

Environmental Risk Assessment – Whitby WwTW

Consideration		Receptors	Discussion	Detailed Environmental Risk Assessment?	Additional Mitigation Required
Fugitive Emissions	Litter	Human health receptors: there are residential areas 60m east. Designations: North Yorks Moors (SAC/SPA/SSSI) is 2.9km South west at its closest point.. There is an ancient woodland 75 south of the site There are no SSSI; NNRS or LNRs within 2km of the site. The site is 50m from the Stainsacre Beck and predominately surrounded by farmland.	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 Stainsacre Beck is located directly to the south (50 m) of the site. The River Esk is 1.3km west of the site. The wider site drainage is returned to the head of the site for treatment. The whole site sits within Flood Zones 1.	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 Directive and are not included in the works associated with this permit application. 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	No	Waste pre-acceptance and acceptance checks for all incoming wastes to minimise the risk of unacceptable loads being delivered, impacting on the treatment processes on site
Odour		Onsite workers and contractors. For human health and ecological receptors, see notes for Litter above.	There is the potential for odorous effluent to be accepted at the site via tanker, however pre-acceptance checks should minimise this risk. 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	Yes	Mitigations are summarised in the odour risk assessment (Table 5-5) Wider works covered by odour management plan
Noise and Vibration		Onsite workers and contractors. For human health and ecological receptors, see notes for Litter above.	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. There is no history of noise related complaints at the site.	No	N/A
Accidents		Onsite workers and contractors. For human health and ecological receptors, see notes for Litter above. Secondary A Aquifers in bedrock underlying the site.	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. 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.	Yes	The site has emergency plans and protocols within its EMS to reduce and minimise risk. Pre-acceptance and acceptance procedures within the management system are in place to minimise risk of accidental input of unauthorised waste. Mitigations are summarised in the environmental accident assessment and accident management plan (Table 5-6)
Waste compatibility		UWWTD derived flow within the works, the biological, chemical and physical processes within the WwTW and output quality (sludges and final effluent)	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. 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. Incoming loads are subject to monitoring, including periodic random sampling and testing to check for compliance.	No	N/A

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		All offloading points equipped with appropriate hoses and coupling to reduce the risk of misconnections and spillages.		
Protected Species/Habitats	Protected species and habitats	There is an ancient woodland, within an area of deciduous woodland between the wider sewage works boundary and the Beck. There should be no impact on this feature from the operations of the waste activity. There is a protected species, designated a code 3, located in and around the site. This species should not be impacted by the operation of the waste facility.	No	No
Flooding	The whole site lies within Flood Zone 1 with a low probability of flooding from rivers (<1:1000 annual probability of flooding).	The site has registered for flood warnings and in the event of a major flood being forecast, tankered trade imports deliveries to the inlet will be diverted to alternative YW sites.	No	No
Bioaerosols	Humans	In line with document reference 'Whitby WwTW Tankered Waste Imports – Bioaerosol Risk Assessment' there are no bioaerosols released from the acceptance of waste. For the reception and offloading of waste there is no release point, offloading through sealed pipe and connector. Only liquid wastes accepted with limited potential to generate bioaerosols. For the discharge of effluent to WwTW, there is no release point - discharge into wastewater inlet is below liquid level. Only liquid wastes accepted with limited potential to generate bioaerosols.	No	No