FIRE PREVENTION PLAN

Unit 8, Broadway Industrial Estate, Broadway Lane, South Cerney, Cirencester, Gloucestershire, GL7 5UH

Highworth Skip Hire Ltd

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Oaktree Environmental Ltd

Waste, Planning & Environmental Consultants

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Version	Issue date	Author	Checked	Description
1.0	04/03/2025	EG	--	Application copy
1.1	11/09/2025	EG	--	Removal of hazardous waste types

THIS DOCUMENT IS DUE FOR REVIEW IN **MARCH 2027** OR AS A RESULT OF ANY INCIDENTS WHICH MAY LEAD TO THE REQUIREMENT FOR IMMEDIATE REVIEW, WHICHEVER IS SOONER.

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SITE INFORMATION & KEY CONTACTS LIST

Site Address:	Unit 8, Broadway Industrial Estate, Broadway Lane, South Cerney, Cirencester, Gloucestershire, GL7 5UH		
Site Operator:	Highworth Skip Hire Ltd	**National Grid Ref:**	SU 04927 96268

CONTACT	DESCRIPTION	OFFICE HOURS	OUT OF HOURS
Nick D'angeli	Director	01367 248441	07899 686266
Cirencester Hospital Community Hospital, Tetbury Road, Cirencester, GL7 1UY	Local NHS Hospital (Main)	0300 421 6200	999
	Accident & Emergency (A&E)	112	999
South Cerney Surgery – Phoenix Health Group Clarks Hay, South Cerney, Cirencester, GL7 5UA	Local Doctor Surgery (GP)	01285 862112	999 or 112
Gloucestershire Constabulary Cirencester Police Station, Forum House, South Way, Cirencester, GL7 2PG	Local Police Non-Emergency	01452 907200	999
	Police Emergency	999	999
Gloucestershire Fire & Rescue Service Cirencester Community Fire & Rescue Station, School Lane, Cirencester, GL7 1JX	**Fire and Rescue Service** (in Emergency Dial 999)	08001 804140	999
Environment Agency Horizon House, Deanery Road, Bristol, BS1 5AH	Environmental Regulator	0370 850 6506	0370 850 6506
Cotswold District Council Trinity Road, Cirencester, GL7 1PX	Local Council General Enquiries	01285 623000	01285 623000
Thames Water	Main water supplier	08003 169800	08003 169800
Oaktree Environmental Ltd Lime House, 2 Road Two, Winsford, Cheshire, CW7 3QZ	Specialist Advisor (Waste and Planning Issues)	01606 558833	n/a

1 Introduction

1.1.1 Oaktree Environmental Ltd have been instructed by Highworth Skip Hire Ltd (the Operator) to prepare this Fire Prevention Plan (FPP). The FPP assesses the fire risk associated with the storage of combustible waste at Unit 8, Broadway Industrial Estate, Broadway Lane, South Cerney, Cirencester, Gloucestershire, GL7 5UH.

1.1.2 This FPP has been prepared to support an Environmental Permit application for a household, commercial and industrial (HCI) waste transfer station.

1.1.3 The permit boundary is illustrated in green on Drawing No. BIE/3309/02 Permit Boundary Plan. All references to 'the site' in this FPP refer to the associated operations, infrastructure, plant, and equipment within this boundary.

1.1.4 All site staff and contractors must be aware and understand the contents of this FPP and what they must do during a fire. A copy of this FPP must be kept in the site office at all times and be readily available to all members of staff (including electronic copies).

1.1.5 In the event of a fire, the Fire & Rescue Service (FRS) and Environment Agency (EA) would be able to view this FPP to ensure the actions set out are implemented to meet the objectives shown in Section 1.2.2.

1.1.6 Contact details for neighbouring business and receptors within the immediate vicinity of the site are kept on site. In the event of a fire these receptors would be contacted to alert them of the fire.

1.1.7 In addition to this FPP the site is managed and operated in accordance with a fully comprehensive Environmental Management System (EMS).

1.2 Fire Prevention Objectives

1.2.1 This FPP has been prepared in accordance with the Environment Agency guidance on Fire Prevention Plans: Environmental Permits (updated 11th January 2021). The FPP guidance requires that the FPP accounts for the fire risk from potentially combustible waste types stored on site.

1.2.2 This FPP has been designed to meet the following objectives:

a) To minimise the likelihood of a fire happening.
b) To aim for a fire to be extinguished within 4 hours.
c) To minimise the spread of a fire within the site and to surrounding neighbouring sites; and,
d) To minimise impact of fire on people, environment, and businesses.

1.2.3 All staff working on site must understand the content of this FPP to know what to do:

a) To prevent a fire occurring.
b) During a fire if one breaks out.

1.3 Reviewing and Monitoring this FPP

1.3.1 This FPP is considered a 'live' document which will be reviewed on a biannual basis (once every two years) and or if any of the following occur:

a) A fire incident.
b) Additional combustible waste types are accepted on to site.
c) An increase in the annual throughput of combustible waste accepted.
d) An increase in the amount of combustible waste stored.
e) The construction of new infrastructure e.g. buildings.
f) The installation of new plant / equipment.

1.3.2 Reference should be made to Section 5.2 and 5.3 which detail procedures for staff training in the event of any changes in relations to this FPP.

1.4 Site Operations

1.4.1 Reference should be made to the Environmental Management System for specific details regarding the acceptance, storage and removal of waste, in summary the main operations which take place are the site are as follows:

a) Sorting of mixed HCI skip waste (with loading shovel/360^{o} excavator or by hand).
b) Storage of waste (prior to removal).

1.4.2 No mechanical treatment or processing of waste is undertaken on site, the site is used for the manual separation of waste for storage prior to removal.

1.4.3 The above activities are clearly shown on Drawing No. BIE/3309/03.

1.5 Hours of Operation

1.5.1 The site is operated according to the hours specified below:

Monday to Friday	07:00 – 17:00
Saturday	08:00 – 12:00
Sundays & Bank/Public holidays	Closed

1.6 Staffing and Management

1.6.1 Table 1.1 overleaf details the minimum staff structure available when the site is open for the reception and processing of waste and, therefore, shows the minimum number of staff available to tackle a fire on site during all operational hours.

1.6.2 Site management will train operational staff in the contents of the FPP to ensure they can be considered suitable to assist in tackling a fire at the site.

Table 1.1 - Staffing Levels

Position	Employees	Responsibilities
Site Manager	1	Overseeing and co-ordinating all activities which take place at the site.
Technically Competent Manager	1	Ensuring compliance with the permit.
Administrative Staff	1	Office/administrative duties
General Site Operatives	4	Waste handling/processing, reception, and plant operation

1.7 Plant and Equipment

1.7.1 Table 1.2 below details the plant / equipment on site. Only trained operators will be permitted to drive / operate the plant / equipment listed below.

Table 1.2 - Plant & Equipment

Item	Number	Function
360^{o} excavator / crane grab	1	Loading/unloading/movement/sorting
Loading shovels	1	Loading/unloading/movement/sorting

1.8 Correspondence with the Fire and Rescue Service

1.8.1 The Operator will seek a two-yearly response from the EA and FRS (or sooner should a fire incident occur) with regards to their FPP and associated operations on site. This regular correspondence will ensure all measures to prevent, mitigate and contain fires on site are up to date and deemed sufficient by the FRS.

1.8.2 The FRS were contacted during the preparation of this FPP to obtain information relating to the nearest fire hydrants to the site, see Drawing No. BIE/3309/03 and Section 10.3 for further information.

1.9 Sensitive Receptors

1.9.1 It is considered that fire presents three main hazards to nearby sensitive receptors:

a) Heat from the fire itself.
b) Air pollution (predominantly from smoke emissions).
c) Pollution to groundwater / surface water features.

1.9.2 Heat energy from a fire will reach sensitive receptors via direct fire spreading or by the deposit of burning embers. Heat energy is largely dependent upon the location and intensity of the fire.

1.9.3 Smoke produced from fires can contain harmful gases that are produced from the combustion process. The distance smoke will travel is dependent on wind speed at the time of the fire, however it is considered unlikely that smoke from the burning waste stored on site will significantly affect sensitive receptors outside of a 1km radius.

1.9.4 Significant amounts of water and / or other chemicals may be used when controlling a fire. Firewater produced from tackling a fire has the potential to contain contaminants from the chemicals used, burned materials and other pollutants present on the site. The release of firewater from the site because of a fire has the potential to cause pollution to groundwater / nearby surface water features.

1.9.5 Sensitive receptors within 1km of the site are listed in Table 1.3 overleaf. Sensitive receptors are also illustrated on Drawing No. BIE/3309/04 Receptor Plan, see Appendix I.

1.9.6 The primary sensitive receptor for any fire event would be the site itself and any site users.

Table 1.3 Sensitive Receptors

Receptor	Direction from Site	Approx distance from the site boundary to the receptor boundary (m)
Commercial / Industrial		
Broadway Industrial Estate	North, east, south and west	0
BMI Group UK Ltd	South	0
Bison Plant Hire	East	20
Lakeside Business Park	North	40
Aggregate Industries	Southwest	600
Residential		
Residential dwellings (Beverstone Road)	North	205
Care homes (residential)		
n/a	n/a	n/a
Schools		
Ann Edwards C of E Primary School	Northwest	565
Watercourses		
Ham Pool Lake (SSSI)	East	100
Infrastructure (major roads and transport links)		
Broadway Lane	East	65
Ecological Sites		
Cotswold Waterpark (SSSI)	South	100
Recreational		
Hoburne Cotswold Holiday Park	Southeast	320

2 Managing Common Causes of Fire

2.1 Details

2.1.1 Table 2.1 below outlines common causes of fire and outlines specific examples of these sources, the associated risks, and any mitigation measures necessary to manage them:

