Plan to highlight and address daily freight operations.

952 one-way construction related (including HGV) movements represents the worst-case scenario. TfL is encouraged that, where possible, local suppliers and waste disposal sites have been identified in the draft Construction Method Statement and in the TA. Local procurement is recommended to reduce unnecessary freight mileage.

TfL also requests a Construction Management Plan, to minimise peak hour deliveries. As construction works are proposed over 3 years, TfL would expect some impact on congestion on main routes, especially those around Twickenham Stadium. Non-match day impact is considered negligible, but there should be some mitigation for the match/event day operations.

Given proximity to the Thames, the River Crane and the Duke of Northumberland's River, TfL would like the applicants to investigate the possibility of using water freight for materials and waste. An on-site concreting plant could reduce trips.

TfL welcomes the proposed re-use of spoil on-site. Trip reduction as a result of on-site retention of excavated material is also encouraged.

5.13 **British Waterways:** - No objection:

5.14 **Thames Water Property Services:** - has advised as follows:-

*It supports the application, and comments "This critical scheme .... Will significantly reduce the number of times that Mogden STW discharges storm sewage into the Tidal River Thames. This will result in significant improvements in water quality in the Tidal River Thames for the benefit of both biodiversity and local communities.*

*Under the Urban Wastewater Treatment Directive... there is a requirement on Government to ensure that sewage discharges do not have an unacceptable impact on river water quality. Thames Water's regulators, including the Environment Agency, require the improvements at Mogden STW to be undertaken in order to reduce the frequency with which storm sewage discharges to the River Thames during periods of heavy rain."*

It lists the key environmental, social and economic benefits brought about by improving the Tidal River Thames. These include ecological improvements; community benefits: educational and social use of the river; a reduction in use of storm tanks to hold the waste water generated by heavy rain; increased economic use of the Thames (people would be more inclined to use the river to travel along or as a place to work) and increased recreational use of the river.

It supports the applicant's use of the best technological available odour control measures, a 40% on-site renewable energy generation through capture of additional waste gas, and a planting and management regime to mitigate loss of open space and provide soft landscaping/visual screening.

It advises that Thames Water has used established lines of communications to consult local residents. This has included a newsletter sent to

approximately 13,000 residents, and a Mogden residents' liaison group approximately 3 times a year. Public exhibitions took place in May and June 2007 at Whitton and Isleworth libraries, attended by over 100 people. Information packs were also sent to over 13,000 people in mid-2007, with an update leaflet sent in Spring 2008, which included feedback received during the 2007 consultation.

**5.15 Port of London Authority:** - advises as follows:

*"...The PLA has no in principle objection [but]...:-*

*1). It is assumed that there will be no reduction in normal discharges (i.e. of treated sewage) as a result of the proposed development. Discharges from Mogden can contribute significantly to the 'freshwater' input to the Thames ... and if there is likely to be a reduction, it could adversely affect water*

**5.16** *levels in the upper tidal Thames and accentuate the summer 'low flow' problems.*

*2). If there will be an increase in normal discharges, consideration will need to be given to whether any modifications are required to the existing infrastructure (e.g. outfalls, bed protection) to prevent scouring of the foreshore and riverbed. This does not appear to be addressed in the Environment Statement ...*

*Given the location of the development, ...[there should be] consideration [given] to using the river to transport materials to and from the site..."*

**5.17 Chiswick Police Station:** - no response at time of writing.

**5.18 London Borough of Richmond:** - initially commented that it welcomed projected improvement to water quality in the Thames and proposed reduction in use of storm water tanks, but, in the absence of an independent odour control survey, considered insufficient information was available to demonstrate that the development would limit odour emissions to an acceptable level, and that if Hounslow were to grant permission, it should apply conditions for routine monitoring and annual performance testing of all new odour abatement plant, construction traffic routes and times, and a travel plan for Mogden STW and construction staff.

Hounslow Council subsequently gave Richmond its own conclusions on the odour control issues following the report from its own consultant, ADAS. Richmond said it had nothing further to add to the points raised by ADAS (see section of this report on Air Quality).

**5.19 River Thames Society (Upper Tideway Branch):** - The Society strongly supports the upgrade to Mogden, which would result in a significant reduction in storm sewage discharges to the River. When these discharges occur they smell and look "exceptionally disgusting".

**5.20 Anglers' Conservation Association:** - (Represents about 7000 anglers and about 880 angling clubs in the UK). Concerned with protection,

restoration and enhancement of waterways for the benefit of fisheries. It says it is not shy of criticising Thames Water and other water utilities, but firmly supports the proposal for three reasons:

1. The additional capacity will reduce the frequency and volume of storm overflows into the Thames. These both damage the ecology of the estuary and cause aesthetic pollution which diminishes the tideway's amenity value;
2. The expansion is part of a strategic plan for the whole tidal Thames, including building of a major interceptor sewer under the river, to improve sewage treatment in the capital.
3. The works will be better equipped to deal with the projected increase in waste water arising from increased population, urban development and intense rainfall events associated with climate change.

5.21 **Friends of the River Crane Environment (FORCE):** - Welcomes the initiative to treat more of the existing flow. This improves the environmental quality of the Upper Tidal Thames, and may also have secondary benefits to the environmental value of the River Crane, given the link between the wildlife corridors of the Crane and Thames.

However, FORCE has ongoing significant concerns about loss of base flow to the Crane catchment, and therefore considers safeguards should be put in place to ensure that increased capacity at Mogden is not used to allow increased inflow to the works (e.g. by transfer from other works or overflows) without a separate application being put to public scrutiny.

FORCE considers its comments under separate headings as follows:-

'Nature Conservation Value of Site' – The site includes badgers, linnet, reed bunting, bullfinch, green sandpiper, redwing, firecrest, goldcrest and hobby, brown long eared bat and pipistrelle which are all either unusual or not seen elsewhere in the lower Crane valley so are of great interest locally.

The proposal will result in loss of a significant amount of green space. More consideration should be given to its Green Corridor context in the design of these habitat areas and to ensure that the detailed design, implementation and funding should be a requirement of any permission.

**Response:** It is considered that this is satisfactorily addressed in the ES, especially in the landscape strategy and ecology sections of the report.

'Public Amenity Value of Site' – The public amenity value of the site, especially the pathway running through it, is very much underplayed in the ES. The footpath is the major link between the River Thames path and the River Crane Walk. Walk London (part of GLA) has identified the Crane Walk as one of 3 main targets for London Strategic Route status. The footpath is centuries old, and needs to be recognised as of historical and strategic significance as a walking route, and should be improved. There should also be exploration of opportunities to increase public access to remaining green parts of the site adjacent to the footpath. The applicant

could also fund support for walking and for historical leaflets on the historical Duke of Northumberland River which runs alongside the footpath.

These actions would all help to mitigate any loss of value during the construction work and the subsequent change in the appearance.

**Response:** It is not considered that improving the public amenity value of this public utility site is a priority here, or is, indeed, appropriate. However, the applicant has agreed to fund improvements to the footpath through a legal agreement.

'Value of the Green Corridor' - Green chains are of exceptional value to wildlife and the local population in urban and suburban areas. The West London Green Chain is one of the most important green corridors in Greater London. Its link with the Thames is particularly critical. The Duke of Northumberland River (DNR) leaves the Crane at Kneller Gardens in Twickenham and there are therefore two potential links with the Thames in the lower reaches of the catchment. Both are important, but the green corridor around the Crane dwindles into back gardens with significantly less public land and is a narrower, more vulnerable corridor. The main wildlife corridor and public footpath for the Crane therefore goes along the DNR.

The proposal will greatly reduce the size of the Mogden green space and therefore there is a greater onus on Thames Water to provide compensatory improvements to the wildlife value of the remaining green space to try and mitigate the loss. FORCE is currently working with Hounslow and Richmond Councils to develop Crane Riverside Park as a new Metropolitan Park for London. This will extend along the DNR towards Mogden site and the walking route will be the main link between the park and the Thames.

**Response:** The approach to mitigating open space loss is addressed in the application, in particular the ecology section of the ES and the landscape strategy. It is considered that the long term planting and management regime would adequately mitigate the loss of green space, providing soft landscaping and visual screening.

With regard to not relating the site to the rest of the Crane Corridor, although this is true, due to the nature of the corridor (very linear and confined) either side of Mogden, and the nature of the species concerned (not primarily related to riverine habitats) there is a strong argument for addressing the area as an island site in biodiversity terms. That there is a loss of open space area is not strictly a biodiversity concern if the reinstated area is of greater wildlife benefit (the submission addresses this) and thus increases overall biodiversity within the Duke of Northumberland Corridor.

'Critical Flow Conditions in the Lower Crane' –There is a major flow problem in the lower reaches of the Crane below the junction with the DNR. This reach, which runs for several kilometres to the Thames at Isleworth, is subject to both low- and zero-flow conditions after low rainfall. During these periods the fluvial ecology of the river suffers very badly and is only maintained at all by the presence of weirs at regular intervals along the river

which retain a stagnant water source... The catchment has a naturally low base flow that exacerbates these problems in the lower Crane. Local opinion is that this characteristic has intensified over the years and is due, in part, to transfer of effluent and drainage water from the main river to Mogden with closure of upstream works and interception of drainage outflows. FORCE is therefore concerned that increased capacity at Mogden provides the possibility of transferring additional flows from the upstream catchment to the works, and would like assurances that total flow arriving at the works will remain the same and also seeks confirmation whether water abstracted from the Duke of Northumberland River will increase.

**Response:** The applicants inform that the amount that Mogden treats and discharges to the Thames is regulated by the Environment Agency, and that the proposed development is to meet the new consents set by the Agency to improve the quality of the Thames by fully treating more of the **existing** flow entering the works. They also advise that Mogden will continue to utilise water from the Duke of Northumberland River in line with its existing licence, but will be looking at ways to reduce dependence on water drawn from the river through detailed design of plant e.g. by air cooling.

Thames Water further advises that the attention to biodiversity measures in the submission, the fact that the applicants have biodiversity obligations, and the influence of the EA, all indicate that further extraction would be looked at very thoroughly before any increase took place. Both Thames Water and the EA are involved in the Crane Valley Partnership, and it would not be in their interests (especially the EA's) to further reduce the flow through the lower Crane.

It is difficult to speculate as to what may happen with overall extraction in future as ground water levels, development and climate change are all variables that impact on the Crane even without the effect of Mogden.

'Odour and Mosquitoes' – FORCE states that it is reassured by the statement in the reports that bad odours from the works will be much reduced by the works already scheduled for this year, and that this new baseline will be retained, or slightly improved upon, if and when the new works come on stream. A concern would be how this is regulated and what sanctions can be imposed if it is not achieved. With regard to Mosquitoes, however, FORCE is concerned that this should also be addressed as part of the project.

**Response:** The Council's Pest Control Officer advises that:

*"... Mosquitoes ... breeding on the site are generally ... in water spillages, sumps, and other areas of standing water rather than in waste processes .... [Expansion] would increase the number of [breeding] sites ... and ... the potential for nuisance. However, ... current measures in place to manage the problem would be extended and applied to the new areas on the site. ... Thames Water [Should] ... design their new processes and plant to:-*

*1. Minimise the use of sumps, and ...the number of areas where standing*

*water could ...*

*2. Allow for easy access to ... areas where standing water is expected so that ... inspection and treatment of any mosquitoes ... can be carried out.*

*3. Minimise any areas where water is held standing for any length of time in underground, or covered chambers....”*

The application and ES do not directly address the issue of mosquitoes and it is not raised by the GLA as a planning issue. The applicant has subsequently provided information on its policy for removing mosquitoes, which has already been reported under the heading of ‘Consultation’, in the response to the second point of objection raised by local residents, and to the points raised by MRAG.

The Pest Control Officer does not consider there to be any potential health risks arising from mosquitoes. He refers to guidance provided on the Health Protection Agency website.

With regard to nuisance, bites can be severe and cause irritation, sleep loss, stress and allow secondary infection of wounds. Hospitalisation, following a large number of bites, has only been reported once or twice in previous years.

In respect of allergic responses, a population of people will display a range of allergic responses to the allergens contained within mosquito saliva. It is possible that severe allergic response could occur though he is not aware of any such cases in Hounslow.

He informs that with regard to mosquito borne diseases, there are not currently thought to be any diseases within the UK that are transmitted by mosquitoes. However, there are a range of emerging diseases worldwide that are mosquito-borne and are causing some concern at the moment within the context of global warming. Whilst the mosquito species that is causing nuisance in Hounslow is not capable of transmitting malaria it has been implicated in the spread of West Nile Virus (WNV) in the USA and Canada. However, it is not currently found in the UK and so is not available for transmission by mosquito vectors. Our own species also shows different behaviour from its North American cousins that restricts its ability to act as a bridge vector between birds (that can be WNV reservoirs where WNV is present) and humans.

