

Wessex Water Services Ltd

Berry Hill Bioresources Centre

H1 Environmental Risk Assessment

October 2021

Revision	Date	Description	Author	Checked by	Reviewed by
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1 INTRODUCTION

This Environmental Risk Assessment (ERA) has been completed for Wessex Water Services Limited (WWSL) for the site at Berry Hill Bioresources Centre (BC), Watery Lane, Throop, Bournemouth, BH8 0AJ (the Site). This ERA has been completed in accordance with prevailing Environment Agency (EA) technical guidance (Environment Agency, 2020). It is noted that this guidance replaces previous EA H1 Guidance (Environment Agency, 2011), however, the H1 methodology is considered to remain appropriate.

Environmental Risk Assessments have been completed for:

- Emissions / discharges to water (surface water, groundwater and site drainage); [Table 3.1]
- Environmental accidents and incidents; [Table 3.2]
- Odour; [Table 3.3]
- Noise and vibration; [Table 3.4] and
- Fugitive emissions (including dust, mud, litter, pests and pollutants) [Table 3.5].

This ERA is focused on the proposed biological treatment activities, as illustrated in Figure 1. The process flowchart included in Figure 1 also includes Combined Heat and Power activities, which will be managed by Wessex Water Enterprises Limited under Environmental Permit Ref. EPR/HB3406LE but will be referenced as a Directly Associated Activity (DAA) in this Environmental Permit application. The environmental risk is determined using the 'risk matrix' provided in Section 2.

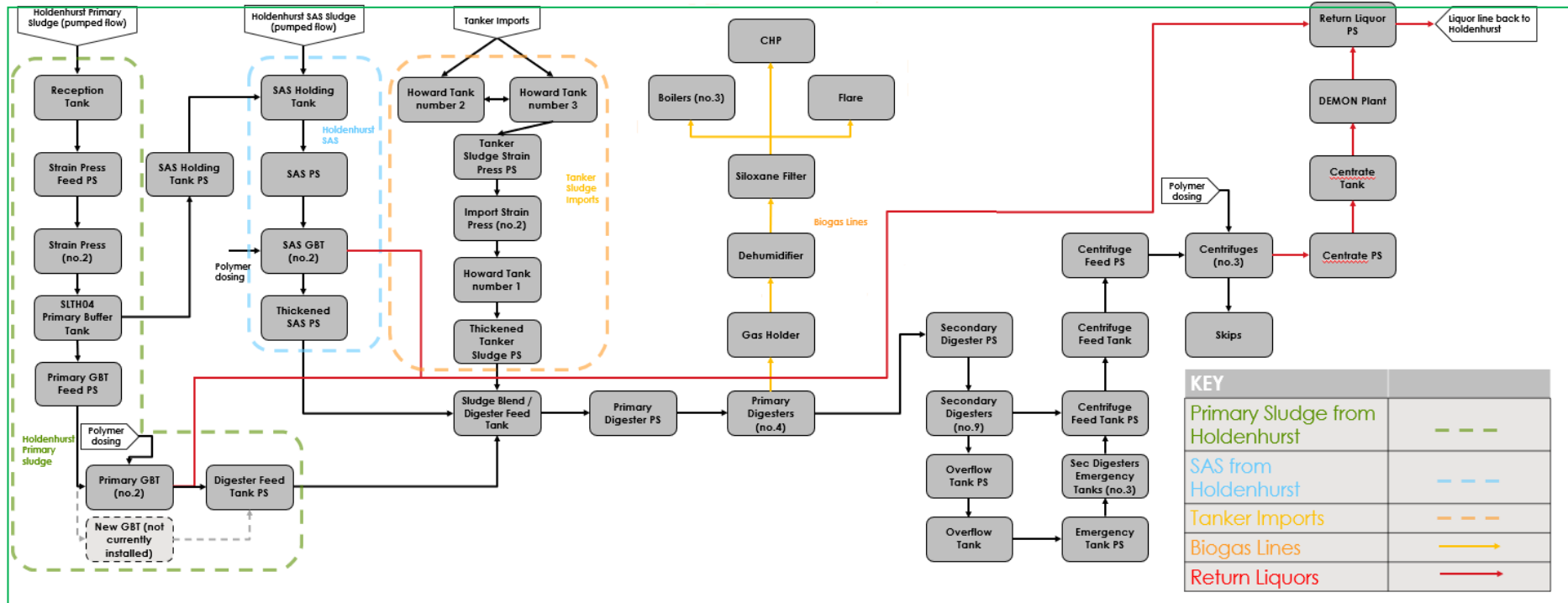
EA guidance for bioaerosol monitoring at regulated facilities (Environment Agency, 2018) requires that bioaerosols are monitored if a biological waste treatment facility is located within 250 m of a sensitive receptor (a place where people live or work) for more than 6 hours at a time; There are no such receptors located within 250 m of the Site, therefore, bioaerosol monitoring is not required and has not been considered further within this ERA.

