FIRE PLAN

FIRE PREVENTION AND MITIGATION PLAN

EPR/WE8187AB/A001

ASH Waste Services, Shaw Lane, Carlton, Barnsley, S71 3HJ

Version: 1.1

DATE: 18/08/2023

FIRE HYDRANT LOCATIONS	SITE LAYOUT MAPS	DRAINAGE PLAN MAP	EMERGENCY CONTACTS
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DOCUMENT HISTORY

Version	*Date*	*Changes / Comments*	*Author*	*Approval*
0.1	28/06/2022	Initial draft FPMP for Permit application	SR	
1.0	22/08/2022	Submission for Environmental Permit application	SR	
1.1	18/08/2023	Amendments	SR	BE

Amendments to Version 1.1 highlighted in yellow text

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1. INTRODUCTION

1.1. GENERAL

This Fire Prevention and Mitigation Plan (FPMP) considers the risks associated with fire on site at the ASH Waste Services (ASH) facility, Shaw Lane, Carlton, Barnsley, S71 3HJ, which is a household, commercial and industrial waste transfer station with treatment.

The site is operated by ASH in accordance with a fully comprehensive Environmental Management System (EMS) and a Bespoke Environmental Permit (Application Ref No. EPR/WE8187AB/A001), regulated by the Environment Agency (the EA).

The site address and contact details for ASH Waste Services are:

- ASH Waste Services Ltd
  Shaw Lane
  Carlton
  Barnsley
  S71 3HJ
- HSEQ Director – Steven Rymill; 07918 309057; steverymill@ashgroupltd.co.uk
  Director – Matthew Kirk; 0800 035 0447; mattkirk@ashgorupltd.co.uk
  Director – Andrew Hulme; 0800 035 0447; andrewhulme@ashgroupltd.co.uk
  Environmental Compliance Officer – Ben Edwards; 07464 545429; bendwards@ashgroupltd.co.uk

A copy of this FPMP is located in the weighbridge office and will also be provided to the Fire and Rescue Services.

1.2. REASON FOR IMPLEMENTATION

This FPMP outlines fire hazards on site and provides a number of accompanying measures which will be implemented to ensure every action is taken to prevent fire, contain fire on site if it does occur, and ensure quick detection and suppression.

The ultimate aim of the FPMP is to:

- Minimise the likelihood of a fire happening
- Aim for a fire to be extinguished within 4 hours
- Minimise the spread of fire within the site and to neighbouring sites

1.3. OVERVIEW OF FACILITY ACTIVITIES

The ASH facility is a household, commercial and industrial waste transfer station with treatment. The site accepts predominantly mixed municipal wastes from businesses and either sorts this to extract readily available recyclables by either mechanical or manual sorting or bulked for onwards transportation and recovery/disposal.

The facility also accepts source-segregated wastes including paper, cardboard, glass, plastic, wood and stone.

1.4. SITE DESCRIPTION AND LOCATION

NOTE: A DETAILED EMERGENCY SITE LAYOUT MAP CAN BE FOUND IN APPENDIX B

- (A): Main transfer building, approximately 50 metres in length and 30 metres in width (metal framed structure with three large shutter doors, and two pedestrian exits)
- (B): Waste transfer yard of approximately 1,800m^2
- (C): Weighbridge and office (located outside the area controlled by the Environmental Permit)
- (D): Car park and site frontage
- (E): Storage building

Only A and B sit within the permit boundary.

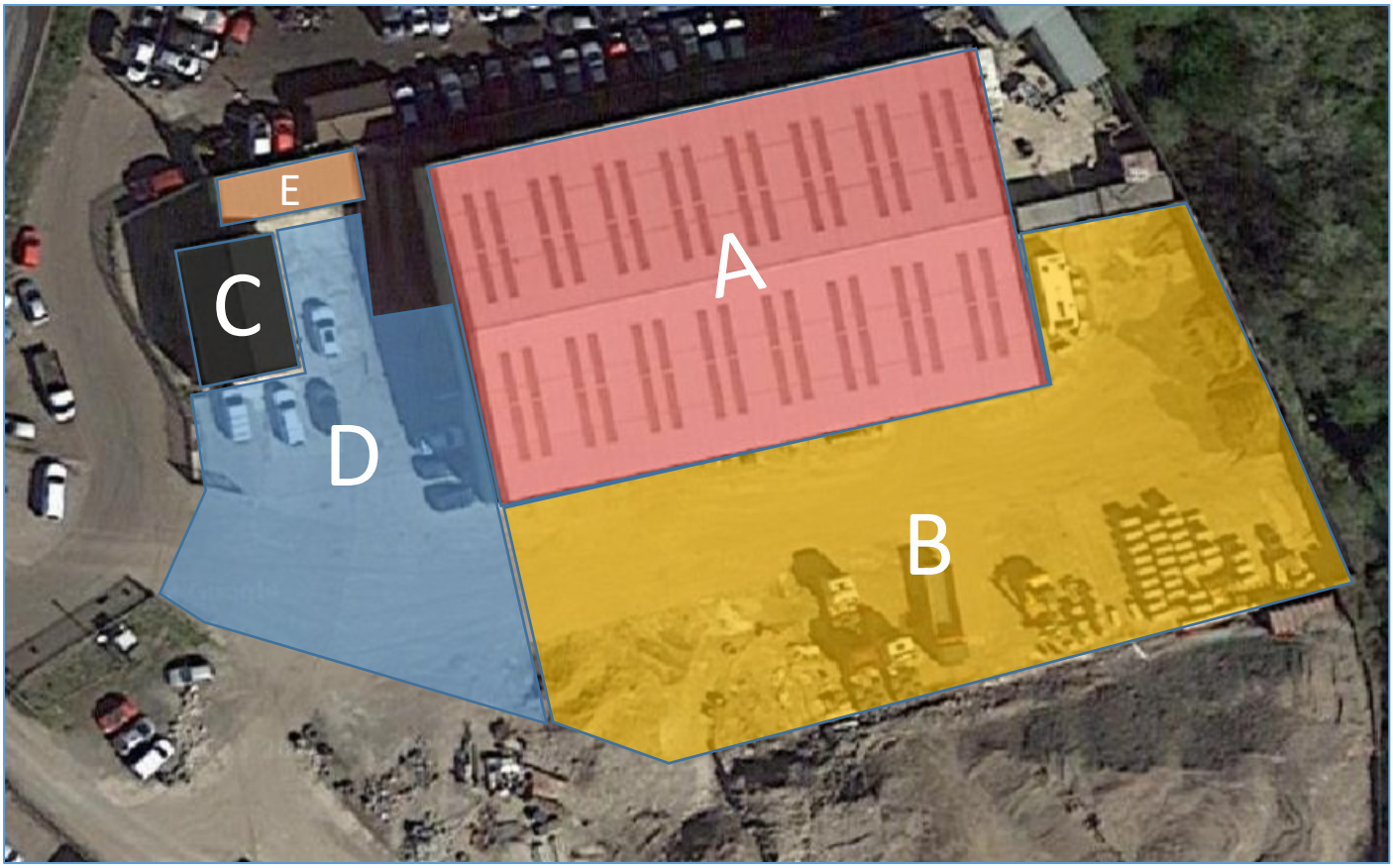
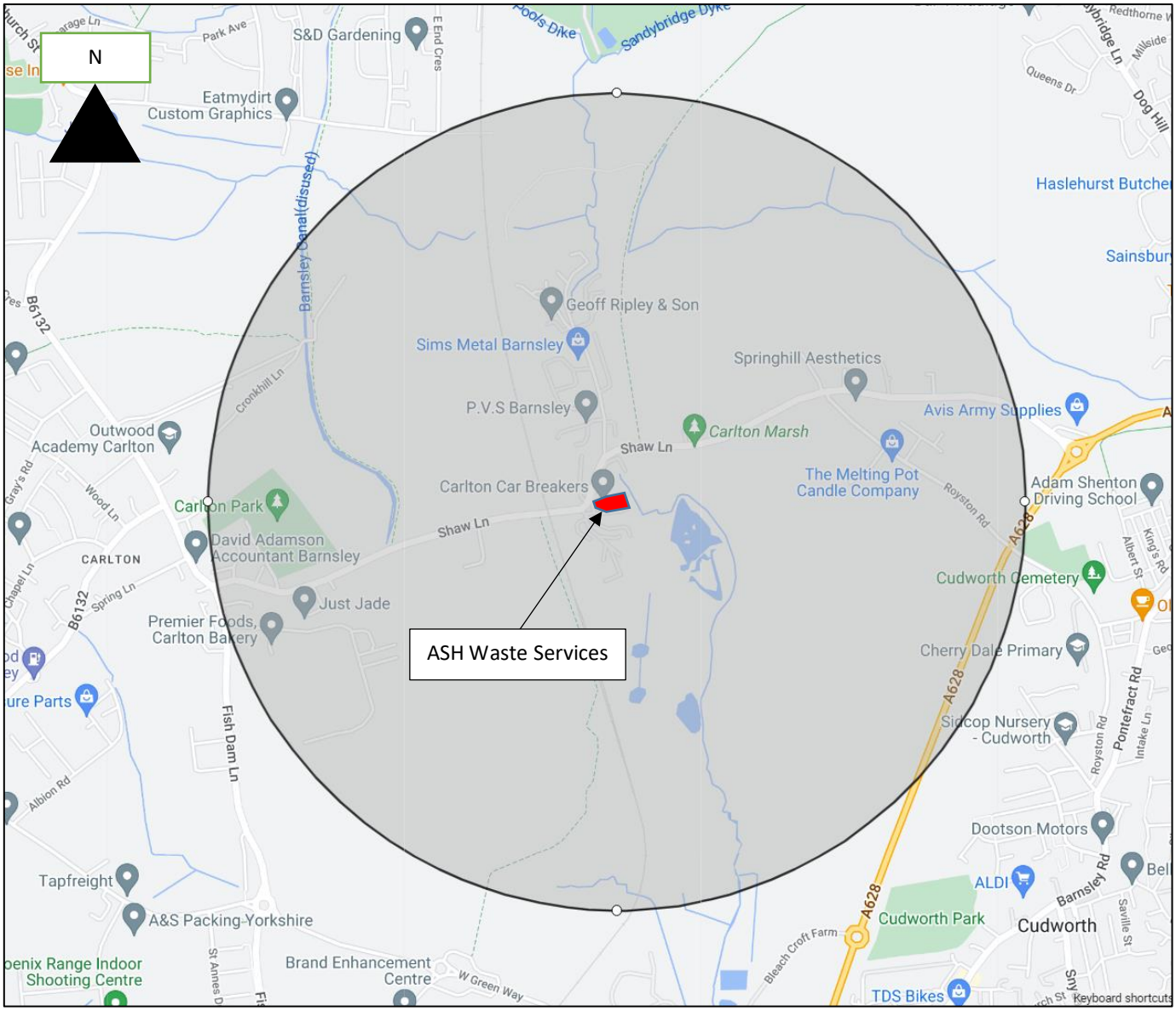