The comments of the Pest Control Officer are noted. It is also confirmed from the Health Protection Agency website that, unlike the tropics, mosquitoes are not currently known to transmit any infections in the British Isles. Although mosquitoes occasionally transmit viruses in other parts of Europe, the risk of transmission of these in Britain is considered low.

5.22 When the applications were presented to the relevant Area Committees for comment, the Committees commented as follows:-

Central Hounslow Area Committee:

Members expressed concern about the high levels of raw sewage currently being leaked into the Thames.

*Response: The applicants advise that, at present, storm sewage discharges from the STW to the Thames can occur up to 20 times a year, following regular use of the storm tanks and this will be reduced on average to between 1 and 2 times a year (and only in times of extreme storms) if use of the storm tanks is reduced to only 4 times a year.*

*This is noted. The Local Planning Authority accepts that the primary benefit of the development will be a reduction in the level of raw sewage being leaked into the Thames. This is related to use of the storm tanks. The applicants have provided information on storm tank use based on daily flows for the period 1998-2008. This has varied between 75 times (Jan. 2000-Jan. 2001) and 4 times (Jan.2004-Jan. 2005). The applicants point out that for the worst year 2000-2001, this would have been reduced from 75 times to 1 if the proposed plant had already been in operation. It is agreed that the use of these tanks will be substantially reduced as a result of the proposed development with a consequent substantial reduction in sewage discharges to the Thames.*

Members expressed concern about the extension of the site on the side of Hall Road and the detrimental impact that they considered this extension would have on residents.

*Response: The applicants advise that the only feasible location for the new treatment stream was on the west side of the works. Details of the alternatives considered were set out at length in the Environmental Statement (at Section 2.6). The first step was the optimisation of the existing works to ensure that the plant was able to fully treat as much waste water as possible, and this resulted in an increase in the capacity of the existing site to fully treat waste water from 690 Ml/d to 790Ml/d. A range of design options was considered prior to selection of the final option. Thames Water stresses that the detailed design has retained an embankment, which acts as a visual barrier to the site, with a landscape strategy to enhance the ecological and landscape merit of the site, and concludes that there will be no significant impact on residents. Also, during construction, appropriate mitigation measures will be in place to minimise noise, dust and traffic impacts. Once completed the development will not be seen from Hall Road, apart from the odour control stack, which will be significantly screened by new landscaping. The Local Planning Authority addresses the issue of the effect on residents' visual amenity on the west boundary of the site under 'Visual Amenity and Outlook' in the 'PLANNING ISSUES' section of this report.*

*A number of safeguarding planning conditions are recommended to address amenity issues, including for the period of construction.*

Members expressed concern about the existing levels of odour emanating from the site.

*Response: This is addressed at length in the report. The applicant's advise that Odournet's initial summary of the 2008 odour survey concludes that odour has reduced at Mogden by up to 82% from 2005 (66.2% directly attributable to the specified odour control measures), and that the proposed development will ensure that odour reduction levels will be maintained i.e. that it will be 'odour neutral'. Additional primary treatment areas will also now be covered and odour controlled, whilst improvements to the sludge steam operation (e.g. fixing the sludge digesters floating roofs) will bring further benefits. In addition, there will be further benefits by ensuring operational best practice is employed.*

*The Local Planning Authority accepts that the proposed development will be 'odour neutral'.*

Members expressed concern about existing levels of mosquitoes emanating from the site and noted that expansion of the site would lead to a potential expansion of breeding sites for mosquitoes and requested that a solution to this be addressed in the report to SDC.

*Response:- This is addressed in the report, and the comments of the Council's Pest Control Officer are found at para.5.20 under 'Odour and Mosquitoes'. The applicants advise that they have designed out potential breeding grounds for mosquitoes by ensuring that there are no areas of standing water, and the use of sumps has been minimised. Existing control methods, including unblocking drains, and using national experts to control mosquitoes will also be employed on the new development. Thames Water also points to further details of mosquito control that were provided to Members ahead of the Area Committees.*

*The Local Planning Authority is satisfied that with the incorporation of a safeguarding planning condition, and the incorporation within the legal agreement of additional funding for the Council to clean gullies etc., there will be sufficient controls in place to address this concern.*

Members queried whether there were any health risks from the mosquitoes and requested that a health impact assessment be carried out.

*Response: As above, this is addressed in the report in the response to FORCE under "Odour and Mosquitoes".*

*The applicants advise that there is no health risk associated with this development. They point out that their consultants considered potential environmental impacts through an EIA Scoping Report and health risk was not considered a potential impact that required further assessment. The EIA Scoping Report was consulted upon with statutory consultees and Hounslow.*

Members considered that the size/height of the 20-metre chimney flue on the waste stream odour control unit was excessive and that it was an eyesore to neighbouring properties. Photomontages of the chimney flue

height in relation to neighbouring residential areas were requested prior to the application being presented to SDC.?

*Response: The applicants respond that the size and location of this odour control unit flue is determined by the position of the plant within the STW and the requirement to ensure that there is no residual odour emission at ground level arising. It has to be in close proximity to the primary treatment areas (located in the north of the site) to minimise pipe runs and maximise air flows within the odour control process. The height of the stack is determined by odour assessment modelling. This modelling concluded that a 20-metre flue would ensure residual emissions from the stack would be below that detectable at ground level under all weather conditions. Illustrative sections have been prepared to show the impact of the stack on the surrounding area.*

*The Local Planning Authority is of the view that the stack, although visible, particularly from the north east of the site, will not be unduly intrusive from adjoining land. The applicant has submitted additional material (section drawings) following a request from officers to further highlight the visual impact of the stack on the adjoining area. This material shows the relationship of various locations (north, east and south east) to the stack. The stack would be seen against commercial buildings and behind a high mobile phone mast from the north, and may be visible from the roof space of properties on Hall Road. It would not be prominent. The applicant has also agreed to submit photomontages in time for the presentation to Committee.*

Members also expressed concern that the site cannot support further expansion.

*Response: It is considered that plant within the site can be satisfactorily extended, subject to appropriate safeguarding conditions and the terms of an accompanying legal agreement.*

#### Isleworth and Brentford Area Committee:

Members requested further detailed information to be submitted to SDC on the exact flood risk, current and future, in relation to leakage of raw sewage into the Thames River (and the proposal to build a Super Sewer).

*Response: In response, the applicant advises:- "There is no flood risk associated with storm sewage entering the River Thames, as the level of storm sewage flow entering the River from Mogden STW during periods of heavy rain, is negligible compared to the hydrological capacity of the River. At present storm sewage discharges can enter the River Thames up to 20 times a year .....The proposed development will .....significantly reduce the potential for storm sewage to enter into the River Thames .....to between one and two times a year (under extreme storms). This equates to a significant reduction in storm sewage flows to the River Thames."*

*The applicant further comments:- "London's sewerage system dates from*

*the 19<sup>th</sup> century and is based on the 'combined' principle; whereby a single set of sewers convey both foul sewage and rainwater run-off to sewage treatment works (STWs) for treatment, prior to discharge to the river.*

*It is usual for a combined sewer to incorporate overflows in the system, which allows excess storm flows to discharge directly to the river from overflows to prevent untreated sewage from surcharging onto streets and into properties when the sewers become full after rainfall. This is the case with the London sewerage system.*

*On average 32 million cubic metres of untreated sewage is discharged each year from the sewers via Combined Sewer Overflows (CSOs) located on the banks of the River Thames and Lee and this affects the water quality of the River Thames by: introducing quantities of sewerage derived solid material into the river, producing a fall in dissolved oxygen that can result in fish mortality and introducing pathogenic organisms into the river, which increase the health risk to both river users and to wildlife.*

*Two tunnels are proposed to substantially reduce the amount of untreated sewage discharged from the CSOs to the River Thames and its tributary the River Lee after rainfall.*

*The Lee Tunnel is proposed to run seven kilometres (94 miles) from Stratford, in east London to Beckton Sewage Treatment Works (STW), isolating the CSO at the Abbey Mills Pumping Station, which currently discharges into the River Lee. Starting and ending within operational land owned by Thames Water, this tunnel would intercept about half of the total volume of discharges that make their way into the River Thames.*

*The Thames Tunnel will run approximately 32 kilometres (20 miles) through the heart of the capital, beneath the bed of the River Thames, broadly following the rivers course from Hammersmith to Beckton. Construction is provisionally scheduled to start in 2012 and finish in 2020. At this stage we expect to submit a planning application in late 2011.*

*The tunnels are required to help ensure compliance with the Urban Wastewater Treatment Directive, and will make the River Thames and the River Lee cleaner and healthier, both for wildlife and for people."*

Members questioned the reasoning behind starting the proposed super sewer at Chiswick or Hammersmith and not further upriver at Isleworth.

*Response: In response the applicant advises:- "The Tideway Tunnel is designed for storage, taking Combined Sewer Overflow discharges during significant rainfall events. The Tunnel is not designed to transfer sewage flows on a frequent daily basis, not least because of the size of tunnel required, the significant energy requirements in pumping flows and the lack of availability of land at Beckton STW, located in East London.*

*Most critically, transferring sewage treatment works flows, for example from Mogden STW, would deprive the River Thames of essential effluent flows.*

*The treated waste water (effluent) discharged from Mogden STW currently constitutes a significant proportion of the freshwater inflow in the upper reaches of the River Thames, especially during dry summer conditions.*

*Thames Water has a clear requirement from the EA to meet new discharge consents at Mogden STW by 2012 and the EA support the proposed development to increase the existing treatment capacity at Mogden.*

*The Tideway Tunnel is a long-term proposal, due to be completed in 2020. In conclusion, transferring Mogden STW flows via the Tideway Tunnel is not an option."*

Members sought confirmation that the Ivybridge Estate residents had been consulted individually.

*Response: All residents of the Ivybridge Estate were not consulted individually, but following the report to the Area Committee, those residents within the estate fronting Mogden Lane have been consulted. In addition, the Ivybridge United Residents Association and the Landlord, Hounslow Homes, have also been notified. See section on Consultations.*

Members noted interest in the Port of London's notes on the need for consideration of using the river to transport materials to and from the site.

*Response: The applicant advises that it supports the use of sustainable methods of transporting construction materials. However, an initial review of the use of rivers has suggested that the use of the local river system is impractical. Whilst the Duke of Northumberland River passes through Mogden it is non-navigable, the river being very shallow and including weirs and sections of culvert. For the same reasons the River Crane is deemed non-navigable for the transportation of construction materials.*

*It further comments that the River Thames would be the closest navigable river, but at its nearest point it would be 2 km from Mogden. However, once a contractor has been appointed, a thorough appraisal of the potential for water freight will be undertaken, including consideration of the suitability of existing facilities for loading and unloading and access from the River to the STW.*

Members sought more general information on what would be done to achieve the stated CO2 reduction targets.

*Response:- Thames Water has advised that it is committed to reducing its carbon footprint in accordance with Government policy, and is represented on London's Climate Change Partnership and has recently established its own Climate Change Strategy and Carbon Management Action Plan, being the only current water utility to reach the Carbon Trust standard.*

*It points to the Energy Assessment submitted with the application which sets out full details of how carbon emission reductions will be achieved at Mogden as part of the development. Section 2 of that document confirms*

*the energy efficiency measures that have been incorporated into the design resulting in annual carbon savings of 6% or 240 tonnes per year (e.g. energy efficient pump motors, minimisation of pipe runs, transformers located close to mains loads to reduce losses, optimisation of pipe diameter to reduce friction losses, and maximisation of gravity flow as opposed to pumped flow). The Energy Assessment also sets out the approach to delivering renewable energy on site. It advises that the incorporation of additional biogas CHP plant together with the energy efficiency measures will result in an overall carbon reduction of at least 1,710 tonnes of carbon per year (44%).*

*Thames also gives other examples of how it is proposing to reduce its carbon footprint at Mogden including by installing efficient machinery and changing the culture of how Thames Water's employees use equipment and machinery.*

*It states that over the past year it has undertaken a detailed review of the Mogden STW's process air equipment. This has included efficiency testing of the site's 7 aeration blowers. Based on the information obtained, one blower is currently being refurbished and a new blower will be commissioned. This work, in addition to a revised operating schedule, is expected to save in excess of 2000MWh/pa.*

Members acknowledged that the primary matter for consideration was odour, which would have to be resolved to both members' and residents' satisfaction.