This ERA does not include specific reference to the training of staff, as this aspect of mitigation stretches across all aspects of risk management for the Site. WWSL staff are provided with training which is specific to their role and only suitably trained staff are involved in the biological treatment activities. WWSL have a training matrix which provides a record of staff training and prompts for refresher training, as required. WWSL have a Technically Competent Manager who will oversee the biological treatment activities.

At present there are some aspects of the infrastructure on the Site that require improvements in order to further mitigate the risk posed to the environment, for example, the drainage system. Once these improvements have been made, as detailed in the 'risk management' column of the ERA, it is considered that the mitigation measures in this ERA will sufficiently manage the risk posed to the environment from the proposed operations.

This ERA concludes that, based on the implementation of the mitigation measures, it is not considered that the proposed activities detailed in this environmental permit application will have a significant impact on the environment.

Figure 1 Berry Hill Bioresources Centre – Process Flow Diagram



2 METHOD OF RISK ESTIMATION

Table 2.1 has been used to determine an estimation of risk from activities to be carried out within the proposed installation boundary. The estimation of risk is based on the magnitude of consequences

from hazards associated with the activities carried out at the Site and the probabilities of these hazards occurring.

Table 2.1 Estimation of Risk

Risk ↘	<i>Consequences</i>			
	Severe	Moderate	Mild	Negligible
<i>Probability</i>				
High	High	High	Medium/low	Near Zero
Medium	High	Medium	Low	Near Zero
Low	High/medium	Medium/low	Low	Near Zero
Negligible	High/medium/low	Medium/low	Low	Near Zero

Although the above table is a simplification that cannot represent the true complexity of assessing risk on the Site, it has been used as a guide in preparing the Environmental Risk Assessment included in the subsequent sections of this report.

3 ENVIRONMENTAL RISK ASSESSMENT

Table 3.1 Emissions to Water (Surface Water, Groundwater and Sewage)

What do you do that can harm and what could be harmed			Managing the risk	Assessing the risk		
Hazard	Receptor	Pathway	Risk Management	Probability of exposure	Consequence	What is the overall risk?
Contaminants from the biological treatment operations reaching surface water features	<p>Surface water features - closest being surface water ditches located adjacent to the Site (along north-eastern, north-western and south-eastern boundaries) and the River Stour which is located approximately 40 m northeast of the Site at its closest approach and flows eastwards towards Christchurch Harbour. An additional surface water ditch is located approximately 140 m south east of the Site.</p> <p>Local flora and fauna associated with watercourses.</p> <p>The Site is not located within a</p>	Infiltration and surface water run-off to surface water features e.g., ditches.	<p>WWSL operate in accordance with an Environmental Management System, which has been prepared in accordance with prevailing EA Guidance (how to develop a management system: environmental permits). A copy of the Environmental Accident Management Plan is provided as part of this Environmental Permit application and prevalent points included below.</p> <p>A robust risk assessment process (EQRA) is provided as Appendix 6 of this application. The EQRA is based on the source-pathway-receptor model as prescribed by CIRIA C736, and in accordance with sector guidance. The EQRA allows for a determination of BAT or BAT equivalent measures for the containment of fugitive emissions to ground/groundwater.</p> <p>The drainage survey and condition report will identify any further pollution prevention measures required, but it is likely to mean that the surface water drains that discharge to the ditch will be redirected to the liquor return PS for treatment at Holdenhurst WRC.</p>	Negligible	Mild	Low