IMAGE: Aerial View of Facility



MAP: 1 km Radius around Facility

1.5. PLANT AND EQUIPMENT

The table below shows the typical plant on site which may be available to assist the Fire and Rescue Services (FRS) with the construction of fire breaks; actual plant available will be dependent on the business needs at any given time. Only trained operators will be permitted to drive/operate the plant listed below and construct fire breaks. All plant will be parked at least 6 metres away from combustible waste stockpiles when not in use.

PLANT	FUNCTION
Forklift x 1	Movement of material for fire breaks
360 grab x 1 large	Movement of material for fire breaks
Loading shovel x 1 large	Movement of material for fire breaks

1.6. SENSITIVE RECEPTORS

The site is located close to a range of sensitive receptors.

A table indicating the principal receptors of concern is shown below, with an aerial plan showing the location of the site and potential receptors shown on the next page.

Receptor	Letter on Map	Location from nearest point of site
Scrap metal waste facilities	A	Immediately neighbouring on north, south and west boundary
Residents; Shaw Lane	B	Approximately 200 metres to the north-east
Farm buildings	C	Approximately 690 metres to the north-east
Residents; Royston Rd / Weetshaw Ln	D	Approximately 505 metres to the north-east
Farm buildings	E	Approximately 490 metres to the east
Residents; Cudworth	F	Approximately 1010 metres to the south-east
Residents; Shaw Lane	G	Approximately 320 metres to the west
Water treatment site	H	Approximately 600 metres to the south-west
Residents; Shaw Lane	I	Approximately 680 metres to the west
Other industrial workplaces	J	Approximately 710 metres to the south-west
Other industrial workplaces	K	Approximately 1300 metres to the south-west
Residents; Carlton	L	Approximately 830 metres to the west
Allotments	M	Approximately 605 metres to the west
Residents; Royston	N	Approximately 1005 metres to the north-west
Habitats; Dearne Valley Wetlands (SSSI)	*	Immediately bordering western boundary

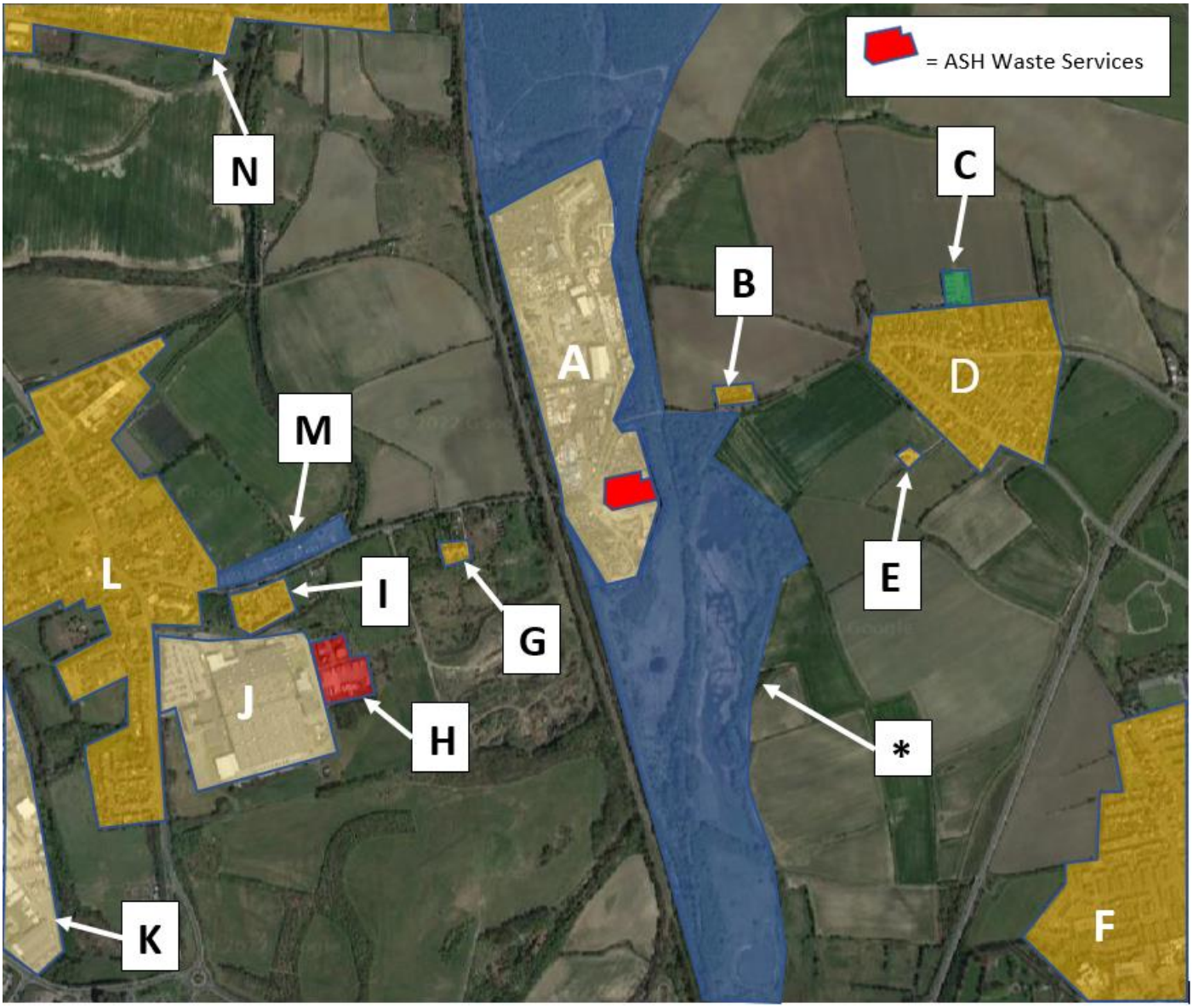


IMAGE: SENSITIVE RECEPTORS SURROUNDING SITE

1.7. SITE ACCESS

The site is accessed via Shaw Lane, as shown in Appendix A. There are no other access points to the site itself, but fire hoses could be lifted over or through neighbouring property borders if required. The site entrance is large enough for HGVs to access the site.

2. POTENTIAL FIRE HAZARDS ON SITE

2.1. POTENTIALLY COMBUSTIBLE MATERIALS

The following outlines the materials which have been identified on site as having combustible potential along with the maximum quantity of these materials stored on site at any given time. The site itself is permitted to accept and treat up to 75,000 tonnes per year of a variety of non-hazardous wastes.

