Fire Prevention Plan

Kingpin Recycling Limited

Unit 8
Wem Industrial Estate,
Soulton Road,
Wem,
Shropshire,
SY4 5SD.

WESTBURY ENVIRONMENTAL

PROVIDING SOLUTIONS, ENSURING COMPLIANCE

T 01952 879705 E info@westburyenv.co.uk

A Agriculture House, Southwater Way
Telford, Shropshire, TF3 4NR

W www.westburyenv.co.uk

Document Control Table

Project Reference	19/013m
Project Title	Fire Prevention Plan
Document Title	Fire Prevention Plan, Version 4
Document Issue Date	22 January 2024
Client	Kingpin Recycling Limited
Status	Issued

Change log

Version	Changes	Produced by	Checked by	Date
1	Original, Fire Prevention Plan submitted by Westbury Environmental Ltd.	Lauren Raby	Kate Brady	07 March 2022
2	Updated Fire Prevention Plan to reflect changes in the Permit Variation Application.	Lauren Raby	Tracey Westbury	23 January 2023
3	Updated Fire Prevention Plan to increase storage area volumes, increase storage times.	Lauren Raby	Tracey Westbury	20 March 2023
4	Updated the Fire Prevention plan following changes to infrastructure and addition of waste codes. Section 1 1.8-1.20 Section 2 2.15-2.19 Section 3 Table 3 Section 4 4.7, Table 3, 4.18 Section 6 6.13-6.18	Lauren Raby	Tracey Westbury	22 January 2024

Contents

Tables

Drawings

Fire Prevention Layout Plan	Drawing No. 19/013m 001 V4
Sensitive Receptor Plan	Drawing No. 19/013f 001 V3
Firewater Containment Plan	Drawing No. 19/013m 002 V3

Appendices

1. Introduction

1.1. This Fire Prevention Plan (FPP) has been produced by Westbury Environmental Limited on behalf of Kingpin Recycling Limited (Operator).

1.2. A Fire Response Plan was produced in 2019 by a third party (Edward Kearney).

1.3. Version 1 of this FPP was required by the Environment Agency to cover the waste operations carried out at Unit 8, Wem Industrial Estate, Soulton Road, Wem, Shropshire, SY4 5SD (Site) after part of the Site was surrendered from the permit.

1.4. The Operator surrendered part of the Site from the permit in February 2022.

1.5. The FPP Version 1 superseded the 2019 Fire Response Plan.

1.6. Westbury Environmental Limited prepared the Fire Prevention Plan Version 2 on behalf of the Operator to support the application to extend the boundary of Environmental Permit Ref. EPR/XP3495CT (Permit).

1.7. The FPP Version 2 was updated to extend the storage areas and increase the storage times (FPP Version 3).

1.8. The FPP Version 3 was updated following site infrastructure changes on the Site and to include the additional waste codes and waste treatment activities (FPP Version 4).

1.9. The FPP Version 4 will be the FPP determined by the Environment Agency as part of the Permit Variation Application.

1.10. This FPP Version 4 was prepared in accordance with the Environment Agency guidance on Fire Prevention Plans: Environmental Permits (FPP Guidance), last updated 11 January 2021. The FPP Guidance requires that the FPP accounts for the fire risk from potentially combustible waste types stored on the Site.

1.11. The objectives of an FPP are as described in the FPP guidance and are as follows:

- 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.

1.12. Minimum requirements for fire prevention measures are included within the FPP Guidance and relate to each of these three objectives.

Using this FPP

1.13. A copy of this FPP must be kept in the Site office and be readily available to all members of staff. The FPP will be subject to regular review, after a fire has occurred or operational changes have been made on Site that may potentially increase the risk of fire.

1.14. This FPP forms part of the Environmental Management System (EMS) for the Site. Procedures and forms referenced within this FPP are included within the EMS. Completed forms (records) will be kept, as required by conditions included in the Environmental Permit.

1.15. The contents of the FPP, including fire prevention measures, will be implemented on the Site by way of procedures within the EMS. The EMS includes an Environmental Training Checklist that lists all the training requirement for Site staff. This checklist includes the fire prevention procedures. The training undertaken by each member of staff is recorded on their training record as part of the EMS.