What do you do that can harm and what could be harmed			Managing the risk	Assessing the risk		
Hazard	Receptor	Pathway	Risk Management	Probability of exposure	Consequence	What is the overall risk?
	Groundwater Protection Zone; the nearest is approximately 3 km to the west of the Site. The Site is located on a Secondary A designated aquifer.					
Contaminants from the biological treatment operations reaching groundwater	Surface water features as described above (ultimately reaching groundwater) and groundwater.			Negligible	Mild	Low

Table 3.2 Environmental Accidents and Incidents

What do you do that can harm and what could be harmed			Managing the risk	Assessing the risk		
Hazard	Receptor	Pathway	Risk Management	Probability of exposure	Consequence	What is the overall risk?
Leaks and spills from plant/equipment, hazardous liquid containment facilities (e.g. polymer and fuel), tanks and pipework	<p>Surface water features - closest being surface water ditches located adjacent to the Site (along north-eastern, north-western and south-eastern boundaries) and the River Stour which is located approximately 40 m northeast of the Site at its closest approach and flows eastwards towards Christchurch Harbour.</p> <p>An additional surface water drain is located approximately 140 m south east of the Site, local flora and fauna.</p> <p>The Site is not located within a Groundwater Protection Zone;</p>	Surface water run-off, infiltration.	<p>All plant and equipment on the Site are fitted with process monitoring equipment, which will continuously monitor the process to detect any faults which could lead to an incident. This system will raise an alarm if a fault has, or is likely to, occur. As an example, an alarm will activate if levels within a tank exceed a trigger limit in order to minimise the risk of overfilling. Alarms notify key staff who will act to resolve the issue.</p> <p>All plant and equipment on the Site are checked and maintained as part of a maintenance regime. Checking for leaks is a specific item within the operational regime. This will act to reduce the likelihood of any loss of containment or leaks, alongside various control measures.</p> <p>Hazardous liquids e.g. fuel are stored appropriately in bunded tanks/containers. Powder polymer is stored in bags behind locked doors.</p> <p>Provision of spill kits and incident response equipment to clean up leaks / spills.</p> <p>Supervision of all fuel deliveries. Fuel delivery will take place in a designated area.</p>	Low	Negligible	Near Zero

What do you do that can harm and what could be harmed			Managing the risk	Assessing the risk		
Hazard	Receptor	Pathway	Risk Management	Probability of exposure	Consequence	What is the overall risk?
	the nearest is approximately 3 km to the west of the Site. The Site is located on a Secondary A designated aquifer.					
Failure of plant / equipment e.g. from blockages, pressure, faulty pipework, valves, pumps etc. which could cause accidents / incidents e.g. injury, fire etc.	<p>Staff on site (direct harm)</p> <p>Residential dwellings in the town of Throop, with the closest located approximately 400 m south east of the Site. Other residential towns located further south.</p> <p>Local amenity and flora/fauna e.g. agricultural land and River Stour.</p>	<p>Direct – harm/injury, spread of fire.</p> <p>Air (air quality impact)</p> <p>Note – no residential / commercial / industrial sensitive receptors in close vicinity to the Site that could be affected by a fire spreading. Nearby sensitive receptors include agricultural land and habitats associated with the River Stour.</p>	<p>WWSL have an Environmental Management System, which has been prepared in accordance with prevailing EA Guidance (how to develop a management system: environmental permits). A copy of the Environmental Accident Management Plan is provided as part of this Environmental Permit application and prevalent points included below.</p> <p>All plant and equipment on the Site is fitted with process monitoring equipment, which will continuously monitor the process to detect any faults. This system will raise an alarm if a fault has, or is likely to, occur. As an example, an alarm will activate if pressure is low or the temperature of the pump exceed a pre-set limit. Alarms notify key staff who will act to resolve the issue.</p> <p>All plant and equipment on the site are checked and maintained as part of a planned maintenance program. Alarms will trigger as part of a continuous monitoring system for all plant, which will ensure prompt response to faults.</p> <p>Actions will be taken to fix plant / equipment in the event of a failure / breakdown to address the incident as quick as possible. In some instances, a failure could have severe</p>	Low	Mild	Low

