

5. Supporting Information

5.1 Form A Additional Information

5 – Applications from companies or corporate bodies

5C – Details of the directors

These are provided separately

5.2 Form B2 Additional Information

1 About the permit

1a Discussions before your application

No formal pre-application discussions have been held with the National permitting Service of the Environment Agency, due to the closure of the pre-application service currently. Discussions on the use of CCTV cameras to monitor tanker offloading as part of the waste acceptance procedures have been held with Clive Humphreys of the Environment Agency.

1b Is the permit for a site or for a mobile plant?

This permit is for a site.

2 About the site

2a What is the site name, address, postcode and national grid reference?

Site name: Naburn Waste water Treatment Works

Address: Naburn, York, YO19 4RN

National grid reference for the site: SE 60601 46876

2b What type of regulated facility are you applying for?

Waste Operation

What is the national grid reference for the regulated facility (if only one)?

SE 60185 46850

2d Low impact installations (installations only)

Are any of the regulated facilities low impact installations?

No

2e Treating batteries

Are you planning to treat batteries?

No

2f Ship recycling

Is your activity covered by the Ship Recycling Regulations 2015?

No

2g Multi-operator installation

Is the site a multi operator site?

No

3 Your ability as an operator

3a Relevant offences

Have you, or any other relevant person, been convicted of any relevant offence?

No current relevant offences.

3b Technical ability

Yorkshire Water have staff with appropriate WAMITAB certificates. The certificates are presented in Appendix C.

The CoTC holder for Naburn WwTW is:

Kevin Spink

Waste Service Manager

07790 616 453

Kevin.Spink@yorkshirewater.co.uk

3c Finances

Do you or any relevant person or a company in which you were relevant person have current or past bankruptcy or insolvency proceedings against you?

No.

How do you plan to make financial provision (to operate a landfill or a mining waste facility you need to show us that you are financially capable of meeting the obligations of closure and aftercare)?

N/A

3d Management systems (all)

Confirm that you have read the guidance and that your management system will meet our requirements.

Yes, we can confirm that this is the case.

Does your management system meet the conditions set out in our guidance? What management system will you provide for your regulated facility? Please make sure you send us a summary of your management system with your application

Yorkshire Water (YW) has an established Environmental Management System (EMS), which is certified to the ISO14001 standard. The EMS forms part of a wider corporate Integrated Management System (IMS) which also incorporates quality management, health and safety management, asset management, organisational resilience, and business continuity requirements. The management system follows an asset life cycle approach, from design through to decommissioning.

The YW EMS has been certified to ISO14001 since 2004. The certified EMS scope covers: "The management and operation of clean and wastewater assets and associated services". YW's top level commitment to environmental and quality performance can be found in the Quality & Environmental Policy. YW has a central team responsible for the implementation of the overall IMS. YW personnel have role statements which provide details of the responsibilities and accountability of individual roles. YW has established appropriate forums and mechanisms for the identification and management of risk, including senior leadership teams and governance groups. Actions are cascaded throughout the organisation as appropriate.

In relation to environmental issues, climate change risk assessments are carried out as well as consideration of extreme weather and climate resilience work. Environmental aspects and impacts have been identified and are recorded using the company's software platform for recording risks (currently the '4Risk' system). YW is committed to comply with all relevant legislation, regulations and any other requirements to which the organisation subscribes. Legislation is analysed so that its relevance to the activities, aspects, products and services of YW are understood, communicated and applied. Registers of relevant legislation and other requirements are maintained and managed via the Evaluation of Compliance (EoC) process held on SharePoint. Management requirements that arise from risk assessments and evaluation of compliance processes are taken into account in planning operational control and emergency preparedness procedures.

Operational facilities are managed in accordance with procedures laid down within the EMS. This includes procedures to identify and control environmental issues arising from YW's activities, including specific environmental permit requirements. Procedures specify environmental best practice requirements, including for example storage of chemicals and oils within a bund (with 110% capacity) which must be maintained in good condition, located inside a building wherever possible, on hardstanding and away from watercourses and site drains. Waste must be segregated appropriately, and waste containers must be located on impermeable hardstanding. YW has developed a biodiversity policy, underpinned by specific processes and procedures, to deliver programmes of work that aim towards a biodiversity net gain. This policy is applicable to contractors delivering work on behalf of YW.

A planned maintenance system is in operation covering all electrical and mechanical equipment and calibration of instrumentation and control system. A list of all plant items is stored on the Asset Inventory System (AI2) and the frequency, scope and records of planned maintenance and calibration are stored on SAP. Job cards for planned maintenance are produced through the SAP system giving the necessary work instruction. Planned maintenance requirements are initially based on recommendations provided in Operations and Maintenance (O&M manuals).

Total Care Plans (TCPs) are produced for all sites and are reviewed at set intervals. TCP reviews set future planned maintenance frequency, the work to be carried out during the planned maintenance and identifies critical and life expired plant items. This is based on the review of the plant item's history and on condition monitoring results.

An inspection and testing programme for above and below ground vessels, pipes and valves is in place. This programme of work to detect any deterioration or weakness of assets typically incorporates a combination of visual examinations and non-destructive testing (e.g. ultrasonic thickness measurements). The frequency of inspection is in accordance with risk based requirements, which also varies according to the condition of the asset. A clear process to address any identified defects, with assigned responsibilities, is in place.

In addition to planned maintenance activities described above, a programme of daily, weekly and monthly visual inspections and checks are undertaken. This includes, for instance, visual inspections of general site condition and housekeeping including spills and leaks, checks for abnormal heat, noise, and vibration, checking the operation of pumps and monitoring instrumentation, checking calibrations are in date etc. Any abnormal observations are recorded in the site logbook.

Further to the above, the waste import facilities are supported by a third party provider to specifically support the planned and preventative maintenance of the import logger and associated CCTV systems. The loggers are fitted with pH probes to prevent out of specification discharges and the CCTV are in place to remote monitor the loads prior to approving the imports.

The designated Technically Competent Manager (TCM) also undertakes monthly inspections of the site to identify any potential issues and arrange resolution as necessary. These inspections are recorded, and the information is retained by YW. Processes on site operate continuously, 24-hours per day, 7-days per week, apart from maintenance periods. The plant is designed to operate unattended with process parameters being monitored continuously. Operating logs are stored electronically.

Plant breakdowns are responded to on the basis of a risk assessment matrix (RAM) and prioritised according to consequence of failure and likely time to failure occurring. Amongst other attributes, the RAM takes into account impact to environment, health and safety, cost and flooding. Site operational staff are responsible for requesting breakdown maintenance and repairs. Any reactive work that achieves a high priority on the RAM is called through to the Engineering Service Desk for progression. These jobs are treated as schedule busters and are progressed accordingly. Records of all maintenance (planned and reactive) and calibration are retained on the SAP work management system. YW has developed processes to identify, respond to and control emergency situations that may cause adverse environmental consequences. Spill kits are readily accessible at locations where there is a risk of spillage (e.g. delivery, storage, and areas of use). Spill control toolbox talks are provided to staff. This includes information about how to prevent and control pollution incidents from accidental spills of oils, fuels, sludge, and chemicals.

