

FIRE PREVENTION PLAN

Environmental and sustainability solutions provided to
S NORTON & CO LTD

WRM-LTD.CO.UK



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1.0 SITE DETAILS

Premises Particulars	
<p>Premises Name: S Norton & Co Ltd</p> <p>Address: S Norton & Co Ltd Cornwall Road, Smethwick B66 2JR</p> <p>Tel no: TBC</p> <p>Site Opening Times: Monday to Friday 06:00 – 17:00 Saturday 06:00-12:00 305 days per year</p>	<p>Use of Premises: Processing of scrap metals (ferrous & non-ferrous), cables, batteries, Large Domestic Appliances (LDAs) and End of Life Vehicles (ELVs). With an operational capacity 275,00 tonnes per annum.</p> <p>Owner/Employer/Person in control of the workplace: Director/General Manager – PIC TBC Director/Technical Manager/Site Manager – PIC TBC</p>
<p>Date of Risk Assessment: 18/04/2024</p>	<p>Date of Review:</p>
<p>Name & relevant details of the person who carried out the Fire Risk Assessment: Mick Stephenson, DPCNE Ltd.</p>	

1.1 General Statement of Policy for Preventing Fires

S Norton & Co Ltd (hereon referred to as "SN&Co") will endeavour to do everything possible to prevent any risk of fires throughout the plant and permitted area:

- Control sources of ignition such as heating pipes, naked flames, light bulbs, space heaters, furnaces and incinerators;
- Keep sources of ignition at least 6m away from piles of combustible and flammable materials;
- Reinforce fire prevention messages using signs;

- Ensure staff and contractors follow safe working practices when undertaking hot working, such as welding and cutting;
- Ensure all visitors follow the correct safety and fire prevention procedures;
- Apply a no smoking policy or ensure designated smoking areas are situated away from combustible materials;
- Introduce a regular maintenance and inspection programme for all site areas (including site machinery);
- Put site security measures in place (e.g. security fencing) to prevent arson;
- Have all site vehicles fitted with fire extinguishers and dust filters;
- Implement a fire-watch at the end of each shift (when dust from processing operations can settle onto hot exhausts and engine parts);
- Make sure separation distances are observed between plant and material when the site is not staffed; and
- Provide a dedicated emergency or quarantine area big enough to cope with a major incident, with a clear area of at least 6m around the perimeter (this is available at all times and identified on the site plan).

1.2 General Description

The site is situated on Cornwall Road which is adjoined to the B4136 and is 1.2km northeast of Smethwick town centre. It is surrounded by mixed-use industrial and commercial developments with the nearest residential receptor located 356m southeast of the site. The Birmingham canal runs along the southern perimeter of the site.

The operational layout of the facility is shown on the Site Layout Plan. In the northern portion of the development there is a weighbridge, non-ferrous metal storage building for public & itinerant merchant-based deposits and 39 car parking spaces. The central portion of the site features a site office and staff facilities, 2No. weighbridges, 4No. bulk non-ferrous bays with 2No. tilter bays and 1No. accumulator bay and metal shear. The southern portion of the site features a workshop, ELV sorting and depollution building with 2No. depollution rigs, 2No. external wheel/tyre storage bays and mobile ELV baler.

Site processing capacity of feedstock is 275,000 tonnes per annum of waste material.

2.0 MANAGEMENT SYSTEM & WASTE PILES

For information on site layout, please see Section 5.

2.1 Waste Types

Table 1 - Waste Process Type and Throughput.

Process Type	Stage	Annual Receipt
Treatment of scrap metals, LDAs and ELVs	Shearing of waste materials	~200,000tpa
	Depollution of ELVs	
Bulking of batteries, cables and non-ferrous material	Storage / Bulking	~75,000tpa

For storage duration please see section 3.2 Preventing Self-Combustion.

2.2 Waste Acceptance

All vehicles arriving at site will only be admitted once checks are made and correct paperwork is supplied to SN&Co weighbridge operator for material type and source (see EPR-OP02 Waste Acceptance Procedure). Material will be weighed and recorded on the necessary weighbridge forms. Waste will not be accepted on site unless sufficient storage capacity exists, and the site is adequately manned to receive the waste. Where a waste has not been pre-accepted the Site Manager shall be contacted, and the waste assessed on specification. The decision of whether the waste can be accepted will be at the discretion of the Site Manager or a fully trained site supervisor. Wastes will only be accepted on site that conform to pre-agreed EWC Waste Codes.

Any wastes that do not meet with the above description and requirements will be refused entry to the site in accordance with the procedure set out in the SN&Co Non-conforming product disposal procedure (OC-SOP-007). SN&Co do not envisage any hot loads in feedstock. However, there is an allocated quarantine area/bay to receive any hot or non-conforming feedstock as shown on the site plan. All incoming loads are inspected for signs of excess heat before being directed to a specific customer bay. This is done by viewing the CCTV placed above weighbridge looking down on loads. If the load shows no sign of excess heat, it is tipped in a bay with a fully trained member of staff in attendance. Load inspection then takes place with any non-conforming material identified and extracted. Details of material will be documented and fed back to suppliers. Non-conforming material is sent back to the supplier or disposed of by SN&Co using correct disposal methods.

It should be noted that SN&Co do not accept any hot loads or material that is outside the permitted list of EWC codes or waste acceptance procedure. Hot loads or excessive non-conforming loads will be returned to the supplier without tipping if possible. If the load has been tipped and then identified as a problem, it will either be reloaded and returned to the supplier or moved to the quarantine bay for observation and to await pick up. The quarantine area/bay has its own fire extinguisher allocation.

2.3 Regular Exercise

All site staff will be trained in this Fire Prevention Plan which will be refreshed annually or if there is a change in site operations or processes or unless there is a need to update new information regarding the FPP which will be done at earliest convenience.

Fire drills are carried weekly and the results are recorded and discussed at monthly H&S committee meetings which comprise of management, office and operational staff. Records are kept to maintain staff knowledge and maintain performance.

The site fire alarm is tested weekly, and records kept in the Assure HSEQ reporting system. A daily check for correct positioning of fire extinguishers and clear access and egress to escape routes / doors will be completed by staff and is subject to a Site Manager audit on a weekly basis.

2.4 Waste Processing Facility Activities

Processing activities carried out on site include metal shearing and ELV Depollution. Further information is provided below.

2.4.1 Metal Shear

All materials received on site excluding public supplied non-ferrous wastes, batteries and cables (stored on receipt for either sale from the site, or, further treatment at alternative site) associated with ELVs depollution are passed through the site's shear. The purpose of the shear is to breakdown bulk supplied scrap metals (e.g. heavy melting steel and light iron), LDAs and logging of ELVs.

2.4.2 ELV Depollution Rig

All ELVs when accepted on the site will be stored externally adjacent to the ELV depollution building. Once manoeuvred into the building the ELVs are placed on depollution rigs for the following processing steps: vehicle preparation (e.g. removal of battery, fluid filler caps and

wheels), LPG tank removal (if necessary), depollution (e.g. removal of oils/fluids and catalytic converter), pyrotechnic device deployment and AC recovery.