What do you do that can harm and what could be harmed			Managing the risk	Assessing the risk		
Hazard	Receptor	Pathway	Risk Management	Probability of exposure	Consequence	What is the overall risk?
			<p>consequences i.e. a failure involving infrastructure managing biogas. An automated stop on assets will be initiated in the event that excess heat, low pressure or electricity anomalies are identified.</p> <p>Management may also make the decision to stop operations by utilising manual stops on assets. This decision will be largely based on if the plant is integral to the operation and likely to pose a wider concern to the Site and/or the environment.</p>			
<p>Fire e.g. from a fault in plant / equipment or from arson</p>	<p>Staff on site (direct harm)</p> <p>Residential dwellings in the town of Throop, with the closest located approximately 400 m south east of the Site. Other residential towns located further south.</p> <p>Local amenity and flora/fauna e.g. agricultural land and River Stour.</p>	<p>Direct – spread of fire.</p> <p>Air (air quality impact) Note – no residential / commercial / industrial sensitive receptors in close vicinity to the Site that could be affected by a fire spreading. Nearby sensitive receptors include agricultural land and habitats associated with the River Stour.</p>	<p>WWSL have an Environmental Management System, which has been prepared in accordance with prevailing EA Guidance (how to develop a management system: environmental permits). A copy of the Environmental Accident Management Plan is provided as part of this Environmental Permit application and prevalent points included below.</p> <p>Waste accepted and treated on the Site is sludge and the resulting 'cake' and solids e.g. grit and 'rags', which are not combustible in nature (as defined by EA Guidance for Fire Prevention). The majority of waste will have a high liquid content exceeding 95% by weight.</p> <p>Wessex Water have an 'Environmental Guidance - Fire Emergencies (Ref. ENVG008)' document which outlines their approach to dealing with fires on the site, which includes actions to be taken in the event of a fire and directions for managing contaminated fire water. A copy of the 'Environmental Guidance - Fire Emergencies' document is included as Appendix 1.</p>	Low	Mild	Low

What do you do that can harm and what could be harmed			Managing the risk	Assessing the risk		
Hazard	Receptor	Pathway	Risk Management	Probability of exposure	Consequence	What is the overall risk?
			<p>Water is immediately available on the site for use by the emergency services to tackle a fire.</p> <p>Biological treatment activities produce biogas which is flammable and if not properly managed could cause a fire or explosion. This biogas is managed by both WWSL and WWEL, as the proposed EP will be a multi-operator EP. Equipment involved in the management of biogas is checked and maintained as part of a maintenance regime.</p> <p>There are risks of explosion on the Site from the storage and use of containerised hazardous (flammable) substances such as the biogas as outlined above. WWSL manage these risks in accordance with Dangerous Substances and Explosive Atmospheres Regulations 2002 (DSEAR).</p>			
Flooding from blocked drains, burst pipes, and handling fire water (water used during firefighting)	Nearby land uses, surface water features (closest being surface water ditches located adjacent to the Site (along north-eastern, north-western and south-eastern boundaries) and the River Stour which is located approximately 40 m northeast of the	Overwhelmed drainage system and resulting surface water-runoff. Surface water run-off overwhelming drains.	<p>WWSL have an Environmental Management System, which has been prepared in accordance with prevailing EA Guidance (how to develop a management system: environmental permits). A copy of the Environmental Accident Management Plan is provided as part of this Environmental Permit application and prevalent points included below.</p> <p>Drainage system improvements will be required to ensure all drains discharge flows into the inlet works at Holdenhurst Water Recycling Centre and that the drainage system is a sealed system.</p>	Medium	Mild	Low

What do you do that can harm and what could be harmed			Managing the risk	Assessing the risk		
Hazard	Receptor	Pathway	Risk Management	Probability of exposure	Consequence	What is the overall risk?
	Site)), agricultural land and residential town of Throop, with the closest dwelling located approximately 400 m south east of the Site.		<p>Flooding on Site would only be likely to occur if the drainage system is overwhelmed which could occur if the Site floods. Only a small portion of the southern part of the Site and an area along the northern boundary are identified at risk of flooding from rivers and coastal flooding. There is little risk from surface water flooding with only a few sporadic areas identified at risk up to a 1 in 30 year period. The Site is generally at a moderate risk of groundwater flooding with small areas of moderate to high risk. The risk of flooding is mitigated as the Site is directly linked to Holdenhurst Water Recycling Centre.</p> <p>Surface water drains are visually inspected on a daily basis.</p> <p>Spill modelling of the Site and subsequent development of containment options will confirm the kerbing and containment infrastructure needed to mitigate the risk of pollution.</p>			
Failure of services e.g. water, gas, electricity which could result in the failure of plant	<p>Staff on site (direct harm)</p> <p>Residential dwellings in the town of Throop.</p> <p>Local amenity and flora/fauna e.g. agricultural land and River Stour.</p>	<p>Direct – spread of fire.</p> <p>Note – no sensitive receptors in close vicinity to the Site. No adjacent receptors that could be affected by a fire spreading.</p> <p>Air (air quality impact)</p>	<p>WWSL have an Environmental Management System, which has been prepared in accordance with prevailing EA Guidance (how to develop a management system: environmental permits). A copy of the Environmental Accident Management Plan is provided as part of this Environmental Permit application and prevalent points included below.</p> <p>Risk management identified in above rows, specifically in relation to 'failure of plant' and 'fire'.</p> <p>Site water is provided by a borehole; spares are held on site at all times and swap takes a day.</p>	Low	Mild	Low