Table 2.1 - Common sources of fire and mitigation measures

Source	Risk	Magnitude of Risk / Likelihood	Brief outline of Mitigation (refer to Section 4 for storage/monitoring procedures)	Magnitude of risk / likelihood following mitigation
Arson or vandalism	Deliberate ignition of wastes by intruder(s) and/or vandalism of site infrastructure, plant and/or machinery which may give rise to malfunction or compromise the integrity of waste storage/containment measures	Medium	• Appropriate site security infrastructure. • Vehicle checks on arrival to the site. • Plant & equipment daily checks and preventative maintenance of plant / equipment by manufacturer. • Staff training / toolbox talks.	Negligible
Plant or equipment	Spillages of fuel, sparks from machinery or malfunction caused by ineffective maintenance	Medium	• Plant & equipment daily checks and preventative maintenance of plant / equipment by manufacturer. • Any hazardous liquid / fuel / oil is stored in a bunded container. • Checks of site surfacing and spill kits. • Staff training / toolbox talks. • Checks will be completed at the end of each working day on plant and equipment with particular attention for dust/fluff that may have settled on plant / equipment.	Negligible
Electrical appliances and cabling	Faulty appliances or damaged/ exposed electrical cables may spark as a result of a power surge	Medium	• Fixed wiring testing is carried out 5 years and portable appliances are PAT tested 12 months in accordance with Legislation. • Daily checks for dust and fluff on wiring / electrical appliances.	Low
Discarded smoking materials	Risk of ignition of stored wastes from smoking materials which have not been fully distinguished	Low	• No smoking or e-cigarettes allowed on site. Any persons wanting to smoke will have to do so off site.	Negligible
Sparks from loading buckets/shovels	Scraping of loading buckets/shovels causing sparks which may ignite stored wastes	Low	• Fire extinguishers are fitted on all plant. • Staff training / toolbox talks. • Plant & equipment daily checks and preventative maintenance of plant / equipment by manufacturer.	Low
Hot works	e.g. welding, soldering, cutting, etc. which involve the use of high temperature equipment which may be a source of both primary and residual heat to stored wastes	Medium	• No hot works take place at the site.	Low
Industrial heating	Industrial heaters and/or pipework used to heat internal and external areas on site which may, in turn, supply heat to stored wastes increasing the risk of combustion	Low	• There are no industrial heaters on site.	Low
Hot exhausts	Potential source of both primary and residual heat to stored wastes.	High	• Fire extinguishers are fitted on all plant. • Staff training / toolbox talks for continuous monitoring throughout the day to detect signs of a fire caused by dust settling on hot exhausts and engine parts. • Plant & equipment daily checks and preventative maintenance of plant / equipment by manufacturer. • Out-of-hours storage of plant & equipment away from combustible or flammable wastes. • Minimum daily checks for dust and fluff on plant/equipment before and after use of equipment.	Low

Source	Risk	Magnitude of Risk / Likelihood	Brief outline of Mitigation (refer to Section 4 for storage/monitoring procedures)	Magnitude of risk / likelihood following mitigation
Build-up of loose combustible waste, dust, and fluff	Light waste and ambient particulates with high combustibility settling and building up in key areas in and around plant/machinery and around exhausts	High	• Fire extinguishers are fitted on all plant. • Staff training / toolbox talks for continuous monitoring throughout the day to detect signs of a fire caused by dust settling on hot exhausts and engine parts. • Plant & equipment daily checks and preventative maintenance of plant / equipment by manufacturer. • Minimum daily checks for dust and fluff on plant/equipment before and after use of equipment at the start/end of each working day.	Low
Hot loads	Imported wastes which may contain materials which are above ambient temperature	High	• All loads are inspected in accordance with strict waste acceptance procedures. • Quarantine area and rejected waste containers on site for quick isolation of load.	Low
Overhead power lines	Any overhead power lines on or around the site may ignite in the event of a fire and worsen the effects	Low	• There are no overhead power lines which traverse the site.	Negligible
Ignition sources	Activities or appliances which use a source of both primary and residual heat to treat waste or manufacturer material or plant/equipment	Medium	• No hot works take place. • There are no space heaters, furnaces, incinerators, and sources of ignition will be kept 6 metres away from combustible and flammable waste.	Low
Batteries within waste deposits	Ignition of stored wastes via batteries within imported wastes	High	• All loads are inspected in accordance with strict waste acceptance procedures including wastes received into satellite sites. • Quarantine area and rejected waste containers on site for quick isolation of load containing batteries.	Medium
Other combustible non-waste materials on or near the site not mentioned above i.e. gas cylinders / LPG tanks	Any combustible non-waste materials on or near the site may ignite in the event of a fire and worsen the effects	High	• All loads are inspected in accordance with strict waste acceptance procedures. • Quarantine area and rejected waste containers on site for quick isolation of load.	Low
Reaction between wastes	Combustible waste piles may ignite in the event of a fire and worsen the effects if wastes react	High	• All loads are inspected in accordance with strict waste acceptance procedures. • Quarantine area and rejected waste containers on site for quick isolation of load.	Low
Leaks and spillages of oils and fuels	Fuels and combustible liquids leaking or trailing from site vehicles and ELVs can combust or cause accidents leading to combustion	High	• Spill kits available throughout the site. • Suitable sealed drainage system. • No ELVs accepted into the site. • Minimum daily checks for spillages around the site. • Staff training / toolbox talks.	Low
“Tramp” metal	Metal could be hot from mechanical processing and interact with lighter waste causing a fire	High	• The Operator does not accept or treat any waste which would give rise to tramp metal. All scrap metal on site arises from the hand sorting of mixed skips or accepted in pre-sorted loads.	Low

2.2 Fuel & Oil Storage

2.2.1 No gas cylinders or aerosols will be accepted for storage at the site.

2.2.2 Fuel and oil will be stored in a bunded 1,000 litre tank on impermeable concrete surface within a building. Oil and fuel storage at the site will comply with the Oil Storage Regulations for Businesses (last updated 2nd May 2023).

2.2.3 The procedure for fuel and hazardous material storage is as follows:

a) Tanks will be surrounded by a bund capable of containing a minimum of 110% of the volume of fuel stored in the tank.
b) Any pipework and associated infrastructure will be enclosed within the bund.
c) A lock will be fitted to the tanks valve to present unauthorised operation.
d) All valves and gauges on the bund will be constructed to prevent damage caused by frost.
e) No combustible waste will be stored within 6m of the tank.
f) The tanks will be clearly marked showing the product within the tank and also its capacity.

2.3 Smoking Policy

2.3.1 Smoking (including the use of e-cigarettes) is prohibited on the site. Any persons wanting to smoke will have to do so 6m from the permit boundary.

2.4 Plant and Equipment Maintenance

2.4.1 Plant and equipment will be maintained and serviced in line with manufacturers recommendations. All plant and equipment will be subject to preventative maintenance checks by site operatives to ensure safe operation and prevent situations which may give rise to faults or malfunction, see Appendix II Preventative Maintenance Checklist.

2.4.2 Site management will undertake or delegate additional preventative maintenance checks on a more frequent basis i.e. daily, before, during and 1 hour at the end of each working day using a checklist similar to that in Appendix II to ensure the following:

a) Machinery is mechanically sound for use and no presence of black fumes or trailing liquids visible prior to use or following shutoff of plant/equipment.
b) Mobile plant is stored in the out-of-hours plant storage area as shown on Drawing No. BIE/3309/03 following cessation of activities and external separation distances of 6m are observed between plant and any combustible or flammable material.
c) Plant which is not in use for any extended period is stored at least 6 metres from combustible waste.
d) All plant and equipment vehicles are fitted with fire extinguishers in the cab. Rubber strips are not considered appropriate as they are usually removed via uneven and bumpy ground.
e) Dust from processing/treatment operations on site can settle throughout the working day but the operator has a continuous training regime to prevent this happening. The plant will be cleaned at least once every 12 hours, and a fire watch conducted after cessation of works.

2.5 Site Security

2.5.1 Site security is important to reduce the likelihood of unauthorised access to the site. The only direct access / egress to the site is situated along the eastern boundary.

2.5.2 The site is situated within an industrial estate and is immediately surrounded by other commercial / industrial premises. The perimeter of the site is surrounded by palisade fencing and palisade lockable security gates at the site access. Whenever the site is unmanned gates will be locked and secured to prevent unauthorised access.

2.5.3 The western boundary of the site also benefits from an approximately 2m high earth bund that will provide a level of security from unauthorised access.

2.5.4 The southern boundary is populated with a dense area of shrubbery / trees that will provide an additional level of security from trespassers.

2.5.5 The site has 24-hour CCTV which is remotely accessible; all senior staff members at the site have access to the CCTV via mobile phone which will alert them of any movements at the site. CCTV cameras are able to detect flame / heat enabling the CCTV system to alert the operator of a fire out-of-hours.

2.5.6 Camera locations are shown on Drawing No. BIE/3309/03 Site Layout and Fire Plan. All cameras are pan, tilt and zoom with 50m distance coverage meaning all areas of the site are monitored during operational hours and out-of-hours.

2.5.7 In the unlikely event an area of the site becomes obscured and is not visible by CCTV, the Operator will install additional CCTV cameras along the site perimeter.

2.5.8 The site security measures will be inspected on a weekly basis and any defects which impair the effectiveness of the security will be repaired within 24 hours. If this is not possible, temporary measures will be put in place to ensure no unauthorised access to the site can be gained until the proper repairs can be carried out as soon as practicably possible.

2.5.9 If unauthorised access becomes apparent as a problem the security measures at the site will be reviewed and improvements implemented.

2.6 Electrical Faults or Damaged/Exposed Electrical Cables

2.6.1 All fixed wiring electrical cabling on site will be inspected weekly by staff and serviced in accordance with Legislation by fully qualified and certified electrical contractors to undertake both Planned Preventative Maintenance and Reactive Maintenance (under contract) of the following:

a) Fire detection & alarm system;
b) Emergency lighting;
c) Machinery checks / services (as per manufacturers' instructions).

2.6.2 In terms of portable appliance testing (PAT), this will be serviced annually by qualified and certified electrical contractors.

2.6.3 Weekly inspections of cabling, etc. will be undertaken and the Inspection Form can be used as a reference. Any potential ignition sources from suspected electrical faults will be isolated and the appointed electrical contractors will be contacted immediately to rectify the situation. Where possible, staff will immediately remove any stored wastes from the vicinity of the fault area or cable traverse if safe to do so.

2.6.4 All electrical points will be turned off at least 10 minutes before the site closes (other than those used for CCTV) to ensure the risk of short circuiting is minimised.

3 Waste Acceptance Procedures

3.1 General

3.1.1 Strict waste acceptance procedures are implemented at the site to ensure that only suitable waste is accepted. The procedure for accepting waste is summarised below.

3.1.2 Waste pre-acceptance checks are implemented prior to the collection of a load by the Operator. When drivers employed by Highworth Skip Hire Ltd arrive at the waste producer's premises, they will perform an initial inspection of the load to ensure it is acceptable at the site.