2.5 Waste Reception Storage

The primary waste reception area onsite will have 1,000 tonnes of unprocessed shear feed each side of the shear (i.e. 2,000 tonnes total) measuring up to 20m (l) x 20m (w) x 10m (h), with a volume of up to 1,600m³. These reception piles will include non-ferrous & ferrous material and LDAs. LDAs are not pretreated on site to remove POPs containing components such as circuit boards, as such there won't be any stockpiles on site that are considered POPs wastes. LDA as whole items are not considered to contain POPs above threshold levels. ELVs will be stacked in 2No. of ELVs high (unless stacked against retaining wall) and there will be a maximum of 100 ELVs onsite. This storage area is adjacent to the depollution facility onsite. For non-ferrous metals being delivered by the public/merchants to the site, batteries (derived from ELV depollution and public/merchant delivery) and hazardous waste cables these will not be further processed by the site's metal shearer. Instead, these wastes will be stored within the NF building (non-ferrous material & batteries) and external to the NF store building (hazardous cables). There will be 3 bays separated by firewalls for the non-ferrous metals measuring 250m³ each and, a dedicated area for battery storage with a maximum pile size measuring 250m³. Hazardous cables will be stored within a covered 11m³ roll-on roll-off skip.

The non-ferrous & ferrous metals/LDAs, ELVs, public/merchant non-ferrous metals and batteries related storage pile/bays do not conform with the EA's fire prevention sizing and separation distance guidance. WRM has provided justification the sites proposed alternative measures in relation to the exceedances presented (see Section 5.0).

Table 2 - Waste reception overview.

Material	Pile Dimensions	Max Volume	Max Tonnage	Minimum Separation
Non-ferrous & Ferrous Metals / LDAs	20m (l) x 20m (w) x 10m (h)	1,600m ³	1,000	N/A
ELVs	100No. of Cars Stacked	N/A	100	N/A
Non-ferrous metals	10m (l) x 10m (w) x 5m (h)	250m ³	425	N/A – Fire Walls
Batteries	10m (l) x 10m (w) x 5m (h)	250m ³	425	6m

Material	Pile Dimensions	Max Volume	Max Tonnage	Minimum Separation
Hazardous Cables	3.7m (l) x 1.8m (w) x 1.7m (h)	11m ³	50	6m

2.6 Processed Waste Storage

Post processing there will be a maximum of 2,000 tonnes of processed shear product. This will be across two stockpiles, a main product stockpile and an overspill pile. Each stockpile will be approximately up to 20m x 20m x 10m high. Measuring a volume of up to 1,600m³ and each pile will have 6m exclusion zone surrounding it.

There will be 4No. of concrete bays for storing aluminium, stainless steel and cuts. These storage bays will measure up to 10m (l) x 10m (w) x 5m (h) and will have a maximum volume of 250m³. Maximum tonnage for this storage area will be 425 tonnes. In line with the ELV depollution process there will be 2No. of bays for the storage of removed wheels & tyres. Each bay will measure up to 10m (l) x 10m (w) x 5m (h) and will have a maximum volume of 450m³. Maximum tonnage for each pile will be 210 tonnes.

The processed sheer products and aluminium, stainless steel & cuts storage pile/bays do not conform with the EA's fire prevention sizing and separation distance guidance. WRM has provided justification for the sites proposed alternative measures in relation to the exceedances presented below (see section 5.0).

Table 3 - Processed wastes overview.

Material	Pile Dimensions	Max Volume	Max Tonnage	Minimum Separation
Processed Shear Products	20m (l) x 20m (w) x 10m (h)	1,600m ³	1,000	N/A
Aluminium, Stainless Steel and Cuts	10m (l) x 10m (w) x 5m (h)	250m ³	425	N/A – Fire Walls
Wheel & Tyre Storage	10m (l) x 10m (w) x 5m (h)	450m ³	210	N/A – Fire Walls

2.7 Quarantine Area

A bay in the external storage area will be designated as quarantine area and is clearly marked on the site plan. The quarantine pile will be sized at 18m (l) x 18m (w) x 10m (h). This gives a maximum volume of 1,200m³. There will be a 6m exclusion zone surrounding the pile.

Table 4 - Quarantine area overview.

Quarantine Area	Max Volume	Separation Distance
18m (l) x 18m (w) x 10m (h)	1,200m ³	6m

2.8 Quarantine Area Management

Temporary storage of material in the quarantine area will purely be used in emergency situations, such as under the waste rejection procedure. If an emergency situation occurs, the material will be moved as soon as possible once the situation has been dealt with but within a maximum period of 24 hours. If the quarantine area is being used for an emergency situation when a fire occurs, the material shall be cleared from the area immediately if practicably possible to do so and deposited in one of the other waste storage bays/piles. As previously stated, signage will ensure that the quarantine area can be easily identified.

In the event of a fire, where safe to do so, heavy plant will move burning material to the quarantine area, reducing the risk of a fire spreading. If this is not possible, then unburnt material will be moved to the quarantine area, again reducing the risk of the fire spreading. Any burnt material will be placed in a roll-on roll-off skip/bulker for transport to a suitable treatment site. If further investigation of waste is required, this will be collected by loading shovel. Both the pick-up area and the quarantine area will then be swept clean. All of the above activities will be entered into the site diary. The location of the quarantine area has been selected to ensure that waste can be transported to the chosen area in a timely manner, meeting the timeline set out in the fire prevention plan guidance which states this must be done as soon as possible but no later than one hour after the fire starting.

2.9 Comments

The site has records of all waste materials and output fractions processed on site and departing offsite. All documentation is stored in the site office. The site will minimise the risk of fire spreading by controlling the flammable material on an ongoing basis. If a fire occurs onsite, a call will go out on the radio (all operatives will carry a radio) stating the exact location and material type involved. The operatives will call 999 if deemed necessary. All staff will proceed to the emergency point. If the fire is containable, for instance, within a specific waste storage area, an operative will douse the bay with fire extinguishers.

3.0 SOURCES OF IGNITION

The main sources of ignition have been identified and mitigated in the following section. It is worth noting that not all sources can be practically identified.

Main Sources of Ignition on Site:

- Self-combustion
- On-site machinery
- Fuel tanks
- Extreme weather – lightning
- Smoking
- Arson
- Site Infrastructure electrical faults
- Hot works
- Naked lights
- Leaks and spillages of oils and fuels

3.1 Self-Combustion

There is very little risk of self-combustion of the materials accepted on to and processed on site. However, other combustible materials stored on site that are at risk of self-combustion if stored on site incorrectly include:

- Spent packaging from materials, plant, and equipment utilised at site (e.g. machine spares packaging or office furniture packaging).

SN&Co have an outside cordoned area for items such as spent packaging, general waste etc. located well away from the main feedstock areas and will be visually checked on a regular basis.

3.2 Preventing Self Combustion

- Waste materials accepted onto site have low combustibility.
- A site operative fully trained in fire detection, will visually inspect the bays/piles/stacks regularly throughout the 12-hour day and, will take a temperature reading 2 times a day at the start and end of each shift. Temperature measurements will be recorded.
- A hand-held thermal imaging camera will be used to detect hotspots in waste bays/pile/stacks should the visual check raise any concerns regarding the temperature of any waste.
- Each load is inspected prior to going into designated bays/area which have their own designated closest fire hydrant.
- Due to the value of feedstock, it will normally be processed within 24 hours.
- A security company will be employed and trained by SN&Co management who will patrol all areas of the site during the shift and after the shift.
- Separated materials will be moved off site after a maximum <1 week under normal operating conditions.
- Bulk Non-ferrous bays maximum storage duration will be <2 months under normal operating conditions due to the reliance on market conditions for export from site.

3.3 Plant/Machinery

Plant has the potential to become a fire risk if there is a malfunction or if it is not maintained correctly. All plant on site will be fitted with fire extinguishers or automated suppression systems. Mobile plant will be stored in a designated area when not in use and overnight. SN&Co is committed to reducing these risks by performing visual checks and maintenance activities.