1.16. Training on implementing fire prevention procedures will be given to staff on an annual basis by the Site Manager. New members of staff will be given training on the fire prevention procedures during their induction.

1.17. All staff working on Site must understand the contents of this FPP in order to know what to do:

- To prevent a fire occurring.
- During a fire if one breaks out.

1.18. A fire drill will be completed on a six-monthly basis to test how well the FPP works and to make sure staff understand what to do in the event of a fire on Site. The fire drill will include:

- Checks that staff are trained on relevant procedures,
- Stockpiles and bays are managed,
- Fire detection,
- Fire suppression,
- Fire containment
- Use of the Fire Quarantine Area.

1.19. A checklist of what the fire drill should contain is provided in the EMS Appendix C, Procedures and Forms, Fire Detection and What to do.

Content of this FPP

1.20. This FPP describes how the Operator will implement the requirements for fire prevention on their Site, as outlined within the FPP Guidance.

1.21. The location of Site infrastructure, fire prevention measures and storage of materials / waste are shown on Drawing No. 19/013m 001 Fire Prevention Layout Plan.

1.22. This FPP considers the risk of fire where potentially combustible wastes are stored. The FPP provides information on how Kingpin Recycling Limited will reduce the risk of an outbreak of fire and the potential impact that a fire may have.

1.23. Listed below is a breakdown of the information that is included within each Section of this FPP.

- **Section 3** of this FPP provides information relating to managing fire risk from the storage of potentially combustible waste. This section addresses the potential for self-heating resulting in self-combustion. This section includes information relating to maximum storage duration, waste pile sizes and volumes, separation distances, containment facilities and how heat generated in waste piles will be prevented/ managed.
- **Section 4** of this FPP provides information on the systems that are in place to detect a fire, both during and outside of operational hours.
- **Section 5** of this FPP provides information on the contingency measures that are to be taken during a fire. This section includes information relating to the cessation of importing waste and notifying neighbouring businesses.
- **Section 6** of this FPP provides information on how a fire will be suppressed and fought. This section includes information relating to the use of the quarantine area and the use of available water. Steps to be taken in relation to firefighting techniques are addressed for a fire occurring during and outside of operational hours.
- **Section 7** of this FPP provides information on the steps to be taken after a fire before the Site becomes operational. This section includes information relating to managing firewater and contingency measures that are in place to remove any burnt materials.

2. Site information

Site Location

2.1. The Site is located within an industrial estate, approximately 200m east of the residential town of Wem, Shropshire.

2.2. The Site is accessed from Soulton Road (B5065) and is located in the north-western part of the industrial estate.

2.3. The Site is located at National Grid Reference (SJ 52357 29873) and extends to an area of approximately 0.9 hectares.

2.4. The surrounding land uses include other industrial units, agricultural land, and woodland. Industrial units located within the industrial estate include businesses such as a bakery, vehicle repair shops, timber suppliers and a used tyre shop. A caravan park is located approximately 300m east of the Site.

2.5. Since 2010, a residential estate has been extended and residential houses have been built 130m west of the Site (Stall Meadow).

2.6. Other land uses to the north, east and south of the Site have not changed significantly in the last 20 years and remain as agricultural land.

Hazards

2.7. It is considered that a fire will present three main hazards to nearby sensitive receptors: heat from the fire itself, air pollution (predominantly from smoke emissions) and pollution to groundwater / surface water features.

2.8. Heat energy from a fire may reach sensitive receptors directly via the spread of a fire or by the deposit of burning embers. Heat energy will be largely dependent upon the location and intensity of the fire; however, it is unlikely to spread more than 150 m due to the lack of feedstock available in the vicinity of the Site. It is considered that burning embers are generally likely to extinguish when travelling over distances that exceed 150 m.

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

2.10. 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 as a result of a fire has the potential to cause pollution to groundwater / nearby surface water features.

Receptors

2.11. Sensitive receptors in the vicinity of the Site are identified on Drawing No. 19013f 001 V3 Sensitive Receptors Plan. A radius of 150 m and 1 km from the Site are included on the Sensitive Receptor Plan.

2.12. Table 1 shows the approximate distance and orientation (from the Site) of nearby sensitive receptors located within a 1 km radius of the Site.