3.1.3 Every load will have the following details recorded at pre-acceptance:

a) Vehicle Registration and drivers name and signature.
b) Waste haulier name and valid waste carriers' registration number.
c) Name address (of source site) and signature of transferor.
d) Name, address (of destination site) and signature of the person receiving the waste (transferee).
e) Permit number or exemption reference of person receiving the waste (if applicable).
f) Description of waste including waste type, waste source, waste containment and waste quantity.
g) List of Waste (LoW) code.
h) SIC code of the waste holder.
i) Date and time of waste transfer and waste transfer note number.
j) Confirmation that the waste hierarchy has been considered.

3.1.4 Upon arrival to the site waste will undergo a further visual inspection. Once the load has passed the onsite inspection, the waste transfer documentation will be fully checked to ensure the waste matches the pre-acceptance information received.

3.1.5 Any wastes identified which do not conform to the sites acceptance criteria will not be accepted and will be removed/quarantined immediately to await safe removal from the

site. The EA will be contacted (where necessary) if the non-conforming waste discovered is likely to lead to a breach of permit conditions or a potential risk of combustion.

3.2 Combustible Waste Reception

3.2.1 The main combustible waste types accepted at the site include the following EWC codes:

- Mixed municipal waste - **20 03 01**
- Plastic - **17 02 03 / 20 01 39**
- Wood / green waste - **17 02 01/20 01 38**
- Paper / cardboard – 19 **12 01 / 20 01 01**
- Mixed metals – **17 04 07 / 20 01 40**
- Plasterboard – **17 08 02**

3.2.2 All wastes, unless source segregated into the above waste streams will be tipped into the mixed waste reception and sorting area (**AREA 1**) where the contents will be inspected, hand-sorted and taken to the relevant storage areas shown on Drawing No. BIE/3309/03. Any waste brought into the site already separated will be deposited straight into the relevant storage bay(s) or skip(s).

3.2.3 All waste stored on site including those in containers and bays will be easily accessible for at least one side to ensure that if a fire were to occur, access is available for firefighting.

3.2.4 Skips storing combustible waste are open topped so are accessible from the top and at least one side at all times.

3.3 Rejected Waste

3.3.1 Any waste which is rejected will be stored in a skip / stockpiled in the quarantine area for a maximum of five working days prior to removal from the site. The location of this skip may vary but will be somewhere within the quarantine area, 6m from combustible or flammable material.

4 Managing Waste Storage to Prevent Self-Combustion and the Fire Spreading

4.1 General

4.1.1 All waste stored on site will comply with Section 9.1 of the EA's FPP guidance, reference should be made to Drawing No. BIE/3309/03 Site Layout & Fire Plan for details of waste stored and storage location on site.

4.1.2 No mechanical treatment of waste is undertaken on site, therefore, waste will be stored in their largest form.

4.2 Waste Storage Table

4.2.1 Table 4.1 details the maximum quantity, location and duration for all wastes stored on site. This ensures all piles are stored in accordance with Section 9.1 of the FPP guidance and a minimum 1m freeboard is maintained where waste is stored in bays.

4.2.2 Table 4.1 has been based on the maximum volumes of waste that could be stored on the site at any one time.

Table 4.1 - Waste Storage Table

Storage Area Details											
Plan Ref	**Description**	**Storage type**	**Containment**	**Height / width of firewall (m)**	**Max width of pile (m)**	**Max length of pile (m)**	**Max height of pile (m)**	**Approx. area (m2)**	**Conversion factor used**	**Approx. volume (m3)**	**Max storage time**
AREA 1	Mixed waste reception area	Free-standing (unprocessed)	Concrete interlocking block fire wall	3 / 0.6	9	5.5	2	49.5	0.75	74	<4 weeks
AREA 2	Oversize non-recyclables	3-sided concrete storage bay (processed) sorted by hand	Concrete interlocking block fire wall	3 / 0.6	5.4	5.5	2	29.7	0.75	45	<4 weeks
AREA 3 - 6	Hand sorted recyclables i.e. wood, green waste, plastic, cardboard, residual waste etc..	Free-standing (partly processed) sorted by hand or grab	Open topped, moveable 20-cubic yard skip	n/a	6.1	2.44	2.62	15	0.5	19 per container	<4 weeks
AREA 7	Scrap metal bay	Free-standing (partly processed) sorted by hand or grab	Concrete interlocking block fire wall	3 / 0.6	5.4	8	2	43.2	0.75	64.8	<4 weeks
AREA 8	Hardcore / rubble	Free-standing (partly processed) sorted by hand or grab	Concrete interlocking block fire wall	3 / 0.6	n/a	n/a	n/a	n/a	n/a	n/a	<12 weeks
AREA 9	Plasterboard	Free-standing (unprocessed)	Sealed moveable 20-cubic yard skip	n/a	6.1	2.44	2.62	15	0.5	19	<4 weeks

4.3 Conversion Factors

4.3.1 Conversion factors for waste piles are worked out using the following methods set out in Table 4.2 below.

Table 4.2 Conversion factors

Conversion Factors
Conversion factors for waste piles are worked out using the following methods set out by the Environment Agency
The maximum length, width of a pile is based on the largest dimension – the volume of the pile has been calculated using the area x height x relevant conversion factor
Conversion of 1 for materials stored within containers, area of storage in stackable containers and waste/ bale stacks
Conversion of 0.75 for waste stored within a bay comprising volume of rectangle + pyramid
Conversion of 0.3333 for waste stored in a free-standing stockpile
All containers can be moved and are accessible from one side so a fire can extinguished

4.4 Removal of Waste

4.4.1 The Operator will ensure more than one contract is set up with a destination site that can take their recycled / sorted waste to prevent a backlog building up on site.

4.4.2 Each pile is inspected throughout the day by operational staff and in the event of a fire has suitable techniques shown in various sections of this FPP to ensure any fire could be extinguished within the limitations set out in the FPP guidance.

4.5 Storage / Monitoring Procedures (free standing piles)

4.5.1 Table 4.3 details storage and monitoring procedures for all **combustible wastes** which are stored at the site in freestanding piles. **AREA 4** has not been included as it is not classified as combustible.

Table 4.3 - Waste storage/monitoring table (free standing piles)

Storage Ref.	Storage/monitoring procedures to reduce the risk of fire
AREA 1 MIXED WASTE RECEPTION & SORTING AREA	• **AREA 1** will act as the main waste reception / tipping and sorting area for mixed HCI waste. • Waste will be stored within a 3 sided interlocking lego block concrete storage bay. • Any large visible recyclables will be hand-picked or extracted using the mechanical grab and placed into one of relevant storage areas at the site. • In the event of non-conforming or reactive waste discovered, the waste will be immediately consigned to the quarantine area or loaded back onto the delivery vehicle and removed off site. • The waste in the stockpile will be tipped at the left-hand side of the bay and then extracted from the right of the stockpile into the appropriate storage areas to ensure the first in first out principle applies. The process of removing the waste will then be done in a clockwise process. • It is proposed the maximum duration of waste stored in **AREA 1** will be 4 weeks from arrival, however, waste in this area will most likely be sorted within 48 hours of acceptance. • In order to comply fully with the FPP guidance, the entire pile will be cleared every 12 weeks and deep cleaned to prevent any build-up of material. • As the stockpiles are dynamic, the process of tipping and excavating from the pile will be ongoing which will reduce the actual amount of time the piles will be stored in this area. • The pile will be visually monitored continuously throughout the day by trained site operatives. The operatives have been trained via toolbox talks from site management in recognition of fire i.e. the early signs. • Waste will be stored with a 1m freeboard. The bay is open at the front meaning access is available at all times in the event of a fire.

Storage Ref.	Storage/monitoring procedures to reduce the risk of fire
AREA 2 OVERSIZE NON-RECYCLABLE ITEMS	• Larger non-recyclable items of waste such as sofas are removed and stored in **AREA 2**. • Waste will be stored within a 3 sided interlocking lego block concrete storage bay. • A maximum storage time of 4 weeks has been provided to account for any contingencies, waste is typically removed from site within 1 week. • As the waste has been hand sorted from the mixed loads it is unlikely to contain any contravening waste types that could cause combustion such as batteries. • The waste will be stored 1m below the height of the surrounding bay ensuring a freeboard is always maintained. All bays are open at the front meaning access is available in the event of a fire at all times. • In order to comply fully with the FPP guidance, the entire pile will be cleared every 12 weeks and deep cleaned to prevent any build-up of material. • The pile will be visually monitored continuously throughout the day by trained site operatives. The operatives have been trained via toolbox talks from site management in recognition of fire i.e. the early signs. • **Due to the above it is considered no further storage or monitoring is required.**
AREA 3 SCRAP METAL	• This storage area comprises a 3 sided interlocking concrete lego block storage bay for storage of handpicked scrap metal from the tipping area. • The waste will be stored 1m below the height of the surrounding bay ensuring a freeboard is always maintained. All bays are open at the front meaning access is available in the event of a fire at all times. • As the waste in these areas have been sorted, the waste is unlikely to contain any material which is likely to cause combustion i.e. a hot load or lithium battery. • The waste pile is visually monitored throughout the day by site operatives who will be trained in recognition of fire i.e. early signs of smoke. • The site has access to mains water and a water bowser which can be utilised to dampen down stockpiles throughout operational hours which will prevent the waste from heating during periods of warmer weather. • The waste in the stockpile will be tipped at the left-hand side of the bay and then extracted from the right of the stockpile into the appropriate storage areas to ensure the first in first out principle applies. The process of removing the waste will then be done in a clockwise process. • **Due to the above it is considered no further storage or monitoring is required.**

4.6 Storage / Monitoring Procedures (containers)

4.6.1 Table 4.4 details storage and monitoring procedures for all **combustible wastes** which are stored at the site in skips / containers.