Below, each waste type is identified and maximum storage volumes and durations outlined. Each waste type will be regularly inspected to ensure there is little risk to the site. Please note, stockpile locations may vary according to site requirements but the principals of separation distances will be applied.

2.1.1. WASTE WOOD

Quantity: 20 tonnes of non-hazardous wood waste. Maximum time stored on site – 1 calendar month.

Waste wood accepted on site is in the form of used pallets, domestic and commercial timber. The mixed wood may be sorted and segregated into the grade of the material (split into 'A' grade, and 'B/C' grade).

Waste wood is ordinarily stored in external stockpiles, as shown on the site plan in Appendix B.

2.1.2. SCRAP METAL

Quantity: Up to 10 tonnes. Maximum time stored on site – 2 calendar months.

Although scrap metal itself can be considered to be non-combustible, the presence of plastics and other materials can pose a risk of fire. The site will not usually accept source-segregated scrap metal but will separate readily recyclable metal from mixed wastes.

2.1.3. UNPROCESSED MIXED WASTE

Quantity: 50 tonnes. Maximum time stored on site – 5 working days.

This material consists of mixed municipal waste and mixed construction and demolition wastes which is only stored within the main transfer building (as shown in Appendix B) prior to processing. The unprocessed waste shall be on site for a maximum of 5 working days prior to processing or removal from site, though in normal conditions it is usually processed on either the same or next working day.

2.1.4. PROCESSED MIXED WASTE

Quantity: 30 tonnes. Maximum time stored on site – 5 working days.

This material consists of mixed municipal waste which is only stored within the main transfer building (as shown in Appendix B) after processing. The processed waste shall be on site for a maximum of 5 working days prior to removal off site, though in reality it is usually removed on either the same or next working day.

2.1.5. RECYCLABLE MATERIALS

Quantity: 20 tonnes. Maximum time stored on site – 3 calendar months.

The mixed municipal waste will be processed by initially hand and mechanical sorting. This will remove commodities such as rigid plastics and suitable cardboard for baling before transportation to a reprocessor. The material may be stored loose or baled internally or in bays externally. Glass is also stored on site in an external bay, but this is considered non-combustible waste.

2.1.6. REJECTED WASTES

Quantity: <10 tonnes. Maximum time stored on site – 7 working days.

Any rejected waste will be stored in clearly labelled containers / stockpiles if it cannot be removed from the site immediately. Rejected items can sometimes contain materials which are particularly susceptible to combustion. If any such items or materials are discovered, they will be subject to individual quarantine and EA will be contacted to agree a course of action. Each individual container shall be accessible so that any fire inside it can be extinguished and can be moved as necessary.

2.2. OTHER MATERIALS

2.2.1. GAS CYLINDERS AND BOTTLES

Occasionally, gas bottles or cylinders may be present in incoming loads. These are picked out by site operatives and placed in a lockable cage. The location is shown in Appendix B on the site layout plan.

2.2.2. INERT AND INERT-LIKE MATERIALS

Stone and soil may also be stored on site as a non-combustible waste. This may be up to 50 tonnes. The proposed location is shown in Appendix B on the site layout plan.

2.3. DAILY QUANTITIES

The amount of waste received and removed from site varies daily, but is likely to be:

DAY	AVERAGE INCOMING TONNES	AVERAGE OUTGOING TONNES
Monday – Friday	50 tonnes (range from 5 to 150 tonnes)	50 tonnes (ranges from 0 to 150 tonnes)
Saturday	10 tonnes (ranges from 0 to 20 tonnes)	0 tonnes (ranges from 0 to 20 tonnes)

2.4. MAXIMUM VOLUME AND SIZE OF EACH WASTE PILE

The table below indicates the maximum volume (in cubic metres) of the combustible wastes stored on site; glass and inert materials are also shown in the table for completeness. For all waste piles, the maximum length or width (whichever is longest) will be 10 metres. Waste stored in containers (e.g. wheeled bins, roll-on roll-off skips etc.) are not subjected to the maximum volumes detailed in the table as they are restricted to volume by the container itself.

WASTE TYPE	TYPE OF STORAGE	MAX VOLUME PER PILE
Wood	External – stockpiles	300 cubic metres
Mixed waste – unprocessed	Internal – stockpiles	300 cubic metres
Mixed waste – processed	Internal – stockpiles	300 cubic metres
Scrap metal	External – stockpiles / RORO bins	300 cubic metres
Recyclables (e.g. card or plastic)	External – Bales / stockpiles Internal – Bales	100 cubic metres
Glass	*External – stockpiles*	*200 cubic metres*
Inert (soil and stone)	*External – stockpiles*	*200 cubic metres*

2.5. STORAGE LOCATIONS ON SITE

The storage locations of all wastes are shown in Appendix B.

2.6. POTENTIAL IGNITION SOURCES

Potential sources of ignition for the materials stored on site are:

2.6.1. ARSON OR VANDALISM

The site is fenced or barriered from all sides, making it difficult for intruders to access the site unnoticed, particularly during operational hours when there are usually several members of staff in attendance.

The site is covered by a monitored CCTV system out of hours meaning it is highly unlikely that an intruder could access the site without being noted.

2.6.2. SELF-COMBUSTION

Self-combustion happens when a material which can self-heat generates heat at a faster rate than it can be lost to the environment. The temperature continues to rise in the material speeding up the rate of reaction and releasing even more heat. Eventually the material reaches auto-ignition and the material then self-combusts.

Self-combustion is prevented by:

Managing storage times: the maximum storage times for different wastes are noted in Section 2.1. These are noticeably less than the 6 month period noted in official guidance from .gov.uk.

Controlling temperature: routinely turning piles to ensure the waste remains cold and any localised warming is dissipated quickly, minimising stockpiles, ensuring no unauthorised wastes are accepted or placed within stockpiles, storing materials in their largest form prior to processing.

Storing waste bales effectively: ensuring that excessive storage of waste bales is not used, turning waste bales where necessary, minimising the storage time for baled waste.

Managing stockpiles: stockpiles on site are closely managed to ensure that they do not exceed the volumes expressed in Section 2.4 and that different types of wastes are kept separate.

2.6.3. ELECTRICAL FAULTS

PAT testing is carried out as required on portable equipment by a suitably qualified electrician. All electrical cables on site are inspected and periodically maintained to ensure they are not damaged or exposed. The Health & Safety Manager or competent person carries out formal monthly site walkovers on the operations and office to identify any potential issues, as well as more frequent spot checks.

2.6.4. DISCARDED SMOKING MATERIALS

Smoking is strictly prohibited on site, other than in a designated smoking location which is located away from any stockpiles of waste, as shown in Appendix B. Any staff or visitors found to be in breach of these rules will be subject to disciplinary action or banned from site.

2.6.5. PLANT OR EQUIPMENT FAILURE

Any spillages of fuel will be cleared immediately by depositing sand or absorbents on the affected area. All site surfaces are inspected daily when the site is in operation by suitable trained operatives.

Plant and equipment are subjected to separate manufacturer-specific and operator-specific preventative maintenance programmes.

2.6.6. OPEN BURNING

No waste is intentionally burnt on site. Firefighting equipment is kept close to the areas of waste storage should accidental burning of waste occur. In addition, fire extinguishers will be located across the entire site (externally and internally) to aid the quick suppression of a fire once detected as well as the fire detection and suppression system.

2.6.7. NEIGHBOURING SITE ACTIVITIES

The site is located in close proximity to other industrial units. Any fires on neighbouring sites presents a risk of spreading to the ASH Waste Services site.

2.6.8. INDUSTRIAL HEATERS

There shall be no industrial heaters on site.

2.6.9. BATTERIES

Waste batteries shall not be knowingly accepted onto site; on occasions, a battery may be placed in waste containers by customer's who are either not alert to the risk of fires or are acting unscrupulously. Our clients are periodically reminded that they are not permitted to place batteries into their waste streams to be collected by ASH. In addition, visual checks will be made for rogue batteries both at place of production and upon tipping at site. Any batteries found are to be quarantined suitable.

2.6.10. HOT WORKS

Any non-routine hot works, such as welding and cutting, will be subject to a Permit to Work system. For routine tasks, only trained operatives who are competent and have been trained in the related risk assessment and safe system of work shall be permitted to carry out any hot works. These activities will take place away from combustible materials with a fire watch carried out for 30 minutes after the work is finished.

2.6.11. HOT EXHAUSTS

A fire watch shall be carried out at regular intervals during the operating hours to detect signs of a fire caused by dust settling on hot exhausts and engine parts. Site management will usually carry out visual checks on site hourly to check for signs of fire, as well as at the end of the working day.

2.6.12. BUILD-UP OF LOOSE COMBUSTIBLE WASTE, DUST AND FLUFF

Housekeeping will be carried out regularly throughout the course of a typical working day. This will include measures such as pushing spilled waste into the relevant stockpile.