What do you do that can harm and what could be harmed			Managing the risk	Assessing the risk		
Hazard	Receptor	Pathway	Risk Management	Probability of exposure	Consequence	What is the overall risk?
			<p>There is also capability to swap to the portable supply.</p> <p>Backup generators (on site and mobile) are available to ensure operations can continue in a loss of power scenario. The telemetry system will inform WWSL staff in the event of a loss of power.</p> <p>Plant and equipment are fitted with process monitoring equipment. An alarm would be activated, and staff notified if plant/equipment failed e.g. pumps were overheating. Furthermore, the current of incoming water is monitored, which is regularly checked by members of the WW Water Team. Water levels are monitored and managed on a continuous basis.</p> <p>Boilers located on the Site will use biogas and can use natural gas if required. The boilers are not solely reliant on natural gas and would likely continue operation in the event of a gas failure. A diesel generator is available in the event of a power failure.</p>			
Unauthorised entry and damage to plant and equipment e.g. from vandalism	<p>Staff on site (direct harm)</p> <p>Residential dwellings in the town of Throop, with the closest located approximately 400 m southeast of the Site. Other</p>	<p>Direct – harm/injury, spread of fire.</p> <p>Note – no sensitive receptors in close vicinity to the Site. No adjacent receptors that could be affected by a fire spreading.</p>	<p>WWSL have an Environmental Management System, which has been prepared in accordance with prevailing EA Guidance (how to develop a management system: environmental permits). A copy of the Environmental Accident Management Plan is provided as part of this Environmental Permit application and prevalent points included below.</p> <p>Unauthorised entry could result in arson, see entry for 'fire' above.</p>	Low	Moderate	Medium/Low

What do you do that can harm and what could be harmed			Managing the risk	Assessing the risk		
Hazard	Receptor	Pathway	Risk Management	Probability of exposure	Consequence	What is the overall risk?
	<p>residential towns located further south.</p> <p>Local amenity and flora/fauna e.g. agricultural land and River Stour.</p>	Air (air quality impact)	<p>Unauthorised entry could result in tampering / vandalism of plant and equipment, see 'failure of plant' above.</p> <p>WWSL have a number of site security measures. Perimeter fence to boundary of Site, which is inspected on a weekly basis. There is a card entry barrier at both entrances. CCTV is available on Watery Lane entrance along with number plate recognition. This access point is closest to members of the public passing by. There are also cameras in the control room and car park.</p> <p>Cameras and CCTV is remotely viewable by the Regional Operations Centre (ROC) and from the onsite control room. ROC can monitor remotely outside of working hours.</p>			

Table 3.3 Odour

What do you do that can harm and what could be harmed			Managing the risk	Assessing the risk		
Hazard	Receptor	Pathway	Risk Management	Probability of exposure	Consequence	What is the overall risk?
Odour from Biological Treatment activities	<p>Staff on Site, residential dwellings in the town of Throop, with the closest located approximately 400 m south east of the Site. Other residential towns located further south.</p> <p>Local amenity and flora/fauna e.g. agricultural land and River Stour.</p>	Air (Atmospheric Migration)	<p>An Odour Management Plan (OMP) is available for the Site, which includes mitigation measures adopted by WWSL to minimise odour. This OMP requires that all plant on Site limits the risk of causing an odour nuisance. All new plant installed on the site is designed and operated to minimise the risk of causing odour nuisance. The OMP includes key contacts and responsible parties in relation to odour control. The OMP is regularly reviewed to ensure mitigation measures remain appropriate.</p> <p>Odour complaints have been received for the Site in recent years, on average 6 per year. All complaints are investigated in accordance with the complaints procedure in the OMP, and any necessary actions are taken.</p> <p>The gravity belt thickeners, digester blending tank, digesters, DEMON plant and centrate tanks are either located within a building and/or covered. Any odour emissions from the SAS thickeners are extracted and vented to atmosphere.</p> <p>All plant and equipment are fitted with process monitoring equipment. This equipment monitors the performance of assets and will continuously monitor these performance metrics. An alarm is activated in the event that any plant / equipment is not functioning as expected. Actions will be taken to rectify the issue. This will act to reduce the likelihood of</p>	Low	<p>Moderate</p> <p>May present more risk of nuisance in the summer months.</p>	Medium/Low