3.4 Plant Maintenance

All plant (mobile or static) is checked daily by a competent member of staff in accordance with the 'QF-7.5-47 Mobile Plant Checksheet'. Faults or anomalies are recorded in the Assure software platform and dependent upon the severity acted upon immediately. If faults or anomalies are identified, then operations for the plant in question will be ceased until rectified.

Daily checks are made on all machinery include the blowing out of dust and combustible residues using an airline and checks on pipes/fuel lines to prevent leakage of combustible/hazardous liquids. Machinery operators will be responsible for carrying out regular (at least every 4hrs) fire watch checks on machinery. These will be part of the daily machinery operator check list and the frequency of fire watch checks will increase during hot,

dry and dusty conditions particularly after machinery has been in operation for extended periods of time.

A planned preventative maintenance regime is operated on site. As part of this regime strict inspection is carried out on each vehicle in line with manufacturer's recommendations.

3.5 Preventing Sparks from Loading Shovels

Sparks caused by loading shovel buckets are rare due to the training of the operatives and the nature of the materials being transported. Sparks are unlikely to cause a fire within the waste material accepted on site. All site vehicles are fitted with fire extinguishers and dust filters as a preventative measure. If sparks do ignite waste material, operatives are trained to use fire extinguishers to stop the fire from spreading. If this is unsuccessful then the member of staff must follow emergency procedures.

3.6 Mitigating Risk from Hot Exhausts

Exhausts have the potential to become hot and therefore present a risk to surrounding material on site.

- All exhausts on plant or vehicles are designed to reduce risk to the surrounding environment by being placed in isolated locations.
- There are designated traffic routes across the site to minimise unnecessary contact between plant and material.
- Vehicles or plant are not run continuously for more than 3 hours at a time and are cooled for a minimum of 15 minutes.
- Operators are instructed to carry out a visual check of the machine after stopping and before leaving site for hot spots/smouldering dust in the immediate area surrounding the exhaust.

3.7 Fuel Tanks

There is a 43,000 litres gas oil tank stored on-site which is self-bunded and collect 110% of the volume of fuel stored in the tank in line with the requirements of the CIRIA C736 guidance. The tank is clearly marked and carries signs showing the material contained within and its maximum capacity. There are five other tanks that store hydraulic oil, engine oil, lubricants and waste oil. Each has a capacity of 2,700 litres and each are self-bunded and can store 110% of the volume of material stored within it. Material is not stored or transported within 6m of these tanks unless they are refuelling.

3.8 Extreme Weather

On the rare occasion that extreme weather such as lightning occurs, the following procedures are taken:

- The CCTV is moved to monitor agreed areas of potential concern e.g. mobile plant, gas oil tank. If possible, these will be moved inside the storage building.
- All machinery is transported >6m from any waste material.
- Once machinery is moved, the operatives will seek shelter.
- Following the event, checks will take place on items of plant located outside.

3.9 Smoking

There is a staff designated stand-alone smoking area which is away from the feedstock processing areas. No other areas permit smoking of any kind.

3.10 Arson

Arson by intruders is controlled via 24/7 site presence, CCTV surveillance, a secure fence and lockable gates. The site is also well lit. All site operatives have received relevant training so that they know what to do in the event of a fire. If required by the Fire and Rescue Service, there will be site operatives available to help 12 hours a day and then the out of hours security will also be contactable for any issues. The site is surrounded by a secure fence with all gates on site being locked during night-time hours. Any fire would be immediately identified by the site's visual inspection programme.

3.11 Site Infrastructure and Electrical Faults

The electrical system will be maintained to a safe and correct standard. Certification and maintenance will be undertaken by a qualified electrician. Annual checks will be made on site electrical infrastructure and if a fault is found a qualified electrician will attend site and fix the fault.

3.12 Hot Works

In the event that hot works are necessary on site the following preventative actions will be implemented:

- Keep sources of ignition at least 6m away from piles of combustible and flammable materials.

- Ensure staff and contractors follow safe working practices when undertaking hot working, such as welding and cutting.
- A 2hr fire watch will be carried out immediately following any hot works being carried out on site.

3.13 Build-Up of Loose Combustible Waste, Dust and Fluff

To prevent the build-up of loose combustible waste, dust and fluff on site, an operative will carry out a daily patrol around the site looking for any loose waste or fluff. If any is observed, it shall be cleared. The daily patrol shall be recorded on the 'EF-4.4.6-01-38 Daily Site Inspection sheet'. A physical copy will be kept on site.

3.14 Reactions Between Incompatible or Unstable Waste

Upon arrival at site all waste loads shall undergo visual inspections, once tipped, by a trained operative. If an operative notices any signs of incompatible or unstable waste, the load shall be spread on the quarantine area for further inspection. If incompatible or unstable waste is found, it shall be removed from the load, if safe to do so. If this is not possible the waste load shall be rejected and stored in the quarantine area for removal from site in line with the site's waste rejection procedure.

3.15 Naked Lights

There will be no naked lights onsite.

3.16 Industrial Heaters

There will be no industrial heaters onsite.

3.17 Open Burning

There will be no open burning onsite.

3.18 Hot Loads

In the extremely unlikely event of any hot loads being accepted on site, the material will be moved to site quarantine bay and re-collection of the waste will be arranged. Whilst SN&Co wait for the removal of the material from site, the waste will be regularly checked. The quarantine bay has its own fire extinguisher allocation.

3.19 Leaks and Spillages of Oils and Fuels

The prevention of fuels and oil leaking out from site vehicles will be achieved by the regular inspection and maintenance programme. If there are any leaks, the regular inspections allow this to be dealt with straight away with spill kits being made available around the site. All site vehicles and mobile plant are maintained to an appropriate standard to prevent fuels and combustible liquids leaking or being tracked around the site. Any identified faults will be recorded and repaired by a fully certified mechanic. All staff will be trained on how to use the spill kit as well as the procedures to carry out clean up in the event of a spillage.

4.0 DETECTING AND MANAGING FIRES

Any member of site staff will raise the alarm as soon as they become aware of a fire, including contacting the emergency services.

4.1 Daily Checks

Trained site operatives carry out a formalised visual inspection on site at the start and end of each shift, daily. The checks seek to identify and mitigate potential hazards. If a hazard is identified from the checks, then it is recorded in the site diary and acted upon immediately with appropriate action. The checks take place on:

- Site infrastructure – trained operatives check for damage or abnormalities in the site infrastructure, such as cracks or breaks in bay walls.
- Plant – all plant is checked before use.
- Waste Piles – trained operatives assess all waste piles for signs of excess heat using thermal imaging cameras and to ensure dimensions are correct.

4.2 Training

Key personnel will be fire marshal trained. In addition to this, prior to operation, all site operatives will receive fire awareness training which will include:

- The use of the Fire Prevention Plan.
- Stockpile inspection & management.
- Monitoring of incoming and stored material in segregated bays
- What to do in the event of a fire.
- Risk Assessments will be carried out using all staff to ensure good understanding of the compilation, need and use of these.
- Regular toolbox talks.

This FPP will be stored in the Site Office and on the group IMS so that it can be referenced for induction, on-going training, testing and other management review purposes. Training records are kept within the training file.

Site personnel and visitors will sign in and out when entering and leaving site thus keeping a record of who is on site should a fire take place. Site fire exits will be shown on strategically placed site maps around the site and these will also be highlighted in site induction for all staff & visitors.

