

## **Appendix C. Site Condition Report – H5**

# **SITE CONDITION REPORT TEMPLATE**

For full details, see H5 *SCR guide for applicants* v2.0 4 August 2008

**COMPLETE SECTIONS 1-3 AND SUBMIT WITH APPLICATION**

**DURING THE LIFE OF THE PERMIT: MAINTAIN SECTIONS 4-7**

**AT SURRENDER: ADD NEW DOC REFERENCE IN 1.0; COMPLETE SECTIONS 8-10; & SUBMIT WITH YOUR SURRENDER APPLICATION.**

<b>1.0 SITE DETAILS</b>	
Name of the applicant	Thames Water Utilities Limited
Activity address	Mogden Sludge Treatment Centre Mogden Sewage Treatment Works Mogden Lane Isleworth Middlesex TW7 7LP
National grid reference	NGR: TQ 15251 74798

Document reference and dates for Site Condition Report at permit application and surrender	Environmental Permit Variation Application – Mogden Sludge Treatment Centre Resubmission  Document number: EPR/WP3533LT/V006 and TW_STC_EPR_13a_MGN_ASD  Date: December 2023
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Document references for site plans (including location and boundaries)	Please see site plans in Appendix A.
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**Note:**

In Part A of the application form you must give us details of the site's location and provide us with a site plan. We need a detailed site plan (or plans) showing:

- Site location, the area covered by the site condition report, and the location and nature of the activities and/or waste facilities on the site.
- Locations of receptors, sources of emissions/releases, and monitoring points.
- Site drainage.
- Site surfacing.

If this information is not shown on the site plan required by Part A of the application form then you should submit the additional plan or plans with this site condition report.

<b>2.0 Condition of the land at permit issue</b>	
Environmental setting including:	Mogden STW is located within south-west London and is bordered on all sides by urban development. The Duke of Northumberland's River, an artificial channel flowing towards the

<ul style="list-style-type: none"> <li>• geology</li> <li>• hydrogeology</li> <li>• surface waters</li> </ul>	<p>River Thames, splits the site into a western area and eastern area. The River Crane can be found approx. 700 m to the east of the STW and the River Thames is located approx. 1 km to the east. The installation does not release to any of these watercourses but the wider TWUL STW discharges final effluent into the River Thames.</p> <p>According to the Environment Agency’s online flood maps, the installation is subject to a very low risk of flooding from rivers and the sea although the Duke of Northumberland’s River that runs through the site is a Flood Zone 3. Most of the installation is at very low risk of surface water flooding although there is an increased risk along some internal roads, which are still only at a low risk.</p> <p>The geology of the site is a bedrock of London Clay Formation clay and silt sedimentary rocks which are of deep seas marine origin. Superficial deposits are from the Langley Silt Member consisting of clay and silt deposits which are sedimentary wind blown deposits in origin.</p> <p>Aquifers are classified as unproductive (solid deposits and superficial deposits).</p>
<p>Pollution history including:</p> <ul style="list-style-type: none"> <li>• pollution incidents that may have affected land</li> <li>• historical land-uses and associated contaminants</li> <li>• any visual/olfactory evidence of existing contamination</li> <li>• evidence of damage to pollution prevention measures</li> </ul>	<p>Mogden STW is located in south-west London in an urbanised area with a mixture of residential, commercial and industrial uses within close proximity.</p> <p>Historial map records show the area of the existing STW to be largely undeveloped woodland up until the 1870s when the small Heston and Isleworh Sewage Works was developed and further extended in the 1910-1920 period.</p> <p>The current STW was built in 1930s as the Mogden Purification Works, replacing the previous sewage works and first operated in 1936. Three major extensions were carried out in 1960s, 1990s and 2010s at the works although largely wthin the origina 1960s foorprint.</p> <p>During the same period there was development around the site, including replacement of allotments with additional residential dwellings and change in use of ‘works’ and ‘film studios’ to the north and to the west to commercial and light industrial use. A large supermarket was built on the site of a former hospital in the 1990s,</p>