Contingency plans help minimise potential environmental impacts; this includes emergencies arising from breakdowns, enforced shutdowns, abnormal circumstances such as flooding as well as major fire and spill/loss of containment events. The YW Business Continuity Plan is in place to define and prioritise critical business functions, details the immediate response requirements for a critical incident and details strategies and actions to be taken to ensure business continuity. All Bioresources sites have the capability of remote monitoring and remote operation of key functions.

Process monitoring is undertaken for all key processes on site. This includes monitoring of operational parameters of plant and equipment to ensure it is operating effectively and efficiently. YW maintains processes to ensure that all those working for or on behalf of YW are suitably trained to fulfil their roles efficiently.

Assessment of competence and identification of individual training needs is carried out through mutual discussion between the individual and their manager as part of the company performance management process, a fundamental part of which is the competency framework and progression plans which are available for every role in the organisation. All YW employees receive IMS awareness training, delivered online at induction and periodically thereafter. This includes awareness of the environmental policy and understanding key environmental hazards and risks and the need to comply with IMS requirements. Toolbox talks are used to provide information and training to site staff, including information about environmental requirements/activities and legislative and compliance requirements. Training records for programmes and courses managed centrally are held on the company Learning Management System. Records for specific training managed locally at site is held by individual managers and/or on the Learning Management System.

Communication plans are in place to communicate business performance based on the company's 'Big Goals', company objectives and performance commitments, aligned to the quality, safety, environmental and asset management requirements. The company intranet, called the Hive, provides regular news updates for YW personnel and holds a wide range of information that employees can access. Other key communication channels include regular corporate newsletters, business unit-specific newsletters, and update sessions and events held by senior business leaders. 'Safeguard' communications are used to issue notifications such as Safety Alerts, Toolbox Talks and Lessons Learned from incident investigations to personnel across the business.

YW has specific procedures in place for the management of contractors regarding health, safety and environmental requirements. This includes procedures to ensure contractors have the required skills and environmental competencies to carry out works at this site. Initially, contractors are assessed by the procurement department for inclusion on the approved supplier list, which includes health and safety and environmental criteria for example, waste documentation such as waste carrier's licence/training certificates. Even when the contractors are on the approved supplier list, they are still further assessed for each specific contracted activity. The contractor is required to submit a risk assessment method statement (RAMS) prior to any commencement of work, identifying how work is to be undertaken and the associated risks. The RAMS must be approved by the Site Manager or an assessor who is competent at reviewing a RAMS, who will also identify any site hazards and issue an Authorisation to Work/Enter the site, following a site induction. When on-site, the contractor must carry this Authorisation to Work at all times.

Yorkshire Water's IMS objectives are documented with the 'Big Goals' and 'Performance Commitments' which are available and communicated via the company intranet. Planning to achieve IMS objectives is monitored and reported internally (via Performance Zone) and externally (via the Annual Report).

The EMS is subject to a Senior Management Review twice a year to consider environmental performance, objectives and targets and continual improvement. The Innovations Team at YW undertakes regular monitoring and review of new and innovative technologies and equipment to ensure the business continually improves its operations and activities. This includes consideration of cleaner technologies and improved environmental performance. Sectoral and cross-section benchmarking also takes place as required.

Processes have been developed by YW to identify, respond to and control situations that may cause actual or potential non-conformities. Non-conformities may be identified through internal audits/inspections or may be detected through other means. Incidents are managed in accordance with the Incident Management policy and procedures and Emergency Planning manual. In the event of a significant incident a root cause analysis is conducted. Actions are identified, reported, recorded, and communicated to prevent reoccurrence.

Complaints are typically received by YW central Customer Services team, where all complaints are logged on the ICE system. Complaints relevant to site are passed on to the Site Manager for further investigation. The Site Manager is responsible for ensuring that any complaint is investigated and, if found to be justified, that work is undertaken to resolve the issue, including liaising with the relevant regulatory bodies where appropriate. The Customer Service Team ensure an appropriate response to the complainant in a timely manner including, if and as appropriate, detailing the reason behind the issue and the actions taken to resolve the matter. All complaints information is recorded on the ICE system in order that this can be monitored, reviewed, and analysed.

- YW operates an internal audit programme delivered by trained internal auditors or suitably qualified external consultants or contractors. This includes the following:
- IMS auditing/inspections undertaken by the IMS Team.
- Regular combined quality, health and safety and environmental inspections performed at all operational sites.
- Assurance and improvement programme to ensure the health, safety, environmental and technical compliance of contractors delivering capital schemes.
- Audits of contractors delivering repair and maintenance activities.

YW is also subject to regular audits by external auditors to ensure continuing adherence to ISO14001 requirements. A formal Management Review of YW's IMS is undertaken and recorded at least once a year. The purpose of these meetings is to ensure the IMS' continuing suitability, adequacy and effectiveness as well as to assess opportunities for improvement and the need for changes to the management system, including the policy and objectives.

4 Consultation

Could the waste operation or installation involve releasing any substance into any of the following?

4a A sewer managed by a sewer undertaker?

No – site drainage is managed within the wider sewage works operated by the applicant.

4b A harbor managed by a harbor authority?

No.

4c Directly into relevant territorial waters or coastal waters within the sea fisheries district of a local fisheries committee?

No.

4d Is the installation on a site for which

4d1 - a nuclear site licence is needed under section 1 of the Nuclear Installations Act 1965?

No.

4d2 - a policy document for preventing major accidents is needed under regulation 5 of the Control of Major Accident Hazards Regulations 1999, or a safety report is needed under regulation 7 of those regulations?

No.

5 Supporting information**5a Provide a plan or plans for the site**

A site plan has been provided in Appendix A.

5b Provide the relevant sections of a site condition/baseline report if this applies

See 6. Environmental Risk Assessment.

5c Provide a non-technical summary of your application

See Non-Technical Summary.

5d Are you applying for an activity that includes the storage of combustible wastes?

No.

6 Environmental risk assessment**Geology and Aquifers**

The bedrock geology is that of the Sherwood Sandstone Group, consisting of red, yellow, and brown part pebbly sandstones which is conglomeratic towards the base. Subordinate red mudstones and siltstones are found in the bedrock. Except for the north west side of the site, the superficial deposits are those of the Naburn Sand Member. These consist of mottled brownish yellow, yellowish brown, brown and grey silty, sporadically clayey fine to coarse sand. The north west of the site contains alluvium.

The bedrock aquifer is a principal aquifer. The superficial aquifer is secondary (undifferentiated). There are no groundwater source protection zones within 1km of the site.

Surface Water

The River Ouse is located directly to the west (~35 m) of the site. ~150 m to the south, connected to the River Ouse, is a marina. There are a number of drains which surround the site, including 190 m east, 619 m east, a drain also runs through the site.