4.3 Emergency Action Plan

In the event of a fire, the site's fire alarm is raised and a member of staff will alert all staff and visitors present on site to the fire and its location. An assessment will be made to call the Fire Brigade or not by the site manager or trained staff.

All staff, contractors and visitors will follow the fire evacuation routes and make their way to the fire muster point (premises staff car park). The site manager will be responsible to see the premises are clear and account for everyone at the assembly point.

Staff will only tackle the fire using the fire extinguishers if it is safe to do so. In the unlikely event of a large fire on site in which it is unsafe to tackle, staff are to await the Fire and Rescue Service, who would then take the appropriate actions.

The fire infrastructure on site consists of the following:

- Fire Detection System – Smoke alarms are installed in the waste processing buildings, workshop and site office.
- Fire Warning System – Fire alarm is activated if an incidence of a fire is discovered.
- Emergency Lighting – There are lights installed above doors in the buildings.
- Fire Safety Signs and Notices – These are posted throughout the facility, both internally and externally, stating the location of the fire assembly point and fire escape routes.
- Firefighting Equipment – Fire extinguishers are placed at every exit to the building, on the fixed plant, in mobile plant and near feedstock bays/piles. These are all marked by signage.
- CCTV – The site is equipped with a CCTV system which provides full coverage of the site both internally and externally. This helps prevent unauthorised access and possible arson as well as helping to identify fires on site.

- Access to water – This is available via 10No. of fire hydrants located around the onsite perimeter. These fire hydrants are supplied water via electric pump connected to an onsite water storage tank, that has a 500m³ (500,000 litres) capacity. This is supplemented by mains water supply. If the electric pump fails a backup diesel pump is also in-place. Also, there are fire hydrants located on Cornwall Road (see Map 3 for location of offsite fire hydrants). The onsite hydrants shall be the primary source of water in the event of a fire.

4.4 Firefighting Strategy and Suppressing Fires

The site has an active firefighting strategy in place and will seek to extinguish fires as quickly as possible, either through on-site fire equipment or through supporting emergency services. In the event of a fire, sufficient staff and plant resources shall be provided to assist the Fire and Rescue Service in tackling a fire, if deemed safe to do so. The portion of a pile that is burning shall be dug out and transported to the quarantine area.

For small fires, the fire hydrants onsite are available for use by site operatives if safe to do so. These are typically left in a state of readiness with hoses already attached in some higher risk areas to ensure quick response times. All operatives will be trained to use this equipment and key personnel will be trained as fire marshals.

For a large fire, the site team will fight the fire in conjunction with, and as advised by, the Fire and Rescue Service whilst it is safe to do so by the via water from the onsite or nearby fire hydrants. There are 10 fire hydrants located on site as well as a number of others located on the Cornwall Road. This follows the National Fire Chiefs Council waste tactical advisors' advice to ensure Fire and Rescue Service use available resources onsite to tackle a fire on a waste site. The operator shall also support the Fire and Rescue Service where directed and safe to do so, through other actions such as the movement of unaffected material to another area of the site where possible. The firewater collected onsite will be sampled and analysed to determine whether the water can be released into the foul sewer or whether it must be removed from site and taken to a suitably licensed facility for treatment.

4.5 Firewater Containment

Firewater will be directed to the sites underground attenuation tank (500,000 litres), via the gravitational flows of the drainage system. This will be achieved through the concrete having a 1:150 gradient, with a northeasterly fall across the site to ensure a suitable directional flow. Liquid will be directed within dished drainage channels across the site, to enable liquids to reach the sites attenuation tank. Further storage is provided by: 1No. 174m (l) x 2.5m (d)

(854m³) turbosider pipework, 1No. 75m (l) x 2.5m (d) (368m³) turbosider pipework and an open catchpit (used to capture solids prior to liquid drainage). A penstock valve with automatic closure devices will be fitted to the drainage system to prevent any discharge of firewater. The sites perimeter, entrances and exits will be bunded (e.g. speed bumps and curbing) to prevent any flow off site above ground. If underground firewater storage capacity is exceeded, then the sites pad will provide additional capacity through the presence of appropriate bunding measure that would prevent liquid release from the site.

4.6 Storage Capacity

There will be one attenuation tank on site for fire water storage, with the turbosider pipework also offering significant storage volumes.

Table 5 - Storage tank overview.

Appliance	Capacity	Content	Bunding
Attenuation tank	500,000 litres	Run-off liquids from the site including firewater	Self-bunded
Turbosider pipework 1	854,000 litres	Run-off liquids from the site including firewater	N/A
Turbosider pipework 2	368,000 litres	Run-off liquids from the site including firewater	N/A

4.7 Firewater Capacity

The Fire Prevention Plan V4 states that 'A 300m³ pile of combustible material will normally require a water supply of at least 2,000 litres a minute for a minimum of 3 hours'. A calculation has been provided below which shows the water supply required to combat a fire in relation to the largest waste pile to be stored in each of the three areas of site at any one time.

- Volume of largest pile of Material – 1,600m³
- Water required per minute – 10,666 litres (10.66m³)
- Duration – 180 minutes

Water required per minute (10.66m³) * Duration (180min) = 1,918.80 m³ of required capacity.

To accurately reflect the flammability of sites material, SN&Co determine a worst-case scenario of 5% combustible contamination element per m³ of waste. Therefore, in terms of the mentioned maximum pile size, the anticipated required firewater capacity, with the 5% combustibility ratio factored into the calculation, would be as follows:

- 80m³ of combustible waste (based on 1,600m³ max pile size)
- Water Required per minute – 533 litres (0.53m³)
- Duration – 180 minutes

Water required per minute (0.53m³) * Duration (180min) = 95.4m³ of required capacity.

Considering the above calculation the site possesses the required drainage/containment capacity to capture this amount of fire water via the use of the attenuation tank, catchpit and drainage system.

Tyres removed from ELVs during the depollution process are excluded from the 5% worst-case combustible contamination rate, due to the highly combustible nature of the material. Therefore, standard fire prevention guidance applies to this area of the site.

- Volume of ELV tyre pile – 450m³
- Water required per minute – 3000 litres (3m³)
- Duration – 180 minutes

Water required per minute (3m³) * Duration (180min) = 540 m³ of required capacity.

The firewater storage tank contains 500m³ of water. On its own this would be insufficient to meet the requirements of a fire in the tyre pile. However, the additional 40m³ would be provided from the mains supply or the public fire hydrants located around site. Considering the above calculation the site possesses the required drainage/containment capacity to capture this amount of fire water via the use of the attenuation tank, catchpit, drainage system and if required the sites concrete pad. The concrete pad will only be used if the sites underground storage capacities are exceeded.

4.8 Contingency Plan

4.8.1 During the Incident

- During any firefighting or subsequent clear up operations, no incoming loads will be accepted on site. Feedstock material will be diverted in accordance with the sites

logistics plan which will result in any incoming loads either being sent back to the supplier or to an appropriate waste disposal site.

- All nearby residents, businesses and the Environment Agency will be notified during any firefighting taking place on site.

4.8.2 After the Incident

Should there ever be a fire event on site, SN&Co will liaise and agree with the Environment Agency the steps needed to be taken to bring the site back into operational use. The steps would include:

- Once the fire is extinguished all burnt items will be sorted and removed from site to an appropriately licensed waste disposal facility.
- SN&Co and if needed additional agency staff would be deployed for deep clean.
- All firefighting equipment inspected and serviced as necessary.
- All infrastructure to be inspected by appropriately qualified persons with repairs to buildings and equipment to be organised to enable the site to re-open as quickly as possible.
- Determine how and why the fire started and revise Fire Prevention Procedures as necessary to ensure it is not repeated.
- Carry out a full review of the Fire Risk Assessment.
- Divert all deliveries of waste and materials to alternative sites or cease deliveries if required.