*Response: This is noted, and the odour issue has been extensively considered by the Council. It is subsequently concluded that odour levels will not detract from the improved levels resulting from compliance with the Odour Abatement when the new works are implemented and operational; the new plant will be 'odour neutral'.*

Members sought clarification as to whether the forthcoming civil case would influence the application process.

*Response: The Council's Legal Services officer confirmed at the committee meeting that this was a private action and not of direct concern to the Council. He added that the Council's action on the abatement notice had been successful and was being monitored.*

## **6.0 POLICY**

- 6.1 When determining applications for planning permission, the authority is required to have regard to the development plan, so far as is material, and to any other material considerations. In addition, the determination must be made in accordance with the development plan unless material considerations indicate otherwise.

## **The Development Plan**

- 6.2 The Development Plan for the Borough comprises the Council's Unitary Development Plan (UDP) and the London Plan. The UDP was adopted in December 2003 and was amended and saved as of 28<sup>th</sup> September 2007 by direction from the Secretary of State. The 'London Plan (Consolidated with Alterations since 2004)' was adopted in February 2008.

## **Material considerations and emerging policies**

- 6.3 As part of its prospective Local Development Framework, the authority has prepared two draft development plan documents (DPDs): the Employment Development Plan Document and Brentford Area Action Plan, were subject to Examination Hearings in March and April 2008 respectively. The authority has also prepared two supplementary planning documents (SPDs) in relation to 'Planning Obligations' and 'Air Quality' that were adopted in March 2008. As emerging policy, the two draft DPDs and two SPDs are material considerations in determining applications for planning permission.

## **Unitary Development Plan**

<b>ENV-B.1.1</b>	New Development
<b>ENV-B.1.2</b>	High Structures
<b>ENV-N.1.10</b>	Provision of New Local Open Space
<b>ENV-N.1.11</b>	Protection and Improvement of Local Open Space
<b>ENV-N.2.2</b>	Sites of Regional/Local Nature Conservation
<b>ENV-N.2.3</b>	Promotion of Nature Conservation Management
<b>ENV-N.2.3A</b>	Species Protection
<b>ENV-N.2.6</b>	Landscape Features
<b>ENV-N.2.9</b>	Green Corridors
<b>ENV-N.2.10</b>	Green Chains
<b>ENV-P.1.1</b>	Environmental Sustainability: Environmental Impact Statements and Sustainability Checklist
<b>ENV-P.1.2</b>	Water Pollution and Water Quality
<b>ENV-P.1.3</b>	Surface Water Run Off
<b>ENV-P.1.4</b>	Waste Water Management
<b>ENV-P.1.5</b>	Noise Pollution
<b>ENV-P.1.6</b>	Air Pollution
<b>ENV-P.1.8</b>	Development Proposals on or Near Contaminated Land

<b>ENV-P.1.9</b>	Remediation of Contaminated and Potentially Unstable Land
<b>ENV-P.2.1</b>	Waste Management
<b>ENV-P.2.3</b>	Waste Management Facilities
<b>ENV-W.1.5</b>	Nature Conservation in the Thames Policy Area
<b>T.1.2</b>	The Movement Implications of Development
<b>T.1.4</b>	Car & Cycle Parking & Servicing Facilities for Developments
<b>T.4.3</b>	Traffic Implications of New Development

### **London Plan Consolidated with Alterations since 2004 (2008)**

<b>3D.14</b>	Biodiversity and nature conservation
<b>4A.3</b>	Sustainable design and construction
<b>4A.4</b>	Energy assessment
<b>4A.7</b>	Renewable energy
<b>4A.17</b>	Water Quality
<b>4A.18</b>	Water and sewerage infrastructure
<b>4A.21</b>	Waste strategic policy and targets
<b>4B.15</b>	Archaeology

### **Associated guidance from the Mayor**

Green Light to Clean Power: The Mayor's Energy Strategy

Connecting with London's Nature: The Mayor's Biodiversity Strategy

Sustainable Design and Construction: London Plan Supplementary Planning Guidance

### **National Planning Policy/Guidance**

<b>PPS 1</b>	Delivering Sustainable Development (February 2005)
	Planning and Climate Change – a Supplement to PPS1 (December 2007)
<b>PPS 9</b>	Biodiversity and Geological Conservation (August 2005)
<b>PPS 10</b>	Planning for Sustainable Waste Management (July 2005)
<b>PPG 16</b>	Archaeology and Planning (November 1990)
<b>PPS 17</b>	Planning for Open Space Sport and Recreation (July 2002)

<b>PPS 22</b>	Renewable Energy (August 2004)
<b>PPS 23</b>	Planning and Pollution Control (November 2004)
<b>PPG 24</b>	Planning and Noise (September 2004)
<b>PPS 25</b>	Development and Flood Risk (December 2006)

## **7.0 PLANNING ISSUES**

### **Principle**

- 7.1 This is a major infrastructure improvement that would result in benefits to water quality in the Thames and sewage quality. The principal intention is not to increase the capacity of the works, albeit that it does involve a 10% contingency to allow for future population growth, but to increase the efficiency of the sewage treatment process in dealing with sewage and storm water to fulfil these wider objectives. In principle, taking the importance of these strategic considerations, such a proposal would be acceptable provided there is no local harm in planning terms.
- 7.2 The primary planning issues are the effects on neighbouring occupiers (in particular, in respect of air pollution/odour), local open space and ecology. Other issues include visual amenity/townscape (albeit that there is a degree of physical screening as a result of the embankments surrounding the site), drainage, transport, archaeology and employment. The applicants have submitted a substantial amount of information.

### **Air Quality**

- 7.3 Consideration of air pollution needs to be in accordance with Policy ENV-P.1.6 (Air Pollution), and the Air Quality SPD. The Local Planning Authority needs to be satisfied with the measures to mitigate polluting smells/stench. Policy ENV-P.1.6 states that if a satisfactory level of air quality cannot be achieved, planning permission will not normally be granted.
- 7.4 The Council's Pollution Control Officer has commented as follows:-
- The Council's Pollution Control officers have employed an independent environmental consultancy (ADAS) to look at the technical details in this application. Also, 'Odournet', which currently measures odour emissions on the site for Thames Water, is independent of Thames Water, and Odournet's assessments are submitted to the Council for auditing. Officers from Pollution Control also visit Mogden to make inspections on a weekly basis.

The **Pollution Control Officer's** comments on compliance with the conditions attached to the Odour Abatement Notice, agreed by Judge Day at Brentford Magistrates Court on 8<sup>th</sup> June 2005, are reported in paragraph 3.11.

Following a consideration of the report it received from ADAS (The Council's expert consultants), Pollution Control commented as follows:

- Thames Water proposes to address the problems of river water quality by treating more of the existing flow, thus reducing the frequency of partially treated sewage being discharged into the River Thames.
- There are concerns regarding the existing and future quality of the immediate odour environment and there is a need to protect against future adverse odour impact. It is incumbent on Thames Water to ensure that the proposed development does not harm air quality.

The Pollution Control Team supports the proposals to:

1. Cover the new inlet works;
2. Cover the new primary settlement tanks and treat odorous air from these new covered areas using new odour control unit(s);
3. Cover the existing west side rectangular primary settlement tanks and, the subsequent treatment of the odorous gases within these tanks. This group of unenclosed tanks has been identified as a contributor of odour.
4. Improve and upgrade the sludge handling facilities. Historically, the existing sludge digesters make use of a 'floating roof' principle which has given rise to venting of gas. The proposals in the application include upgrading the digesters, together with associated gas handling, and improved gas capture.
5. Modifications to improve draw-off of gas (existing digesters are subject to intermittent release of 'biogas') in a controlled and efficient manner for power generation.

The Pollution Control Team also comment:

### **Transitional Requirements**

- Thames Water proposes to address the problems of river water quality by treating more of the existing flow, thus reducing the frequency of partially treated sewage being discharged into the River Thames.
- Maintaining a stable odour environment while extension of the facility is taking place is crucial. All existing odour mitigation measures must be maintained throughout the period of redevelopment.

- The storm water storage tanks are a proven source of odour. A management plan for the use and cleaning of these tanks should be a requirement of any planning approval.
- On completion, the site will have expanded and be of greater complexity with an increased number of potential odour sources. However, the number of open sources will diminish. Many of the major emitters will have been enclosed, controlled and treated.
- A commissioning plan for the new odour control plant should include details of an agreed performance specification.

#### **Best practicable means**

- On completion, the development should comply with best practicable means to control and limit odours and, wherever practicable, to ensure that odour is identified at an early stage and pro-active measures taken to reduce the impact on off-site sensitive receptors.

#### **During the course of consideration of the proposal, the Pollution Control Team raised issues that required clarification.**

- A Concern that the odour dispersion model used by OdourNet to evaluate and predict the emission of odour was not an up-to-date modelling methodology, and that the model had used weather data that may not be representative.

*Reassurance was therefore sought that the model was current and that the weather data was relevant and representative.*

- B Concern that some residents living near the site boundary are sensitised to odour and if exposure to 5 ou (odour units) was the chosen parameter, there was a likelihood of justified complaints. For this reason it was considered that no sensitive receptor should be exposed to 5 or more odour units. It was requested that OdourNet explore this further. The Council needs to be confident that a revised limit value is achievable and that this could be demonstrated by an engineering solution.
- C There is a need for objective evaluation of the impact of future gas releases from the sludge digesters, together with clarification on engineering measures to be used to reduce their future impact on local air quality. The existing floating roof digesters were considered to be potentially odorous, and fixed roof structures were preferred. Thames Water should be requested to confirm their proposals to retro-fit fixed roofing structures, in line with current good practice.
- D Although it enclosure of the west side rectangular primary settlement tanks is welcomed, it is considered that this must go hand-in-hand with improvements to sludge handling in these tanks. The existing travelling scraper bridges in these tanks continue to under-perform

and require frequent maintenance. The enclosure of the rectangular tanks would leave the west side circular tanks as the only remaining primary settlement tanks not enclosed. It was considered that Thames should include a proposal to cover and treat these circular tanks for odour too. (This requirement has since been withdrawn).

It was concerned that there was no predictive objective data provided of the future use (and odour contribution) of the existing east side storm water storage tanks. At present, only the two first-fill tanks (numbers 4 & 5) are fully covered and odour controlled. There are six large capacity tanks, which are presently uncovered, and not odour controlled. These tanks are subject to a management and cleaning protocol. To assess the impact of continued use of these open tanks (albeit at a reduced frequency), the Council needed to know how often these tanks were likely to be used if the proposed development proceeded and how Thames Water proposed to limit the odour impact arising from their use. Without baseline data it was difficult to draw any meaningful conclusion on whether the future use of these storm water tanks would be of significant adverse odour impact on the local environment. It was considered possible that analysis *may* result in concluding that more of these tanks should be covered. The applicants were also advised that the Council was concerned that the use and cleaning of these tanks should also be regularly reviewed under the terms of a Management Plan.

### **Summary of air quality issues at initial stage of consideration**

- 7.5 Thus it was clear that the issue of air pollution had not been adequately addressed. Whilst new plant and tanks were to be covered, as well as the existing west side rectangular primary settlement tanks there was concern still about existing tanks remaining uncovered (the four circular primary settlement tanks on the west side, and six east side storm-water tanks of large capacity, not within the application site) and:
- The circular and/or the storm water tanks might also need to be covered.
  - If the development was to go ahead there was a need for more information on how often the storm water tanks would be used, and how Thames proposed to limit odour from them.
  - The management of the storm water tanks needed to be improved (a management plan being required).
  - The existing sludge digesters currently failed to offer adequate protection against odour escape. Floating roofs for the digesters do not offer as good protection against odour escape as a fixed roof system. Fixed roofs should be substituted.
  - There was also a question as to whether the odour dispersion model used by OdourNet was appropriate, and this needed to be clarified (see 7.28 – 7.29).

- In addition, there was disagreement over the maximum odour that should be permitted to be experienced by a receptor (5 ou was considered too high and likely to result in justified complaints).