The Surrounding Area

There are three Sites of Special Scientific Interests (SSSI) within 2 km of the site – Naburn Marsh which is ~300 m to the north, Church Ings which is ~780 m to the south west and Fulford Ings which is ~1,340 m to the north east. Additionally, there are three Special Areas of Conservation (SAC), one Special Protection Area (SPA) and one Ramsar site within 10 km of the site- River Derwent (SAC) which is ~9,480 m to the east, Skipworth Common

(SAC) which is ~9,606 m to the south east and Lower Derwent Valley (SAC, SPA & Ramsar) which is ~9,480 m to the south east. There are no Local or National Nature Reserves or ancient woodlands within 2 km of the site.

Naburn Sewage Treatment Works lies right next to a B road (B1222) on its eastern side and is situated ~740 m south of the A64. To the east of the site is farmland containing a farmhouse (~350 m from the site). ~270 m to the north east is a small row of houses, next to a shopping centre (~365 m to the north east), with a further residential centre ~1.09 km to the north east (Fulford). ~220 m to the west of the site, over the River Ouse, is a residential area (Bishopthorpe) that extends parallel to the site and river. The area contains a playground (~610 m to the west), a junior school (~985 m to the west, Archbishop of York's Church of England Junior School) and an infant school (~990 m to the west, Bishopthorpe Infant School). ~670 m to the south is another residential area (Naburn) which contains a primary school (~890 m from the site, Naburn Church of England Primary School). ~1.16 km to the south west of the site is another residential area (Acaster Malbis). The Trans Pennine trail (~75 m to the south west) and Milbridge Farm Caravan Park (~440 m to the south east) are also in proximity.

Table 5-1. Potential receptors, distance and direction from Naburn Sewage Treatment Works

Site Name	Direction from site	Distance from site
Principal Bedrock Aquifer	N/A	N/A
Secondary (Undifferentiated) Superficial Aquifer	N/A	N/A
River Ouse	West	35 m
Marina	South	150 m
Trans Pennine Trail	South	75 m
Naburn Marsh (SSSI)	North	300 m
Church Ings (SSSI)	South west	780 m
Fulford Ings (SSSI)	North East	1,340 m
River Derwent (SAC)	East	9,480 m
Lower Derwent Valley (SAC, SPA & Ramsar)	South East	9,480 m
Skipworth Common (SAC)	South East	9,606 m
Residential Receptors	West, north east, east, south, north east, south west	220 m, 270 m, 350 m, 670 m, 1,090 m, 1,160 m
Schools	South, west, west	890 m, 985 m, 990 m
Playground	West	610 m
Commercial receptor	North east	365 m
Caravan and Camping Park	South east	440 m

Data taken from MAGIC.gov.uk website, accessed June 2021. For habitat sites, the relevant distance for consideration are: International designations (SAC, MPA, SPA and Ramsar - 10km); National designations (SSSI – 2km); Local nature reserves (LNR) and ancient woodlands (AW) (2km)

Site History

In 1851, the site was nothing more than farmland with a road travelling from Fulford in the north to Naburn in the south. By 1893, the site still hadn't been developed but the NER York and Doncaster railway line had been built directly to the south of the would-be site. By 1908, a small sewage works had been developed on the site,

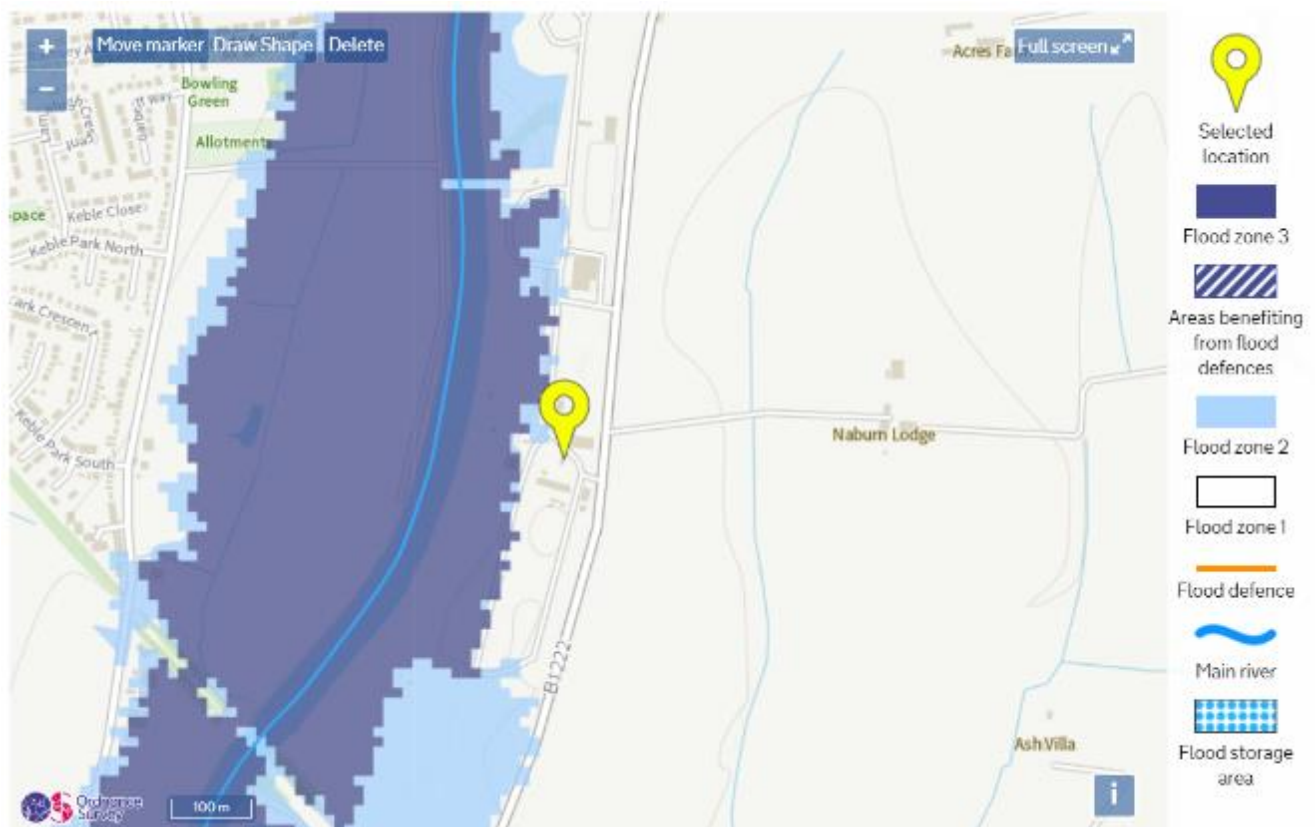
and to the north east an Asylum had been built. Over time (by 1938, 1958 and then 1966) the sewage works increased in size, and the Asylum evolved into a hospital. Between 1966 and 1982 the marina to the south of the site and railway was built, connected to the River Ouse to the south. By 1985, the railway had been dismantled. Today, the old railway bed now constitutes a part of the Trans Pennine trail and the hospital site has been developed into a shopping centre. The marina to the south of the site remains.

Data taken from oldmapsonline.org, accessed May 2021.