2.6.13. HOT AND DRY WEATHER

During particularly hot and dry weather, combustible waste may be turned at an increased frequency to allow built-up heat to dissipate. If required, stockpiles of combustible waste may also be moved into more shaded areas.

3. FIRE PREVENTION AND CONTAINMENT MEASURES

3.1. FIRE PREVENTION

The following measures are implemented on site to reduce to likelihood of fires on site:

3.1.1. SITE SECURITY AND FIRE DETECTION

The site has a fully working CCTV system which can be viewed remotely by various members of staff. This includes cameras both internally and externally. The CCTV is monitored by a third-party (remotely) during non-operational hours. Therefore, the site is well guarded against the threat of intruders and in turn, vandalism and arson. The site also benefits from secure fencing and barriers around its perimeter.

All operational areas and stockpiles are covered by the camera set-up. The cameras consist of a mixture of fixed cameras and PTZ cameras. A PTZ camera is a camera capable of remote directional and zoom control. There are also PIR detectors and alarm points on site.

The CCTV system is designed, installed and maintained by a competent third-party.

CCTV monitoring is carried out once all staff leave site and the monitoring station is notified. The CCTV monitoring will be fully engaged when a sensor on site is triggered, which could be through intruders or the presence of smoke.

In the event of one of the sensors being broken on site, the monitoring station will contact either the key holder or the emergency services, e.g. in the event of a fire, they would call the Fire and Rescue Services. The key holder will attend site as soon as is reasonably practicable during an emergency call out. If operatives are required, such as machine drivers, they will attend site as soon as is reasonably practicable of the emergency call out.

3.1.2. STOCKPILES

The stockpiles of waste are kept within the limits specified in Section 2. Stockpiles of waste are inspected daily and observed for any signs of fire, e.g. smouldering, excessive steam, odours, heat etc. Records of site inspections are maintained in the site diary.

A ‘first in, first out’ principle is used to ensure stockpiles are not stored for prolonged periods. Stockpiles will be rotated by the site management if they are to be stood for longer than the periods indicated in Section 2.1. At least monthly, ASH will sort through any stockpiles to bring the waste forward within a pile and place any ‘new’ waste behind this. This is used to ensure that waste does not exceed the periods stated within this Fire Prevention Plan.

3.1.3. FIREWALLS

Firewalls are used on site to act as barriers between stockpiles of combustible wastes and between combustible waste and non-waste materials that could set alight. These shall be of concrete structure and will be Class A1 under BS EN 13369, with a minimum width of 600mm. There will be a freeboard space at the top of the bays of at least 1 metre, unless the waste is non-combustible.

3.1.4. SEPARATION DISTANCES

Firewalls are used to keep waste stockpiles separate, otherwise a minimum separation distance of 6 metres for combustible wastes shall be used.

3.1.5. MAINTENANCE OF SITE INFRASTRUCTURE

The building, concrete bays and other infrastructure are inspected daily and will be repaired or replaced if required. Results of the inspections are recorded in the site diary.

3.1.6. MAINTENANCE OF PLANT

All plant is regularly maintained to reduce the risk of plant fire. This includes ensuring that fuels or combustible liquids are not leaked (as with vehicles). Plant will be regularly cleaned to prevent the build-up of waste or dust that may accumulate around heat sources on the machine.

3.1.7. ELECTRICITY TESTING

Electricity infrastructure shall be tested and certified safe by a qualified electrician. All portable appliances are tested as required. The fixed wiring is tested in line with statutory requirements.

3.1.8. HOT WORKS

Any hot work or electrical work that is not within an employee's normal duties shall only be carried out under a Permit to Work system which identifies the risk of fire and provide measures to mitigate this risk. If required, hot loads will be placed in the most suitable and available quarantine area, as shown in the Appendix B site plan. An operative will act as a fire watch for a minimum of 30 minutes following hot works.

3.1.9. EMPLOYEE TRAINING

All staff who are employed in waste operations at the site are required to undertake induction training. This includes the health and safety policy, emergency procedures, manual handling, fire extinguishers, environmental spills etc. Employees are also shown and asked to sign for risk assessments and method statements (RAMS) for the areas of work that are relevant to them. High-risk duties that are not covered by RAMS and an employee's normal duties are undertaken under a Permit to Work system.

Training will also include fire procedures as detailed within this document.

3.1.10. HOUSEKEEPING

Maintaining good housekeeping at all times to ensure that waste materials are not windblown or otherwise spread, and to ensure that there are no accumulations of wastes which could breach firebreaks of cause stockpiles to exceed their specified dimensions. Checks are carried out throughout the day to check for any build-ups of loose combustible waste.

3.1.11. FIRE DRILLS

The site carries out a fire drill every 6 months, or more frequently if required, to test the emergency preparedness. The FPMP is also tested periodically, with training provided on the contents of the document once approved.

3.1.12. UNUSED PLANT

Unused plant shall be kept away from combustible waste, except in cases where the period of inactivity will be limited or where it is fixed plant. The location of the mobile plant will vary, but is as typically shown in Appendix H. When the mobile plant is not in use, it shall be kept at least 6 metres away from waste stockpiles. Checks of hot exhausts shall be carried out at least twice daily and 30 minutes after the use of the mobile plant and prior to the site being closed.

3.1.13. HEALTH AND SAFETY MANAGEMENT SYSTEM

ASH is certified to ISO 45001 Health and Safety Management System. As part of our fire prevention techniques, we will operate our site in accordance with the processes and procedures detailed within it. Current certificates of approval to all approved management systems are displayed in site reception.

3.1.14. SEPARATION FROM COMBUSTIBLE WASTES

Any sources of ignition, other than electrical points, fixed plant or vehicles in use, shall be kept a distance of at least 6 metres away from combustible and flammable wastes.

3.1.15. RESPONSE TO WEATHER CONDITIONS

ASH may alter or cease operations under certain weather conditions:

- Gale force winds, which could damage plant and machinery and result in a fire
- Prolonged hot weather (or short-term extreme conditions) which can dry out stockpiles and make them more susceptible to ignition. In these circumstances, stockpiles may be dampened and/or rotated to reduce or dissipate heat

Waste deliveries to site may be halted in the above conditions and diverted to other facilities.

3.1.16. INSPECTIONS (SITE DIARY)

The site staff conduct regular inspections of the waste stockpiles during operational hours, which includes checking for evidence of fires. As a minimum, this is done twice daily in addition to a site walkover before closure. As evidence of these checks, management complete a site diary throughout the course of the day. In the event that evidence of a fire is found, the fire firefighting techniques discussed in Section 3.2 will be followed.

3.1.17. CHECKING IN & INSPECTING INCOMING WASTES LOADS

All incoming vehicles are required to report to the weighbridge office upon arrival at the site. The details of the load are recorded, including the waste description with EWC codes and the volume (weight) of the wastes, and the Duty of Care note and company documentation will be further checked (where applicable) to ensure that the load is acceptable at the site. Any deviation from the procedures or problems with any loads must be reported to the Site Manager or Site Supervisor.

Once a load has been accepted by the site, the driver will be asked to un-sheet the vehicle (if it is sheeted) and a visual inspection of the contents be carried out to ensure that the waste types comply with the permit. The nature of most waste loads makes full inspection difficult until the load is deposited. If unsuitable waste is discovered before deposit, the load will not be tipped and will be rejected by the site and returned to the producer.

If the load is deemed to be acceptable, the driver will be instructed to deposit the load in the appropriate area. If the load is unacceptable after deposit, it will be loaded back onto the delivery vehicle and returned to the producer if possible.

Where non-conforming wastes are found within a stockpile/container prior to processing, this will be removed by an operative and placed within the rejected waste skip/container or moved to the non-target waste bay for onward processing if the material is recyclable.

Loaded vehicles accessing/leaving the site are weighed as required using the weighbridge.

3.2. FIRE FIGHTING TECHNIQUES

ASH staff should follow the flow diagram below in the event of a fire. All site staff are trained to understand the principle that no-one should put themselves at risk to fight a fire. ASH staff should only attempt to extinguish the fire if it is safe to do so. The location of fire extinguishers on site is shown in Appendix B.

A fire hose of sufficient length and connections shall be located on site in a clearly visible location to allow connection to the nearest hydrant. Training will be provided to site operatives on the location of the hydrant and fire hose.

In addition, any incoming waste will be returned to the customer's site where possible, or diverted to another site that is able to accept the particular waste types. Neighbouring residents and businesses will be notified of any fire verbally where possible.

3.3. FIRE CONTAINMENT

In the unlikely event that a fire was to break out on site, the site has a number of measures in place, in addition to a number of existing characteristics of the site, which would limit the size, duration and impact of a fire on site. These are listed below:

3.3.1. FIRE DETECTION SYSTEM

Thermal cameras will be installed across sites that will cover all stockpiles of combustible waste. These will detect hot spots within the waste and give accurate temperature readings. The camera (both conventional and thermal) system is connected to the site offices and staff mobile software via the HIK Central Software, so that the cameras can be monitored during the day and out-of-hours by staff.