### **Initial Conclusion and Response to TW on Air Quality Issues**

- 7.6 Therefore, the Local Planning Authority was not satisfied that implementing the new development would result in odour pollution being reasonably and acceptably mitigated. This concern was presented to the applicant. TW subsequently advised that it was seeking to address these concerns, and more information would be provided.
- 7.7 The additional measures to mitigate odour escape would include better sludge scraping by the use of 'zicker' hydraulic scrapers in the west side rectangular primary settlement tanks (in conjunction with the covering of these tanks), and fixing the roof of the existing sludge digesters so that they cannot float.
- 7.8 The applicants also agreed to provide justification for their use of the Odour Dispersion Model (see 7.28 – 7.29).
- 7.9 *To protect residents' living conditions, any permission providing new plant would need to ensure robust performance of that plant, backup in the event of breakdown, and routine monitoring and annual performance tests of all new odour plant not covered by the schedule to the existing abatement notice. Moreover, the new development should not be seen in isolation from current plant and practices and should only be accepted if there is adequate mitigation for air quality for Mogden as a whole.*

### **Further Submissions from Thames Water on Odour Control in Response received 22<sup>nd</sup> October 2008**

#### ***Storm Water Tanks***

- 7.10 Thames state that there is a current management protocol for the use and cleaning of the storm water tanks, and a funded programme to retrofit overpumping facilities to the tank hoppers. This will enable effective draining down of the hoppers if this has not been achieved through the Storm Water return pumping system. The completion date for all the existing uncovered storm tanks to be fitted with these installations was 24<sup>th</sup> November 2008. Thames agreed to a requirement for the on-going management of these tanks. It will be confirmed at the meeting whether this has happened.
- 7.11 *Officers have welcomed the retrofitting of overpumping facilities. There is still a need to be satisfied about the future use of the uncovered storm water tanks in terms of frequency and duration. Thames were therefore asked to provide information on their predicted usage of 4 times a year (see paragraphs 7.31 – 7.35).*

### **Commissioning Plan for Odour Control Units (OCU's)**

- 7.12 Relating to 'Transitional Requirements' referred to in the application, Thames agree that there is a need for details of an agreed performance specification. A commissioning report would be produced after the OCU's are tested to demonstrate they meet the required contractual specifications and standards. Thames would provide Hounslow with this commissioning report and state that a planning condition would be accepted to this effect.
- 7.13 *This condition is recommended (no ??).*

### **Best Practicable Means**

- 7.14 The applicants advised that 'Best Practicable Means' will be used to control and limit odour impact.
- 7.15 *Compliance with Best Practice can be required by planning condition (26).*

### **Odour Dispersion Model Concerns**

- 7.16 Addressing Hounslow's concerns on the model used by Odournet, Thames advised that it was the preferred and most tested available, and that Hounslow had previously accepted it model in respect of compliance with the Odour Abatement Notice. It argued that the weather data was appropriate, representative and robust. Following Hounslow's request, Odournet had prepared further odour contours based on weather data from 2005-2007. This weather data generated lower odour exposure than that used in the assessment submitted with the application.
- 7.17 *In response, the Council advised Thames that the modelling process had moved on from when the odour abatement notice was considered, and that it was still not satisfied that the applicants had demonstrated the appropriateness of the model used. The Council, therefore, sought further information from the applicant on modelling (see paragraphs 7.28 – 7.29).*

### **Sludge Digesters**

- 7.18 Thames agreed to fix the roofs of the digesters to prevent sludge gas escaping, and to work with Hounslow to agree the methodology to assess gas escape.
- 7.19 *In response, this can be secured by a safeguarding condition (28).*

### **Existing Uncovered West Side Circular Primary Settlement Tanks**

- 7.20 Thames advised that Odournet was still undertaking a survey to assess whether the target to reduce odour emissions across the whole site by 66% had been met and the results would be available in early November (see 7.21 – 7.22 below). Previous assessments showed emissions from the circular tanks to be very low because of their design, and highly unlikely to be detectable off site. They advised that, if they were covered, this would not lower the likelihood of odour being detected off site, but might result in a concentration of odour within the tank headspace, which may increase the

risk of odour escape, and the risk of it being detected off site. It, therefore, did not consider that a planning condition to cover these tanks was necessary. With regard to the management and maintenance of these tanks, Thames advised that they were fitted with continuously running bridge mounted bottom scrapers to ensure that settled raw sludge is constantly migrating towards the centre hopper. The total raw sludge stock for all the primary tanks is actively managed to a minimum and recorded daily. The tanks are de-sludged, based on the measured sludge stocks in these tanks, and the timings are varied accordingly. The effective management of these tanks has helped reduce Hydrogen Sulphide gas/odour. Thames also advise that both the existing circular and rectangular primary settlement tanks de-sludge via separate pipelines to a pipeline manifold outside the Raw Sludge Holding Tanks.

- 7.21 *The Council noted these submissions but requested further justification of the applicant's conclusions.*

*A copy of a letter from Odournet has subsequently been received. This informs that odour from the circular tanks has only ever been detected within a matter of metres of the tank surface. Odournet confirms that at no time during any measurement visits conducted to date have odours been detectable more than a few metres downwind.*

- 7.22 *It has therefore subsequently been agreed by the Council following further clarification, that there is no longer a request for TW to cover these tanks.*

#### **Existing West Side Rectangular Primary Settlement Tanks**

- 7.23 Thames advises it is proposing to cover and odour control these tanks.

- 7.24 *The Council has agreed that this was part of the submitted application.*

#### **New Rectangular Primary Settlement Tanks**

- 7.25 Thames advised that the new rectangular Primary Settlement tanks de-sludging pipe would be connected into the existing rectangular tank's de-sludging pipe, and that the rectangular tanks would have hydraulic scrapers.

- 7.26 *Officers noted this, and that the new tanks would be covered and odour controlled.*

- 7.27 *The Head of Pollution Control also commented:-*

*"I am in agreement that the proposed development be 'odour neutral', arising principally from the proposed covering (and odour treatment) of the existing west side rectangular primary settlement tanks, together with the proposed improvements to the existing sludge handling processes, both of which are identified as known sources of odour.*

*The draining down of the storm tanks' hoppers continues to be of concern. I note Thames Water's programme of works to retrofit overpumping facilities to these hoppers, which should go a long way towards ensuring that the*

*hoppers are properly drained of effluent. The stated completion date of 24<sup>th</sup> November is acceptable. Thames Water is willing to accept a planning condition (note:- this would need to be part of a legal agreement rather than a condition) regarding the management of the storm tanks (and hoppers) and .... It would be prudent for us to include (this proviso)...”.*

*Regarding the proposed new odour control unit(s), it is crucial that the commissioning plan for the OCU'(s) address performance standards and this should be made a condition (27) of any planning permission. The Council is also seeking justification for the 20-metre height of the Odour Control Unit stack.*

## **Current Position on Odour**

### **Model Used by Odournet**

- 7.28 *Following further submissions, Pollution Control advises that it considers that there is some justification for Odournet to use the model employed. Other models have not been tried and tested, and as the objective here is a “before” and “after” comparison, rather than an assessment of real or absolute odour impact, the model used should be accepted.*
- 7.29 *The applicants also now agree with the Council that no neighbouring resident should be permitted to experience a level of 5 odour units or more. The submission states that no more than 3 odour units are likely to be experienced by neighbouring occupiers.*

### **Existing West Side Circular Primary Tanks**

- 7.30 *Following further submissions on 2008 and 2005 emission rate data, Pollution Control has advised that there does not appear to be a strong case for covering these tanks. It is, therefore, no longer requiring these tanks to be covered.*

### **Storm Tanks**

- 7.31 *Following further submissions on these tanks, Pollution Control advised that it still awaited accurate information on how often the existing storm tanks are used, and questioned Thames Water’s assertion that they have been used no more than twice a month over the last 10 years. It requested a more meaningful analysis using hourly (rather than daily) flow rate data (see 7.33 – 7.35).*
- 7.32 *It accepts, however, that if flow rates in to the Works remain at a similar level in future, then the frequency of storm tank use can be expected to reduce with the extended works, and it should also be the case that when there is a requirement for storm tank use, there will be a higher likelihood that only the covered tanks will be used. However, there is insufficient evidence, as yet, to demonstrate that uncovered storm tanks will only be used once, twice, or even four times a year, as Thames are predicting.*

- 7.33 TW has since provided further information on the storm tank use, based on daily flows, for 1998-2008. This has varied between 75 times (Jan. 2000-Jan. 2001) and 4 times (Jan.2004-Jan. 2005). The applicants point out that for the worst year, 2000-2001, this would have been reduced from 75 times to 1 if the proposed plant had already been in operation.
- 7.34 Following a request from Pollution Control they have also provide daily input flows for the last 6 months. This shows that the number of hours the storm water tanks were used between 2<sup>nd</sup> July 2008 and 24<sup>th</sup> November 2008 was 173 (i.e. 4% of the time). If the proposed development had been already in place, this would be 23 hours (i.e. 0.6% of the total time).
- 7.35 *This represents a considerable reduction in use of the storm tanks, and it is concluded that this supports the 'odour neutral' basis of the development.*

### **Waste Water Odour Control Unit**

- 7.36 Following further submissions on the justification for the 20 metres stack height; the Head of Pollution Control has requested further information to fully justify this height. *This has now been received and he advises that he is satisfied that the 20 metres height is necessary for this OCU.*

### **Dust**

- 7.37 With regard to mitigation of air pollution in respect of dust, rather than odour, this can be addressed by the Construction Management Plan condition (for construction related dust), and by a condition requested by the Environment Agency for embankment dust suppression (conditions 15 & 16).

### **Nature Conservation and Open Space**

- 7.38 The proposal site is designated as Local Open Space and Site of Local Nature Conservation Importance (Borough Grade 1) in the UDP.
- 7.39 Policy ENV-N.1.11 (Protection and Improvement of Local Open Space) has a presumption against development on local open space unless very special circumstances can be demonstrated. It also identifies the purposes of designating local open space – providing essential visual breaks in built up areas, contributing to local amenity and meeting (or being capable of meeting) recreational needs. The proposal will involve loss of existing local open space. As this is contrary to policy, it needs to be identified what the existing use of the open space is, what benefits it actually provides, what the extent of open space to be lost is; and whether this is the minimum amount of open space on which that the proposal can be built.
- 7.40 The site is also within an area of public open space deficiency. Policy ENV-N.1.10 (Provision of New Local Open Space) seeks to increase provision in such areas, and building on this space would appear to be contrary to policy. However, while the site consists of local open space, it is not publicly accessible (except for the footpath, which cannot be strayed from) and, given the nature of both the existing and proposed use, it would not appear appropriate or practicable to make it so and the open space could

not be capable of meeting recreational needs. Thus it is considered that there is unlikely to be any policy objection on these grounds.

- 7.41 Given the nature of the proposed use, and that this is an extension of an existing essential facility, it appears that the main purpose of the open space is to provide a buffer around the site and an essential visual break which contributes to local amenity.
- 7.42 It is considered that with the proposed development there would still be enough open space surrounding the site to continue to create a visual break. This is considered, coupled with the fact that the proposal is needed to increase full treatment capacity, special circumstances to overcome a policy objection on Local Open Space grounds.
- 7.43 The whole of the site is designated as a Site of Local Nature Conservation Importance. This includes the operational part of the site as well as the surrounding open space. Policy ENV-N.2.2 (Sites of Regional/Local Nature Conservation) requires that the Council encourage the protection and sensitive management of such sites, and does not permit development when it is shown that it would be harmful to nature conservation interests.
- 7.44 It appears in the case of Mogden that the nature conservation value of the site does not conflict with the existing activity. However, what needs to be assessed is whether the proposed extension to the plant on the site would compromise this nature conservation value, and whether appropriate mitigation measures can be put in place. If there were effective mitigation and no undue compromise, then there would be no policy objection on nature conservation grounds.
- 7.45 It is not considered that nature conservation would be unduly prejudiced because:
- The proposal provides satisfactory mitigation measures against reduction of natural habitats on site, and proves acceptable beneficial modelled impacts on aquatic biodiversity within the Thames Tideway.
  - Proposed on-site mitigation is well thought out and proposes adequate habitat reconstruction for the important groups on site such as the highly important invertebrates and Red Listed bird species. The invertebrate works have been undertaken by an expert with a great working knowledge of invertebrate communities in London and specific sites such as Hounslow Heath LNR. Issues such as the local Badger population are well addressed and mitigation proposed to reduce impacts.
  - The benefits to aquatic flora and fauna from decreased storm overflow events are obvious. As part of an overall strategic response to this problem along the Thames, this must have at least equal, if not greater, importance to on-site biodiversity issues. Bio-diversity impacts outside the site as a result of cleaner, fresher river water would be wide ranging.

- Although, it is considered that the proposal can be recommended in terms of bio-diversity impact and mitigation control, there has to be on-going habitat management on site. It is recommended that this be secured by a safeguarding planning condition (4).