What do you do that can harm and what could be harmed			Managing the risk	Assessing the risk		
Hazard	Receptor	Pathway	Risk Management	Probability of exposure	Consequence	What is the overall risk?
			<p>odour generation.</p> <p>A planned maintenance and inspection regime is followed for plant and equipment present on the site. Plant will be checked regularly to ensure they are in good working order. This proactive approach to maintenance and inspection will ensure that plant breakdown is minimised and any potential for uncontrolled emissions are prevented or minimised.</p> <p>An assessment is carried out in the event of a critical failure of plant/process to determine any risk of odour and mitigation measures that may be needed. More information on emergency responses can be found in the OMP.</p> <p>The WWSL website provides an opportunity for the public to lodge a complaint in respect to any operations carried out at the site; The site entrance displays a sign with site details for information. Odour complaints will be recorded, and actions taken to resolve these complaints. Management will review these actions and amend the OMP and company procedures as appropriate to reduce the risk of future odour emissions.</p>			
Odour from general site activities associated with the biological treatment activities.			<p>Good housekeeping is maintained on the Site to minimise the likelihood of odour emissions arising from the site. Housekeeping will include keeping doors to buildings closed, sealing covers, cleaning Site surfacing and dealing with spillages.</p>			

Table 3.4 Noise and Vibration

What do you do that can harm and what could be harmed			Managing the risk	Assessing the risk		
Hazard	Receptor	Pathway	Risk Management	Probability of exposure	Consequence	What is the overall risk?
<p>Noise and vibrations from biological treatment operations, notably:</p> <ul style="list-style-type: none"> • Boilers / CHP • Gas boosters • Imported sludge screen • Pumps • Digester boiler • Generator • Air cooled radiators (fans) • Waste gas burners 	<p>Staff on site (direct harm), residential dwellings in the town of Throop, with the closest located approximately 400 m southeast of the Site. Other residential towns located further south.</p> <p>Local amenity and flora/fauna e.g. agricultural land and River Stour.</p>	<p>Air (Atmospheric Migration)</p>	<p>WWSL have a company-wide Noise Management Plan (NMP). The purpose of the NMP is to ensure that impacts associated with noise and vibration are dealt with appropriately during the design, construction, maintenance and operation of WWSL assets. The NMP requires that WWSL conduct a noise survey to assess the impact of any new assets, during installation and commissioning, to determine whether a proposed development is at risk from creating noise nuisance.</p> <p>A Noise & Vibration Risk Assessment has been prepared as part of this Environmental Permit application. Points below draw upon information from this assessment.</p> <p>All plant and equipment on the Site are subject to regular planned maintenance schedules. Good maintenance of plant is carried out to ensure that excessive noise levels are not generated from equipment breakdown or wear and tear (e.g. fan motor bearing failure).</p> <p>The CHP and boilers have the potential to generate noise, as such these assets are contained within high performance acoustic enclosures and/or are located within buildings. The doors to buildings containing such assets will be kept closed when plant is operational.</p> <p>The CHP, boilers and other plant that have been identified to also have the potential to</p>	<p>Medium</p>	<p>Mild</p>	<p>Low</p>

What do you do that can harm and what could be harmed			Managing the risk	Assessing the risk		
Hazard	Receptor	Pathway	Risk Management	Probability of exposure	Consequence	What is the overall risk?
			<p>generate noise (listed in 'hazards' column) are located such that surrounding structures shield potential receptors from the noise source and/or are located at a suitable distance from sensitive receptors.</p> <p>There are no outstanding noise complaints for the Site.</p>			
Noise and vibrations caused by vehicle movements within the Site			<p>Deliveries would take place during the daytime hours. Vehicles predominately use the second entry road from the Parley Lane entrance close to Hurn airport, which will act to minimise noise and vibrations from using the Watery Lane entrance.</p>	Medium	Negligible	Near Zero