During operational hours, the images from the thermal cameras will be displayed within the weighbridge office for site operatives to monitor. In addition, operational staff will be constantly carrying out visual inspections of the waste on site to look for indicators of a developing hot spot or fire.

When the site is not occupied (during out of hours), the site CCTV will be monitored by a monitoring station. If the thermal cameras pick up any hot spots at pre-set temperatures, the monitoring station will be alerted. They will then view the cameras and contact

designated ASH Waste Services staff who will attend site within 30 minutes to investigate. If obvious flames are detected by the monitoring station, they shall call the Fire and Rescue Services to attend directly.

An example of the thermal imaging camera output is shown below.

3.3.2. FIRE SUPPRESSION

It is not proposed to install an automated fire suppression system at the site as it is considered that the following alternative measures ensure that the objectives set out in Section 1.2 are met:

- During operational hours there will always be trained employee(s) on site carrying out continuous inspections on the waste storage areas inside and outside the building for the presence of fire.
- These inspections include visual monitoring of all combustible waste piles.
- The business model in normal circumstances is to remove mixed combustible waste from site on the same day it arrives or by the next working day. As such, the risk of self-combustion is considered negligible.
- The site has access to a fire hydrant within 50m of the site which can be connected to in the event of a fire as an immediate response. This can be used to extinguish a fire or keep the waste wet and therefore minimising the spread or any temperature increase.
- Neighbouring businesses have a large volume of sand and mobile plant which could be used to smother a fire using the site's excavator within minutes of a fire breaking out at the site.

The site has several fire extinguishers as marked in Appendix B. Any mobile plant used on site will be fitted with an automatic fire suppression system, e.g. a 25kg dual powder extinguisher. These will be serviced regularly, i.e. at least annually.

3.3.3. FIRE BREAKS

Combustible waste is stored within bays (with a one metre freeboard space between the waste and bunker height) or designated areas and the height of combustible stockpiles shall not exceed 4 metres for waste stored externally and outside of bays, to create significant permanent fire breaks between combustible materials and limit the spread of fire. By restricting the height of the stockpiles to the height of the containment bays in which they are stored, fire will not be blown over the walls of one bay and onto the material located in an adjoining bay. Furthermore, the containment bays will provide a wind break surrounding stockpiles of material, which will impede the acceleration of a fire through the increased oxygen supply provided by gusts of wind.

In addition, upon the discovery of a fire, site operatives will create fire breaks on site if required, only if safe and done so under the direction of the Fire and Rescue Services.

Site surfaces which are not used for plant or stockpiles, and are therefore providing a fire break, will be cleared using a road sweeper if available, to ensure that any potentially combustible material between stockpiles, which would undermine the effectiveness of fire breaks, is removed.

3.3.4. CONTROLLED BURN

For avoidance of doubt, a controlled burn would only be carried out under the direction of the Fire and Rescue Services.

In some instances, a plan for a controlled burn might be beneficial on waste sites in the event of a significant fire, to reduce the amount of flammable material surrounding the fire, thereby impeding the spread of fire across the site.

If it is deemed absolutely necessary that a controlled fire is initiated on site, it will be conducted under the control and direction of the Fire and Rescue Service, who have significantly more training with regard to fire management and equipment available to them than site operatives.

In the majority of situations, separation distances and containment bays will provide sufficient isolation of a fire prior to the Fire and Rescue Services arriving and assessing the situation. If it is deemed that further isolation is required, operatives will be instructed to move flammable materials away from the fire, if it is safe to do so, and instructed to place inflammable material in the path of the fire, to impede the spread of fire across the site.

3.3.5. SMOTHERING

If any suitable inert material is held on site, such as soil, this may be used to smother the fire or any stockpiles at risk from ignition, or create additional fire breaks.

3.3.6. DRAINAGE

A site drainage plan is shown in Appendix C. The Waste Transfer Building is effectively a sealed drainage system for the containment of wastes and spillages can be contained and dealt with by the use of suitable absorbents, spill kits and drain covers. The surface water from the external area C (as shown in the picture in Section 1.3) flows to drains and into a combined foul and surface water sewer operated by Yorkshire Water. A boom can be deployed to prevent any fire water from entering the Yorkshire Water system.

Water from the site offices and toilets is also directed to the combined foul and surface water sewers.

3.3.7. QUARANTINE AREA

In the event of a fire on site, a quarantine area of at least 200 cubic metres (10 x 6 x 3) will be established, as shown in the site layout in Appendix B. Should it be required, more than one quarantine area can be used. The quarantine area shall be at least 6 metres away from building and other combustible wastes.

Quarantine area A (as shown in Appendix B) will be left free of waste. On occasions, the area may be used to park HGVs awaiting to either unload or be loaded. In the event of a fire, all vehicles shall be removed from the quarantine area and either into a suitable vacant area away from the fire and quarantine area or taken off-site.

Quarantine area B (as shown in Appendix B) may be used to store mobile plant or HGVs when not in use. In the event of a fire, these will be moved as above.

3.3.8. WATER SUPPLY

The site is well serviced by mains water that is available for firefighting activities. There is a fire hydrant located on Shaw Lane within 50 metres of the west boundary. A second fire hydrant in located to the north-east. The map in Appendix A indicates the hydrant locations, with the inset map showing the exact locations of the fire hydrants as shown provided by the Yorkshire Water.

Both Yorkshire Water and the Fire and Rescue Services were contacted regarding the hydrant flow rates; neither was able to provide an actual reading. A Yorkshire Water engineer confirmed verbally that the nearest hydrant would achieve an average flow rate in excess of 2,000 litres a minute from an engineer briefly opening the hydrant whilst checking the pressure (>5 bar) in July 2022 (quoted as >50ltr per second); they are unable to measure the flow rate accurately due to potential impacts on the rest of the network. The on-board water supply from FRS vehicles will increase the amount of water available.

The Fire and Rescue Services Act 2004 dictates that a “fire and rescue authority must take all reasonable measures for securing that an adequate supply of water will be available for the authority's use in the event of fire”. Further, the Local Government Agency ‘National guidance document on the provision of water for fire fighting’ details that “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”:

- 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.

The site is question is to be considered as part of an industrial location with surrounding industry measuring over three hectares and therefore the flow of water from the hydrants should be at least 75 litres per second or 4,500 per minute. Using a conservation assumption that the flow rate is built around the two to three hectares supply, this would provide 3,000 litres per minute, or on a one to two hectare supply, 2,100 litres per minute. This means there is a suitable off site water supply to extinguish a fire on site within 3 hours.

Therefore, water supply to the site in the event of a fire would meet with the requirements as specified in the Environment Agency's guidance.

3.3.9. MANAGING FIRE WATER

In the event of a fire on site, surface water will be prevented from leaving the sites operational areas by (A) the fall of the concrete surface, e.g. it will flow towards the centre of the building, (B) sealed concrete blocks around the east and south perimeter of the site, (C) a boom(s) that will be deployed at the site entrance forming a continuous line of water retention and (D) the immediate covering of surface drains by means such as that pictured. This would be located such that it is clear and obvious to site operatives or third-parties attending site.

ASH will hire in an emergency tanker / gully sucker service to be deployed in the event that there is a build-up of fire water; a table of potential contractors is shown in Appendix C. An emergency tanker / gully sucker will attend site within two hours of the emergency call out. This will be taken off-site to an appropriate treatment facility to treat and/or dispose of the fire water.

In the event of a fire to the main stockpile held on site (please refer to Section 2.4), up to 360,000 cubic metres of water would be used within 3 hours. The calculations are shown below:

EA Fire Prevention Plan guidance (January 2021):

For a combustible waste stockpile of 300 cubic metres, 2,000 litres a minute would be required for a minimum of 3 hours. This equates to 360,000 litres of fire water over the 3-hour period.