### **Drainage, Water and Sewerage Infrastructure**

- 7.46 The GLA has advised that “the London Plan affirms the Mayor’s commitment to protect and improve water quality, to ensure that the Blue Ribbon Network is healthy, attractive and offers a series of habitats, by ensuring that adequate sewerage infrastructure is available to developments, directing refusal of proposals that are likely to result in a reduction of water quality, and by using sustainable drainage systems to reduce the amount and intensity of urban run-off and pollution.”
- 7.47 The projected improvements in the water quality of the Thames arising from the proposal, and the consequent reduction in the use of the storm water tanks, are of obvious benefit. Provision of cleaner water is in principle sustainable, but it is noted that there are no specific provisions within the submission for a sustainable drainage system. It is, therefore, considered that a planning condition should be recommended to achieve some level of provision (18).
- 7.48 It is noted that the Environment Agency fully supports the proposal subject to necessary safeguarding conditions regarding drainage, contamination and protection of the water environment.

### **Noise and Vibration**

- 7.49 This will need to be controlled under safeguarding planning conditions. A Noise and Vibration Management Plan for the period of construction is recommended to be secured by condition (12), and a separate condition is recommended to protect neighbours from noise and vibration from new plant (13).

### **Traffic**

- 7.50 Setting aside the construction period, when traffic levels would be raised, the development would not have a significant impact on local traffic. The plant does not have a high number of employees or visitors at present (11 full time staff only), and the works, when complete, would not result in any significant increase (only 3 additional staff envisaged). However, the number of construction employees would be as high as 300 per day at the peak. For the period of the construction, a Construction Management Plan should be provided, and this should include a requirement to minimise deliveries during peak traffic periods. It is also recommended that for the normal site operation, a Delivery and Service Plan be provided to deal with daily freight operations, secured through planning conditions (14).
- 7.51 There are 125 parking spaces at Mogden. These support existing construction and contractor workers, though there are none within the application site. The applicants state that they do not intend to provide

additional spaces for the 3 extra staff proposed, but recognise that they will need to provide 150 temporary spaces for the construction period. These would be supplemented by cycle parking (there is none at present), a mini bus pick up, a drop down service and car sharing initiatives. Details of contractor car parking/cycle provision etc. can be secured by condition (15) through the Construction Management Plan. A planning condition is also recommended to secure long-term cycle parking on site (20).

### **Visual Amenity and Outlook**

- 7.52 The infrastructure associated with the existing works is screened effectively from most views by the densely planted embankment surrounding it. The increased footprint of the development would affect parts of the embankment on the west side, but with the embankment being reinstated further to the west. The development would retain the peripheral landscaped embankment to the south.
- 7.53 Recontouring and repositioning the embankments would have a minimal impact on neighbours' outlook, despite their being brought much closer to adjoining houses. With proposed planting, and safeguarding of as much existing vegetation as possible, including retention of a number of mature oak trees, outlook for adjoining residents would remain generally open and, especially when new planting had taken a hold, attractive. Although plant would be nearer these properties, it would, at worst, be not prominent and, in the main, not visible at all since it would be generally low level, if not below ground level, and well screened by the recontoured bunds.
- 7.54 The most prominent aspect of the plant, which would be visible from properties to the west, is the top of the proposed north side waste water odour control unit, the height of which (20 metres) is dictated by the ability to disperse vented gases effectively. A submitted photomontage looking from the southwest shows this unit primarily screened by vegetation. Additional montages have been requested for the Committee meeting.
- 7.55 The commercial estate to the north west corner of the site would be more exposed to the appearance of the odour control unit, but the structure would not be incongruous in this commercial setting, especially as an existing mobile phone mast, which is higher, would be close by.
- 7.56 Views from the public footpath that runs through the centre of the site would reveal additional structural elements that rise above ground level such as views of the 10 metre high retaining wall around the Final Settlement Tanks. This is not objectionable in visual terms at this location.
- 7.57 The section drawings originally submitted only showed the relationship of the nearest tanks to the housing to the west of the site (170 metres away). The applicants did not provide section drawings showing the 20-metre high wastewater odour control stack and its relationship to the housing. Additional section drawings have therefore been requested and provided showing sections through the stack to various neighbouring locations north, east and south of the application site. These include sections to Hill Road,

Harvester Close, and Arnold Crescent, as well as sections through to the commercial area to the north, which is closer.

- 7.58 It is concluded that, although prominent at this height, the stack is sufficiently distant (180 metres at the nearest) from neighbouring homes, not to be overbearing or intrusive on residents' outlook.

### **Sustainability**

- 7.59 In response to the GLA report, the applicants advise that the CHP plant meets the 'good quality' status set out in the Government's CHP Quality Assurance programme. Also, that the combined heat and power generated on-site would be used entirely within the operational site to power the STW, and there would be no opportunity to use power off-site.
- 7.60 The developers have submitted an energy assessment and propose a biogas anaerobic digestion CHP that would provide 40% of the proposed development's energy requirements, which is double the requirement of the Mayor's consolidated plan. They also say that once the on-site pipework for the development has been completed, they would look at the feasibility, and potential for use, of a micro-hydro turbine on the site. This is the subject of a condition (17).
- 7.61 Safeguarding planning conditions (17-19) can secure renewable energy provision as well as other sustainable measures including sustainable drainage, materials and transport. The majority of spoil excavated on the site would be re-used on the site.

### **OTHER MATTERS**

- 7.62 An assessment of Archaeology and Heritage was included in the Environmental Statement. It concludes that there are no known archaeological remains on the site, and the likelihood for the discovery of significant remains is considered negligible to slight. The construction of the existing works has reduced the likelihood of sub-surface archaeology surviving on site, and any surviving archaeology is not considered likely to contain significant features. English Heritage does not require any further archaeological work to be undertaken.
- 7.63 The proposed employment to be generated by the development is 3 extra staff. This is minimal and not material in terms of its implications/effects.

### **8.0 EQUAL OPPORTUNITIES IMPLICATIONS**

- 8.1 There are no specific equal opportunity issues raised by the development. However, it is recommended that the Council secure equality of access, wherever possible, by planning condition. Appropriate facilities should be incorporated into the detailed design of the works to ensure this (condition 21).

## 9.0 PLANNING OBLIGATIONS

- 9.1 UDP policy IMP.6.1 seeks planning obligations to secure planning benefits related to the proposed development.

It is considered that if approval is given this should be subject to the following heads of terms:

- Commitment to an employment and training strategy to provide initiatives for the creation of training and employment opportunities. The developer to either provide local construction training placements, or to make a financial contribution towards such provision, of £125,000 based on the onsite construction costs.
- Commitment to providing the following odour management works in advance of the other parts of the development:-
  1. Covering of the west side rectangular primary settlement tanks and providing 'zicker' hydraulic scrapers.
  2. Fixing the floating roofs of the sludge digesters so that they cannot float, together with agreeing the methodology for assessing gas escape from these digesters.
  3. The preparation and implementation of a Management Plan, the details of which are required to be agreed by the Local Planning Authority, for the on-going use of, and monitoring, cleaning and maintenance of, the east side storm water tanks and hoppers.
- Funding of improvements to the public right of way through the site adjoining the Duke of Northumberland River to the sum of £64,000. This contribution to be paid on the commencement of the development, or by the end of January 2009.
- A contribution of £45,000 per annum for the duration of the course of construction towards the Council's ongoing costs of monitoring the site, £30,000 per year for gully cleansing (i.e. £10,000 per year in addition to the £20,000 funding per year already provided by TW to Hounslow for gully cleansing), for the period of construction, and thereafter in perpetuity and index linked from the date of the Committee's decision, and £11,750 towards the cost of a Jerome monitor. The first payments of £45,000 and £30,000 to be made on the signing of the agreement, and thereafter at 12 monthly intervals, or part thereof, depending on the actual duration of the works, and the payment for the Jerome monitor shall also be on the signing of the agreement.
- The developers to commit that they will (and will procure their agents, contractors and sub contractors to) observe the terms of a Considerate Contractors Scheme.

Although the GLA considered that a request should be made for a financial contribution towards social infrastructure, the applicants are

unwilling to provide such a contribution as they consider that it would not conform to the tests of Circular 05/05. Only three additional jobs are to be created by the development. It is also a development to provide essential plant to improve sewage treatment and at the same time local water quality. The Local Planning Authority agree that a general requirement for social infrastructure improvements is not essential in this case, but notes that improvements to the public footpath are included in the agreed Heads of Terms.

## **10.0 CONCLUSION**

- 10.1 The main planning criteria for consideration have been identified above, together with other relevant topical areas of interest/concern. Extensive consultation has been undertaken, and the results of this have been reported. The application and the associated EIA have been assessed and the proposal is considered to be acceptable, including on the grounds of odour, over which most of the concerns have been raised.
- 10.2 It is, therefore proposed that the development should be approved, subject to safeguarding conditions and an accompanying legal agreement.

## **11.0 RECOMMENDATION**

**This report contains three recommendations:**

**The first recommendation is that you resolve that the GLA be notified that the Local Planning Authority intends to grant planning permission for the development subject to conditions and to the terms of a legal agreement.**

**The second recommendation is that, if the Mayor directs the Council to refuse planning permission, you resolve that the reasons stated by the Mayor for any such refusal be reported to a future meeting of the Sustainable Development Committee and that the application not be determined in the meantime.**

**The third recommendation is that you resolve that the Government Office for London be notified that the Local Planning Authority intends to grant planning permission for the development subject to conditions and to the terms of a legal agreement, and subject to the decision of the GLA.**

## **REASONS**

With appropriate planning conditions and the accompanying legal agreement the proposal is considered to be sustainable, and to provide for improved utility infrastructure, and for improvements to the natural water environment, without undue harm to air quality, local open space, green chains, or local ecology/nature conservation. It is also considered that the development will not unduly prejudice the living conditions of neighbouring occupiers, or the safety and free flow of traffic on the neighbouring highway network, nor harm the local drainage and land quality.

It would thus also be in accordance with the relevant provisions of UDP policies ENV-B.1.1 New Development, ENV-B.1.2 High Structures, ENV-N.1.0 Provision of New Local Open Space, ENV-N.1.11 Protection and Improvement of Local Open Space, ENV-N.2.2 Sites of Regional/Local Nature Conservation, ENV-N.2.3 Promotion of Nature Conservation Management, ENV-N.2.3 Species Protection, ENV-N.2.6 Landscape Features, ENV-N.2.9 Green Corridors, ENV-N.2.10 Green Chains, ENV-P.1.1 Environmental Sustainability: Environmental Impact Statements and Sustainability Checklist, ENV-P.1.2 Water Pollution and Water Quality, ENV-P.1.3 Surface Water Run Off, ENV-P.1.4 Waste Water Management, ENV-P.1.5 Noise Pollution, ENV-P.1.6 Air Pollution, ENV-P.1.8 Development Proposals on or Near Contaminated Land, ENV-P.1.9 Remediation of Contaminated and Potentially Unstable Land, ENV-P.2.1 Waste Management, ENV-P.2.3 Waste Management Facilities, ENV-W.1.5 Nature Conservation in the Thames Policy Area, T.1.2 The Movement Implications of Development, T.1.4 Car & Cycle Parking & Servicing Facilities for Developments, and T.4.3 Traffic Implications of New Development of the London Borough of Hounslow's adopted Unitary Development Plan (2003), as amended, associated Supplementary Planning Guidance, and the relevant provisions of related policies 3D.14 Biodiversity and nature conservation, 4A.3 Sustainable design and construction, 4A.4 Energy assessment, 4A.7 Renewable energy, 4A.17 Water Quality, 4A.18 Water and sewerage infrastructure, 4A.21 Waste strategic policy and targets and 4B.15 Archaeology, of the consolidated London Plan (2008).

**Conditions:**

1 A1(A) Time Limit

REASON: A1

2 Native Planting Only

All planting on and around the site shall be of locally native plant species only, of UK genetic origin.

REASON: Use of locally native plants is essential to benefit local wildlife and to help maintain the region's natural balance of flora.

3 Biodiversity/Ecology

The development shall be carried out in accordance with the mitigation measures set out in Table 20 of the Environmental Statement submitted with the application.

REASON: To ensure that the proposed mitigation is carried out as approved.

4 On-Going Habitat Management and Monitoring

Prior to the commencement of development a programme shall be submitted to, and shall be approved in writing by, the Local Planning Authority for the ongoing management and monitoring of existing and new habitats on the site, and shall be implemented on commencement of the development.

REASON: In the interests of local biodiversity and ecology.

5 Embankments Dust Suppression

Following the relocation of materials and the recontouring of embankments, the material shall be kept damped down and compacted to prevent excess dust generation prior to the development of significant vegetative cover.

REASON: In the interest of air quality and safety.

6 External Lighting

External artificial lighting shall be directed away from the Duke of Northumberland River and shall be focused with cowlings, to minimise light spill from the new development into the Duke of Northumberland River.