	<p>to the south of the site.</p> <p>The whole site is outside of a Source Protection Zone.</p> <p>Environment Agency data on pollution incidents identifies three incidents associated within close proximity of the site. Three incidents led to a Category 2 (significant) incident on water caused by urban run-off (1) and storm sewage (2). There were also a number of incidents near to the discharge point of the STW in the River Thames associated with the UWWTD works.</p>
<p>Evidence of historic contamination, for example, historical site investigation, assessment, remediation and verification reports (where available)</p>	<p>Unknown – although the works was operated as a sewage farm in its earliest phase, the site will therefore be contaminated with sewage related compounds, including E. coli and heavy metals.</p>
<p>Baseline soil and groundwater reference data</p>	<p>None collected.</p> <p>Substances that may be present by storage and use within the newly permitted installation are listed within the Tables of the Residue Management Plan (as previously supplied). These substances (or similar substances used in the same processes) have been used historically at the site since it first operated.</p> <p>The following substances may be relevant hazardous substances.</p> <ul style="list-style-type: none"> <li>· Diesel</li> <li>· Oil</li> <li>· Grease</li> <li>· Anti-freeze</li> <li>· Boiler chemicals</li> </ul> <p>These substances are stored in and around the boiler house and CHP engines and are used in their routine operation and maintenance.</p> <p>All other hazardous substances have been removed from assessment as they are not considered relevant. This is because storage and use are controlled at the site.</p> <p>Substances are stored within suitably engineered containers/with containment and volumes are small enough for spillage to be contained prior to reaching a sensitive environment. Use of substances is carefully managed to minimize the likelihood of an accidental release.</p>
<p><b>Supporting</b></p>	<ul style="list-style-type: none"> <li>• Source information identifying environmental setting and pollution</li> </ul>

<b>information</b>	incidents <ul style="list-style-type: none"> <li>• Historical Ordnance Survey plans</li> <li>• Site reconnaissance</li> <li>• Historical investigation / assessment / remediation / verification reports</li> <li>• Baseline soil and groundwater reference data</li> </ul>
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<b>3.0 Permitted activities</b>	
Permitted activities	Operation of an anaerobic digestion plant for sewage sludge waste and imported sewage sludge wastes and combustion of biogas within CHP engines and boilers; biogas upgrading for national gas grid injection and operation of emergency diesel fuelled generators to generate electricity for use on site.
Non-permitted activities undertaken	Discharging of waste Storage of waste Storage of biogas Physical blending of wastes Storage of raw materials
Document references for: <ul style="list-style-type: none"> <li>• plan showing activity layout; and</li> <li>• environmental risk assessment.</li> </ul>	Please see the Technical Summary in Chapter 2 of the main application document

**Note:**

In Part B of the application form you must tell us about the activities that you will undertake at the site. You must also give us an environmental risk assessment. This risk assessment must be based on our guidance (*Environmental Risk Assessment - EPR H1*) or use an equivalent approach.

It is essential that you identify in your environmental risk assessment all the substances used and produced that could pollute the soil or groundwater if there were an accident, or if measures to protect land fail.

These include substances that would be classified as ‘dangerous’ under the Control of Major Accident Hazards (COMAH) regulations and also raw materials, fuels, intermediates, products, wastes and effluents.

If your submitted environmental risk assessment does not adequately address the risks to soil and groundwater we may need to request further information from you or even refuse your permit application.

