

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.

1.0 SITE DETAILS	
Name of the applicant	Thames Water Utilities Limited
Activity address	Wargrave Sludge Treatment Centre Wargrave Sewage Treatment Works Wargrave Rd, Wargrave, Reading, RG10 8DJ
National grid reference	NGR: SU 77939 77271

Document reference and dates for Site Condition Report at permit application and surrender	Environmental Permit Application – Wargrave Sludge Treatment Centre. Document number: EPR/UP3737QP/V002 and TW_STC_EPR_26a_WGE_ASD. Date: December 2023.
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Document references for site plans (including location and boundaries)	Please see site plans in Appendix A and Air Quality Assessment.
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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.

2.0 Condition of the land at permit issue	
Environmental setting including: <ul style="list-style-type: none"> • geology • hydrogeology • surface waters 	The River Loddon, a designated Main River and tributary of the River Thames, is located approximately 40 m to the West of the wider Wargrave STW. An un-named drain runs along the southern boundary of the site and outfalls into the River Loddon. A further drain runs along part of the western and northern boundaries of the wider Wargrave STW and

	<p>connects into a further drain, which flows in a northerly direction outfalling into the River Loddon.</p> <p>According to the Environment Agency's online flood maps, the installation is located predominately within Flood Zone 2 (area with medium risk of flooding, with between a 1:100 and 1:1,000 annual probability of river flooding).</p> <p>The geology of the site is a bedrock of London Clay Formation, clay, silt and sand sedimentary bedrock that is deep sea marine in origin. There is no information recorded for superficial deposits.</p> <p>Aquifers are classified as Principal (bedrock deposits) and Secondary A (superficial drift).</p>
<p>Pollution history including:</p> <ul style="list-style-type: none"> • pollution incidents that may have affected land • historical land-uses and associated contaminants • any visual/olfactory evidence of existing contamination • evidence of damage to pollution prevention measures 	<p>The site is located in a mainly semi-rural location within the administrative area of Wokingham. The site is surrounded by fields, woodland and the River Loddon to the west and the fruit wholesaler operations of Sheeplands Farm / Hall Hunter Partnership to the immediate north, east and south of the site. Beyond this the edges of the settlements of Twyford and Wargrave are located approximately 490 m and 960 m to the South-East and North-East of the site respectively.</p> <p>The installation activities at the site are part of a wider TWUL operated sewage treatment works which handles and treats material which is similar in composition and makeup to the wastes treated within the installation.</p> <p>The first record of a sewage works is from map records of the early 1950s, prior to which, the area was rural consisting of arable farmland associated with Loddon Park Farm and Charvil Farm interspersed between the River Loddon (1935 to 1940 mapping).</p> <p>By the late 1960s / early 1970s the works had expanded to the west and north, including several initial building structures and tanks of the wider Wargrave STW. The drain running along the southern and western boundaries of the site are also visible. Further development took place with the current Primary and Secondary Digester Tanks visible in the mid/late 2000s in the current locations, along with much of the other main infrastructure at the site including the cake pad, dewatering</p>

	<p>building, SAS Tanks all visible. Also visible are structures and tanks that are outside of the permit boundary.</p> <p>The site sits within the boundaries of Source Protection Zones (SPZ) 2 and 3.</p> <p>According to Environment Agency information there have been no recorded pollution incidents within 3km of the site. The closest reported pollution incident (Category 2 (Significant)) is located approximately 3.6km to the south of the site.</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 works 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. 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"> • Diesel • Oil • Grease • Anti-freeze • Boiler chemicals <p>These substances are stored in and around the boiler house and CHP engine 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</p>

	managed to minimise the likelihood of an accidental release.
Supporting information	<ul style="list-style-type: none"> • Source information identifying environmental setting and pollution incidents. • Historical Ordnance Survey plans. • Site reconnaissance. • Historical investigation / assessment / remediation / verification reports • Baseline soil and groundwater reference data.

3.0 Permitted activities	
Permitted activities	<p>Operation of an anaerobic digestion plant for sewage sludge waste and imported sewage sludge wastes and combustion of biogas within CHP engine to generate electricity for use on site.</p> <p>Imports of waste to the works inlet for treatment via the UWWTD route.</p>
Non-permitted activities undertaken	<p>The site also undertakes the following DAAs:</p> <ul style="list-style-type: none"> • Discharging of waste; • Storage of waste; • Storage of biogas; • Physical blending of wastes; and, • Storage of raw materials.
Document references for: <ul style="list-style-type: none"> • plan showing activity layout; and • environmental risk assessment. 	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.

4.0 Changes to the activity	
Have there been any changes to the activity boundary?	<p>If yes, provide a plan showing the changes to the activity boundary.</p> <p>Please see drawing B22849AM-JAC-WGE-DR-0002 which shows the new active boundary for this variation application.</p>
Have there been any changes to the permitted activities?	<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 are the site are existing activities that were not previously permitted.</p> <p>Previously, permitted activities included the burning of biogas as a fuel in a CHP engine as a Specified Generator</p> <p>Under the current variation, the boundary is extended to include assets associated with biological treatment of wastes which includes:</p> <ul style="list-style-type: none"> Waste Import Points Sludge Thickening assets Sludge storage tanks Primary Digestion tanks Secondary Digestion assets Sludge Dewatering assets Digested Sludge Cake storage
Have any 'dangerous substances' not identified in the Application Site Condition Report been used or produced as a result of the permitted activities?	<p>If yes, list of them</p> <p>n/a</p>
Checklist of supporting information	<ul style="list-style-type: none"> • Plan showing any changes to the boundary (where relevant) • Description of the changes to the permitted activities (where relevant) • List of 'dangerous substances' used/produced by the permitted activities that were not identified in the Application Site Condition Report (where relevant)

5.0 Measures taken to protect land

<p>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.</p>		
<p>Checklist of supporting information</p>	<p>of</p>	<ul style="list-style-type: none"> • Inspection records and summary of findings of inspections for all pollution prevention measures • Records of maintenance, repair and replacement of pollution prevention measures

<p>6.0 Pollution incidents that may have had an impact on land, and their remediation</p>		
<p>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.</p>		
<p>Checklist of supporting information</p>	<p>of</p>	<ul style="list-style-type: none"> • Records of pollution incidents that may have impacted on land • Records of their investigation and remediation

<p>7.0 Soil gas and water quality monitoring (where undertaken)</p>		
<p>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.</p>		
<p>Checklist of supporting information</p>	<p>of</p>	<ul style="list-style-type: none"> • Description of soil gas and/or water monitoring undertaken • Monitoring results (including graphs)

<p>8.0 Decommissioning and removal of pollution risk</p>		
<p>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.</p>		
<p>Checklist of supporting information</p>	<p>of</p>	<ul style="list-style-type: none"> • Site closure plan • List of potential sources of pollution risk • Investigation and remediation reports (where relevant)

<p>9.0 Reference data and remediation (where relevant)</p>		
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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.