REASON: Artificial lighting disrupts the natural diurnal rhythms of a range of wildlife using and inhabiting the river and its corridor habitat. The water body provides important habitat for wildlife. Duke of Northumberland River should be treated as recommended under the Institute of Lighting Engineers 'Guidance Notes for the Reduction of Light Pollution'.

7 Contamination

Prior to the commencement of development approved by this planning permission (or such other date or stage in development as may be agreed in writing with the Local Planning Authority), the following components of a scheme to deal with the risks associated with contamination of the site shall each be submitted to and approved, in writing, by the Local Planning Authority:-

1. A preliminary risk assessment which has identified:

all previous uses

potential contaminants associated with those uses

a conceptual model of the site indicating sources, pathways and receptors

potentially unacceptable risks arising from contamination at the site.

2. A site investigation scheme, based on (1) to provide information for a detailed assessment of the risk to all receptors that may be affected, including those off site.

3. The site investigation results and the detailed risk assessment (2) and, based on these, an options appraisal and remediation strategy giving full details of the remediation measures required and how they are to be undertaken.

4. A verification plan providing details of the data that will be collected in order to demonstrate that the works set out in (3) are complete and identifying any requirements for longer-term monitoring of pollutant linkages, maintenance and arrangements for contingency action.

REASON: The Environmental Impact Assessment indicates that there are land contamination issues on the site, therefore additional site investigations need to be undertaken to delineate the contamination and feed into the design of the remedial strategy.

Any changes to these components require the express consent of the local planning authority. The scheme shall be implemented as approved.

## 8 Verification Report

Prior to the bringing into operation of any part of the development, a verification report demonstrating completion of the works set out in the approved remediation strategy and the effectiveness of the remediation shall be submitted to and approved, in writing, by the local planning authority. The report shall include results of sampling and monitoring carried out in accordance with the approved verification plan to demonstrate that the site remediation criteria have been met. It shall also include any plan (a "long-term monitoring and maintenance plan") for longer-term monitoring of pollutant linkages, maintenance and arrangements for contingency action, as identified in the verification plan, and for the reporting of this to the local planning authority.

REASON: EIA indicates that there are land contamination issues on the site, therefore additional site investigations need to be undertaken to delineate the contamination and feed into the design of the remedial strategy.

## 9 Monitoring and Maintenance (Remediation)

Reports on monitoring, maintenance and any contingency action carried out in accordance with a long-term monitoring

and maintenance plan shall be submitted to the local planning authority as set out in that plan. On completion of the monitoring programme a final report demonstrating that all long-term site remediation criteria have been met and documenting the decision to cease monitoring shall be submitted to and approved in writing by the local planning authority.

REASON: The Environmental Impact Assessment indicates that there are land contamination issues on the site, therefore additional site investigations need to be undertaken to delineate the contamination and feed into the design of the remedial strategy.

10 Restriction on Piling

Piling or any other foundation designs using penetrative methods shall not be permitted other than with the express written consent of the Local Planning Authority, which may be given for those parts of the site where it has been demonstrated that there is no resultant unacceptable risk to groundwater. The development shall be carried out in accordance with the approved details.

REASON: To ensure that the piling design is protective of controlled waters.

11 Land Quality (Hounslow)

Before the development hereby permitted commences:

- a. The site shall be investigated by a competent person to identify the extent and nature of contamination. A detailed site investigation report shall be prepared and submitted to the Local Planning Authority. The report should include a tiered risk assessment of the contamination based on the proposed end use of the site. Additional investigation may be required where it is deemed necessary.
- b. If required, a scheme for decontamination of the site shall be submitted to the Local Planning Authority, for written approval. The scheme must account for any comments made by the Local Planning Authority.

Before the development hereby permitted is first occupied:

- c. The Local Planning Authority shall be notified immediately if additional contamination is discovered during the course of the development. A competent person shall assess the additional contamination and shall submit appropriate amendments to the scheme for

contamination in writing to the Local Planning Authority for approval.

- d. The agreed scheme for decontamination, including amendments, must be fully implemented and a written validation (closure) report submitted to the Local Planning Authority for approval.

REASON: Contamination is known or suspected on the site due to a former land use. The Local Planning Authority therefore wishes to ensure that the development can be implemented and occupied with adequate regard for public and environmental safety.

12 Noise and Vibration Management Plan (Construction)

The development shall not commence under details have been submitted to, and have been approved in writing by, the Local Planning Authority, demonstrating that the development will comply with the requirements of BS 5228:1997 Noise and Vibration Control on Construction and Open Sites, and the development shall only be carried out in accordance with the approved details.

REASON: In the interest of neighbouring amenity.

13 Noise and Vibration (Plant Operation)

No part of the proposed plant shall be audible at the site boundary or beyond the boundary.

REASONS: In the interest of neighbouring amenity.

14 Delivery and Service Plan

Development shall not commence, except the covering of the west side rectangular primary settlement tanks, prior to submission to and approval by the Local Planning Authority of a Delivery and Servicing Plan. The approved plan shall be implemented as approved.

REASON: To regulate daily freight operations in the interests of efficiency and sustainability and neighbours' living conditions.

15 Construction Management Plan

Notwithstanding any other condition of this consent, no work on the development shall commence, other than the covering of the west side primary settlement tanks, until a Construction Management Plan, dealing with all relevant environmental information relating to the site construction works, and to include hours of operation, phasing details of the development

(including of the excavation/recontouring works), contractor's compound, environmental nuisance mitigation/ controls over dust, mud, dirt, noise, vibration, and lighting, temporary screening/bunding, and means of access and site delivery/traffic arrangements/routes and construction workers travel plan etc., has first been submitted to, and approved in writing by, the Local Planning Authority, and the Plan as approved shall only be implemented as approved. The Plan shall be prepared and implemented in accordance with Best Practice Guidance.

REASON: To ensure that the environmental impacts of construction are appropriately mitigated, in the interests of environmental amenity and traffic safety and free flow.

16

### Illumination, Mud and Dust on Construction Sites

During construction works an appropriate wheel-washing system shall be provided to remove mud, stones and any other extraneous materials from the wheels and chassis' of construction vehicles exiting the site and all loads of construction materials, excavation spoil or other such matter shall be fully covered in order to ensure that no material leaves the site attached to the vehicle which might subsequently be deposited on the highway. The exit from the wheel washing system shall be constructed from a hard, non-porous surfacing material and sited as far away from the exit to the highway as is possible given the constraints of the site and the surface shall be kept clean at all times. Waste water discharged from the wheel washing system shall be stored and disposed of on site and shall not be discharged into the public sewerage system without prior removal of soil, stones and any other suspended material. Suitable measures to minimise dust nuisance caused by the operations and to ensure that no dust or other debris is carried on to the adjoining properties shall also be provided in accordance with the guidance at [http://www.london.gov.uk/mayor/environmental/air\\_quality/docs/construction-dust-bpg.pdf](http://www.london.gov.uk/mayor/environmental/air_quality/docs/construction-dust-bpg.pdf) and site lighting shall be designed, positioned and directed so as not to unnecessarily intrude on passing drivers on public highways and so as not to direct light into any windows of properties outside the site.

Start of works on site shall be notified to the Council's Community Environment Team on 020 8583 5070.

REASON: In order to safeguard the amenities of adjoining properties, the amenities of the locality, and highway safety, and to enable the Council to monitor work on site to ensure that it is carried out in a safe and neighbourly fashion for the above reasons in accordance with Policies ENV-B.1.1 (New Development), ENV-P.1.5 (Noise Pollution), ENV-P.1.6 (Air Pollution), and ENV-P.1.7 (Light Pollution).

17 On-Site Renewable Energy

Notwithstanding the information provided in the Energy Statement submitted as part of the application, no development shall take place until details have been submitted to, and have been approved in writing by, the Local Planning Authority, for a scheme of reducing carbon emissions from the total energy needs (heat, cooling and power) of the development by at least 20%, by the on-site generation of renewable energy. The details shall ensure that any CHP system is demonstrated to be 'Good Quality', as defined under the Government's CHPQA system. In addition, the details shall include consideration of a micro-hydro turbine on the site. The approved details shall be carried out only as approved.

REASON: To minimise the impact of the development and to contribute to meeting the renewable energy targets in the Mayor's London Plan.

18 Sustainable Drainage

No development shall take place until details of a Sustainable Drainage Scheme, including measures for living roofs and/walls, harvesting of rainwater, the minimisation of water run-off from the site, aiming for Greenfield levels, and the conservation and reuse as appropriate of other water supplies in the building have been submitted to and approved by the Local Planning Authority. These details shall be carried out as approved.

REASON: In the interests of sustainability and the management of surface water run off.

19 Sustainable Construction

No development shall take place, except for the covering of the west side primary settlement tanks, until details have been submitted to and have been approved in writing by the Local Planning Authority for a sustainable construction scheme, to comply with the "essential" standards for materials in the Mayor's Sustainable Design and Construction SPG. These being:-

- 50% timber and timber products from the Forest Stewardship Council (FSC) source and balance from a known temperate source,
- Insulation materials containing substances known to contribute to stratospheric ozone depletion or with the potential to contribute to global warming must not be used,
- Minimise use of new aggregates,

- Reduce waste during construction and demolition phases and sort waste stream on site where practical, and
- Specify use of reused or recycled construction materials.

REASON: In the interests of sustainability.

20 Cycle Parking

Prior to any works being carried out on the site, other than the covering of the west side primary settlement tanks, details of covered cycle parking stands and associated facilities for cyclist shall be submitted to, and shall be approved in writing by, the Local Planning Authority, and the facilities approved shall be provided and shall be made available for use on the first bringing into operation of the approved works.

REASON: In the interests of sustainable transport.

21 Equality of Access

No development shall take place, other than the covering of the west side primary settlement tanks, until details have first been submitted to, and have been approved in writing by, the Local Planning Authority of appropriate facilities incorporated into the detailed design of the proposed works to ensure that the site is accessible to all.

REASON: In the interests of equality of access.

22 Full Implementation

The development as approved shall be implemented in its entirety, including the covering of the West Side Primary Settlement Tanks.

REASON: In the interest of air quality.

23 Robust Equipment and Regular Maintenance and Monitoring

The development shall comply with the best practicable means to control and limit odours and, wherever practicable, to ensure that odour is identified at an early stage, and pro-active measures are taken to reduce the impact on off-site sensitive receptors. In addition, there shall be regular maintenance and monitoring and annual performance tests, and remedial work and retesting where appropriate, and updates of the Odour Management Plan, in accordance with details to be submitted to and approved in writing by the Local Planning Authority, prior to the first bringing into use of the development.

REASON: In the interest of air quality.

24 General Building Ventilation Air for Sludge Thickening Building

Before work commences on site, details shall be submitted to and approved in writing by the local planning authority to show that a satisfactory level of general ventilation from the sludge centrifuge/thickening building to be exhausted to the atmosphere including discharge arrangements, velocity, odour concentration and airflow rate. The details submitted shall also include a specification for outlet odour concentrations to be assessed by initial commissioning tests (within three months of the plant becoming operational) and subsequently monitored by annual performance testing and include remedial measures to be implemented if emissions exceed the agreed specification, to guarantee future performance in accordance with the details originally so approved.

The agreed specification shall be implemented before the development is brought into use

The Planning Authority shall be given at least 7 days notice of all testing and shall be supplied with the results of tests within 30 days.

If abatement plant is installed and if the outlet odour concentrations exceed the design value in any commissioning or annual performance test, then the plant shall be repaired or rectified and re-tested with 30 days of the failed test, unless the 12 month period for installation of an abatement plant has been triggered.

REASON: In the interest of air quality.

25 No Temporary Sludge Processing on Site

a). No temporary or permanent sludge/sludge cake liming, or any other mechanical or chemical treatment shall be carried out within the sludge cake store at any time without the written agreement of the planning authority;

b). No temporary or permanent sludge/sludge cake liming, or any other mechanical or chemical treatment shall be carried out at the works other than as described in the application, and in any case shall only be carried out within fully enclosed and odour extracted and abated/mitigated facilities. No such sludge or sludge cake treatments will be undertaken outside or in the open at the Mogden Works; and

c). No sludge or sludge cake will be stored, on a temporary or permanent basis, other than as described in the application, that is within fully enclosed and odour extracted and odour

abated or mitigated facilities. No sludge or sludge cake will be stored outside or in the open at the Mogden Works.

REASON: In the interest of air quality.