5.0 ALTERNATIVE MEASURES SUMMARY

SN&Co are currently operating outside the EA's fire prevention plan guidance thresholds in a number of areas such as pile size volume, height, separation distance and volume of water calculated to be used in the event of a fire. In order to justify these exceedances and ensure that the three objectives of the guidance (minimise the likelihood of a fire happening, aim for the fire to be extinguished in 4 hours and minimise the spread of fire), SN&Co will implement a series of measures that will enable the appropriate management of these mentioned material quantities. The measures are as follows:

- Environmental checks including visual and thermal inspection using handheld thermal imaging cameras will be carried out daily at the start and end of every shift. This will be recorded on the relevant checksheet. There will also be regular visual inspection and monitoring from trained site operatives during operating hours.

- The security company employed by SN&Co will be trained in fire management and will provide continual onsite monitoring after shift hours. Contact will be made with the PIC if any irregular incidents are recognised. There will always be sufficient numbers of staff on site, either through SN&Co employees or the security company employees, to assist the fire and rescue service as required.

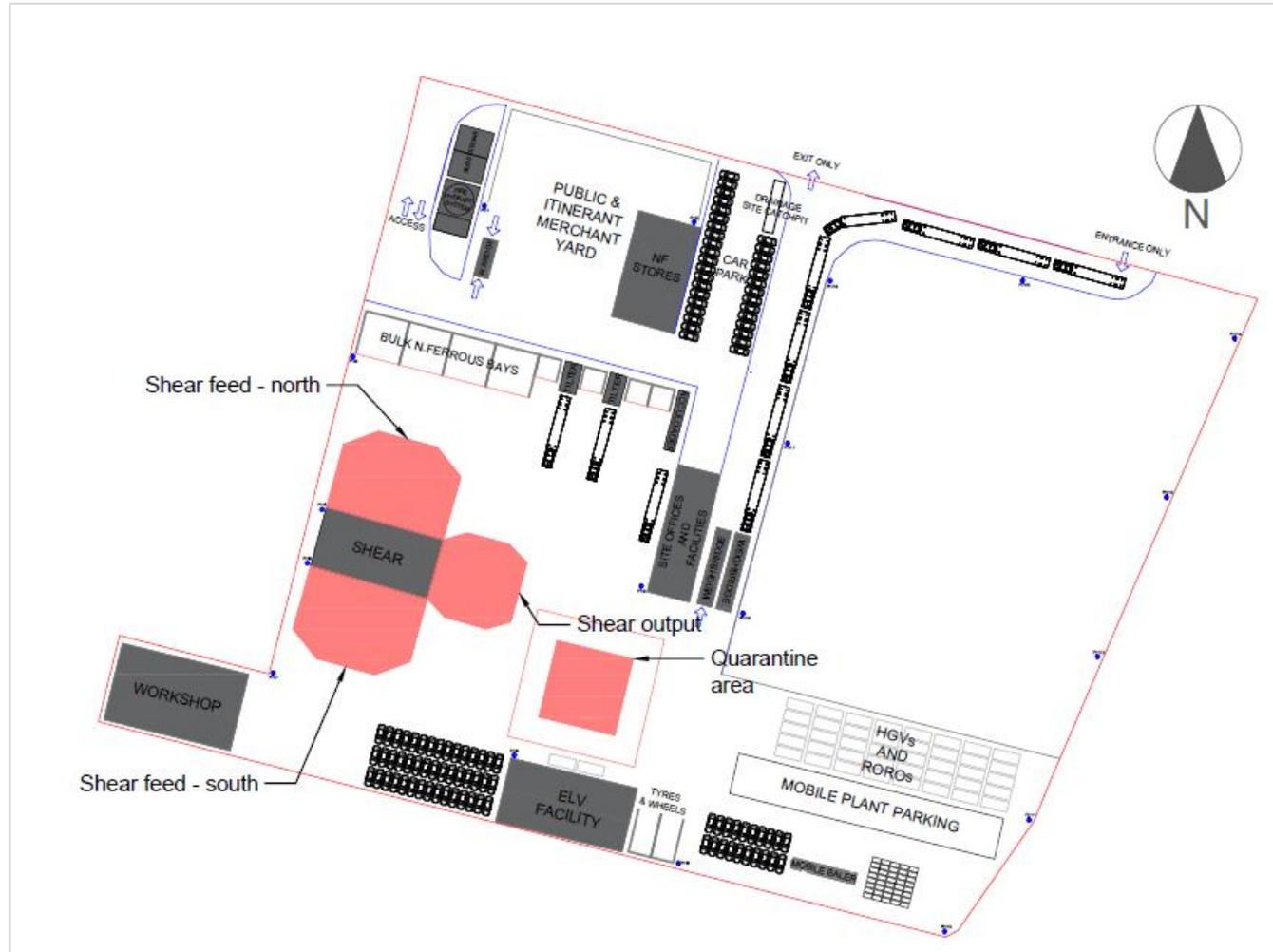
In terms of firewater required on site, this has been adjusted from the regular capacity calculation, due to SN&Co determining a worst-case scenario of 5% contamination rate associated with the wastes accepted onto site (excludes ELV tyres). It is the contamination material that is considered to be the greatest source of combustible material within the metal waste. Therefore, the volume of material at risk of combustion is much reduced when compared to the overall pile sizes and as such, smaller firewater quantities are to be required. Considering this, WRM has made the relevant calculation adjustment for firewater quantities to reflect the low contamination rate for the site's largest pile size, as opposed to classifying the entire pile as combustible. The burning material shall be dug out of the pile within which it is located and transferred to the quarantine area. This not only helps to prevent the spread of fire but also ensures that the calculated reduced quantity of water used to fight the fire shall be sufficient.

The calculations in Section 4 above show that there is sufficient water available to fight a fire in the tyre pile and there is also sufficient storage capacity to store the water that has been used to fight the fire.

