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.

1.0 SITE DETAILS	
Name of the applicant	Thames Water Utilities Limited
Activity address	Didcot Sludge Treatment Centre Didcot Sewage Treatment Works, Basil Hill Road, Didcot, Oxfordshire, OX11 7HJ.
National grid reference	SU 51987 91233

Document reference and dates for Site Condition Report at permit application and surrender	Environmental Permit Application – Didcot Sludge Treatment Centre, Document number: EPR/AP3542QE/A002 and TW_STC_EPR_24a_DDT_ASD. Date: January 2024

Document references for site plans (including location and boundaries)	Please see site plans in Appendix A.

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:	The nearest water course is the Moor Ditch which is situated to the north of the Sludge Treatment Centre (STC) and on the

• geology • hydrogeology • surface waters	boundary of the Sewage Treatment Centre. There is also a drainage ditch south of the STC. There are no major rivers near to the site, with the River Thames 3 km north of the site. The installation does not directly release to these watercourses, but the wider TWUL sewage works does release into the Moor Ditch. According to the Environment Agency's online flood maps, the installation is within a Flood Zone 1 and subject to a very low risk of flooding from rivers and the sea. Some of the installation, towards the south of the permitted area has a low risk of surface water flooding. The majority of the installation, including the location of the digesters and cake pad are shown to have a very low risk of flooding from surface water. The geology of the site is a bedrock of Gault Formation – mudstone sedimentary bedrock that is shallow sea in origin. Superficial deposits are Alluvium – Clay, Silt, Sand and Gravel which are fluvial sedimentary deposits. Aquifers are classified as Unproductive (bedrock) and Secondary A (superficial drift).
Pollution history including: • 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	The site is located towards the north of the town of Didcot in an industrial area. Industrial and commercial units can be found on all sides of the site. The site of the former Didcot Power Station is located approx. 600 m to the west. Railway lines can be found approx. 190 m to the east and approx. 375 m to the south of the installation. 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. The earliest maps show the location of the STC to be farmland up until the 1970s. Railway lines to the south and east are present from the earliest records and a large military base can be found from the 1940s, which subsequently become the location of Didcot Power Station. The first record of the STW is in the 1990s when a similar sized sewage works is noted,

	with structures and tanks towards the eastern side of the current site. By the 2000s the site had been expanded towards the west of the site. The STC has remained largely unchanged since the early 2000s with the exception of the addition of a second PFT in 2017. The wider works has also undergone expansion in this time. The site is not located within the boundaries of a Source Protection Zone (SPZ). According to Environment Agency information there have been two pollution incidents associated with the site. One was a Category 2 (Significant) incident to water and Category 3 (Minor) to air, related to sewage material from storm sewage. The second incident was a Category 1 (Major) to water incident related to pollution not identified.
Evidence of historic contamination, for example, historical site investigation, assessment, remediation and verification reports (where available)	Unknown – although the location of the sewage treatment 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
Baseline soil and groundwater reference data	None collected. 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. The following substances may be relevant hazardous substances. • Diesel • Oil • Grease • Anti-freeze • Boiler chemicals These substances are stored in and around the boiler house and are used in their routine operation and maintenance. 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. 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.
Supporting information	None presented at this time, this is acknowledged as a surrender risk by the operator

3.0 Permitted activities	
Permitted activities	Operation of an anaerobic digestion plant for sewage sludge waste and imported sewage sludge wastes and combustion of biogas. Imports of waste to the works inlet for treatment via the UWWTD route. The site also undertakes the following DAAs: • Discharging of waste • Storage of waste • Storage of biogas • Physical blending of wastes • Storage of raw materials • Operation of a Gas-to-Grid plant
Non-permitted activities undertaken	n/a.
Document references for: • 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?	If yes, provide a plan showing the changes to the activity boundary.
Have there been any changes to the permitted activities?	If yes, provide a description of the changes to the permitted activities
Have any 'dangerous substances' not identified in the Application Site Condition Report been used or produced as a result of the permitted activities?	If yes, list of them
Checklist of supporting information	• 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	
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.	
Checklist of supporting information	• Inspection records and summary of findings of inspections for all pollution prevention measures • Records of maintenance, repair and replacement of pollution prevention measures

6.0 Pollution incidents that may have had an impact on land, and their remediation	
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.	
Checklist of supporting information	• Records of pollution incidents that may have impacted on land • Records of their investigation and remediation

7.0 Soil gas and water quality monitoring (where undertaken)	
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.	
Checklist of supporting information	• **Description of soil gas and/or water monitoring undertaken** • **Monitoring results (including graphs)**

8.0 Decommissioning and removal of pollution risk	
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	• Land and/or groundwater data collected at application (if collected) • Land and/or groundwater data collected at surrender (where needed)

information	• 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.