Table 4.4 - Waste storage/monitoring table (containers)

Storage Ref.	Storage/monitoring procedures to reduce the risk of fire
AREA 3-6 HAND SORTED RECYCLABLES I.E. WOOD, GREEN WASTE, PLASTIC, CARDBOARD, RESIDUAL WASTE ETC	• Waste stored in these containers will comprise hand sorted wastes from the mixed waste tipping area (**AREA 1**). • Containers are open top and available to access from at least one other side so are easily accessible in the event of a fire. • Waste in these containers has been sorted and is unlikely to contain any hot loads or incompatible waste which could lead to a spark or overheating causing a fire. • Containers are stored adjacent to a firewall along the perimeter boundary to provide additional protection in the event of a fire. • Waste will be stored for a maximum of 4 weeks in the container. Waste will be removed when the container is full or within 4 weeks whichever is sooner. • The above storage times are significantly less than those outlined in the FPP guidance and reduce the risk of self-combustion. • Waste will not exceed the height of the container. • Visual monitoring will be undertaken throughout the day for signs of smoke etc. • Waste can be visually monitored 24/7 throughout the day by site operatives and by CCTV out-of-operational hours. • Weather conditions are reviewed at the start of each working week. If increased temperatures are expected, site operatives will utilise the mobile water bowser and dampen waste storage to prevent heating. • In terms of moving the waste in a fire incident, site management or the FRS will decide on the best course of action from a practical and safety point of view. • Due to the above it is considered no further storage or monitoring is required.
AREA 10 PLASTERBOARD	• Plasterboard should arrive on site segregated to mixed HCI waste. • No treatment of plasterboard will be undertaken on site. • Plasterboard will not be stored for longer than 4 weeks. • Containers are visually monitored throughout the day by site operatives. • Plasterboard will be stored in its largest form as no mechanical treatment has taken place causing a significant rise in temperature. • The site will have access to mains water and a mobile water bowser which can be utilised to dampen down the waste throughout operational hours which will prevent the waste from heating during periods of warm weather. • Containers are accessible from at least one side. • Plasterboard is stored in a container within a building providing protection from direct sunlight.

4.7 Stock Rotation and Seasonal Variations

4.7.1 In the event of destination site closures or seasonal demands for wastes leading to a longer storage duration, the operator can divert incoming waste and send stored waste to an alternative site.

4.8 External Heating

4.8.1 To reduce the risk of self-combustion from external heating, the site will deploy the following measures:

- In the event of a drought period i.e. three hot days where weather conditions would exceed 25^0C / 75^0F, which the operator would know in advance via the Met Office, the monitoring frequency of these piles will be increased to at least three times every 12 hours per day and the piles would undergo additional dousing using the mobile bowser or hoses.
- No hot workings take place on the site.
- The piles can be easily supressed using a mobile water bowser or hoses in the event of early fire detection i.e. smoke, steam, flames.
- Normally the waste stored at the site is turned around in 7 - 30 days as an absolute worst-case scenario. Due to the quick turnaround time of waste, no additional monitoring i.e. temperature checks, thermal probes are considered necessary as extra measures such as monitoring are only required if waste is being stored in the maximum pile sizes outlined in the FPP guidance for longer than 3 months. As shown in Table 4.1 waste is stored in significantly smaller quantities than those in the FPP guidance and for a significantly shorter period.
- The operator would only look to deploy the use of thermal imaging cameras / probing in extenuating circumstances i.e. closure of destination sites, transport failures, staff illness where the waste could be stored excessively i.e. up to 12 weeks. This would occur only on very rare occasions and the EA would be contacted in this scenario.

5 Prevent Fire Spreading

5.1 Waste Storage General / Fire Breaks

5.1.1 Combustible waste will be stored as illustrated on Drawing No. BIE/3309/03 and within the limit of EA's FPP guidance. All stockpiles of stored wastes are detailed in the Storage Area Details table on Drawing No. BIE/3309/03 and in Table 4.1 of this document, in respect of their description, maximum length and width, area, volume and storage duration.

5.1.2 The operator will store waste materials in their largest form and minimise pile sizes wherever possible.

5.1.3 The aim of the site is to process the incoming material and arrange for its export off site as soon as practicably possible following sorting to minimise over-stocking which in-turn minimises the risk of overheating and spontaneous combustion.

5.1.4 The site will operate in accordance with a 'first in, first out' principle. When containers of waste are removed from site the whole container will be emptied to ensure all waste is removed within the 4-week period. Once a container has been emptied it will be checked and cleaned out if required to ensure no residual waste remains in the bottom of the container.

5.1.5 **Storage on flat ground**: Site surfaces where wastes are stored are flat and, therefore, reduce the risk of falling materials which would accelerate the spread of fire.

5.2 Fire Walls and Bays

5.2.1 The concrete firewalls used to separate combustible waste on site are constructed to the BS8110 Pt2 'Structural use of concrete Part 2 Code of practice for special circumstances' and BSEN1992-1-2 'Design of concrete structures. General rules. Structural fire design'. In accordance with BSEN1992, the fire resistance of concrete structures over 100mm will have a fire resistance of 1200^{o}C for 4 hours. This means the fire walls:

- Reduce the need for 6m separation distances between different waste piles; and
- Reduce the need to provide a 6m separation from the waste and permit or site boundary.

5.2.2 The table overleaf details the type of wall and demonstrates their properties to:

a) Resist fire (both radiative heat and flaming); and,
b) Have a fire resistance period of at least 120 minutes to allow waste to be isolated and to enable a fire to be extinguished within 4 hours.

Table 5.1 – Fire wall details and specifications

Firewall type	Width	Site location / use	Specification
Concrete lego block wall	0.6m	Bays for waste storage / wall along perimeter behind containers of waste storage.	Class A under EN 13501-1:2007+1:20009: Fire classification of construction products and building elements. Classification using test data from reaction to fire tests: concrete structures over 100mm will have a fire resistance of 1200^{o}C for 4 hours.

5.2.3 The above walls are checked throughout the day by staff and recorded on weekly inspections, if any gaps or damage to the walls are present which could compromise their integrity will be repaired and sealed as soon as practically possible.

5.2.4 All waste stored against fire walls will have a suitable freeboard of at least 1m but it is not possible to scientifically calculate the flame height as each waste pile is different and could contain a number of different sizes/grades of waste leading to a lesser or greater flame height.

5.3 External Heating from Hot Weather

5.3.1 Due to the short storage times of waste on site it is considered the external storage of waste will not be as significant risk of over-heating. Waste storage areas are subject to continuous movement and monitoring and will not be stored for a period where it could combust from exposure to sunlight.

5.3.2 To reduce the risk of self-combustion from external heating, the Operator will deploy the following measures:

a) In the event of a drought period i.e. three hot days where weather conditions would exceed 25^0C / 75^0F, which the Operator would know in advance via the Met Office, the monitoring frequency of waste storage areas will be increased to at least three times every 12 hours per day and the piles would undergo additional dousing using hoses.
b) The piles can be easily supressed using hoses in the event of early fire detection i.e. smoke, steam, flames.
c) No waste is stored for longer than 3 months and therefore in accordance with FPP guidance, no monitoring i.e. temperature checks, thermal probes are considered necessary. The site would only look to deploy the use of thermal imaging cameras / probing would be in extenuating circumstances i.e. closure of destination sites, transport failures, staff illness where the waste could be stored excessively i.e. up to 12 weeks. This would occur only on very rare occasions and the EA would be contacted in this scenario.

6 Site Inspection Programme

6.1 Daily Checks

6.1.1 Site management are responsible for staff and contractors carrying out fire watches including daily site walks for checking drainage systems, security measures, out-of-hours plant (hot exhausts) and waste storage areas. Site management can reference the Inspection Checklists shown in Appendix II but may use internal check sheets.

6.1.2 Weekly inspections of firefighting equipment take places to ensure they are fit for purpose and there are sufficient quantities available.

6.1.3 The fire watches/site inspections will take place regularly throughout the day when plant is idle but recorded at least once at the end of the working day before the site closes to ensure the risk of a potential fire has been reduced.

6.1.4 Carrying out the above checks will keep the levels of dust, fibre, paper and other loose combustible materials, which could aid in the acceleration of a fire, on site surfaces to a minimum and ensure all containment of wastes on site are functioning effectively in accordance with the storage limitations provided in Table 4.1.

6.2 Staff Training

6.2.1 Operational staff will be subject to site inductions which includes basic fire emergency procedures provided by site management or the Technically Competent Manager. If necessary, a third-party fire consultant will be contacted to carry out additional training.

6.2.2 A full test (drill) of the procedures in this document will be carried out every 12 months to test that the plan works. The first test will take place within one month of the agreement of this document with the EA. The outcome and any follow up training for staff will be documented in the site diary and relevant forms in the EMS. The fire checklist may also be used during the drill.

6.3 Toolbox Talks

6.3.1 All operational staff on site have received fire awareness training / toolbox talks off trained staff i.e. the operations, site or technically competence manager on their staff induction to detect early signs of fire and to minimise the chance of a fire breaking out in order to meet the three objectives.

7 Quarantine Area

7.1 Quarantine Area Details

7.1.1 The largest pile on site comprises the mixed waste reception bay in **AREA 1**, which if full would equate to a volume of 74m^3 of waste material meaning the quarantine area on site would need to hold 37m^3 of waste material.

7.1.2 The quarantine area on site measures 58m^2, as there is a 6m separation distance from the quarantine area and waste storage / buildings, storing the waste at 2m high, which is considered suitable, equates to a volume of 39m^3 based on l x w x h x 0.333 which means the quarantine area is >50% of the largest stockpile on site.

7.1.3 If one of the containers storing combustible waste were to ignite either the container on fire (if safe to do so) would be dragged to the quarantine area for isolation or the containers surrounding the one on fire would be moved to the quarantine area. The quarantine area has sufficient capacity to hold three out of the four containers if one were to combust.

7.1.4 It is proposed that any fire on site is likely to be fought in situ and as there is direct access to all piles and containers stored at the site, the quarantine area would most likely be used to store waste materials at risk of catching fire to reduce the fire spreading. The site would only store smouldering waste in the quarantine area once the fire has been extinguished, it is expected at this time, the waste previously moved into the pile would be placed into the existing stockpiles.

7.1.5 The quarantine area is located on an impermeable surface with sealed drainage and will be marked on the ground and checked daily to ensure it is clear and visible.

8 Fire Detection Procedure

8.1 Fire Detection Procedure (manual)

8.1.1 During operational hours, the TCM/site manager will undergo regular inspections of all areas storing combustible, the checks will take place three times minimum, at the start, middle and end of the day. The TCM/site manager will have also carried out the necessary training to site operatives working around combustible waste so they will be continually monitoring these piles for any potential fire occurrences i.e. smoke, flames, sparks.