Flooding

The whole site lies within Flood Zone 1 with a low probability of flooding from rivers (<1:1000 annual probability of flooding). Small parts of the western side of the site, particularly the north west and south west, lie within Flood Zone 2 with a medium probability of flooding from rivers (1:100 – 1:1000 annual probability of flooding). The remainder of the western side lies within Flood Zone 3 with a high probability of flooding from rivers (>1:100 annual probability of flooding). Surface water flooding for the site is very low.

Figure 5.1. Flood risk map



Flood risk map taken from Gov.uk Flood Map for Planning, accessed 17th May 2021.

An environmental risk assessment of the site changes has been carried out in line with the requirements of the Horizontal Guidance Note H1 and Guidance given on gov.uk. This guidance specifies the following approach to carrying out an environmental risk assessment for a proposed activity:

- Identify potential risks that your activity may present to the environment;
- Screen out those that are insignificant and don't need detailed assessment;
- Assess potentially significant risks in more detail if needed;
- Choose the right control measures, if needed; and
- Report your assessment.

Table 5-2. Environmental Risk Assessment

Consideration		Receptors	Discussion	Detailed Environmental Risk Assessment?	Additional Mitigation Required
Fugitive Emissions	Litter	Human health receptors: there are residential areas 800m north west and 1390m east. 220 m west, 270 m north east, 350 m east, 670 m south, 1,090 m north east, 1,160 m south west. The nearest school is approximately 890 m south. Designations: Naburn Marsh SSSI is ~300 m to the north, Church Ings (SSSI) is ~780 m to the south west and Fulford Ings (SSSI) is ~1,340 m to the north east. Additionally, River Derwent (SAC) is ~9,480 m to the east, Skipworth Common (SAC) is ~9,606 m to the south east and Lower Derwent Valley (SAC, SPA & Ramsar) is ~9,480 m to the south east. There are no NNRs or LNRs within 2km of the site. The site is surrounded by the River Ouse to the west (35 m), the B1222 to the east, farmland in all directions and a marina to the south (150 m).	The facility does not produce waste which results in litter	No	N/A
	Vermin and Pests	For human health receptors, see notes for Litter above.	The waste produced does not typically attract pests and vermin and is well contained	No	N/A
	Dust	For human health receptors, see notes for Litter above.	The facility handles wet wastes which do not result in dusts	No	N/A
Point source emissions to air Emissions deposited from air to land		For human health receptors, see notes for Litter above.	There are no point source emissions to air from these activities	No	N/A
Point source and fugitive emissions to water		The River Ouse is located directly to the west (~35 m) of the site. ~150 m to the south, connected to the River Ouse, is a marina. There are a number of drains which surround the site, including 190 m east, 619 m east, a drain also runs through the site.	There are no point source or fugitive emissions to water associated with the permitted activities. Drainage within the works is directed to the 'head of the works' Discharges of treated effluent from the WwTW are not covered under the Waste Framework	No	Waste pre-acceptance and acceptance checks for all incoming wastes to minimise the risk of unacceptable loads being delivered, impacting on

Consideration	Receptors	Discussion	Detailed Environmental Risk Assessment?	Additional Mitigation Required
	<p>The wider site drainage is returned to the head of the site for treatment.</p> <p>The permitted area of the site sits within Flood Zones 3, 2 and 1 and is within an area which benefits from flood defences.</p>	<p>Directive and are not included in the works associated with this permit application.</p> <p>There is a risk to processes on site in the event that inappropriate effluent streams are introduced to the works causing inhibition of treatment processes</p>		the treatment processes on site
Odour	<p>Onsite workers and contractors.</p> <p>For human health and ecological receptors, see notes for Litter above.</p>	<p>There is the potential for odorous effluent to be accepted at the site via tanker, however pre-acceptance checks should minimise this risk.</p> <p>Direct discharges into the 'head of the works' result in rapid mixing of effluent with the main works flow and dilution of any odour potential</p>	Yes	<p>Mitigations are summarised in the odour risk assessment (Table 5-5)</p> <p>Wider works covered by odour management plan</p>
Noise and Vibration	<p>Onsite workers and contractors.</p> <p>For human health and ecological receptors, see notes for Litter above.</p>	<p>The primary source of noise at the site is vehicular. All plant has been chosen to be low noise and white noise squawkers have been used in preference to beepers.</p> <p>There is no history of noise related complaints at the site.</p>	No	N/A
Accidents	<p>Onsite workers and contractors.</p> <p>For human health and ecological receptors, see notes for Litter above.</p> <p>Principal Aquifers in bedrock underlying the site.</p>	<p>There is potential for release of unauthorised waste or wastes of unknown composition into the treatment system, which could potentially lead to the treatment system not working correctly or requiring maintenance, as well as implications for sludge produced.</p> <p>There is potential for accidental spills and leaks of waste to the ground surface. This could lead to a potential risk to the sensitive aquifer and surface waters in the surrounding area.</p>	Yes	<p>The site has emergency plans and protocols within its EMS to reduce and minimise risk.</p> <p>Pre-acceptance and acceptance procedures within the management system are in place to minimise risk of accidental input of unauthorised waste.</p> <p>Mitigations are summarised in the environmental accident assessment and accident management plan (Table 5-6)</p>

Consideration	Receptors	Discussion	Detailed Environmental Risk Assessment?	Additional Mitigation Required
Waste compatibility	UWWTD derived flow within the works, the biological, chemical and physical processes within the WwTW and output quality (sludges and final effluent)	<p>Yorkshire Water has a robust waste pre-acceptance and acceptance procedure, which is linked to both site access for tankers and also offloading point operation by means of key fob controlled loggers.</p> <p>All potential tankered effluents are subject to an assessment before permission to deposit is granted, with more detailed assessments being carried out on more complex or variable effluents.</p> <p>Incoming loads are subject to monitoring, including periodic random sampling and testing to check for compliance.</p> <p>All offloading points equipped with appropriate hoses and coupling to reduce the risk of misconnections and spillages.</p>	No	N/A
Other Issues	N/A	There are no other site-specific risks identified	No	N/A

Climate change risk screening

Category	Screening Questions	Score
Timescales	Permit required until 2060 or beyond	5
Flooding	High risk of flooding from rivers or seas	5
Water Use	Water not required	0

Category	Screening Questions	Score
Total Screening Score		10

Humber river basin district: climate change risk assessment worksheet

Name: Yorkshire Water

Our permit reference number (if you have one): Naburn WwTW

Your document reference number: Application support document

Risk assessment worksheet for the 2050s

Humber river basin district

You must carry out a climate change risk assessment for any new bespoke waste and installations permit applications if you expect to operate for more than 5 years. Use the [user guide](#) to complete the table. You can add in extra pages if necessary.

Consider how your operations will be affected by the changes in weather and climate described in the table. Consider any changes to average climate conditions that may impact on your operations, for example extreme rainfall.

Also consider:

- critical thresholds - where a ‘tipping point’ is reached, for example a specific temperature where site processes cannot operate safely
- changes to averages - for example an entire summer of higher than expected rainfall causing waterlogging
- where hazards may combine to cause more impacts

You can add in other climate variables if you wish.

If you have stated on your application form that you do not expect to be operational in 2050, you must still consider climate change risks for the time you do intend to operate. Whilst the variables are for the 2050s, this is an estimated date and you may experience these conditions before then.