ASH Waste Services – Largest stockpile (300 cubic metres – see Section 2.4):

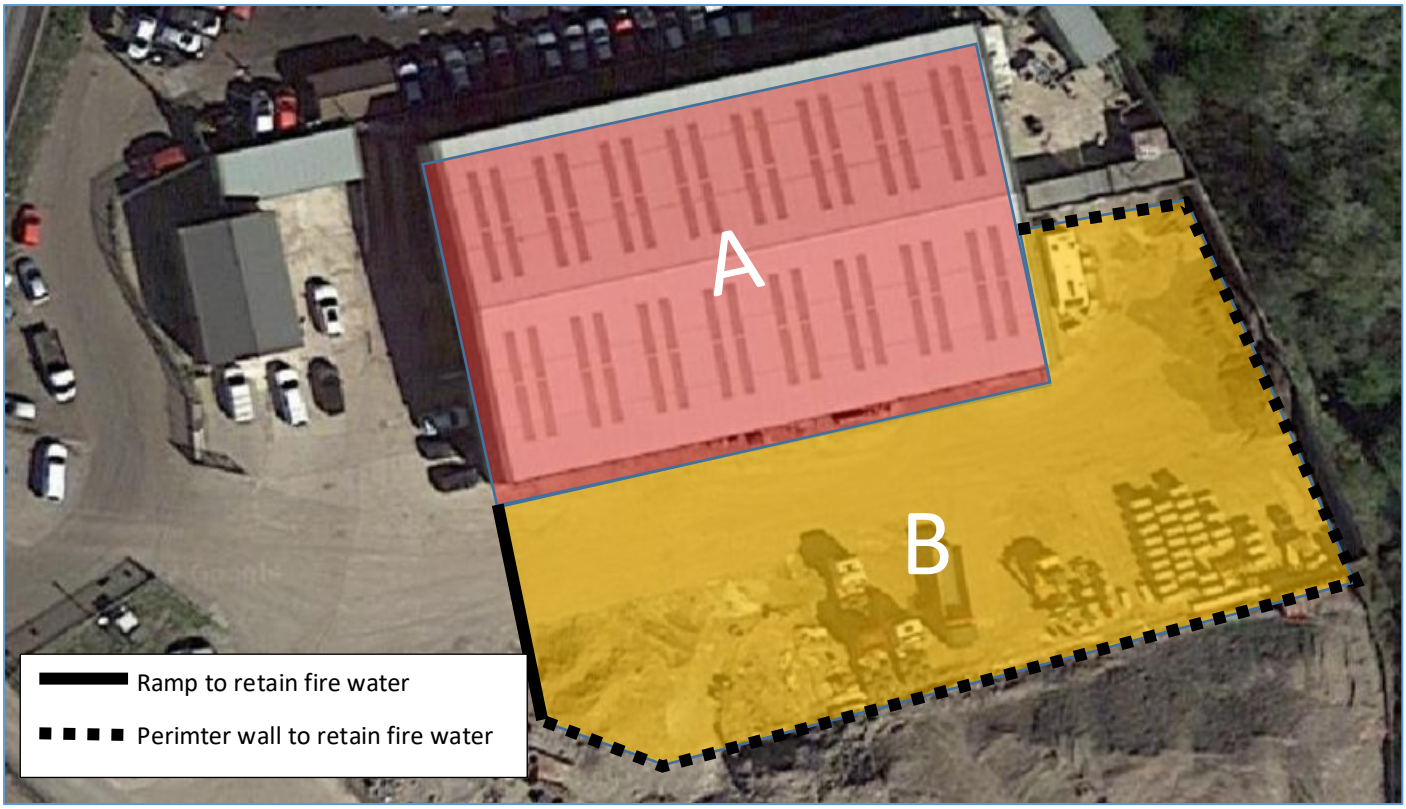
300 cubic metres x 0.15 litres = 2,000 litres per minute

2,000 litres x 180 minutes = 360,000 litres over a 3-hour period

The site setup would allow for a conservative fire water retention capacity of:

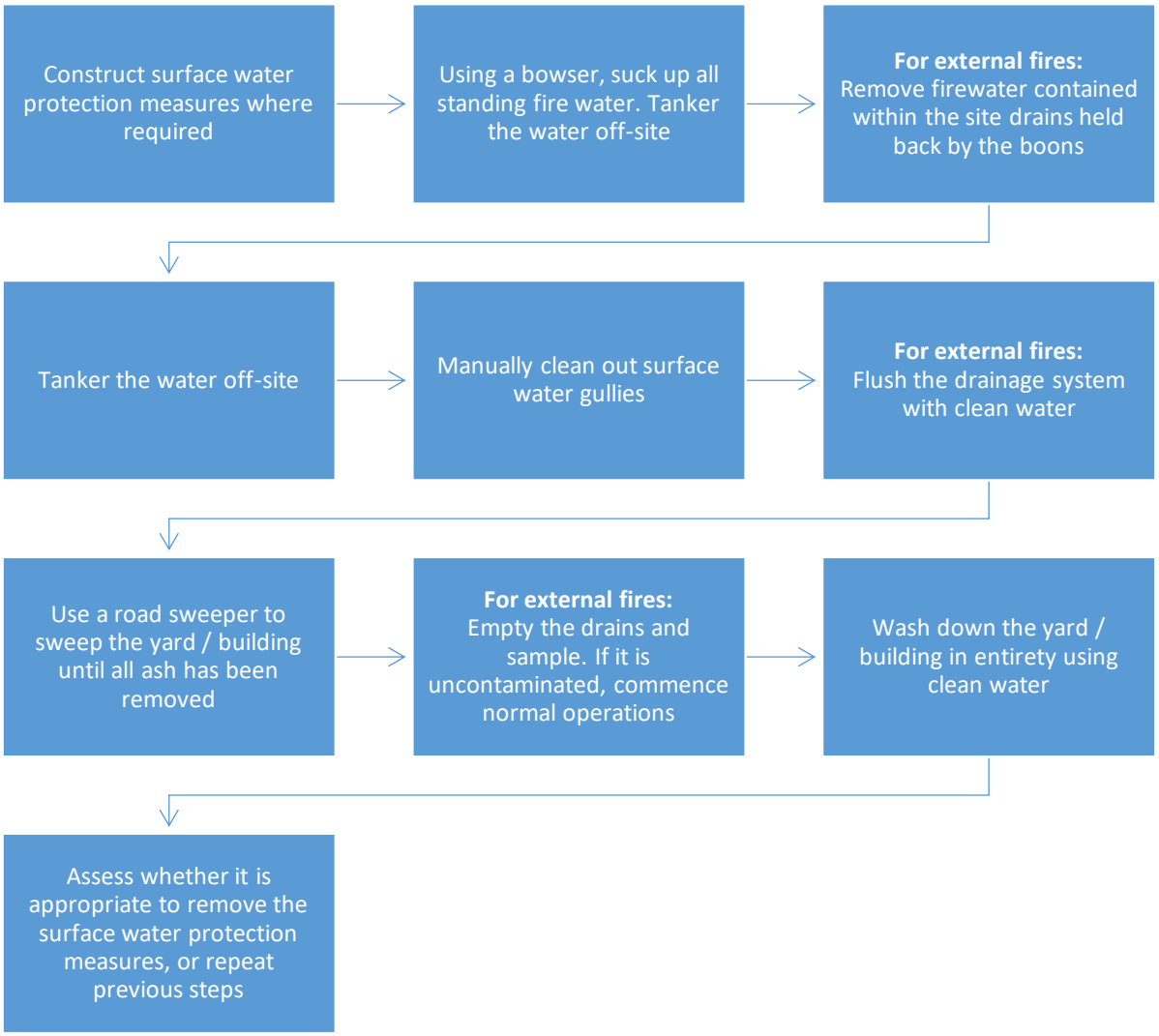
- 280 cubic metres = 280,000 litres in Area A (within the waste transfer building)
- 400 cubic metres = 400,000 litres in Area B (within the external operations yard)
- 680 cubic metres = 680,000 litres in total

This is based on a worst-case scenario assuming the site is holding its maximum waste stock capacity – in reality, much more extensive impermeable areas of the site would be able to retain fire water, e.g. between voids in the waste.



The fire water will be removed via tanker and will be transported offsite to an appropriate treatment facility, unless Yorkshire Water give permission for it to be discharged to their combined sewer in which case we may take this approach.