8.1.2 If a fire is detected or suspected by a member of staff during operational hours, the relevant person will conduct the following procedure report to site management:

a) Raise the fire alarm (if not already done by another staff member) or sound fire alarms/communicate via radio or ring out-of-hours key holders. **Timescale for this will be upon detection i.e. seconds.**
b) Assess the intensity and scale of the fire and make a judgment as to whether the fire can be managed without the requirement for assistance from the emergency services i.e. using the hose or fire extinguishers. **This process should take less than 60 seconds. If fire requires further assistance, a call will be logged to the FRS then the procedures in 8.1 followed.**
c) Initiate evacuation of staff and visitors on site to the meeting point and instruct delegated person(s) to conduct a roll-call to ensure all site users are accounted for. **Timescale variable depending on staff on site – estimated within 5 minutes.**
d) If viable and safe, instruct necessary site staff to commence extinguishment. **Timescale variable depending on size of fire, suppression can be within minutes if safe to do so.**

8.2 Fire Training

8.2.1 All operational staff working on site will have received fire awareness training on a 6 monthly basis and during their staff induction. Fire training allows operatives to detect early signs of fire and to minimise the chance of a fire breaking out in order to meet the three objectives in section 1.2.2 of this FPP.

8.3 Out of hours fire detection (automated)

8.3.1 The site benefits from having intruder alert CCTV cameras which provide full coverage to all areas storing combustible waste and other areas of the site. The locations of the cameras are indicatively shown on Drawing No. BIE/3309/03.

8.3.2 The alarm system on the CCTV cameras will detect the following when the site is closed:

a) Any sudden movement i.e. a piece of waste falling, animals,
b) Intruders or trespassers

8.3.3 The CCTV system is not monitored by a third-party monitoring company but links directly to senior employees' mobile devices so in the event of one the above scenarios, the CCTV will trigger the above employees' devices who can instantly review site footage to see if there is a false alarm, an intrusion or a fire incident and contact the emergency services if required. In addition to contacting the emergency services, two out of hours senior staff comprising the site manager and TCM will be trained in the following fire suppression methods to ensure reduce the impact of a fire (f safe to do so):

a) Mobile plant
b) Site drainage and surface water protection measures
c) Firefighting equipment

8.3.4 The CCTV is monitored hourly by staff using their mobile devices up once the site closes. The only times when the site is not monitored hourly would-be evening/nighttime periods when management are sleeping but the CCTV will pick up the occurrences shown in 8.3.3, log a call to the mobile devices and site management can then review the footage.

8.3.5 The CCTV system has been installed by a suitably qualified electrical company who PAT test all electrics in line with legislation requirements.

8.3.6 In the event the out-of-hours contacts being unavailable due to sickness or holiday, an alternative member of staff who lives within 5-10 minutes of the site (suitably trained) will

be provided with a phone contactable by the directors, who will stand in temporarily to ensure out-of-hours procedures are sufficient.

9 Fire Response Procedures

9.1 Response Procedure

9.1.1 Further to the above measures, the following procedure would apply if a large fire is detected:

a) Call the Fire Response Service (FRS) immediately using 999.
b) Call the EA's Emergency Contact Number.
c) Prior to the FRS arriving, inform all neighbouring premises likely to be affected.
d) If not previously informed, senior management of the company will be informed at this point of the details, nature and extent of the fire and whether assistance from staff from other depots is required.
e) Ensure access routes are clear.
f) If safe to do so, the TCM or a senior member of staff will inspect the location of the fire, to identify immediate risks to surrounding premises and the FRS.
g) Ensure operators of appropriate machinery are standing by in a safe location to help create fire breaks, under the direction of the FRS when they arrive.
h) Ensure relevant site staff are standing by in a safe location to deploy surface water protection equipment under the direction of the FRS when they arrive.
i) The site manager / TCM will identify themselves to the fire service as soon as they arrive on site and will provide them with a copy of this document and update them with relevant information that will assist them in dealing with a fire more effectively.
j) Implement pollution control measures only when safe to do so.

9.1.2 In the event of the site manager or TCM being absent from the site, the operator will ensure a suitable person is employed and familiar with the site.

9.2 Evacuation of Staff (and Drill Procedure)

9.2.1 An evacuation plan has been formulated for the site and all operational staff will be made aware of the actions through site inductions, refresher training, toolbox talks etc.). The fast and effective evacuation of staff to the fire assembly point will increase safety on site and limit the impact of a fire on any persons on site.

9.2.2 Fire drills will take place every 6 months and 1 month after the approval of the FPP to ensure evacuation times are acceptable and that site staff remain informed of evacuation procedures.

9.2.3 The drill will be a simulation of an emergency with the location of a mock fire notified to staff in order to test the response speed in deploying pollution control equipment i.e. including drain mats/plugs and ensure all firefighting equipment is sound. The fire check form may also be completed and a detailed report of the outcome of the exercise will be prepared to assist with staff training.

9.3 Access for Emergency Services

9.3.1 The site has a clear access point for the emergency services as shown on Drawing No. BIE/3309/03. The nearest fire station is situated approximately 3.6 miles away on Bristol Road (A419) and the response time is estimated at <10 minutes in the event of an incident. There is a second fire station situated approximately 6 miles south of the site that could also attend in the event of a fire.

9.3.2 There is direct access to the site from the surrounding road network and the width of the surrounding roads, and the gateway provide sufficient access onto the site for the FRS.

9.3.3 The width of the surrounding roads and gateway exceeds the minimum required by the FRS which is 3.7m. Site management will also ensure the 3.7m access routes are maintained throughout the working day and before cessation of works during site inspections.

9.4 Notifying Receptors

9.4.1 The contact numbers of key sensitive receptors identified within 1km of the site who could be directly affected in the event of a fire along with the Receptor Plan will be stored within the site office.

9.4.2 As it isn't feasible for a contact number to be provided for every individual residential receptor and individual business within 1km. The most immediate receptors will be contacted (receptors adjacent to the site) by the operator.

9.4.3 Once Emergency Services arrive on site i.e. FRS, Police, the lead authority (usually the Police) will co-ordinate a systematic approach to ensure all the relevant sensitive receptors within 1km are notified. This will involve via telephone calls, personal visits (knocking on doors). In addition to this, the Emergency Services would also publicise the fire on their Social Media outlets and contact local news websites, radios who can also provide updates on the incident.

9.4.4 The police with the assistance of any other attending authority will ensure all relevant properties are informed of the fire event and given clear instructions of the actions they need to take.

10 Suppressing Fires & Firefighting Techniques

10.1 Site-wide Suppression

10.1.1 The site has the following on site suppression measures which are indicatively shown on Drawing No. BIE/3309/03:

i) Hose reels strategically placed providing coverage to areas storing combustible and flammable materials.
ii) Mixture of water, foam, powder and CO_2 fire extinguishers located in close proximity to waste piles.
iii) Additional mobile water bowsers can be sourced if required (1,200 litre IBC of water)

10.1.2 During normal operational hours, there are numerous members of staff who are fully trained in using mobile plant to assist with firefighting which would include suppression using the above and isolating waste at risk of combusting using mobile plant as shown below.

10.1.3 Mobile plant i.e. excavators will be used to move unburned material / containers of waste to the quarantine area and away from waste that is on fire to prevent it from spreading. The waste on fire which will have been separated will be quenched using suppression by staff or the FRS. The waste will be kept here until the fire has been extinguished.

10.1.4 The operator could also fill a sealed skip with water and load burning waste into it. Access routes into and out of the site including out-of-hours plant storage is clearly shown on Drawing No. BIE/3309/03.

10.2 External Suppression – Fire Hydrants

10.2.1 In the event of a fire at the site, the closest hydrant to the site is situated 260m from the site access on Broadway Lane as shown on Drawing No. BIE/3309/03.

10.2.2 The FRS also confirmed they could utilise the open surface water bodies within close proximity of the site as a source of water to assist in extinguishing a fire, a copy of the correspondence with the FRS is included in Appendix III.

10.3 Out-of-hours Suppression

10.3.1 Once alerted to a fire the following procedure will be conducted:

a) Irrespective of whether a company presence is required at the site by the FRS, the out of hours appointed contact (or delegated responsible person) will attend the site to assist in any way possible if safe to do so, under the instruction of the FRS.
b) The site appointed out of hours contact will subsequently contact as many additional members of staff as required.

11 Water Supplies

11.1 General

11.1.1 Section 16 of the EA's FPP requires the site should have enough water available for firefighting to take place and to manage a worst-case scenario. A worst-case scenario would be the largest waste pile catching fire.

11.1.2 As detailed in section 7.1.1, the largest combustible waste pile on-site would-be the mixed waste reception bay in **AREA 1** with a volume of 74m^3 if full. This would require 88,830 (89m^3) of water to extinguish the fire within 3 hours which equates to 493.5 litres per minute.

Table 11.1 - Water supply calculations

Maximum pile volume in m^3	Water supply needed in litres per minute	Overall water supply needed over 3 hours in litres	Total water available on/off site in litres
74	74 x 6.67 =493.5	493.5 x 180	88,830 (89m^3)

11.2 On-site water supply

11.2.1 Reference should be made to section 10.1.1 in terms of the water available on site, however, the Operator would predominantly rely on suppression from the FRS.

11.3 External Suppression – Fire Hydrants

11.3.1 As mentioned in section 10.2, the closest fire hydrant is 260m from the site access.

11.3.2 The FRS were unable to provide a flow rate for the hydrant off-site therefore the following guidance extracted from The Local Government Association (LGA) / Water UK National Guidance Document details the following flow rates which should be considered for this site:

In order that an adequate supply of water is available for use by the Fire and Rescue Authority in case of fire it is recommended that the water supply infrastructure to any

industrial estate is as follows with the mains network on site being normally at least 150 mm nominal diameter

- *Up to one hectare 20 litres per second.*
- *One to two hectares 35 litres per second.*
- *Two to three hectares 50 litres per second.*
- *Over three hectares 75 litres per second.*

11.3.3 As the site is considered to be in an industrial location with surrounding industry measuring over three hectares, the nearest hydrants have nominal mains >150mm, the flow of water from the hydrants should be at least 20 litres per second, 1,200 per minute which is excess of the required 493.5 litres per minute shown in Section 10.1. This means there is a suitable off site water supply to extinguish a fire on site within 3 hours.