26 Odour Abatement Plant Performance

Before work commences on site, details shall be submitted to and approved in writing by the local planning authority to show that a satisfactory level of general ventilation from the odour abatement plant to be exhausted to the atmosphere including discharge arrangements, velocity, odour concentration and airflow rate. The details submitted shall also include a specification for outlet odour concentrations to be assessed by initial commissioning tests (within three months of the plant becoming operational) and subsequently monitored by annual performance testing and include remedial measures to be implemented if emissions exceed the agreed specification, to guarantee future performance in accordance with the details originally so approved.

The agreed specification shall be implemented before the development is brought into use

The Planning Authority shall be given at least 7 days notice of all testing and shall be supplied with the results of tests within 30 days.

If abatement plant is installed and if the outlet odour concentrations exceed the design value in any commissioning or annual performance test, then the plant shall be repaired or rectified and re-tested with 30 days of the failed test, unless the 12 month period for installation of an abatement plant has been triggered.

REASON: In the interest of air quality.

27 Commissioning Plan for New Odour Control Plant

The development shall not be commenced until and unless a commissioning plan for the new odour control plant, to include details of an agreed performance specification, has first been submitted to and has been approved in writing by the Local Planning Authority, and the plant shall be operated only in accordance with the Plan.

REASON: In the interest of Air Quality.

- 28                    Sludge Digester Roofs and Gas Escape
- The development shall not be brought into operation until the sludge digester roofs have first been fixed, and made non-floating, and a methodology for assessing gas escape has been agreed with the Local Planning Authority and the arrangements so approved have been brought into use.
- REASON: In the interest of air quality.
- 29                    Odour Mitigation During Construction
- Development shall not commence until details of measures to maintain a stable odour environment while extension of the facility is taking place have first been submitted to and approved by the Local Planning Authority, and the development shall only be carried out in accordance with the approved details.
- REASON: In the interest of air quality.
- 30                    No Operation of New Plant without Odour Control Mitigation
- No new plant shall become operational until and unless, all agreed odour mitigation measures for that plant have first been put in place and are operating.
- REASON: In the interest of air quality.
- 31                    Mosquito Management Plan (Extended Plant)
- Notwithstanding any information which has been submitted as part of the application, prior to the operation of any new plant approved as part of this development, a mosquito management plan shall be submitted to, and shall be approved in writing by, the Local Planning Authority, addressing any potential mosquito nuisance arising from any part of the new plant, and the plan as approved shall be implemented as approved.
- REASON: In the interest of neighbouring amenity.

## **INFORMATIVES**

The applicant is advised that the Environment Agency (EA) has advised that Conditions 4, 5 and 6 and 7 have been recommended as it is satisfied that there are generic remedial options available to deal with the risks to controlled waters posed by contamination at this site. However, further details are required in order to ensure that risks are appropriately addressed prior to development commencing.

The EA recommends that developers:

1) Follow the risk management framework provided in CLR11, Model Procedures for the Management of Land Contamination, when dealing with land affected by contamination.

2) Refer to the Environment Agency Guidance on Requirements for Land Contamination Reports for the type of information that we require in order to assess risks to controlled waters from the site. The Local Authority can advise on risk to other receptors, e.g. human health.

3) Refer to the EA website at [www.environment-agency.gov.uk](http://www.environment-agency.gov.uk) for more information.

The recovery, treatment and disposal of contaminated soils and groundwater is regulated by waste legislation and requires a Waste Management Licence or Pollution Prevention and Control permit.

Treatment of contaminated soil by mobile plant requires a mobile treatment licence. Soil may be re-used on-site as part of a soil recovery operation by registering a waste management licence exemption with the Environment Agency or by obtaining a Waste Management Licence.

Developers should ensure that all contaminated materials are adequately characterised both chemically and physically, and that the permitting status of any proposed on site operations are clear. If in doubt, the Environment Agency should be contacted for advice at an early stage to avoid any delays.

The developer should consult the Environment Agency on measures for the prevention of pollution, with particular reference to activities during the construction phase.

The building contractors should take note of and act upon the advice given in the BS5228 Code of Practice "Control of Noise on Construction Sites".

Before commencement of the works the building contractors should, giving as much notice as possible, notify the occupants of properties surrounding the site of the nature and duration of works and the permitted hours of work. The building contractors should also provide such occupants with the name and telephone number of a responsible person who can be contacted for advice or in the event of a need to complain.

Dust. The building contractors should take note of, and act upon, advice given in the GLA and London Councils Best Practice Guidance: "The Control of Dust and Emissions from Construction and Demolition".

## **SUSTAINABLE DEVELOPMENT COMMITTEE**

8<sup>th</sup> December 2008

### ADDENDUM REPORT OF THE DIRECTOR OF PLANNING

#### **AGENDA ITEM 10 Page 197:**

**Development of a new waste treatment stream, including sewage treatment plant, odour control units, re-profiling of existing embankments, landscaping and associated works, renewable energy generation (enhancement of existing CHP plant) and enclosure of existing West Side Works Primary Settlement Tanks.**

at

**Mogden Sewage Treatment Works, Mogden Lane, Isleworth**

**Ref:00768/H/P24 - P/2008/1873**

#### **1 Members are referred to Section 9 of the report - 'Planning Obligations'**

Since drafting the report, further discussions have been underway about the form and content of the S106 agreement as follows.

The purpose of these discussions has been to ensure that the development, if approved, can be carried out without worsening of the local environmental conditions for neighbours while works take place and to ensure that the Council's long term objectives associated with Mogden can be achieved.

These discussion have centred on:

1. Bringing forward the odour management arrangements proposed in the application so that they are carried out in advance of the rest of the development.
2. Ensuring that other effects of the construction process on neighbours are sensitive to their legitimate concerns and that remedies exist for any reasonable concerns neighbours may have in relation to such works can be dealt with (i.e. a 'Considerate Contractor' scheme)
3. Enhancing the public realm (i.e. the public footpath) where it passes through the site to ensure that it is both a pleasant and safe environment.

4. Enhanced provision to be made for mosquito control.
5. Ensuring that the long term effects of the development are as specified by Thames Water and that, if the future performance is not as good as the applicant states it would be, resources are provided for the council to monitor the situation effectively and take remedial measures to rectify the situation in future.

Therefore:

- The Council has requested that Thames Water expedite the odour control aspects of the development to ensure that there is no increase in odour levels affecting the surrounding area during the period of development, and has sought assurances that work would commence on the covering of the west side rectangular primary settlement tanks at the outset of the development, by commissioning this work paired tank by tank with elements of the new stream.

*The applicant stated that the respective odour control works would need to be carried out in accordance with its submitted indicative programme which did not see the start of the covering of the west side rectangular tanks until half way through the 3 year building programme, and not being completed until the very end of the programme, and similarly does not see the works to the sludge digesters being completed until the end of the 3 year period.*

- The applicants have been requested to look again at the programming for these aspects of the development that affect existing plant known to cause odour problems, to ensure that works on both are facilitated from the start.

In response, TW have clarified that the objective of reserving these works until the mid-point of the project is that it enables construction of the new waste stream first and that the new stream could not function effectively until the new odour control unit, which would take 18 months to commission, is in place and operable. At which point, the existing waste stream would be taken out of commission and the full benefit of the new (presumably more effective) odour-controlled waste stream would be made available. The alternative parallel working arrangements would not, they say, offer any significant benefits to neighbours.

- Officers have also sought assurances that essential work to the sludge digesters will be carried out at the outset. TW was also asked to address sludge handling in its projected programme because this element of the work was not shown.

The project programme has now been amended to show this with roofing and pipe work being installed to the first of 15 sludge digesters in the third quarter of the first year with up to four digesters being decommissioned at a time throughout the length of the project to achieve early improvements.

*Improvements to the sludge treatment works would start at the commencement of the project and be completed by the third quarter of year 2*

- Members are also requested to note that agreement has not been finalised on the proposed head of terms for works to the public right of way through the site, and that the Council is providing TW with further detail on an improvement scheme for this footpath after a review of costs and requirements for the project.
- With regard to gully cleansing for mosquito control, as well as a contribution related to the development, officers sought for the existing voluntary arrangement for gully cleansing payments (£20,000 per year) to be formalised into the agreement.

*TW is offering a one-off payment of £50,000. Officers consider this acceptable and recommend that TW's existing voluntary gully cleansing payments (£20,000 per year, but reviewed periodically) remain in place but outside the scope of this application. It is accepted that it is not reasonable to include this in the S106 agreement.*

- A commuted sum is also sought for annual maintenance of the Jerome monitor (a Jerome monitor measures pollutants likely to contribute to unpleasant odours emanating from the works).

TW have offered a commuted sum of £10,000 and this is welcomed and considered appropriate for the purpose.

- In respect of monitoring costs TW have offered a one-off payment of £150,000 in place of the sum of £45,000 per year for the period of construction quoted in the report).

Your officers consider that this needs to be linked to the proposed management plan for the storm water tanks, so that, if the management arrangements for the storm tanks prove not to provide the benefits that TW state will be forthcoming (i.e. if the tanks are used more frequently than TW state will be the case without good justification, or if the management plan does not prevent odours because it is not adhered to or is not fit for propose) there needs to be provision in the agreement for additional sum(s) to be paid (only where such conditions are met) to enable the Council to assess and monitor the environmental health effects of such failure in the interests of protecting local residents' living conditions and to promote appropriate remedial measures (most likely the coverage of additional tanks).

TW have sought further clarification as to what this financial commitment might be and your officers have pointed out that it is an obligation only in the event that the benefits promoted by the proposal are not forthcoming.

2 Members are requested to note the following change to the wording of the 'RECOMMENDATION'.

## RECOMMENDATION

It is recommended that planning application 00768/H/P24 be approved for the reasons set out below and that:

In the event that the Mayor of London and in the event that the Government Office for London issue no direction with respect to the proposed scheme;

The Director of Environment be authorised to grant planning permission subject to: i) the following conditions and ii) securing the above planning obligations by the prior completion of an agreement or agreements made under Section 106 of the Town and Country Planning Act 1990 and or other appropriate legislation, the exact terms of which shall be negotiated by the Director of Environment on the advice of the Borough Solicitor.

3 Members are also requested to note, the following amendments to the report. Script in bold type represents substitutions or additions to the original script.

Page 215 – para 7 – line 5 – amend to read:

*plant in the current planning application **should** be 'odour neutral'.*

Page 217 – para 1 – line 2 – amend to read:

*development **should** be 'odour neutral'.*

Page 232 – para 7 – amend to read:

*The Lee Tunnel is proposed to run seven kilometres (**4 miles**) from Stratford, in East London to Beckton Sewage Treatment Works (STW), isolating the CSO at the Abbey Mills Pumping Station, which currently discharges into the River Lee. Starting and ending within operational land owned by Thames Water, this tunnel would intercept about half of the total volume of discharges that make their way into the River Thames.*

Page 236 – last para – line 5 – amend to read:

*Response: This is noted, and the odour issue has been extensively considered by the Council. It is subsequently concluded that odour levels **should** not detract from the improved levels resulting from compliance with the Odour Abatement when the new works are implemented and operational; the new plant **should** be 'odour neutral'.*

**Page 239 – penultimate paragraph ‘B’ – amend to read:**

Concern that some residents living near the site boundary are sensitised to odour and if exposure to **5 ou<sub>E</sub>/m<sup>3</sup> (odour units)** was the chosen parameter, there was a likelihood of justified complaints. For this reason it was considered that no sensitive receptor should be exposed to **5 ou<sub>E</sub>/m<sup>3</sup> or more**. It was requested that OdourNet explore this further. The Council needs to be confident that a revised limit value is achievable and that this could be demonstrated by an engineering solution.

**Page 243 Para. 7.22 – amend to read:**

*It has therefore subsequently been agreed by the Council following further clarification, that there is no longer a request for TW to cover these tanks **providing that they are properly managed to minimise odour emissions (preventing accumulations of settled sludge and maintenance of chemical dosing as in the past).***

**Page 244 Para. 7.28 – amend to read:**

*Following further submissions, Pollution Control advises that it considers that there is some justification for Odournet to use the model **employed for reasons of consistency with previous modelling at Mogden. While more recent models may provide the opportunity to undertake a more complete assessment of odour impact, the objective here is a “before” and “after” comparison, rather than as assessment of real or absolute odour impact, therefore the model used can be accepted.***

**Page 244 Para. 7.29 – amend to read:**

*The applicants also now agree with the Council that no neighbouring resident should be permitted to experience a level of **5 ou<sub>E</sub>/m<sup>3</sup> or more**. **It is noted from the submission that no more than 3 ou<sub>E</sub>/m<sup>3</sup>** are likely to be experienced by neighbouring occupiers.*

**Page 245 Para.7.33 – amend to read:**

TW has since provided further information on the storm tank use, based on daily flows, for 1998-2008. This has varied between 75 times (Jan. 2000-Jan. 2001) and 4 times (Jan.2004-Jan. 2005). The applicants point out that for the worst year, 2000-2001, this would have been reduced from 75 times to 1 if the proposed plant had already been in operation....