This worksheet will sit in your management system. It must appear on the management system summary you submit with your application, even if you do not need to submit the whole risk assessment with your application.

If your pre-mitigation risk score (column D) is 5 or higher, you must complete columns E to H.

Potential changing climate variable	A Impact	B Likelihood	C Severity	D Risk (B x C)	E Mitigation (what will you do to mitigate this risk)	F Likelihood (after mitigation)	G Severity (after mitigation)	H Residual risk (F x G)
1. Summer daily maximum temperature may be around 6°C higher compared to average summer temperatures now.	6	4	4	16	Risk of increased odour from sewage processes. OCU's utilised as appropriate. May need to remove rag and screening skips more often	2	2	4
2. Winter daily maximum temperature could be 4°C more than the current average, with the potential for more extreme temperatures, both warmer and colder than present.	2	2	4	8	Risk of increased odour from sewage processes. OCU's utilised as appropriate. Extreme cold may reduce biological processes efficiency	2	2	4
3. The biggest rainfall events are up to 20% more intense than current extremes (peak rainfall intensity)*.	2	2	2	4	Works design basis may be exceeded. However, this would apply to UWWTD operations at the site rather than permitted activities.	1	1	1
4. Average winter rainfall may increase by 29% on today's averages.	2	4	4	16	Rainfall would increase strain on site drainage and increase flows at the inlet. However, volume could be handled by the UWWTD works with potential increased storm flow retention so no impact.	2	4	8
5. Sea level could be as much as 0.6m higher compared to today's level*.	1	1	1	1	The site sits within flood zone 2, although benefitting from defences owned by others. It is assumed that the defences would be improved by others as necessary	1	1	1
6. Drier summers, potentially up to 34% less rain than now.	1	1	1	1	May reduce total flow through the UWWTD, but should not impact on permitted activities.	1	1	1
7. At its peak, the flow in watercourses could be 30% more than now, and at its lowest it could be 65% less than now.	1	1	1	1	No impact on permitted activities.	1	1	1

*Indicates data has come from climate change allowances as part of the spatial planning process. Evidence from your planning submission is acceptable evidence for this worksheet.

5.3 Form B4 Additional Information

1 What waste operations are you applying for?

1a- Waste operations which do not form part of an installation

Table 5-3 Waste Operations

Name of the waste operation	Description of the waste operation	Annex I (D codes) and Annex II (R codes) and descriptions	Hazardous waste treatment capacity	Non-hazardous waste treatment capacity
Naburn Waste water Treatment Works	Physico-chemical treatment of non-hazardous waste: deposit of imported non-hazardous waste for treatment through a wastewater treatment works.	D 9 Physico-chemical treatment not specified elsewhere in this Annex which results in final compounds or mixtures which are discarded by means of any of the operations numbered D 1 to D 12	None	1,000,000 tonnes
	Physico-chemical treatment of non-hazardous waste: deposit of imported non-hazardous waste in a storage tank prior to treatment through a wastewater treatment works.	D13: Blending or mixing prior to submission to any of the operations numbered D1 to D14.		
		D15: Storage pending any of the operations numbered D1 to D14 (excluding temporary storage, pending collection, on the site where it is produced)		

1b- Types of waste accepted and restrictions

The following table sets out the EWC codes to be included within the LoW.

It should be noted that no hazardous waste codes are proposed for acceptance at the site.

Table 5-4 Waste Acceptance

Waste Code	Description
01	Wastes resulting from exploration, Mining, Quarrying, Physical and Chemical treatment of Minerals
01 05	drilling muds and other drilling wastes
01 05 04	freshwater drilling muds and wastes
01 05 07	barite-containing drilling muds and wastes other than those mentioned in 01 05 05 and 01 05 06
01 05 08	chloride-containing drilling muds and wastes other than those mentioned in 01 05 05 and 01 05 06

02	Waste from agriculture, horticulture, aquaculture, forestry, hunting and fishing, food preparation and processing
02 01	wastes from agriculture, horticulture, aquaculture, forestry, hunting and fishing
02 01 01	sludges from washing and cleaning – food processing waste, food washing waste
02 01 06	animal faeces, urine and manure including spoiled straw
02 02	wastes from the preparation and processing of meat. Fish and other foods of animal origin
02 02 01	sludges from washing and cleaning
02 02 02	animal tissue waste
02 02 03	materials unsuitable for consumption or processing
02 02 04	sludges from on-site effluent treatment
02 02 99	sludges from gelatine production, animal gut contents
02 03	wastes from fruit, vegetables, cereals, edible oils, cocoa, coffee, teas and tobacco preparation and processing, conserve production, yeast and yeast extraction production, molasses preparation and fermentation
02 03 01	sludges from washing, cleaning, peeling, centrifuging and separation
02 03 02	wastes from preserving agents
02 03 04	materials unsuitable for consumption or processing
02 03 05	sludges from on-site effluent treatment
02 04	wastes from sugar processing
02 04 01	soil from cleaning and washing beet
02 04 02	off-specification calcium carbonate
02 04 03	sludges from on-site effluent treatment
02 05	wastes from the dairy products industry
02 05 01	materials unsuitable for consumption or processing
02 05 02	sludges from on-site effluent treatment
02 06	wastes from the baking and confectionery industry
02 06 01	materials unsuitable for consumption or processing
02 06 02	wastes from preserving agents
02 06 03	sludges from on-site effluent treatment
02 07	wastes from the production of alcoholic and non-alcoholic beverages (except coffee, tea and cocoa)
02 07 01	wastes from washing, cleaning and mechanical reduction of raw materials

02 07 02	wastes from spirits distillation
02 07 03	wastes from chemical treatment
02 07 04	materials unsuitable for consumption or processing
02 07 05	sludges from on-site effluent treatment
03	Wastes from Wood Processing and the Production of Panels and Furniture, Pulp, Paper and Cardboard
03 03	wastes from pulp, paper and cardboard production and processing
03 03 02	green liquor sludge (from recovery of cooking liquor)
03 03 05	de-inking sludges from paper recycling
03 03 07	mechanically separated rejects from pulping of waste paper and cardboard
03 03 08	wastes from sorting of paper and cardboard destined for recycling
03 03 10	fibre rejects, fibre, filler and coating sludges from mechanical separation
03 03 11	sludges from on-site effluent treatment other than those mentioned in 03 03 10
04	Wastes from the Leather, Fur and Textile Industries
04 01	wastes from the leather and fur industry
04 01 01	fleshings and lime split wastes
04 01 05	tanning liquor free of chromium
04 01 07	sludges, in particular from on-site effluent treatment free of chromium
04 01 09	wastes from dressing and finishing
04 02	wastes from the textile industry
04 02 10	organic matter from natural products, e.g. grease, wax
04 02 15	wastes from finishing other than those mentioned in 04 02 14
04 02 17	dyestuffs and pigments other than those mentioned in 04 02 16
04 02 20	sludges from on-site effluent treatment other than those mentioned in 04 02 19
04 02 22	Wastes from processed textile fibres
05	Wastes from the Petroleum Refining, Natural Gas Purification and Pyrolytic Treatment of Coal
05 01	wastes from petroleum refining
05 01 10	sludges from on-site effluent treatment other than those mentioned in 05 01 09
05 01 17	Other chemical wastes, bitumen
06	Wastes from Inorganic Chemical Processes
06 03	wastes from the manufacture, formulation, supply and use (MFSU) of salts and their solutions and metallic oxides
06 03 14	solid salts and solutions other than those mentioned in 06 03 11 and 06 03 13
06 05	sludges from on-site effluent treatment
06 05 03	sludges from on-site effluent treatment other than those mentioned on 06 05 02