Table 3.5 Fugitive Emissions (including dust, mud, litter, pests and pollutants)

What do you do that can harm and what could be harmed			Managing the risk	Assessing the risk		
Hazard	Receptor	Pathway	Risk Management	Probability of exposure	Consequence	What is the overall risk?
Dust emissions from biological treatment activities leaving the Site boundary.	Staff on site (direct harm), residential dwellings in the town of Throop, with the closest located approximately 400 m south east of the Site. Other residential towns located further south. Local amenity and flora/fauna e.g. agricultural land and River Stour.	Air (Atmospheric Migration)	Waste stored and treated on the Site is sludge waste and the resulting 'cake' and solids e.g. 'rags'. Due to its nature, this waste is not likely to generate significant dust emissions. Polymer used in the thickening and dewatering activities has the potential to generate dust. Polymer is used within a building and container, which will prevent contain dust emissions. The Site is subject to planned visual inspections and a planned cleaning regime. This will ensure that mud/residues on the Site surfacing is managed.	Negligible	Mild	Low
Mud / residues reaching the public highway	Nearby public highway and roads within the residential town of Throop. Local amenity and flora/fauna e.g. agricultural land and River Stour.	Tracking of mud on wheels / undercarriage of vehicles.	As above. Waste stored and treated on the Site is not likely to generate mud/residues. Waste storage and treatment activities are largely contained, either within a building and/or containment e.g. tanks, pipework, skips and bays.	Negligible	Negligible	Near Zero
Litter leaving the Site boundary	flora/fauna e.g. agricultural land and River Stour.	Air (windblown)	Waste stored and treated on the Site is unlikely to contain significant quantities of litter. Any solids within the waste are unlikely to become windblown, which could cause litter on the Site. There are skips located around the Site which contain general waste and screenings from different parts of the sludge treatment process. There is a low risk of litter associated with these	Negligible	Mild	Low

What do you do that can harm and what could be harmed			Managing the risk	Assessing the risk		
Hazard	Receptor	Pathway	Risk Management	Probability of exposure	Consequence	What is the overall risk?
			<p>skips.</p> <p>Fencing around the perimeter of the Site will prevent windblown litter crossing the Site boundary.</p>			
<p>Pests and vermin infestation causing an amenity impact and potential damage to plant / equipment and infrastructure on Site.</p>	<p>Amenity impact – staff on site and nearby residential dwellings within the residential town of Throop and other residential towns further afield. Nearest residential dwelling is located approximately 400 m south east of the Site.</p>	<p>Air transport and over land</p>	<p>WWSL have a fly management plan and pest procedures to follow to ensure that pests and vermin are controlled and managed on the Site.</p> <p>WWSL will conduct regular visual inspections to monitor potential pest/vermin infestations and will employ specialist contractors to manage pest/vermin infestations. An external pest control company visits monthly to check the Site for any signs of infestation.</p>	<p>Low</p>	<p>Mild</p>	<p>Low</p>
<p>Storage of liquids (hazardous or potential to cause pollution) e.g. polymer, fuel</p>	<p>Surface water features - closest being surface water ditches located adjacent to the Site (along north-eastern, north-western and south-eastern boundaries) and the River Stour which is located approximately 40 m northeast of the Site at its closest approach and flows eastwards towards Christchurch</p>	<p>Infiltration and surface water run-off</p>	<p>The closest surface water feature are the surface water ditches located adjacent to the Site (along north-eastern, north-western and south-eastern boundaries) and the River Stour, which is located approximately 40 m northeast of the Site. The Site is not located within a Groundwater Protection Zone.</p> <p>Improvements will include ensuring all drains will discharge flows into the inlet works at Holdenhurst Water Recycling Centre and that the drainage system is sealed.</p> <p>Spill modelling of the Site and subsequent development of containment options will confirm the kerbing and containment infrastructure needed to mitigate the risk of pollution.</p>	<p>Negligible</p>	<p>Mild</p>	<p>Low</p>