**Page 245 Para.7.35 – amend to read:**

*This represents a considerable reduction in use of the storm tanks, and it is concluded that this supports the ‘odour neutral’ **intent** of the development.*

**4 Members are requested to note amended list of conditions:-**

**3. Biodiversity/Ecology**

The development shall be carried out in accordance with the key mitigation measures for biodiversity set out in Table 20 of the Environmental Statement submitted with the application, and in accordance with detailed specifications, arrangements and timing details to first be agreed by the Local Planning Authority.

REASON: To ensure that the proposed mitigation is carried out as approved.

*(‘for biodiversity’ added)*

**4. On-Going Habitat Management and Monitoring**

The development shall not be commenced until a programme has first been submitted to and has been approved in writing by the Local Planning Authority for the ongoing management and monitoring of existing and new wildlife habitats on the site, and the approved programme, which shall include timing details, shall be implemented on commencement of the development, and shall continue for the period specified in the approved management and monitoring programme.

REASON: In the interests of local biodiversity and ecology.

*(timing details to be agreed)*

**5. Embankments Dust Suppression**

During and following the relocation of materials and the re-contouring of embankments, the material shall be kept damped down and compacted at all times to prevent excess dust generation prior to the development of significant vegetative cover.

REASON: In the interest of air quality and safety.

**(‘During’ added and ‘at all times’)**

**Condition 6 ‘External Lighting’**

**TW has asked that this be deleted, because of the distance from the river of any external lighting, but this condition is imposed at the request of the Environment Agency, and is retained.**

**13. Noise and Vibration (Plant Operation)**

The new plant shall be designed to ensure that any noise emanating from any part of it shall be 10dB below the ambient LAeq at the nearest horizontal or vertical boundary of the nearest affected dwelling, whichever is the closer.

REASON: In the interest of neighbouring amenity.

*(TW requested the change in wording from 'NR35', and this has been agreed by the Council's Pollution Control Officer as providing an acceptable safeguard for plant noise).*

#### **14. Delivery and Service Plan**

Development shall not commence, until a Delivery and Servicing Plan has been submitted to and approved in writing by the Local Planning Authority. The approved plan shall be implemented only as approved.

REASON: To regulate daily freight operations in the interests of efficiency and sustainability and neighbours' living conditions.

*(Reference to covering of the west side primary settlement tanks in advance of other works is removed because it would be covered by legal agreement).*

#### **15. Construction Management Plan**

Notwithstanding any other condition of this consent, no work on the development shall commence, until a Construction Management Plan, dealing with all relevant environmental information relating to the site construction works, and to include hours of operation, phasing details of the development (including of the excavation/recontouring works), contractor's compound, environmental nuisance mitigation/ controls over dust, mud, dirt, noise, vibration, and lighting, temporary screening/bunding, and means of access and site delivery/traffic arrangements/routes and construction workers travel plan etc., has first been submitted to and approved in writing by the Local Planning Authority, and the Plan as approved shall only be implemented as approved. The Plan shall be prepared and implemented in accordance with Best Practice Guidance for the duration of the works.

REASON: To ensure that the environmental impacts of construction are appropriately mitigated, in the interests of environmental amenity and traffic safety and free flow.

*(Reference to covering of the west side primary settlement tanks in advance of other works is being pursued by legal agreement).*

#### **17. On-Site Renewable Energy**

Notwithstanding the information provided in the Energy Statement submitted as part of the application, no development shall take place until details have been submitted to, and have been approved in writing by, the Local Planning Authority, for a scheme of and timetable for reducing carbon emissions from the total energy needs (heat, cooling and power) of the development by the maximum achievable level and by not less than 20% by the on-site generation of renewable energy. The details shall ensure that any CHP system is demonstrated to be 'Good Quality', as defined under the

Government's CHPQA system. In addition, the details shall include consideration of the feasibility of a micro-hydro turbine on the site, which, if viable, and approved by the Local Planning Authority, shall be installed in accordance with approved details.

REASON: In accordance with the applicant's submission, and to minimise the impact of the development and to contribute to meeting the renewable energy targets in the Mayor's London Plan.

**(TW has requested that this condition only relate to the requirement for a feasibility study for the micro-hydro turbine, but it is considered that the wording of the condition should stand as amended above).**

## **18 Sustainable Drainage**

*TW has requested that Condition 18 'Sustainable Drainage' be deleted because there will be no surface water run-off as a result of the development and the proposed surface water collection system will discharge the run-off collected to the head of the treatment works, and as such the whole STW system will effectively operate as one large SUD attenuation system.*

*It is agreed that the condition should be removed.*

## **19. Sustainable Construction**

Notwithstanding the requirements of the Construction Management Plan, no development shall take place until details have been submitted to and have been approved in writing by the Local Planning Authority for a sustainable construction scheme, to comply with the "essential" standards for materials in the Mayor's Sustainable Design and Construction SPG. These being:-

- No use of insulation materials containing substances known to contribute to stratospheric ozone depletion or with the potential to contribute to global warming,
- Minimal use of new aggregates,
- Reduction of waste during construction and demolition phases and provision of a sorted waste stream on site where practical, and
- Use of reused or recycled construction materials wherever practicable.

REASON: In the interests of sustainability.

**(TW has advised that it considers that the terms of this condition will be addressed by the Construction Management Plan, but the Council considers that this matter should be highlighted as a separate condition).**

## 20. Cycle Parking

The development shall not become operational until details of covered cycle parking stands and associated facilities for cyclists have first been submitted to, and have been approved in writing by, the Local Planning Authority and the approved facilities have been implemented and made available for use.

REASON: In the interests of sustainable transport.

**(TW requested that this condition be revised to refer to 'prior to operation of the development' rather than prior to any works being carried out. This is agreed, as above).**

## 21. Equality of Access

No development shall take place until details have first been submitted to, and have been approved in writing by, the Local Planning Authority of appropriate facilities incorporated into the detailed design of the proposed works to ensure that, notwithstanding the nature of the development, the maximum possible level of accessibility is achieved, and the development shall be implemented in accordance with the approved details.

REASON: In the interests of equality of access.

**(TW considered that because of the nature of the development there should not be an equality of access condition. This is not agreed. The wording has been changed, however, and requires issues of equality of access to be taken into account).**

## 22. Full Implementation

***The development as approved shall be implemented in its entirety, including the covering of the West Side Rectangular Primary Settlement Tanks in accordance with an implementation schedule which shall first be supplied by the applicant to and approved in writing by the local planning authority.***

**REASON: In the interest of air quality.**

**('Rectangular' added)**

## 24. General Building Ventilation Air for Sludge Thickening Building

***Before work commences on site, details shall be submitted to and shall be approved in writing by the local planning authority to show that there will be a satisfactory level of general ventilation from the sludge centrifuge/thickening building exhausted to the atmosphere including discharge arrangements, velocity, odour concentration and airflow rate. The details submitted shall also include a specification for outlet odour concentrations to be assessed by initial commissioning tests (within three months of the plant becoming operational) and subsequently monitored by annual performance testing and shall include remedial measures to be implemented if***

***emissions exceed the agreed specification, so as to guarantee future performance in accordance with the details originally approved.***

The agreed specification shall be implemented before the development is brought into use

The Planning Authority shall be given at least 7 days notice of all testing and shall be supplied with the results of tests within 30 days.

If abatement plant is installed and if the outlet odour concentrations exceed the design value in any commissioning or annual performance test, then the plant shall be repaired or rectified and re-tested with 30 days of the failed test, unless the 12 month period for installation of an abatement plant has been triggered.

REASON: In the interest of air quality.

**(TW requested this condition be removed as the building ventilation is already linked to the OCU; and the requirements are also covered under Condition 26. The Council's Pollution Control Officer has requested that it be retained.)**

## **25. No Temporary Sludge Processing on Site**

a). No temporary or permanent sludge/sludge cake mechanical or chemical treatment shall be carried out other than as described in the application, and in any case shall only be carried out within fully enclosed and odour extracted and abated/mitigated facilities. No such sludge or sludge cake treatments shall be undertaken outside or in the open; and

b). No sludge or sludge cake shall be stored, on a temporary or permanent basis, other than as described in the application; that is within fully enclosed and odour extracted and odour abated or mitigated facilities. No sludge or sludge cake shall be stored outside or in the open.

REASON: In the interest of air quality.

**(TW has requested the condition be amended to relate to the development and not the wider Mogden site. The condition has subsequently been amended to relate to the development proposed).**

## **26. Odour Abatement Plant Performance**

Before work commences on site, details shall be submitted to, and shall be approved in writing by, the local planning authority to show that there will be a satisfactory level of general ventilation from the odour abatement plant to be exhausted to the atmosphere including discharge arrangements, velocity, odour concentration and airflow rate. The details submitted shall also include a specification for outlet odour concentrations to be assessed by initial commissioning tests (within three months of the plant becoming operational) and subsequently monitored by annual performance testing and shall include remedial measures to be implemented if emissions exceed

the agreed specification, to guarantee future performance in accordance with the details originally so approved.

The agreed specification shall be implemented before the development is brought into use

The Planning Authority shall be given at least 7 days notice of all testing and shall be supplied with the results of tests within 30 days.

If abatement plant is installed and if the outlet odour concentrations exceed the design value in any commissioning or annual performance test, then the plant shall be repaired or rectified and re-tested with 30 days of the failed test, unless the 12 month period for installation of an additional or alternative abatement plant has been triggered.

REASON: In the interest of air quality.

**(TW has requested that this condition relate to a period of 5 years only. The Head of Pollution Control has not agreed this).**

## **27. Commissioning Plan for New Odour Control Plant**

The new odour control plant shall not become operational until and unless a commissioning plan for each new odour control plant, to include details of an agreed performance specification, has first been submitted to and has been approved in writing by the Local Planning Authority, and the plant shall be operated only in accordance with the approved Plan.

REASON: In the interest of air quality.

Example of a suitable performance and testing specification-

'Outlet air from the odour abatement plant serving the (FACILITY) will be exhausted to atmosphere through (Discharge arrangements, e.g. 15, or 20m stack) at a velocity of at least 15 m/s, and with an odour concentration not exceeding  $600 \text{ ou}_E/\text{m}^3$  (or  $1,000 \text{ ou}_E/\text{m}^3$  to be defined) at an airflow rate not exceeding the design value of  $Y.Y \text{ m}^3/\text{s}$ . TWUL shall arrange for outlet odour concentrations to be assessed by initial commissioning tests (within three months of the plant becoming operational) and subsequently by annual performance testing. Each test to be based on triplicate samples of exhaust air collected while the plant is operating under normal conditions with at least X (example plant) and Y (example tanks) operating, and the samples will be analysed in accordance with the BSEN 13725 standard techniques. If the geometric mean outlet odour concentrations shall be re-tested after remedial works have been undertaken within 30 days. If the geometric mean outlet odour concentrations fail to meet the above limit, then the plant shall be re- tested within 30 days after remedial works have been undertaken. If the geometric mean outlet odour concentrations consistently exceed the design value (3 failures within 90 days) then TW will install additional appropriate abatement equipment or take measures to ensure the outlet air meets the agreed emission rates ( $XXX \text{ ou}_E/\text{m}^3$  at  $y.y \text{ m}^3/\text{s}$ ) within 12 months. The Authority shall be given at least 7 days notice of all testing and will be supplied with the results of tests within 30 days.

If the outlet odour concentrations exceed the design value in any commissioning or annual performance test, then the plant shall be repaired or rectified and re-tested with 30 days of the failed test, unless the 12 month period for installation of an additional or alternative abatement plant has been triggered.'

**(This has been amended to require submission of information prior to operation rather than commencement).**

## **28 'Sludge Digester Roofs and Prevention of Gas Escape**

*TW has requested that condition 28 'Sludge Digester Roofs and Prevention of Gas Escape' be deleted because it is already covered in the legal agreement. This is accepted, and the recommended condition is deleted.*

## **29. Odour Mitigation During Construction**

Development shall not commence until details of measures to maintain a stable odour environment while extension of the facility is taking place (e.g. by extension of any existing odour management plan to cover the construction area) have first been submitted to, and have been approved in writing by, the Local Planning Authority, and the development shall only be carried out in accordance with the approved details.

REASON: In the interest of air quality.

('e.g. by extension of any existing odour management plan to cover the construction area' added).