06 06	Wastes from inorganic chemical processes
06 06 03	Solid salts and solutions containing heavy metals
07	Wastes from Organic Chemical Processes
07 01	wastes from the MFSU of basic organic chemicals
07 01 12	sludges from on-site effluent treatment other than those mentioned in 07 01 11
07 02	wastes from the MFSU of plastics, synthetic rubber and manmade fibres
07 02 12	sludges from on-site effluent treatment other than those mentioned on 07 02 11
07 02 15	wastes from additives other than those mentioned in 07 02 14
07 02 17	wastes containing silicones other than those mentioned in 07 02 16
07 03	wastes from the MFSU of organic dyes and pigments (except 06 11)
07 03 12	sludges from on-site effluent treatment other than those mentioned in 07 03 11
07 04	wastes from the MFSU of organic plant protection products (except 02 01 08 and 02 01 09), wood preserving agents (except 03 02) and other biocides
07 04 12	sludges from on-site effluent treatment other than those mentioned in 07 04 11
07 05	wastes from the MFSU of pharmaceuticals
07 05 12	sludges from on-site effluent treatment other than those mentioned in 07 05 11
07 06	wastes from the MFSU of fats, grease, soaps, detergents, disinfectants and cosmetics
07 06 12	sludges from on-site effluent treatment other than those mentioned in 07 06 11
07 07	wastes from the MFSU of fine chemicals and chemical products not otherwise specified
07 07 12	sludges from on-site effluent treatment other than those mentioned in 07 07 11
08	Wastes from the MFSU of Coatings (Paints, Varnishes and Vitreous Enamels), Adhesives, Sealants and Printing Inks
08 01	wastes from MFSU and removal of paint and varnish
08 01 12	waste paint and varnish other than those mentioned in 08 01 11
08 01 14	sludges from paint or varnish other than those mentioned in 08 01 13
08 01 16	aqueous sludges containing paint or varnish other than those mentioned in 08 01 15
08 01 18	wastes from paint or varnish removal other than those mentioned in 08 01 17
08 01 20	aqueous suspensions containing paint or varnish other than those mentioned in 08 01 19
08 01 99	wastes not otherwise specified
08 02	Wastes from the manufacture, formulation, supply and use (MFSU) of coatings (paints, varnishes and vitreous enamels), adhesives, sealants and printing inks
08 02 01	Waste coating powders
08 03	wastes from MFSU of printing inks
08 03 07	aqueous sludges containing ink
08 03 08	aqueous liquid waste containing ink

08 03 13	waste ink other than those mentioned in 08 03 12
08 03 15	ink sludges other than those mentioned in 08 03 14
08 04	wastes from MFSU of adhesives and sealants (including waterproofing products)
08 04 14	aqueous sludges containing adhesives or sealants other than those mentioned in 08 04 13
08 04 16	aqueous liquid waste containing adhesives or sealants other than those mentioned in 08 04 15
10	Waste from Thermal Processes
10 01	Wastes from thermal processes
10 01 26	wastes from cooling-water treatment
10 02	wastes from the iron and steel industry
10 02 12	wastes from cooling water treatment other than those mentioned in 10 02 07
10 08	wastes from other non-ferrous thermal metallurgy
10 08 20	wastes from cooling-water treatment other than those mentioned in 10 08 19
10 10	wastes from casting of non-ferrous pieces
10 10 14	waste binders other than those mentioned in 10 10 13
10 12	wastes from manufacture of ceramic goods, bricks, tiles and construction products
10 12 13	sludge from on-site effluent treatment
11	Wastes from Chemical Surface Treatment and Coating of Metals and Other Materials, Non-Ferrous HydroMetallurgy
11 01	wastes from chemical surface treatment and coating of metals and other materials (e.g. galvanic processes, zinc coating processes, pickling processes, etching, phosphating, alkaline degreasing, anodising)
11 01 12	aqueous rinsing liquids other than those mentioned in 11 01 11
12	Wastes from shaping and physical and mechanical surface treatment of metals and plastics
12 01	Wastes from shaping and physical and mechanical surface treatment of metals and plastics
12 01 17	waste blasting material other than those mentioned in 12 01 16
12 01 21	spent grinding bodies and grinding materials other than those mentioned in 12 01 20
16	Wastes Not Otherwise Specified in the List
16 01	end of life vehicles from different means of transport (including off road machinery) and wastes from dismantling of end of life vehicles and vehicle maintenance (except 13, 14 606 and 16 08)
16 01 15	antifreeze fluids other than those mentioned in 16 01 14
16 03	off-specification batches and unused products
16 03 06	organic wastes other than those mentioned in 16 03 05
16 05	gases in pressure containers and discarded chemicals
16 05 05	gases in pressure containers other than those mentioned in 16 05 04
16 07	wastes from transport tank, storage tank and barrel cleaning (except 05 and 13)
16 07 99	wastes not otherwise specified – Aqueous process waters and washwaters not containing substances at levels that will inhibit biological treatment
16 10	aqueous liquid wastes destined for off-site treatment
16 10 02	aqueous liquid wastes other than those mentioned in 16 10 01 (footnote 1)

16 10 04	aqueous concentrates other than those mentioned in 16 10 03
19	Wastes from Waste Management Facilities, Off-Site Waste Water Treatment Plants and the Preparation of Water for Human Consumption and Water for Industrial Use
19 01	wastes from incineration or pyrolysis of waste
19 01 18	pyrolysis wastes other than those mentioned in 19 01 17
19 02	wastes from physico/chemical treatment of waste (including dechromatation, decyanidation, neutralisation)
19 02 06	sludges from physico/chemical treatment other than those mentioned in 19 02 05
19 05	wastes from aerobic treatment of solid wastes
19 05 03	Off-specification compost
19 06	wastes from anaerobic treatment of waste
19 06 03	liquor from anaerobic treatment of municipal waste
19 06 04	digestate from anaerobic treatment of municipal waste
19 06 05	liquor from anaerobic treatment of animal and vegetable waste
19 06 06	digestate from anaerobic treatment of animal and vegetable waste
19 07	landfill leachate
19 07 03	landfill leachate other than those mentioned in 19 07 02
19 08	wastes from waste water treatment plants not otherwise specified
19 08 01	Screenings
19 08 02	waste from desanding
19 08 05	sludges from treatment of urban waste water
19 08 09	grease and oil mixture from oil/water separation containing only edible oil and fats
19 08 12	sludges from biological treatment
19 08 14	sludges from other treatment of industrial waste water other than those mentioned in 19 08 13
19 09	wastes from the preparation of water intended for human consumption or water for industrial use
19 09 02	sludges from water clarification
19 09 03	sludges from decarbonation
19 09 06	solutions and sludges from regeneration of ion exchangers
19 12	wastes from the mechanical treatment of waste (e.g. sorting, crushing, compacting, pelletising) not otherwise specified
19 12 12	other wastes (including mixtures of materials) from mechanical treatment of wastes other than those mentioned in 19 12 11
19 13	wastes from soil and groundwater remediation
19 13 04	sludges from soil remediation other than those mentioned in 19 13 03
19 13 06	sludges from groundwater remediation other than those mentioned on 19 13 05
19 13 08	aqueous liquid wastes and aqueous concentrates from groundwater remediation other than those mentioned in 19 13 07