11.4 Alternative Suppression Methods / Water Supplies

11.4.1 In addition to the above hydrant the FRS have confirmed they would also look to use other water sources such as, ponds and other surface water bodies. There is a large surface water body (Ham Pool Lake) 190m east of the sites eastern boundary which could be utilised during a fire.

11.4.2 In accordance with the above if the open water sources mentioned were to be used seasonal variations in water availability will be considered to ensure an adequate supply is available, this will be done by periodically performing a visual check on the water levels.

11.4.3 There will be a supply of inert material on site comprising of soils and aggregates. With the mobile plant available, this material can be accessed easily, collected by a grab and dropped on the fire from height to starve it of oxygen thus reducing the flames and heat of the fire. It is considered due to the location of the fire hydrant and the variability in water availability in the adjacent open water sources, inert material would likely be used as the main suppression, any material used would be tested and disposed of at a suitably permitted site.

12 Managing Fire Water

12.1 Drainage

All combustible waste is stored on an impermeable concrete surface with sealed drainage system as shown on Drawing No. BIE/3309/03 comprising the following:

a) Surface water arising from the sealed impermeable pad drains into two underground interceptors each with a capacity of 25,000 litres (50,00 litres total).
b) Surface water captured in the underground tanks is emptied by CSG Bristol and taken to a suitably permitted facility for treatment.

12.1.2 The interceptors available capacity will be monitored on a monthly basis and more frequently during periods of heavy rainfall to ensure they are emptied before reaching capacity. When the tanks are at 80% capacity the Operator will look to have the tanks emptied.

12.2 Containment of Fire Water

12.2.1 The impermeable pad where waste is stored is predominantly surrounded by 3m high concrete fire walls or 0.3m kerbing, areas of the permit boundary that are not fully sealed (the northern boundary behind the HGV parking area which has palisade fencing) will have a firewater containment boom positioned in front of it to fully seal the site in the event of a fire and contain any firewater within the boundary.

12.2.2 Firewater would drain into the two 25,000 litre underground interceptor storage tanks for containment (50,000 litre total storage). Once the tanks reached full capacity the remaining firewater would create a lagoon effect and flood the impermeable pad.

12.2.3 As detailed in Section 11.1.2, the largest pile would require containment for 88,830 litres (89m^3) of water in accordance with the FPP guidance. Table 12.1 overleaf details the containment available on site.

Table 12.1 - Firewater Containment Calculations

Volume of Water (m^3)	Containment Area (m^2)	Containment Required	Total Containment On Site
89	930 (concrete pad)	89 / 930 = 0.095	3m high walls, 0.3m kerbing, 0.16m firewater boom + two 25,000 litre sealed storage tank >0.2 additional capacity available

12.3 Fire Water Boom Deployment Procedure

12.3.1 The site will have access to several fire water booms which will be located as shown on Drawing No. BIE/3309/03 and would be deployed in the event of a fire and positioned as per the plan to contain any fire water runoff and prevent firewater from escaping the site boundary. The booms have a 160mm diameter tube each side and using a standard water main i.e. the hose from the site could be filled and provide containment in <5 minutes based on the length of the boom, the volume required and the 15 l/m from the standard hose.

12.3.2 A key member of senior staff will be responsible for arranging the deployment of the fire water boom will be trained in this procedure.

12.3.3 Upon confirmation that a significant volume of water is likely to be required for extinguishing a fire on site, the following deployment procedure for the fire water booms will be observed:

a) Take the boom roll from the site office.
b) Place the boom as shown on Drawing No. BIE/3309/03 by rolling the necessary length; they will be cut to size prior to being used as part of the fire drill procedure.
c) Use supplied cable ties to seal the front end of the boom.
d) Using a sharp knife, cut the laid-out section from the remaining roll.
e) Using the Hose Reel, begin filling the first of the two chambers of the boom being sure to elevate the ‘fill’ end to prevent the water leaving the tube.
f) Once the first chamber is filled, repeat in second chamber ensuring the ‘fill’ end is kept elevated to prevent escape of water.
g) When both chambers are full the ‘fill’ end should be sealed using a cable tie thus completing deployment.

h) Typically, one side of the roll would be filled which has a 160mm diameter.

12.3.4 The above process should be completed as above for all lengths of boom shown on Drawing No. BIE/3309/03.

12.3.5 Once deployed, all booms should be regularly checked during a fire event to ensure that they are providing effective containment and that there are no breaches. Secondary/additional lengths of boom can be deployed in addition to the compulsory locations using the same procedure (as above) if deemed necessary.

12.3.6 **Fire water boom specification** - The boom is the same as those issued by the Agency to the FRS in their 'Grab Packs'. In the grab pack information, it states "*The boom is resistant to most chemicals but may be adversely affected by very aggressive solvents such as acetone*". The site will not accept any waste material containing acetone or any other solvents.

12.3.7 If there is any deviation from the above drainage arrangement, an amended FPP will be submitted for approval by the EA and FRS.

12.4 Removal of Fire Water

12.4.1 Upon successfully extinguishing a fire all standing fire water would be pumped using a hired-in vacuum tanker and deposited to a suitably permitted site for treatment. Firewater also captured within the interceptor tanks would be emptied and removed to a suitably permitted facility for treatment.

13 After an Incident

13.1 Contingency Planning

13.1.1 In the event of a fire the site will cease accepting waste. All customers who wish to deliver wastes during a fire will be notified by site admin staff and any who arrive without prior notification will be turned away. If urgent, deliveries will be directed to an alternative waste facility in the borough; details of which can be found on the EA's public register.

13.1.2 No waste will be accepted on site until the post-fire site recovery procedures outlined in the section below have been fully implemented and the site is authorised to re-open for trade and waste acceptance.

13.2 General Recovery Procedure

13.2.1 When the fire has been successfully dealt with the following actions will take place:

a) The fire will be reported to the EA on the same working day and will be confirmed in writing by email or letter within 24 hours (unless in extenuating circumstances), including all steps taken by site staff, management and/or emergency services to deal with the fire.
b) Removal of burnt material using appropriate and lawful disposal.
c) Investigation into the cause of the fire, to ensure it does not reoccur.
d) A review of the FPP and EMS, associated amendments will be implemented.
e) Review of any additional training requirements for site personnel as a result of the incident.
f) All fire extinguishers used to tackle the fire will be serviced and replaced after use.

13.2.2 In addition to the abovementioned procedures, the sections below outline specific procedures following a fire.

13.3 Site decontamination

13.3.1 Surface water on site will be cleared using the following method:

a) Using a tanker/sucker, all standing fire water should be sucked up and taken off site or stored in a tank/bowser prior to removal off site.
b) Using all available resources, manually clean out surface water gullies removing the debris to the pile of fire damaged waste for removal to landfill or permitted site.
c) Using a road sweeper, sweep the yard (damp as required using the bowser) until all ash and clinker has been removed.
d) All debris has now been isolated and all contaminated water holding areas have been cleaned and emptied.
e) Wash the yard down in entirety using clean water or allow a reasonably heavy rain shower to wash the yard down.
f) It is at this stage that site management should decide whether it is appropriate to remove the surface water protection measures or repeat areas of the clean-up.

13.3.2 If the clean-up operation has been deemed complete, the surface water protection measures can now be removed. This will be achieved using the following methods:

a) Account for all consumables that have been used in the fire and re-order / replace immediately.
b) Restack, and re-locate all items used for the surface water protection during the fire to their storage locations ready for future deployment.
c) Check monthly that items are still present and correct and still serviceable for use in an emergency.

13.3.3 The operator will liaise with the EA throughout the event ensuring they are satisfied with the clean-up programme and notify the operator when the site can begin accepting waste again onto site.

13.3.4 Due to the nature of the site's customers, there are no regular waste contracts which need to be dealt with if the site is closed for a period of time due to any incidents.