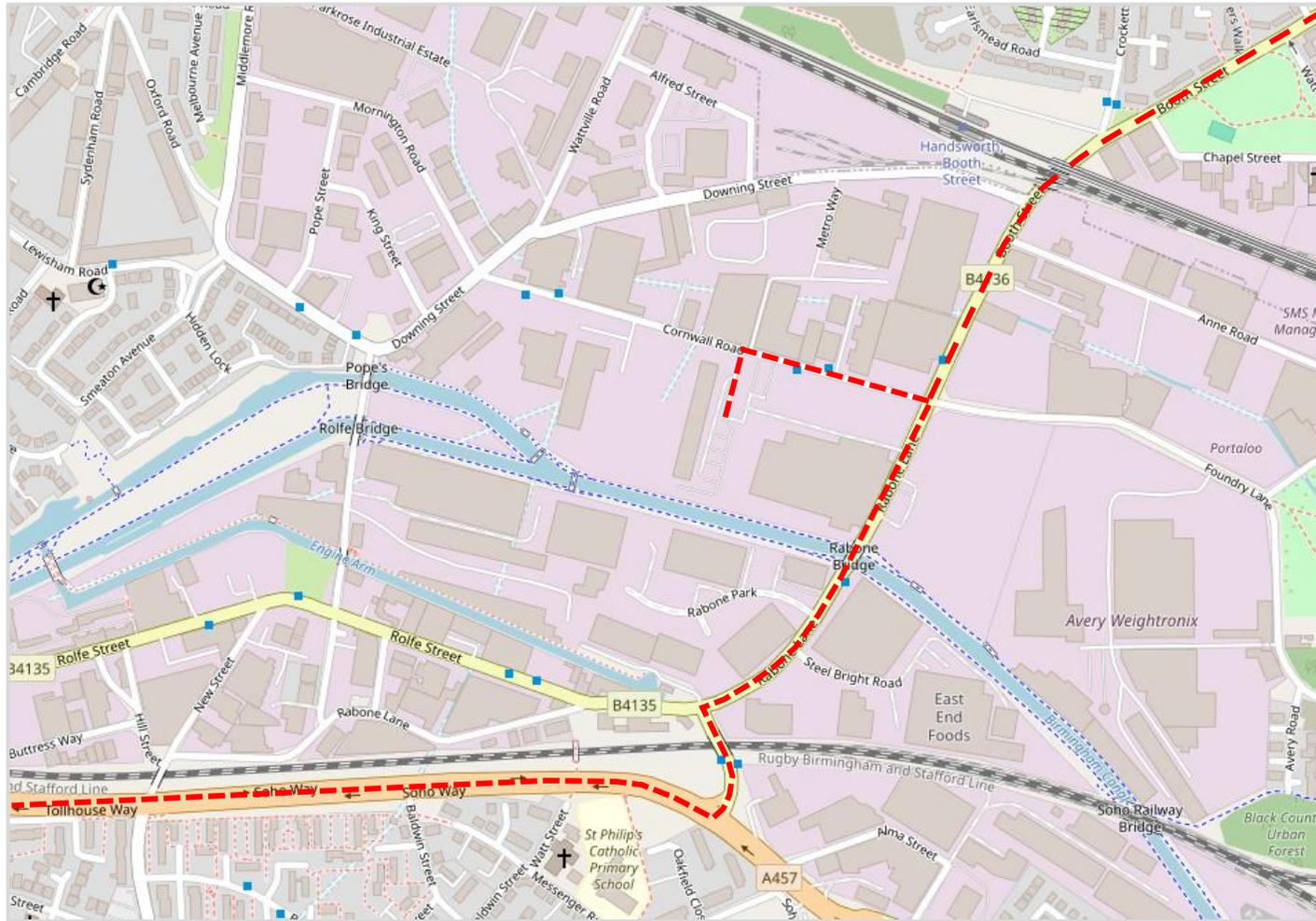
The above measures ensure that the likelihood of a fire occurring on site is reduced at all times, that a fire could be extinguished within 4 hours and that the spread of a fire could be minimised.

6.0 SITE LAYOUT

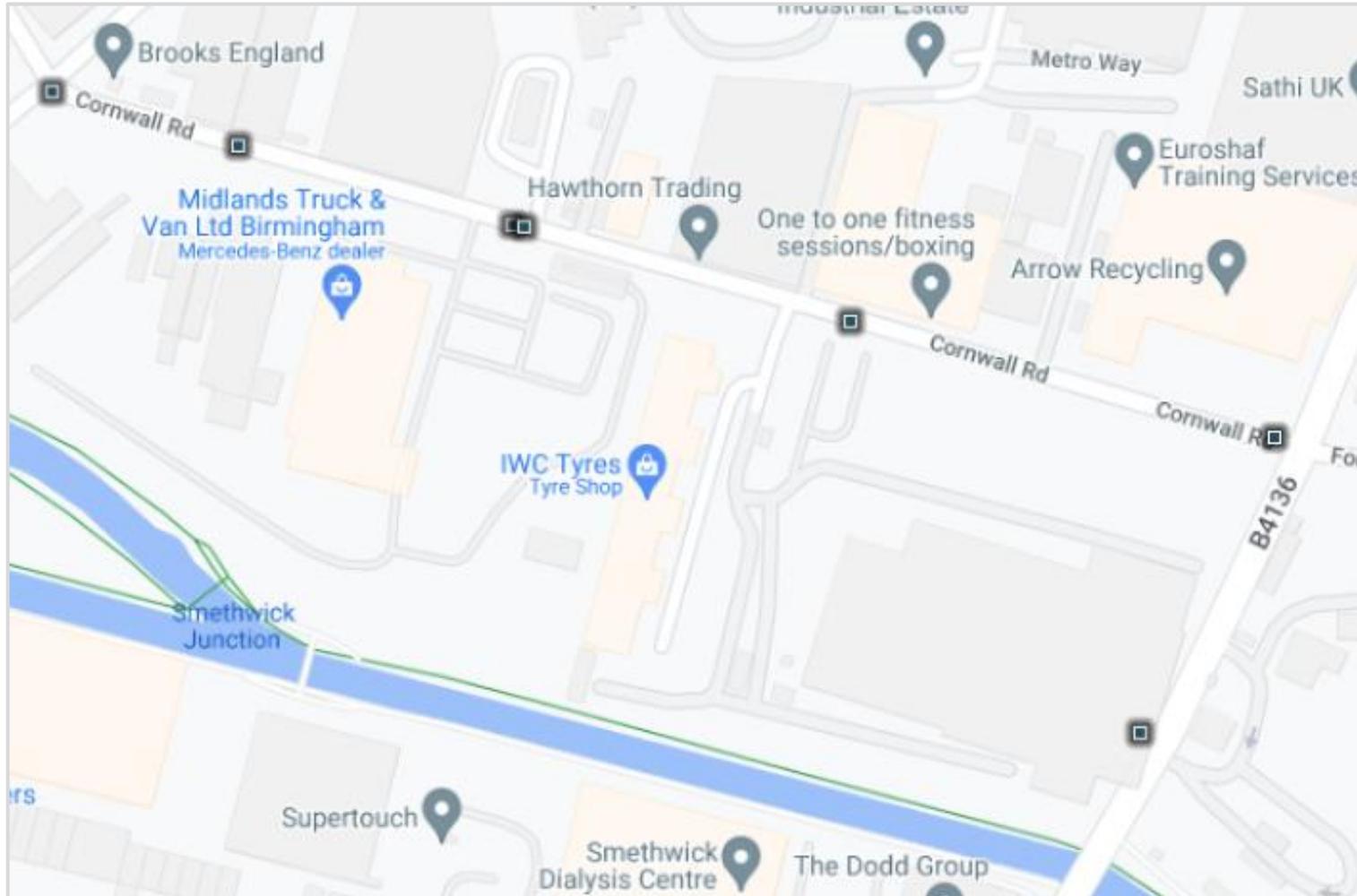
6.1 Proposed Site



6.2 Fire Service Access Route



6.3 Fire Hydrant Locations



7.0 SENSITIVE RECEPTORS

Please see Table 6 and Figure 1 below for the location of sensitive receptors within a 1km radius of the site.