Once any fire is fully extinguished, surface water on site will be cleared by using the following process:



4. REVIEW

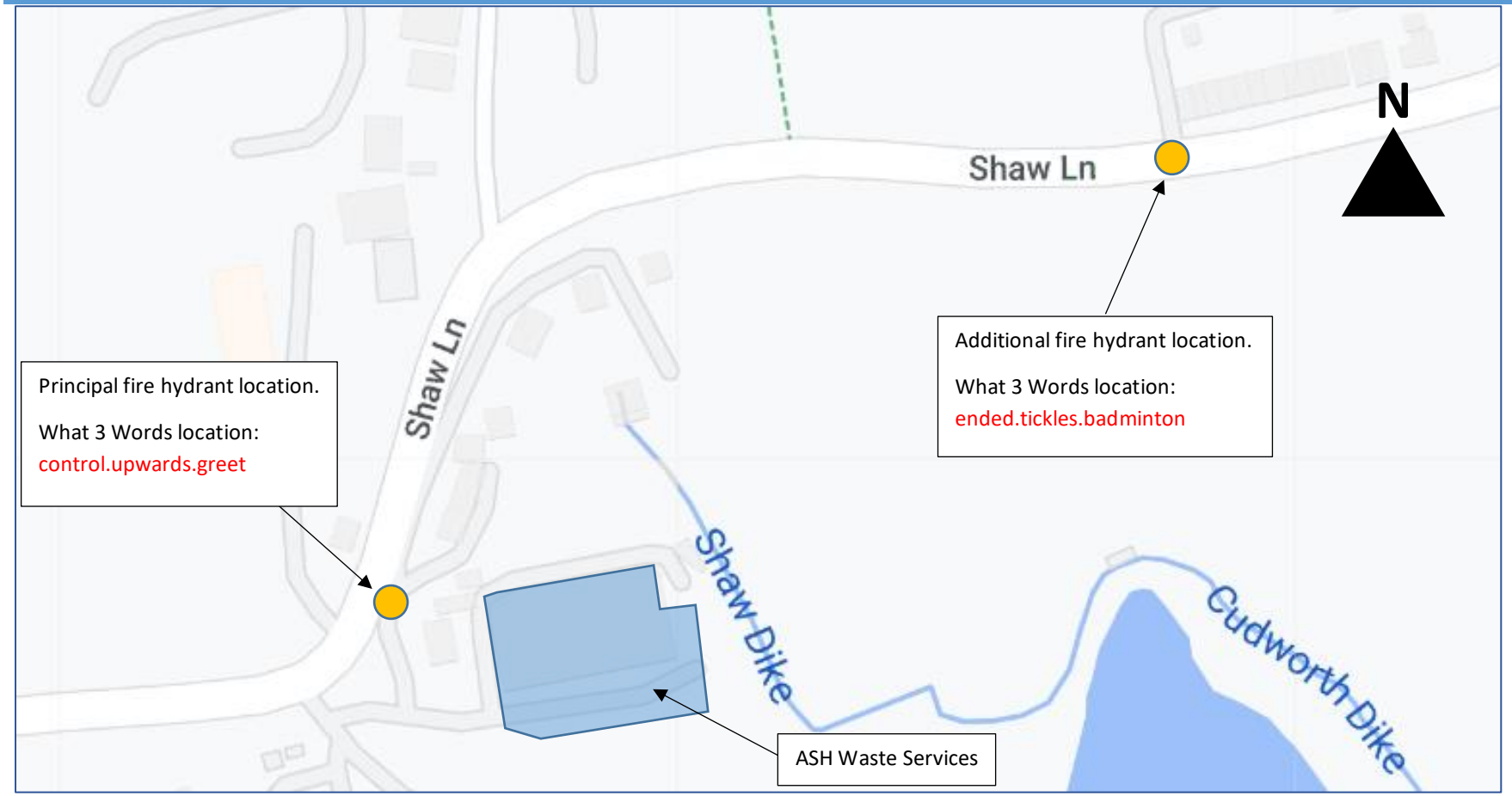
We will review this document:

- Within six months of the Environmental Permit being issued
- Following any significant changes made to site layout, operations or waste processes
- Following any fires or near-misses
- Following Environment Agency or Fire and Rescue Services advice
- Regardless of the above, at intervals of no more than two years.

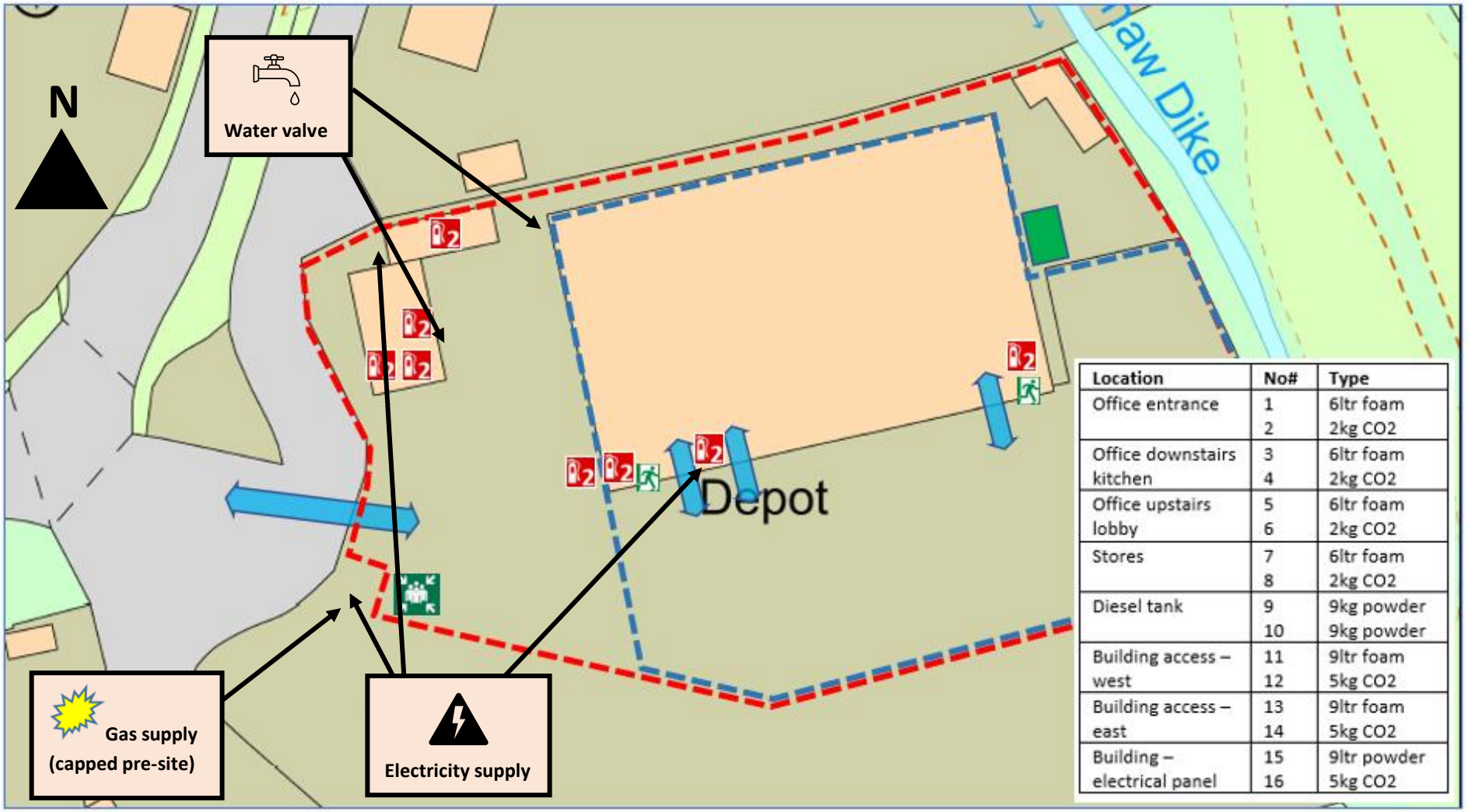
During each review, we shall consider if the Fire Prevention Plan is appropriate or whether alternative or additional measures are required. If wholesale changes are made to the document, it shall be sent to the Environment Agency for approval.