What do you do that can harm and what could be harmed			Managing the risk	Assessing the risk		
Hazard	Receptor	Pathway	Risk Management	Probability of exposure	Consequence	What is the overall risk?
	<p>Harbour.</p> <p>An additional surface water drain is located approximately 140 m south east of the Site, local flora and fauna.</p> <p>The Site is not located within a Groundwater Protection Zone; the nearest is approximately 3 km to the west of the Site. The Site is located on a Secondary A designated aquifer.</p>					

4 REFERENCES

Environment Agency. (2011). *Horizontal Guidance Note H1: Overview Document. H1 Annex A - Amenity & accident risk from installations and waste activities.*

Environment Agency. (2020, December). *Risk assessments for your environmental permit.* Retrieved from <https://www.gov.uk/guidance/risk-assessments-for-your-environmental-permit>

Appendix 1

Fire Emergencies Guidance Note

Environmental Guidance – Fire Emergencies

Purpose

This guidance note indicates details of how to minimise environmental impacts associated with fire emergencies affecting Wessex Water assets.

Guidance

Sites storing combustible material may require a Fire Prevention Plan as part of the Environmental Permit Management System. Refer to site specific Fire Prevention Plans where available.

On discovery of a fire affecting a Wessex Water asset, members of staff should immediately contact the Fire and Rescue Service and evacuate the workplace – see HSA25, Fire Safety.

The Fire and Rescue Service will be responsible for all actions to contain and control the fire and take appropriate steps to prevent pollution (as outlined in the Environment Agency's National Memorandum of Understanding with the Fire and Rescue Service¹).

Wessex Water staff should identify any particular areas of concern where pollution may affect treatment infrastructure, particularly where this may affect drinking water quality and make the Fire and Rescue Service aware.

In the event of contaminated fire water being present on site, whilst the Fire and Rescue Service are primarily responsible for dealing with such water during the emergency, it may be necessary (where safe to do so) to:

- Divert contaminated water to storm tanks or storm storage (if available).
- Divert contaminated water to the foul sewer. Before discharging to the foul sewer, the Control Room must be advised so that the relevant Sewerage and Treatment Managers can be contacted to assess the impact on the receiving sewer. Do not discharge to the foul sewer without consent from relevant Operations Sewerage and Treatment manager. Evacuation of staff from the affected site (especially contractors) is also important. Further information is available in TRTWG111, Wastewater operational guide unauthorised discharges affecting STWs and NTKWG004 Guidance on spillage or discharge into sewer.
- Divert contaminated water to spill containment tanks (if available).
- If possible, block access of contaminated water to surface water drainage systems to prevent loss of fire water from site or divert surface water drainage so that fire water does not enter the environment. This can be

¹ <http://www.cfoa.org.uk/11488>

done by using drain seals, temporary sandbags, soil or sand bunds or absorbent booms in spill kits.

- Consider whether diversion of water to hard standing areas such as car parks is possible (use sandbags, soil or sand to form temporary bunds). Avoid diverting fire water to bare ground to ensure it is not allowed to soak away.

Waste Management

Waste is likely to be generated at incidents where pollution control measures have been employed. Waste types could include:

- Polluted fire water
- soiled materials (including clothing)
- used absorbents
- damaged containers
- contaminated equipment

This waste may be classified as hazardous and should be stored appropriately to prevent further pollution (for example, in a covered skip or on hardstanding with controlled drainage). All waste must be properly classified to determine if it is considered hazardous and disposed of correctly. If unsure of how to dispose of this, contact either the Waste Advisor or environmental team (or see guidance on Source Intranet).

If soil has become contaminated with pollutants, testing will be required to determine the appropriate disposal route or alternative mitigation. Water contaminated by hydrocarbons could be treated using oil/water separators.

Sites with Environmental Permits may have specific Fire Prevention Plans for fire emergencies and fire water as part of an accident management plan.

Where buildings or structures are affected by fire, potential asbestos contamination should be considered. Check the site Asbestos Management Plan to determine whether/where asbestos is present – a hard copy will be on site or available through the Site Information File.

Revision history

Issue	Date	Description	Prepared by	Approved by
1	September 2010	First issue	D Jones	Adrian Stoodley
2	December 2017	Updated with Fire Prevention Plan requirements and minor amendments	Dave Jones	Adrian Stoodley