20	Municipal Wastes (Household Waste and Similar Commercial, Industrial and Institutional Wastes) Including Separately Collected Fractions
20 01	separately collected fraction (except 15 01)
20 01 25	edible oil and fat
20 01 30	detergents other than those mentioned in 20 01 29
20 02	garden and park wastes (including cemetery waste)
20 02 01	biodegradable waste
20 03	other municipal wastes
20 03 01	mixed municipal waste
20 03 02	waste from markets
20 03 03	street-cleaning residues
20 03 04	septic tank sludge
20 03 06	waste from sewage cleaning
20 03 99	cesspool waste and other sewage sludge only

Footnote 1

16 10	aqueous liquid wastes destined for off-site treatment
16 10 02	<p>aqueous liquid wastes other than those mentioned in 16 10 01:</p> <ul style="list-style-type: none"> • sludge from production of edible fats and oils, seasoning residues, molasses residues, residues from production of potato, corn or rice starch only, not containing substances at levels that will inhibit biological treatment • chemical toilet and portaloo wastes • waste effluents from the baking and confectionery industry, sludges from cleaning, flushing of equipment. Aqueous process waters and washwaters not containing substances at levels that will inhibit biological treatment • aqueous process waters and washwaters from the leather, fur and textile industries; not containing substances at levels that will inhibit biological treatment • aqueous effluents from purification of petroleum products, including brine solutions • waste effluents/liquors/centrates from the refinement of lime products • wastes effluents/liquors from the MFSU of fertilisers including lagoon leachate, effluent and run-off; not containing substances at levels that will inhibit biological treatment • waste biodegradable liquors/effluents from MFSU of basic organic chemicals. Aqueous process waters and washwaters not containing substances at levels that will inhibit biological treatment • biodegradable effluent/liquors from the MFSU of pharmaceuticals. Aqueous process waters and washwaters not containing substances at levels that will inhibit biological treatment • biodegradable effluent/liquors from the MFSU of detergents, disinfectants and cosmetics. Aqueous process waters and washwaters not containing substances at levels that will inhibit biological treatment • waste effluents, liquors, sludges from the MFSU of fine chemicals and chemical products not otherwise specified. Aqueous process waters and washwaters not containing substances at levels that will inhibit biological treatment • waste effluents, liquors arising from the washing, rinsing of material from the steel and iron industry. Aqueous process waters and washwaters not containing substances at levels that will inhibit biological treatment • waste waters/effluents from the cleaning and pressure testing of storage tanks and barrels. Washwaters not containing substances at levels that will inhibit biological treatment • liquor/leachate from an aerobic composting process that accepts municipal, animal and vegetable wastes • run-off liquors, leachates that arise from the aerobic treatment of municipal, vegetable waste types.

	<ul style="list-style-type: none"> • centrate liquor from waste water treatment only. Aqueous process waters and washwaters not containing substances at levels that will inhibit biological treatment • cesspool waste
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1c Deposit for recovery purposes

Are you applying for a waste recovery activity involving the permanent deposit on waste on land for construction or land reclamation?

No.

2 Point source emissions to air, water and land

Not Applicable as there are no point source emissions to air, surface or ground water or land from the permitted activity.

3 Operating techniques

3a Technical standards

Description of waste operation	Appropriate measure (TGN reference)	Document reference
Physico-chemical treatment of non-hazardous waste: deposit of imported non-hazardous waste for treatment through a wastewater treatment works.	Control and monitor emissions for your environmental permit	https://www.gov.uk/guidance/control-and-monitor-emissions-for-your-environmental-permit
	H4 Odour Management – how to comply with your environmental permit	Published April 2011
	Sector Guidance Note S5.06: recovery and disposal of hazardous and non-hazardous waste	Published 13th May 2013, revised 10th October 2018

3b General requirements

Table 5-5 Odour Risk Assessment

What harm can be caused and who can be harmed			Managing the risk	Assessing the risk		
Hazard	Receptor	Pathway	Risk management	Probability of exposure	Consequence	What is the overall risk?
What has the potential to cause harm?	What is at risk? What do I wish to protect?	How can the hazard get to the receptor?	What measures will you take to reduce the risk? If it occurs – who is responsible for what?	How likely is this contact?	What is the harm that can be caused?	What is the risk that still remains?
Tanker off-loading points	Residential and commercial properties, hospitals, schools, amenities such as parkland and footpaths	Air dispersion	Where odorous material is received at the site it is either discharged in the head of works directly into the main works or placed within the holding tanks and diluted. Pre-acceptance procedure for screening out highly odorous effluent.	Fairly probable	Nuisance issue to local populace and users of amenities	Moderate
Head of the works	Residential and commercial properties, hospitals, schools, amenities such as parkland and footpaths	Air dispersion	Pre-acceptance procedure for screening out highly odorous effluent.	Fairly probable	Nuisance issue to local populace and users of amenities	Moderate
Waste storage areas	Residential and commercial properties, hospitals, schools, amenities such as parkland and footpaths	Air dispersion	Effluent stored within the holding tanks pending primary treatment is predominantly low odour, where highly odorous material is accepted at the site and placed within the holding tanks it will be diluted.	Unlikely	Nuisance issue to local populace and users of amenities	Very Low

Table 5-6 Environmental Accident Assessment and Accident Management Plan

What harm can be caused and who can be harmed			Managing the risk	Assessing the risk		
Hazard	Receptor	Pathway	Risk management	Probability of exposure	Consequence	What is the overall risk?
What has the potential to cause harm?	What is at risk? What do I wish to protect?	How can the hazard get to the receptor?	What measures will you take to reduce the risk? If it occurs – who is responsible for what?	How likely is this contact?	What is the harm that can be caused?	What is the risk that still remains?
Major fire / explosion	Local population. Ecological receptors	Windblown dispersion.	Fire alarm systems installed and maintained. Electric temperature sensor, flame arrestors, etc. Follow site Incident Response Plan and inform relevant authorities	Very unlikely	Severe	Acceptable
Minor fire / explosion	Local population. Ecological receptors	Windblown dispersion.	See above for major fire	Unlikely	Significant	Acceptable
Failure to contain firewater	Local water courses. Ground and groundwater	Surface water drainage system. Diffusion into ground.	Fire prevention measures as above. Drainage of wider wastewater treatment works contained and directed to the head of the works. Follow site Incident Response Plan and inform relevant authorities	Unlikely	Significant	Acceptable
Vandalism	Local population. Ecological receptors. Local water courses. Ground and groundwater	Windblown dispersion. Surface water drainage system. Diffusion into ground.	Site security measures are in place including perimeter fence with controlled access gates. Regular inspection of perimeter fences. Address any specific equipment damage. Reinstate and review security measures.	Somewhat unlikely	Noticeable	Acceptable
Deposit of unsuitable effluent	Ecological receptors and local water courses	Impact on wider WwTW and final effluent quality	All effluents subject to robust pre-acceptance and acceptance checks Pre-acceptance checks increased on more variable effluents Interlocking between key logger issued to authorised contractors and offloading point to prevent unauthorised deposits Deposits subject to random acceptance checks	Unlikely	Significant	Acceptable