END OF MAIN TEXT

APPENDIX A – FIRE HYDRANT LOCATIONS

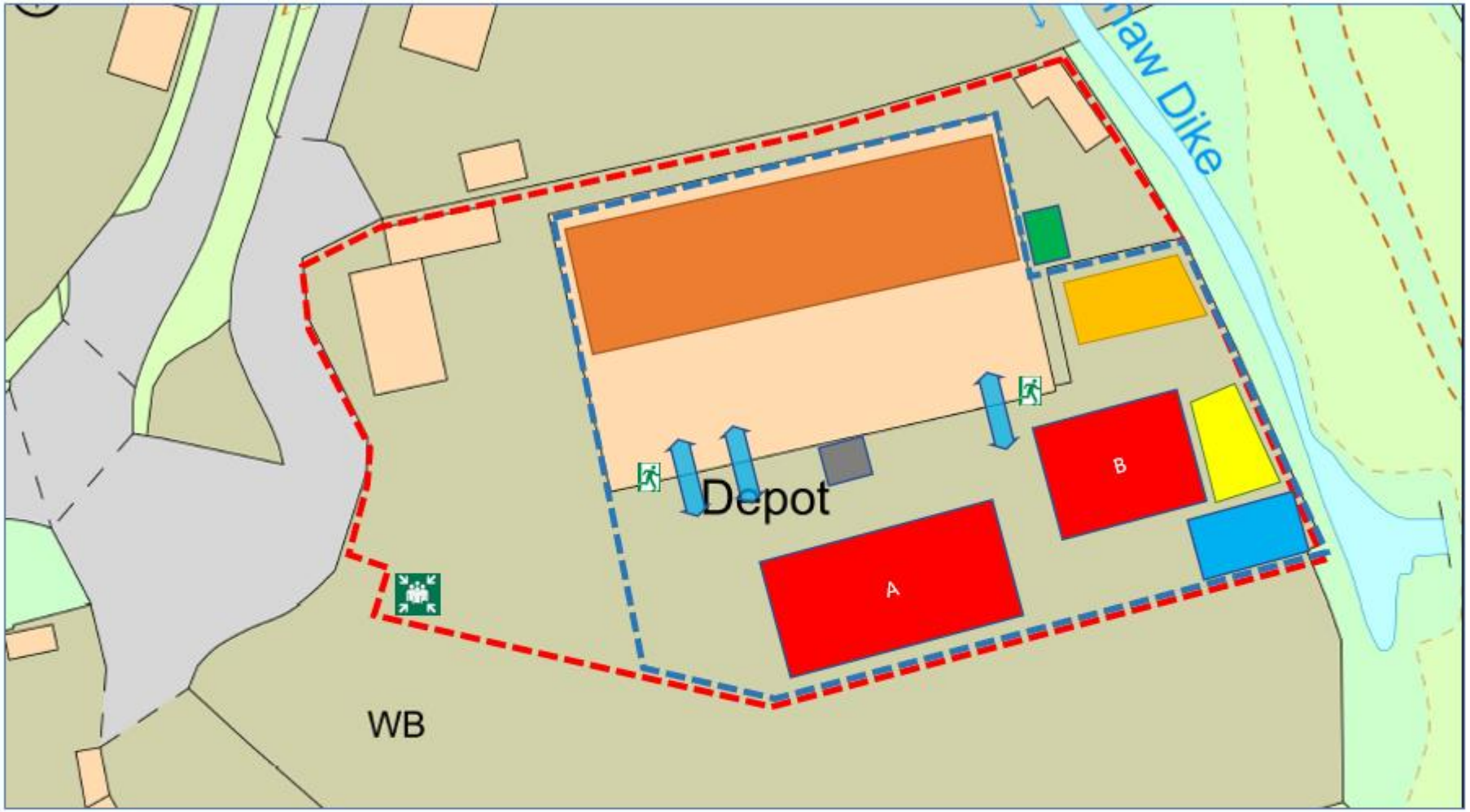


APPENDIX B – SITE LAYOUT MAPS



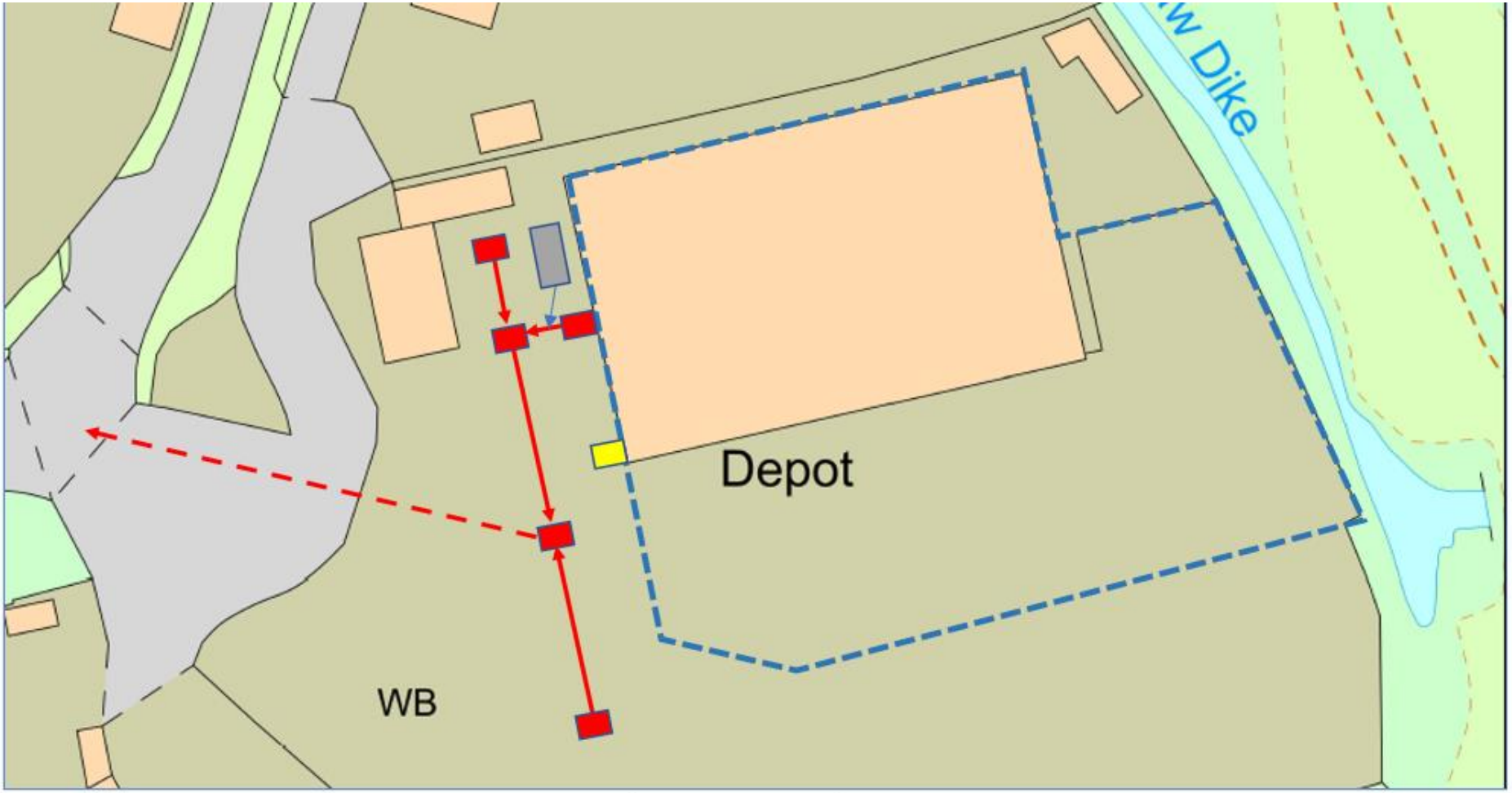
Location	No#	Type
Office entrance	1 2	6ltr foam 2kg CO2
Office downstairs kitchen	3 4	6ltr foam 2kg CO2
Office upstairs lobby	5 6	6ltr foam 2kg CO2
Stores	7 8	6ltr foam 2kg CO2
Diesel tank	9 10	9kg powder 9kg powder
Building access – west	11 12	9ltr foam 5kg CO2
Building access – east	13 14	9ltr foam 5kg CO2
Building – electrical panel	15 16	9ltr powder 5kg CO2

	Vehicular access		Emergency muster point / smoking area		Environmental Permit boundary		Fire system skid with water tank
	Pedestrian entry / exit		Fire extinguisher location		Boundary of area controlled by Permit holder		



	Gas bottles / cylinders		External recyclables		External recyclables		Vehicle access; waste transfer building
	Mixed commercial and industrial waste		External recyclables	A	Quarantine areas in the event of a fire		Pedestrian access; waste transfer building

APPENDIX C – DRAINAGE SYSTEM



	Manhole: Combined foul and surface water		Direction of drain
	Three-stage petrol interceptor		Spill and drain protection kit (boons and drain covers)
	Environmental Permit boundary		Drain to Yorkshire Water combined sewer network

APPENDIX D – EMERGENCY CONTACT LIST

The table below shows emergency contacts who can be contacted in the event of a fire or major incident on site:

Contact	Number	Email	Details
ASH Waste Services contacts			
Steven Rymill	07918 309057	steverymill@ashgroupltd.co.uk	ASH Group HSEQ Director
Andrew Hulme	0800 035 0447	andrewhulme@ashgroupltd.co.uk	ASH Group Director
Matthew Kirk	0800 035 0447	mattkirk@ashgroupltd.co.uk	ASH Group Director
Thomas Farrell	07464 545429	thomasfarrelll@ashgroupltd.co.uk	ASH Group Environmental Manager
Nicole Davies	07825 988392	nicoledavies@ashgroupltd.co.uk	ASH Group Health and Safety Manager
External Contacts			
Environment Agency	0800 80 70 60	-	Environmental Regulators – Incident hotline
Emergency Services	999	-	Emergency Services
Barnsley Metropolitan Borough Council	01226 773555	-	Local authority
Lanes for Drains	0114 281 8100	-	Tanker / gully sucker services
Regaldon UK Ltd	01226 288736	-	Tanker / gully sucker services
Go Plant	0333 321 4877	-	Tanker / gully sucker / road sweeper services
Yorkshire Water	0800 573553	-	Water provider
Natural England	0300 060 3900	-	Dearn Valley Wetlands SSSI
Yorkshire Wildlife Trust	01904 659570	-	Carlton Marsh Nature reserve