

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 | Aylesbury Sludge Treatment Centre; Aylesbury Sewage Treatment Works; Rabans Lane Industrial Estate; Rabans Lane; Buckinghamshire; HP19 8RU. |
| National grid reference | NGR: SP 78943 14657 |

| | |
|--|--|
| Document reference and dates for Site Condition Report at permit application and surrender | Environmental Permit Application – Aylesbury Sludge Treatment Centre. Document number: TW_STC_EPR_10a_ABY_ASD. Date: November 2023. |
|--|--|

| | |
|--|---|
| Document references for site plans (including location and boundaries) | Please see site plans in Appendix A and Air Quality Assessment. |
|--|---|

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 Bear Brook runs along the south-western perimeter of the site, flowing into the River Thame which forms the STW site north- |

| | |
|---|---|
| <ul style="list-style-type: none"> • geology • hydrogeology • surface waters | <p>western and northern boundary until it flows under the railway line in the north-east of the site. There is also an un-named drain running along the south-western boundary of the site and flows in a north-westerly direction outfalling into the River Thames. The installation does not directly release to Bear Brook, but the wider TWUL sewage works does.</p> <p>According to the Environment Agency's online flood maps, the majority of the installation is subject to a very low risk of flooding from rivers and the sea. The area containing the secondary digesters has a low risk of flooding while parts of the UWWTD STW including a lagoon are within a flood zone 3 area with a high risk of flooding. The majority of the installation is at very low risk of surface water flooding although the cake pad does have a high risk of surface water flooding and some parts of the wider site, including some of the site roads are at low risk of surface water flooding.</p> <p>The geology of the site is a bedrock of Kimmeridge Clay Formation mudstone which is sedimentary bedrock and shallow marine in origin. Superficial deposits are either alluvium clay, silt, sand and gravels or river terrace deposits of sand and gravel – both of which are fluvial in origin.</p> <p>Aquifers are classified as unproductive (bedrock) and Secondary A (superficial deposits).</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 approximately 3 km west of the town of Aylesbury, Buckinghamshire.</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>Up until the 1980s, the historical maps show the site to be undeveloped fields with a railway line running on the north and north-eastern boundary of the site from the 1880s.</p> <p>Since 1980 the sewage works has remained a similar size and extent with some development of the sludge digestion assets within the current locations.</p> <p>The whole site is outside the boundaries of a</p> |

| | |
|---|--|
| | <p>Source Protection Zone.</p> <p>Environment Agency data on pollution incidents identifies three incidents associated within close proximity of the site. Two incidents located on the site perimeter led to Category 1 (major) incidents on water caused by final effluent. There was also one Category 1 (major) incident on water impacting on the River Thames, north-west of the site associated with other sewage materials.</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 (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"> • Diesel • Oil • Grease • Anti-freeze • Boiler chemicals <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</p> |

| | |
|-------------------------------|---|
| | 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; and, • Baseline soil and groundwater reference data. |

| | |
|--|--|
| 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 within a CHP engine to generate electricity for use on site. |
| Non-permitted activities undertaken | <ul style="list-style-type: none"> • 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"> • 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 | <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 | |
|---|--|
| 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 | <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 |

| 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 | <ul style="list-style-type: none"> • 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 | <ul style="list-style-type: none"> • 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 | <ul style="list-style-type: none"> • 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 | <ul style="list-style-type: none"> • 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.