What harm can be caused and who can be harmed			Managing the risk	Assessing the risk		
Hazard	Receptor	Pathway	Risk management	Probability of exposure	Consequence	What is the overall risk?
What has the potential to cause harm?	What is at risk? What do I wish to protect?	How can the hazard get to the receptor?	What measures will you take to reduce the risk? If it occurs – who is responsible for what?	How likely is this contact?	What is the harm that can be caused?	What is the risk that still remains?
Misconnection of tanker offloading hoses	Local population. Ecological receptors. Local water courses. Ground and groundwater	Overtopping of tanks	Dedicated hoses on off-loading points. Pre-acceptance and acceptance testing of all third-party waste imports	Somewhat unlikely	Significant	Acceptable
Flooding from rivers / stream / canal / groundwater etc	Local water courses. Ground and groundwater	Surface water drainage system. Diffusion into ground.	The site is located in a flood zone 3 however the area benefits from flood defences. Follow site Incident Response Plan and inform relevant authorities. Take appropriate corrective and preventative actions to minimise environmental impact	Somewhat unlikely	Significant	Acceptable
Flooding due to drain blockages and/or excessive rainfall causing localised on site surface water flooding	Local water courses. Ground and groundwater	Surface water drainage system. Diffusion into ground.	Regular infrastructure and housekeeping inspections including visual inspection of drains and hard standing. Follow site Incident Response Plan and inform relevant authorities. Take appropriate corrective and preventative actions to minimise environmental impact	Somewhat unlikely	Noticeable	Acceptable
Generalised or localised power failure leading failure of pumps / control systems and possible leaks and escape of sludge	Local water courses. Ground and groundwater	Surface water drainage system. Diffusion into ground.	Back-up power / contingencies plans are in place to provide power to critical operations in the event of an electrical outage	Fairly probably	Minor	Insignificant

What harm can be caused and who can be harmed			Managing the risk	Assessing the risk		
Hazard	Receptor	Pathway	Risk management	Probability of exposure	Consequence	What is the overall risk?
What has the potential to cause harm?	What is at risk? What do I wish to protect?	How can the hazard get to the receptor?	What measures will you take to reduce the risk? If it occurs – who is responsible for what?	How likely is this contact?	What is the harm that can be caused?	What is the risk that still remains?
Fuel / oil spills during tanker refilling / handling operations	Local water courses. Ground and groundwater.	Surface water drainage system. Diffusion into ground.	Invoke spill containment procedures. Clean up according to COSHH data sheets and appropriate disposal arrangements. Isolate affected pipework \ sources Drainage of wider sewage treatment works contained and directed to the head of the works. Follow site Incident Response Plan and inform relevant authorities	Somewhat unlikely	Noticeable	Acceptable
Failure of fuel / oil containment	Local water courses. Ground and groundwater.	Surface water drainage system. Diffusion into ground.	Regular inspection of containment. Clean up spillage and transfer waste into appropriate containment for recovery or disposal. Provision of containment via bunded storage tanks. Drainage of wider sewage treatment works contained and directed to the head of the works. Follow site Incident Response Plan and inform relevant authorities	Unlikely	Significant	Acceptable
Pump / bearing failure leading to excessive noise	Local population	Air	Planned preventive maintenance system in place. Complaints handling and response system in place	Somewhat unlikely	Noticeable	Acceptable
Failure (cracks, splitting) of underground pipework (e.g. fuel, chemicals, sludge, site drains)	Ground and groundwater	Infiltration / percolation through ground	Planned maintenance systems in place In-line flow monitoring in key locations and tank level monitoring would identify losses	Somewhat unlikely	Significant	Acceptable

Table 5-7 Ranking Matrix for Risk Assessment

"S" Severity of environmental impact		"L" Likelihood of event	
1. Minor	Nuisance onsite only (no off-site effects) No outside complaint	1. Extremely unlikely	Incident occurs less than once in a million years
2. Noticeable	Noticeable nuisance offsite, e.g. discernible odours Minor breach of Permitted emissions, but environmental harm One or two complaints from the public	2. Very unlikely	Incident occurs between once per million and once every 10,000 years
3. Significant	Severe and sustained nuisance, e.g. strong offensive odour or noise disturbance Major breach of Permitted emissions with possibility of prosecution Numerous public complaints	3. Unlikely	Incident occurs between once per 10,000 years and once every 100 years
4. Severe	Hospital treatment required Public warning & off-site emergency plan invoked Hazardous substance releases into water course with ½-mile effect.	4. Somewhat unlikely	Incident occurs between once per hundred and once every 10 years
5. Major	Evacuation of local populace Temporary disabling and hospitalisation Serious toxic effect on beneficial or protected species Widespread but not persistent damage to land Significant fish kill over 5 mile range	5. Fairly probable	Incident occurs between once per 10 years and once per year
6. Catastrophic	Major airborne release with serious offsite effects Site shutdown Serious contamination of groundwater or watercourse with extensive loss of aquatic life	6. Probable	Incident occurs at least once per year

Table 5-8 Overall Assessment of Risk

Likelihood of Event	Severity of Environmental Impact					
	Minor	Noticeable	Significant	Severe	Major	Catastrophic
	1	2	3	4	5	6

Extremely Unlikely	1	1	2	3	4	5	6
Very Unlikely	2	2	4	6	8	10	12
Unlikely	3	3	6	9	12	15	18
Somewhat Unlikely	4	4	8	12	16	20	24
Fairly Probably	5	5	10	15	20	25	30
Probable	6	6	12	18	24	30	36

Table 5-9 Overall Assessment of Scores and Interpretation

Risk Score	Magnitude of Risk	Consideration
6 or less	Insignificant	Low or negligible levels of risk, low or negligible impacts. Adherence to good operational practices will adequately control these risks
8 – 12	Acceptable	Lower level of possible impact, but major severity or high likelihood would require consideration of actions to reduce risk
15 – 20	Unacceptable	Combination of high likelihood or major impact would require further assessment and possible actions to reduce risk
24 or more	Severe	Immediate resolution required

4 Monitoring

4a Describe the measures you use for monitoring emissions by referring to each emission point in Table 2 above.

No monitoring for emissions is proposed.

4b point source emissions to air only

No monitoring for emissions is proposed.