Table 6 - Sensitive Receptors within a 1km Buffer of the Site

Reference	Description	Receptor	Distance from site (Direction)	Coordinates (Eastings)	Coordinates (Northings)
1	Baba Glow Windows, Cornwall Rd / Industrial Estate, Cornwall Road, Smethwick, Sandwell, West Midlands Combined Authority, England, B66 2PA, United Kingdom	Workplace	108	403193	289125
2	Mi Glass, Industrial Estate, Downing Street, Smethwick, Sandwell, West Midlands Combined Authority, England, B66 2PG, United Kingdom	Workplace	215	403238	289222
3	Alees Tropical, Cornwall Road, Smethwick, Sandwell, West Midlands Combined Authority, England, B66 2PA, United Kingdom	Workplace	99	403226	289108
4	Arrow Recycling Cornwall Road, Smethwick, Sandwell, West Midlands Combined Authority, England, B66 2PA, United Kingdom	Workplace	110	403254	289113
5	MDS Industries, Booth Street, Smethwick, Sandwell, West Midlands	Workplace	223	403365	289153

Reference	Description	Receptor	Distance from site (Direction)	Coordinates (Eastings)	Coordinates (Northings)
	Combined Authority, England, B66 2PF, United Kingdom				
6	M.A. Motors Garage, Anne Road, Smethwick, Sandwell, West Midlands Combined Authority, England, B66 2NY, United Kingdom	Workplace	327	403468	289164
7	Industrial Estate, Anne Road, Smethwick, Sandwell, West Midlands Combined Authority, England, B66 2NY, United Kingdom	Workplace	284	403437	289132
8	Timber Roofing Supplies, Foundry Lane, Smethwick, Sandwell, West Midlands Combined Authority, England, B66 2LQ, United Kingdom	Workplace	262	403432	289093
9	Sims Metal Smethwork, Foundry Lane, Smethwick, Sandwell, West Midlands Combined Authority, England, B66 2LQ, United Kingdom	Workplace	151	403332	289044
10	Dhamedha Cash & Carry, Rabone Bridge, Smethwick, Sandwell, West Midlands Combined Authority, England, B66 2NW, United Kingdom	Workplace	132	403230	288864
11	The Dodd Group, Rabone Park, Smethwick, Sandwell, West Midlands	Workplace	105	403165	288890

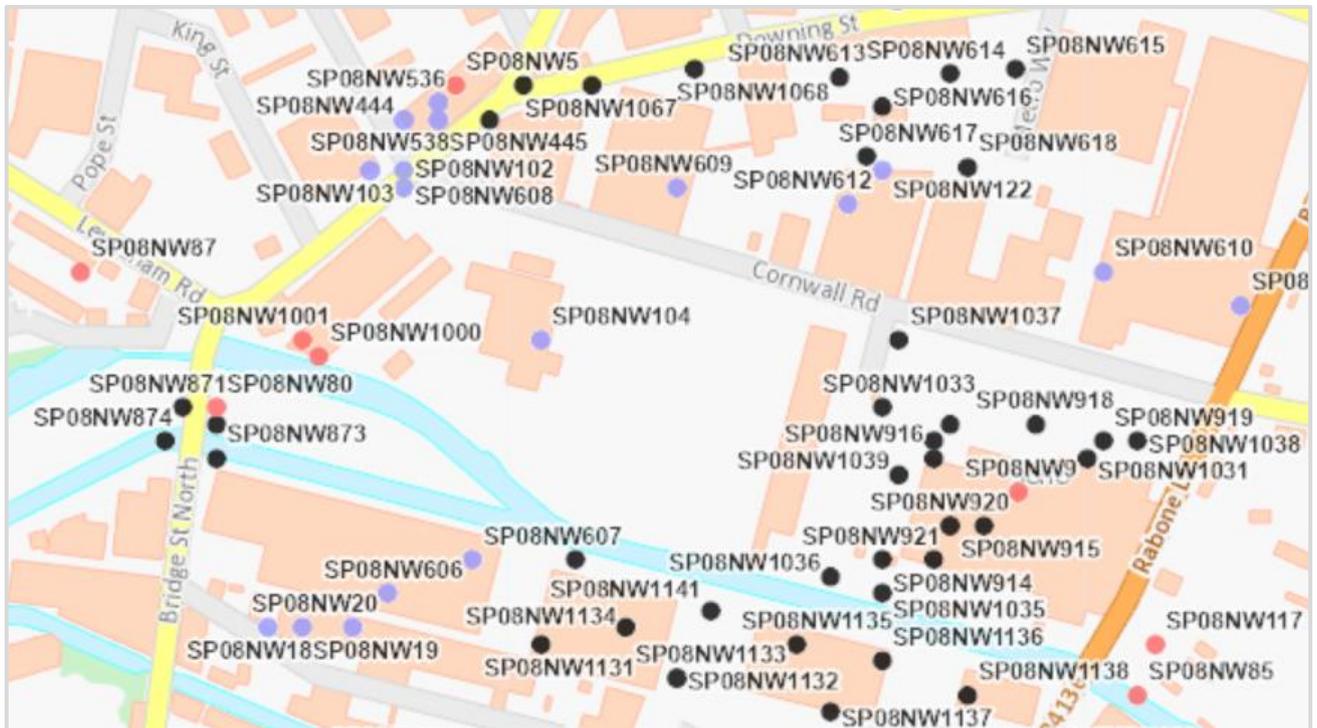
Reference	Description	Receptor	Distance from site (Direction)	Coordinates (Eastings)	Coordinates (Northings)
	Combined Authority, England, B66 2NN, United Kingdom				
12	Smethwick Dialysis Centre, Rabone Park, Smethwick, Sandwell, West Midlands Combined Authority, England, B66 2NN, United Kingdom	Hospital / Medical	135	403057	288912
13	Allied International Trading Limited, Rabone Park, Smethwick, Sandwell, West Midlands Combined Authority, England, B66 2NN, United Kingdom	Workplace	235	402955	288941
14	IWC Tyres Shop, Cornwall Road, Smethwick, Sandwell, West Midlands Combined Authority, England, B66 2PA, United Kingdom	Workplace	132	403046	289024
15	Used Car Showroom, Cornwall Road, Smethwick, Sandwell, West Midlands Combined Authority, England, B66 2PA, United Kingdom	Workplace	141	403075	289083
16	Hawthorn Trading, Cornwall Road, Smethwick, Sandwell, West Midlands Combined Authority, England, B66 2PA, United Kingdom	Workplace	164	403098	289137
17	Prestige Transport Solutions, Cornwall Road, Smethwick, Sandwell, West	Workplace	144	403157	289148

Reference	Description	Receptor	Distance from site (Direction)	Coordinates (Eastings)	Coordinates (Northings)
	Midlands Combined Authority, England, B66 2PA, United Kingdom				