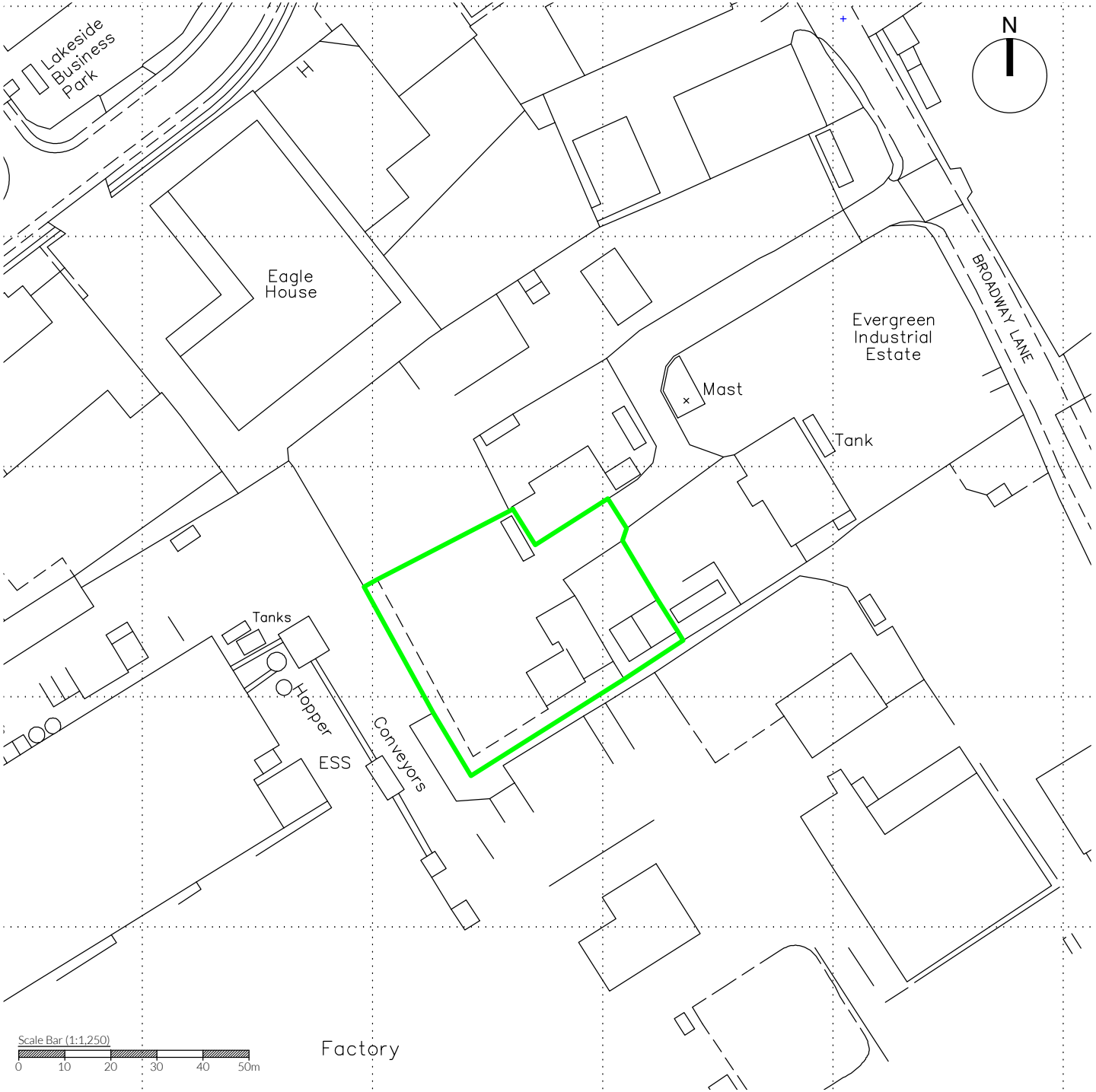
13.4 Post Fire Site Recovery

13.4.1 If a recovery procedure is required, the operator would instigate the following;

a) Remove damaged material to a permitted facility that is able to deal with it legally.
b) Ask engineers to carry out repairs on any plant, vehicles and/or infrastructure.
c) Assist the FRS with the fire investigation and where necessary engage the advice from a professional fire consultant.
d) Review the FPP and EMS procedures and improve upon areas which were deficient.
e) Review training requirements for staff.
f) Assess whether further preventative measure could be implemented.
g) Ensure all fire equipment, where used, is replenished.
h) Remove fire water to a permitted facility for disposal.

Appendix I

Drawings



REVISION HISTORY

Rev:	Date:	Init:	Description:
-	03.04.25	RS	Initial drawing

KEY:

Permit boundary

TITLE:
PERMIT BOUNDARY PLAN

CLIENT:
Highworth Skip Hire Ltd

PROJECT/SITE:
Unit 8, Broadway Industrial Estate, Broadway Ln, South Cerney, Cirencester, GL7 5UH

SCALE @ A4:	CLIENT NO:	JOB NO:
1:1,250	3309	001

DRAWING NO:	REV:	STATUS:
BIE-3309-02	-	Issued

DATE:	DRAWN:	CHECKED:
03.04.25	RS	RS

Oaktree Environmental
Waste, Planning & Environmental Consultants

Storage Area Details

Plan Ref	Description	Storage type	Containment	Height / width of firewall (m)	Max width of pile (m)	Max length of pile (m)	Max height of pile (m)	Approx. area (m2)	Conversion factor used	Approx. volume (m3)	Max storage time
AREA 1	Mixed waste reception area	Free-standing (unprocessed)	Concrete interlocking block fire wall	3 / 0.6	9	5.5	2	49.5	0.75	74	<4 weeks
AREA 2	Oversize non-recyclables	3-sided concrete storage bay (processed) sorted by hand	Concrete interlocking block fire wall	3 / 0.6	5.4	5.5	2	29.7	0.75	45	<4 weeks
AREA 3 - 6	Hand sorted recyclables i.e. wood, green waste, plastic, cardboard, residual waste etc..	Free-standing (partly processed) sorted by hand or grab	Open topped, moveable 20-cubic yard skip	n/a	6.1	2.44	2.62	15	0.5	19 per container	<4 weeks
AREA 7	Scrap metal bay	Free-standing (partly processed) sorted by hand or grab	Concrete interlocking block fire wall	3 / 0.6	5.4	8	2	43.2	0.75	64.8	<4 weeks
AREA 8	Hardcore / rubble	Free-standing (partly processed) sorted by hand or grab	Concrete interlocking block fire wall	3 / 0.6	n/a	n/a	n/a	n/a	n/a	n/a	<12 weeks
AREA 9	Plasterboard	Free-standing (unprocessed)	Sealed moveable 20-cubic yard skip	n/a	6.1	2.44	2.62	15	0.5	19	<4 weeks

NOTES

REVISION HISTORY

Rev:	Date:	Init:	Description:
-	24.04.24	RS	Initial drawing
A	07.06.24	RS	Client comments
B	04.03.25	EG	Application copy
C	11.09.25	EG	Remove waste types

Key:

- Permit boundary
- Waste storage areas
- Quarantine area
- HGV parking / out-of-hours mobile plant storage
- Non-waste, fuel and AdBlue storage
- Impermeable concrete surface
- Vegetated areas / 2m earth bund
- Buildings (offices, etc.)
- Mobile water bowser
- 0.6m thick interlocking block fire wall
- Waste storage building (impermeable concrete floor)
- Surface water drainage
- Spill kit & containment kits
- Fire fighting equipment (extinguishers, etc.)
- Pan tilt and zoom cameras with 50m coverage
- Fire assembly point
- Access route for emergency services
- Fire hydrant
- Fire water containment boom storage
- Firewater boom deployment area

TITLE:
SITE LAYOUT & FIRE PLAN

CLIENT:
Highworth Skip Hire Ltd

PROJECT/SITE:
Unit 8, Broadway Industrial Estate, Broadway Ln, South Cerney, Cirencester GL7 5UH

SCALE @ A3:	CLIENT NO:	JOB NO:
1:250	3309	001

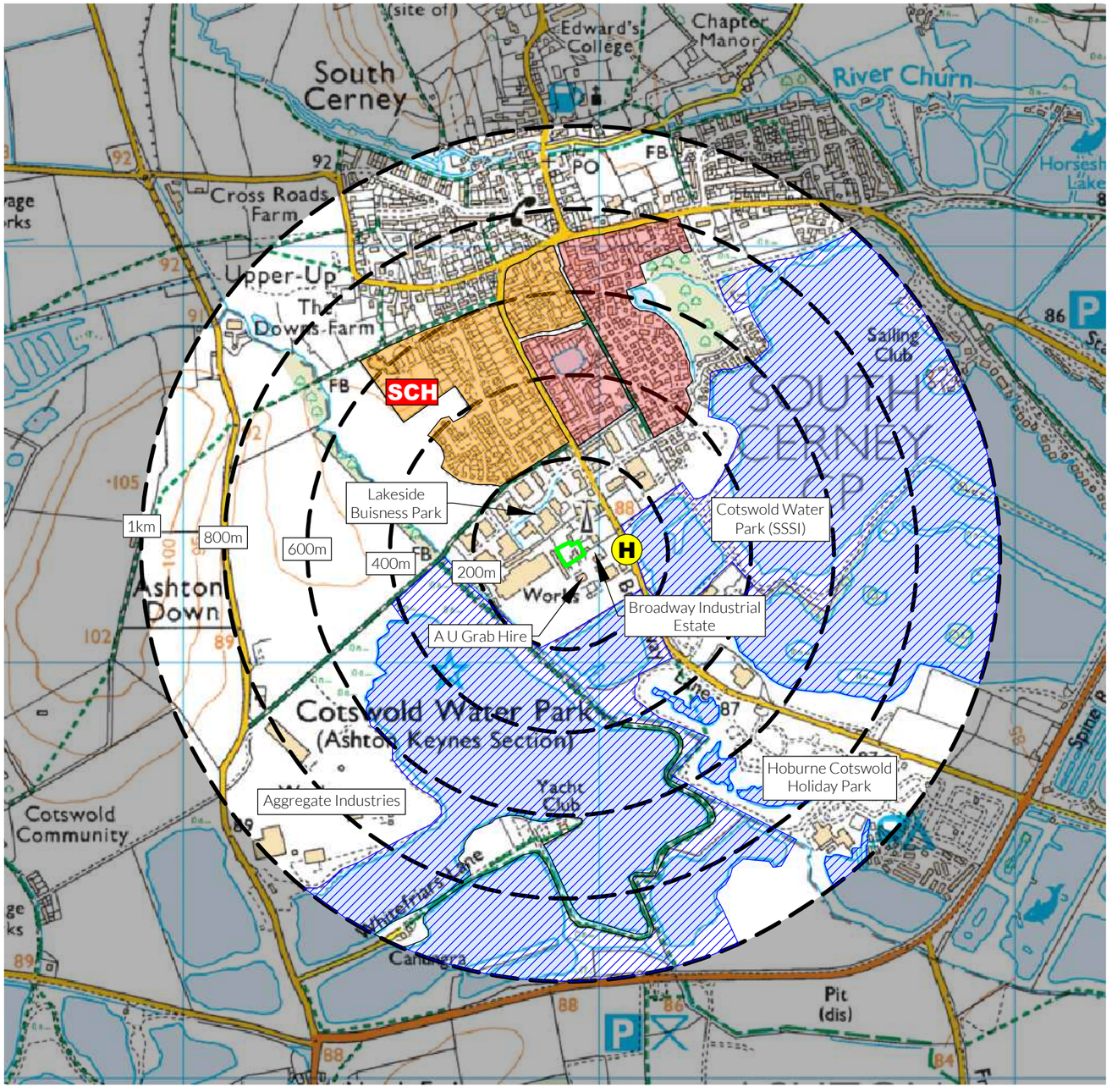
DRAWING NO:	REV:	STATUS:
BIE-3309-03	C	Issued

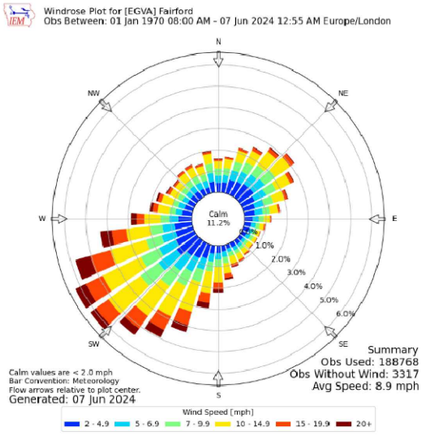
DATE:	DRAWN:	CHECKED:
11.09.25	EG	RS

Oaktree Environmental
Waste, Planning & Environmental Consultants

KEY:

- Permit boundary
- Main River
- Surface water body (river / stream / pond / pool / lake)
- Workplaces (includes agriculture industry, commerce and retail)
- Areas with mix of residential, retail and commercial properties
- Residential blocks
- Class A roads
- Class B roads
- Class C roads
- Nearest fire hydrant
- Railway line
- School
- Woodland areas
- Protected sites (Ramsar, SSSI, SPA, SAC)





Compass Wind Rose for Fairford (EGVA) Period 1970-2024
- source: Iowa State University

Scale Bar (1:12,500)

0 km 500 m 1 km

N

NOTES

REVISION HISTORY

Rev:	Date:	Init:	Description:
-	04.03.25	EG	Initial drawing

TITLE:
RECEPTOR PLAN

CLIENT:
Highworth Skip Hire Ltd

PROJECT/SITE:
Unit 8, Broadway Industrial Estate, Broadway Lane, South Cerney, Cirencester, GL7 5UH

SCALE @ A3:	CLIENT NO:	JOB NO:
1:12,500	3309	001
DRAWING NO:	REV:	STATUS:
BIE-3309-04	-	Issued
DATE:	DRAWN:	CHECKED:
04.03.25	EG	-

Oaktree Environmental
Waste, Planning & Environmental Consultants

Appendix II

Record Keeping Forms

HIGHWORTH SKIP HIRE LTD
DAILY INSPECTION CHECKLIST

DATE			
ITEM FOR VISUAL INSPECTION ↓	**TIME OF INSPECTION (START)**	CHECKED Y/N	REMEDIAL ACTION REQUIRED
	TIME OF INSPECTION (FINISH)		
EMERGENCY ACCESS (FREE FROM BLOCKAGES)			
COMBUSTIBLE WASTE STORAGE (AWAY FROM POTENTIAL IGNITION SOURCES)			
FIRE WATCH AT THE END OF THE WORKING DAY TO INSPECT FOR SIGNS OF SELF-HEATING, SMOKE OR FIRE AND ENSURE EXHUASTS ON PLANT ARE COOL ETC			
DUST/FLUFF AROUND UNIT CHECK			
LITTER (I.E. LOOSE COMBUSTIBLE WASTE MATERIALS)			
PLANT/EQUIPMENT MAINTENANCE CHECKS			
FIRE QUARANTINE AREA IS CLEAR OF WASTE			
OTHER (SEE NOTES BELOW)			
INSPECTION CARRIED OUT BY			
NOTES/ACTION (CONTINUE ON A SEPARATE SHEET IF NECESSARY):			

CHECKED BY		**SIGNATURE**	
POSITION		**DATE**	
Sheet		***of***	

HIGHWORTH SKIP HIRE LTD
WEEKLY INSPECTION CHECKLIST

WEEK COMMENCING			
ITEM FOR VISUAL INSPECTION ↓	**TIME OF INSPECTION (START)** / **TIME OF INSPECTION (FINISH)**	**CHECKED Y/N**	**REMEDIAL ACTION REQUIRED**
SITE SECURITY (CCTV SYSTEM IS WORKING, FENCING AROUND SITE PERIMETER IS IN GOOD CONDITION, LOCK ON GATED ENTRANCE IS WORKING)			
WASTE STORAGE AREA (NOT EXCEEDING THE DIMENSIONS INCLUDED IN THE FIRE PREVENTION PLAN)			
WEATHER FORECAST (CHECK FOR UPCOMING WEEK TO DETERMINE IF WASTE OPERATIONS ARE LIKELY TO BE IMPACTED)			
FIRE FIGHTING EQUIPMENT AND SPILL KITS E.G. FIRE EXTINGUISHERS ARE IN PLACE AND FULLY STOCKED			
INTEGRITY OF BAY WALLS (NO CRACKS ETC)			
INTEGRITY OF IMPERMEABLE PAD (NO CRACKS ETC)			
INTEGRITY OF KERBING AROUND IMPERMEABLE CONCRETE PAD (FREE FROM CRACKS ETC)			
OTHER (SEE NOTES BELOW)			
INSPECTION CARRIED OUT BY			
NOTES/ACTION (CONTINUE ON A SEPARATE SHEET IF NECESSARY):			

CHECKED BY		**SIGNATURE**	
POSITION		**DATE**	
SHEET		**OF**	

HIGHWORTH SKIP HIRE LTD
MONTHLY INSPECTION CHECKLIST

WEEK COMMENCING			
ITEM FOR VISUAL INSPECTION ↓	**TIME OF INSPECTION (START)** **TIME OF INSPECTION (FINISH)**	**CHECKED Y/N**	**REMEDIAL ACTION REQUIRED**
HOSES AVAILABLE ON SITE AND FREE FROM HOLES (IN GOOD WORKING CONDIITON)			
INTEGRITY OF WATER TANKS / BOWSER (FREE FROM CRACKS / IMPERFECTIONS AND SECURE)			
ELECTRICALS (WIRES SHOULD NOT BE FRAYED / DAMAGED AND SOCKETS NOT OVERLOADED)			
OTHER (SEE NOTES BELOW)			
INSPECTION CARRIED OUT BY			
NOTES/ACTION (CONTINUE ON A SEPARATE SHEET IF NECESSARY):			

CHECKED BY		**SIGNATURE**	
POSITION		**DATE**	
SHEET		**OF**	

HIGHWORTH SKIP HIRE LTD
PREVENTATIVE MAINTENANCE CHECKLIST

CHECKED BY	**POSITION**
DATE	**DATE OF LAST CHECKLIST**

EQUIPMENT ITEM						
OFFICIAL MAINTENANCE CHECK REQUIRED (Y/N)						
IF NO, DATE OF LAST CHECK						
IF YES, DATE OF NEXT CHECK						
IS ITEM IN CORRECT WORKING ORDER						
LEAKAGES OF OIL/DIESEL ON MOBILE PLANT / VEHICLES						
IF NO, WHAT REPAIRS ARE REQUIRED (USE SEPARATE SHEET IF REQUIRED)						
WERE REPAIRS DETAILED ON THE LAST CHECKLIST						
IF YES, HAVE THEY BEEN CARRIED OUT						
ADDITIONAL REPAIRS OR ACTIONS REQUIRED						

HIGHWORTH SKIP HIRE LTD
EMPLOYEE TRAINING NEEDS ASSESSMENT / REVIEW

EMPLOYEE NAME				**DATE COMPLETED**			
POSITION				**REVIEW DUE**			
TRAINER				**OUTCOME**	**PASSED**		
POSITION					**FURTHER TRAINING REQUIRED**		
CARRIED OUT /SIGN OFF >	**Y/N**	**SIGNED BY EMPLOYEE**	**SIGNED BY TRAINER**		**Y/N**	**SIGNED BY EMPLOYEE**	**SIGNED BY TRAINER**
ENVIRONMENTAL PERMIT				**FIRE PREVENTION PLAN**			
MANAGEMENT SYSTEM				**FIRE SAFETY**			
SITE RULES				**EMERGENCY PROCEDURES**			
RECORD KEEPING / TRANSFER NOTES				**STORAGE /PILE SIZE LIMITS**			
RECOGNITION OF WASTE TYPES				**STORAGE DURATION**			
SECURITY				**FIRE DETECTION**			
VEHICLE CHECKS				**FIRE ALARMS**			
PLANT OPERATION				**FIRE FIGHTING EQUIPMENT**			
PLANT CHECKS				**FIRE WATER CONTAINMENT MEASURES**			
AMENITY - LITTER, ODOUR, PESTS etc.				**SPILL CLEARANCE**			
NOTES AND ACTIONS:							

Appendix III

Correspondence with the FRS

Emma Gibson

From: Mashiter, Kevin <kevin.mashiter@glosfire.gov.uk>
Sent: 19 July 2024 14:06
To: Emma Gibson
Subject: RE: 3309 - Fire Hydrant Location
Attachments: Broadway Industrial Estate.pdf

Follow Up Flag: Follow up
Flag Status: Completed

Emma,

Thank you for your enquiry.

Further to our conversation, please see the attached plan taken from our Database.

We have one fire hydrant close to the premises in question, but I have identified other assets on Thames Water that may be fire hydrants that we are not aware of.
As discussed, we need to visit the location to clarify.

As for the hydrant we have identified. I can confirm that this conforms to BS 750, but I cannot confirm the flow rate. You will need to contact Thames Water for that information, as we are not allowed to carry out flow testing.

As also pointed out though, there are various 'Open Water' sources that we could utilise and this would give plenty of flow.

I hope this answers your questions.

Regards

Kevin

Kevin Mashiter
Hydrant and Water Manager
Gloucestershire Fire and Rescue Service
Tri Service Centre, Waterwells Drive, Quedgeley, Gloucester, GL2 2AX
Mob: 07768 261397
Tel: 01452 888777
kevin.mashiter@glosfire.gov.uk
www.glosfire.gov.uk

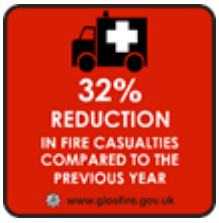
From: Control <control@glosfire.gov.uk>
Sent: 18 July 2024 14:10
To: Hydrant and Water Team <HydrantandWaterTeam@glosfire.gov.uk>
Subject: FW: 3309 - Fire Hydrant Location

Fire Control

Gloucestershire Fire and Rescue Service
Tri Service Centre, Waterwells Drive, Quedgeley, Gloucester GL2 2AX
Tel: 01242 959014
www.glosfire.gov.uk

Gloucestershire
Fire and Rescue Service
Working together for a safer Gloucestershire

PEOPLE FIRST



From: Emma Gibson <emma@oaktree-environmental.co.uk>
Sent: 18 July 2024 13:25
To: Control <control@glosfire.gov.uk>
Subject: 3309 - Fire Hydrant Location

Good afternoon,

I am currently preparing a Fire Prevention Plan on behalf of a client for compliance with an Environmental Permit, this requires showing the location of the nearest hydrant(s) to the site.

Therefore, please would you provide information of the closest hydrants to the following site: **Unit 7, Broadway Industrial Estate, Broadway Lane, South Cerney, Cirencester GL7 5UH** National Grid Reference: **SU 04927 96268.**

I have included a capture of the site location below with the approximate site boundary highlighted in green.

Please would you also confirm if the hydrants are in accordance with BS750 and are able to deliver a flow rate of 2,000 litres per minute.

Please let me know if you have any questions.

Many thanks,
Emma

Emma Gibson BSc PGCert
Consultant

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Oaktree Environmental
Waste, Planning & Environmental Consultants