<b>4.0 Changes to the activity</b>	
<b>Have there been any changes to the activity boundary?</b>	<p>If yes, provide a plan showing the changes to the activity boundary.</p> <p>Please see drawing B22849AZ-JAC-MGN-DR-0002 which shows the new active boundary for this variation application.</p>
<b>Have there been any changes to the permitted activities?</b>	<p>If yes, provide a description of the changes to the permitted activities</p> <p>Changes to permitted activities are as a result of a change of interpretation of the UWWTD by the Environment Agency.</p> <p>Activities at the site are existing activities that were not previously permitted.</p> <p>Previously, permitted activities included the operation of CHPs; boilers; emergency standby diesel-fired generators, standby diesel pumps and a biomethane plant.</p> <p>Storage of biogas and scrubbing, biogas processing, operation of an emergency flare, oil storage and drainage are also existing DAAs.</p> <p>Under the current variation, the boundary is extended to the west to include assets associated with biological treatment of wastes which includes:</p> <p><b>Sludge Import</b>  <b>Sludge thickening assets</b>  <b>Sludge Storage Tanks</b>  <b>Pasteurisation tanks and vessels</b>  <b>Primary Digester Tanks</b></p>
<b>Have any 'dangerous substances' not identified in the Application Site Condition Report been used or produced as a result of</b>	<p>If yes, list of them</p> <p>n/a</p>

<b>the permitted activities?</b>	
<b>Checklist of supporting information</b>	<ul style="list-style-type: none"> <li>• Plan showing any changes to the boundary (where relevant)</li> <li>• Description of the changes to the permitted activities (where relevant)</li> <li>• List of ‘dangerous substances’ used/produced by the permitted activities that were not identified in the Application Site Condition Report (where relevant)</li> </ul>

<b>5.0 Measures taken to protect land</b>	
Use records that you collected during the life of the permit to summarise whether pollution prevention measures worked. If you can't, you need to collect land and/or groundwater data to assess whether the land has deteriorated.	
<b>Checklist of supporting information</b>	<ul style="list-style-type: none"> <li>• Inspection records and summary of findings of inspections for all pollution prevention measures</li> <li>• Records of maintenance, repair and replacement of pollution prevention measures</li> </ul>

<b>6.0 Pollution incidents that may have had an impact on land, and their remediation</b>	
Summarise any pollution incidents that may have damaged the land. Describe how you investigated and remedied each one. If you can't, you need to collect land and /or groundwater reference data to assess whether the land has deteriorated while you've been there.	
<b>Checklist of supporting information</b>	<ul style="list-style-type: none"> <li>• Records of pollution incidents that may have impacted on land</li> <li>• Records of their investigation and remediation</li> </ul>

<b>7.0 Soil gas and water quality monitoring (where undertaken)</b>	
Provide details of any soil gas and/or water monitoring you did. Include a summary of the findings. Say whether it shows that the land deteriorated as a result of the permitted activities. If it did, outline how you investigated and remedied this.	
<b>Checklist of supporting information</b>	<ul style="list-style-type: none"> <li>• Description of soil gas and/or water monitoring undertaken</li> <li>• Monitoring results (including graphs)</li> </ul>

<b>8.0 Decommissioning and removal of pollution risk</b>
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Describe how the site was decommissioned. Demonstrate that all sources of pollution risk have been removed. Describe whether the decommissioning had any impact on the land. Outline how you investigated and remedied this.

Checklist of supporting information

- Site closure plan
- List of potential sources of pollution risk
- Investigation and remediation reports (where relevant)

### 9.0 Reference data and remediation (where relevant)

Say whether you had to collect land and/or groundwater data. Or say that you didn't need to because the information from sections 3, 4, 5 and 6 of the Surrender Site Condition Report shows that the land has not deteriorated.

If you did collect land and/or groundwater reference data, summarise what this entailed, and what your data found. Say whether the data shows that the condition of the land has deteriorated, or whether the land at the site is in a "satisfactory state". If it isn't, summarise what you did to remedy this. Confirm that the land is now in a "satisfactory state" at surrender.

Checklist of supporting information

- Land and/or groundwater data collected at application (if collected)
- Land and/or groundwater data collected at surrender (where needed)
- Assessment of satisfactory state
- Remediation and verification reports (where undertaken)

### 10.0 Statement of site condition

Using the information from sections 3 to 7, give a statement about the condition of the land at the site. This should confirm that:

- the permitted activities have stopped
- decommissioning is complete, and the pollution risk has been removed
- the land is in a satisfactory condition.