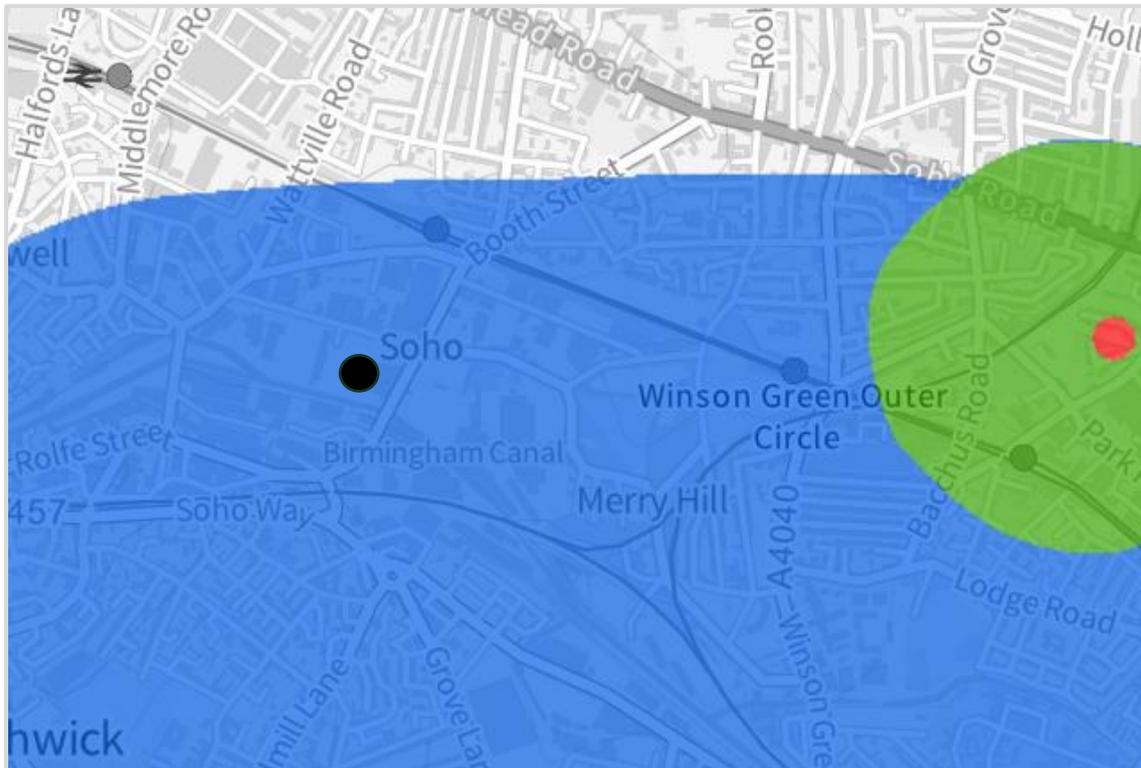
Figure 1 - Sensitive Receptors within 1km Buffer of the Site

7.1 Borehole Records

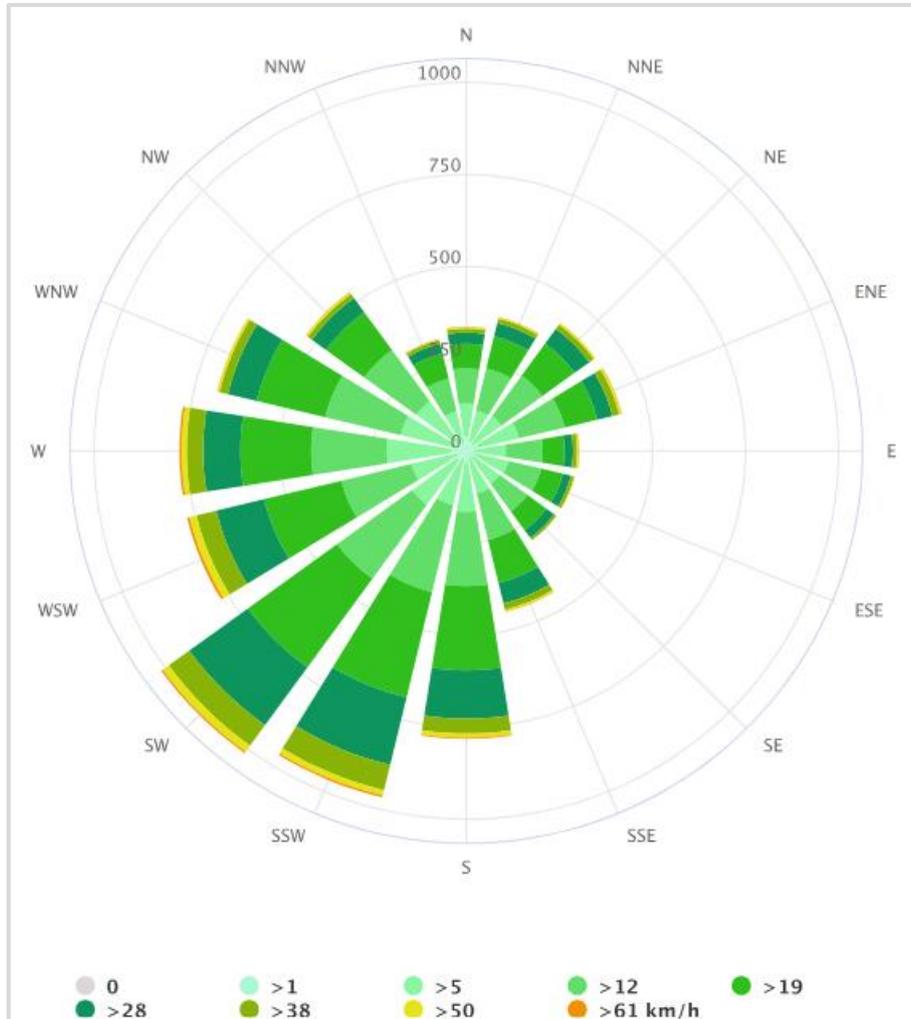


Map Legend	
Borehole records	
●	Unknown Length
●	Confidential
●	0 - 10m
●	10 - 30m
●	30m+

7.2 Source Protection Zones



7.3 Historic Wind Direction



APPENDIX A – FIRE SAFETY MANAGEMENT PLAN

Procedure	Responsibility
<u>Fire Safety</u> Person with Overall Responsibility for Fire Safety	
<u>Fire Risk Assessment</u> Person responsible for commissioning & review	
<u>Maintenance Programme</u> Person Responsible for: <ul style="list-style-type: none"> • Maintenance of fire safety provisions • Fire alarm • Emergency lighting • Firefighting equipment • Escape routes • Fire safety signs/notices 	
<u>Emergency Action Plan</u> Person responsible for production & review	

APPENDIX B – FIRE EMERGENCY PROCEDURE

Assembly Point – Adjacent to the site's main gates.

If you discover a fire:

1. Raise the alarm immediately. The PIC and all other staff onsite to be informed of the fire by using the on-person radio, by stating FIRE FIRE FIRE, details of location and material involved.
2. Tackle the fire using the appropriate firefighting equipment. (Only if you feel safe and are trained to do so)
3. Leave the premises by the nearest safest available exit.
4. Report to the assembly point
5. Ensure that site management is aware of the fire.
6. Call 999 for the fire brigade by mobile phone, if not already done.
7. Do not leave site or re-enter any building until cleared to do so by the fire brigade or fire warden.

If you hear the alarm:

1. Leave the premises by the nearest safest route.
2. Do not stop to collect personal belongings.
3. Ensure any one you meet on the way out is aware of the fire.
4. Report to the assembly point.
5. Call 999 for the fire brigade by mobile phone, if not already done.
6. Do not leave site or re-enter any building until cleared to do so by the fire brigade or fire warden.

Machine / Mobile Plant Operators.

1. Clear area of vehicles if safe to do so.
2. Turn off equipment using emergency stops.
3. Ensure compressed gas containers are isolated.
4. If possible and safe to do so, commence active firefighting measures such as moving unburning waste material to the quarantine area.
5. Remove mobile plant from site to facilitate access for the Fire and Rescue Service, save for any equipment that is deemed safe and appropriate to be used in tackling any fire, e.g. shovels and excavators.
6. Report location of relevant vehicles remaining on site to the Fire Brigade at the assembly point.

Site Manager.

1. Call the Fire Brigade. Tel: 999

2. Announce "Fire, Fire, Fire. A fire has been reported at/in ****. All personnel are to report to the assembly point near the site entrance". In addition, fire is called on the radio, with details of location and material involved provided.
3. Report to assembly point with the employees and visitor book.
4. Ensure that Visitors \ Contractors / employees are accounted for. (Use visitors and employees book).
5. Site Manager to report to the scene of the fire.
6. Liaise with Fire Brigade upon arrival.
7. Brief Fire Brigade of any danger areas on site.
8. Do not allow any other vehicles except emergency vehicles to enter site.