Table 1: Sensitive receptors

No	Receptor	Type of receptor	Bearing from Site	Approx. distance from Site boundary to receptor boundary (m)
1	Deciduous Woodland	Woodland	North	0
2	Towor Escort	Local business	South	10
3	Railway Line	Public transport link	NW	60
4	CRF	Local business	South	75
5	Housing	Residential properties	West	130
6	Motorcast	Car parts supplier.	South	160
7	Malkin Motors	Vehicle repairs shop.	South	190
8	Timber frame services	Timber Manufacturer.	North-east	190
9	Lynx Truss Rafters	Timber manufacturer.	North-east	190
10	Pond	Surface water feature	North	200
11	Abco Tyres Ltd	Used tyre shop.	East	265
12	Deciduous woodland	Woodland	South	285
13	Forest Oak Products	Construction equipment supplier.	North-east	330
14	Border Hardwood Ltd	Local business.	North-east	340
15	Deciduous Woodland	Woodland	East	355
16	Lower Lacon Caravan Park	Public leisure facility	East	400
17	Small Park	Public green space	South-west	415
18	B506 Soulton Road	Public transport link	Runs from the South to the east of the boundary.	500-760

2.13. There are no identified special habitat designations however, deciduous woodland has been identified within the area and on the Site itself (receptors 1, 12 and 15).

2.14. Due to the predominant wind direction from the south-southwest, it is considered that receptors located north-northeast of the Site are at greater risk of experiencing adverse impacts of heat and smoke emissions from the Site. Receptors to the north-northeast of the Site include;

- Deciduous woodland (receptor 1 and 15), which covers areas in between the industrial business from the north to the east of the Site.
- Lower Lacon Caravan Park (receptor 16) which extends the length of the industrial estate to the east of the Site. The northern section of this receptor will be impacted more than the southern due to the prevailing wind.
- Other nearby industrial businesses including; Timber Frames Services (receptor 8) lynx Truss Rafters (receptor 9), Abco Tyres Ltd (receptor 11), Forest Oak Products (receptor 13) and Border Hardwood Ltd (receptor 14).

2.15. Towor Escort (receptor 2) is the neighbouring business and operates to the south of the Site. As they are only 10m away from the permit boundary, it is possible that smoke and heat could be transported onto their site, however due to the prevailing wind direction coming from the south-east this reduces the risk.

2.16. The residential areas of Wem extends to 130m west of the Site boundary. Within this residential area there are housing (receptor 5), schools and local park areas (receptor 17). The distance of these receptors from the Site and also the direction mean they are unlikely to be impacted by smoke and heat.

Waste Operations

2.15. The following combustible waste types are stored on Site in relation to the treatment activities:

- End-of-life tyres – Whole, Baled, Shred.
- Plastics shavings and turnings.
- Rubber.

2.17. The following treatment activities will be carried out on Site:

- Sorting/ separation- Grading of tyres based on quality to identify the best processing method.
- Shredding.
- Chipping.
- Granulating.
- Shaving,
- Baling,
- Sidewall cutting,
- Shearing,
- Rim-removal and
- Pressure testing.

2.18. It is proposed that the following treatment activities will be carried out within the building:

- Shredding,
- Chipping,
- Granulating and
- Shaving.

2.19. It is proposed that the following treatment activities will not be carried out within the building:

- Sorting/ separation- Grading of tyres based on quality to identify the best processing method,
- Sidewall cutting,
- Pressure testing,
- Baling,
- Shearing and
- Rim-removal.

2.20. End-of-life waste tyres are treated and recovered on Site. Tyre shred products are produced in accordance with the Quality Protocol: Tyre derived rubber materials and PAS 107 Specification. Baled tyre products are produced in accordance with PAS 108 Specification.

2.21. Contravening waste types that are identified within incoming waste will be removed and stored within the Quarantine Area. Further information with regard to the Quarantine Area can be found in Section 6 Suppressing a fire and firefighting techniques.

2.22. Further information on the waste operations carried out on Site can be found in Appendix C Procedures and Forms, Procedure Recycling Operations.

3. Management of potential causes of fire

3.1. It is important to identify potential causes of fire on the Site in order to minimise these risks and reduce the likelihood of fires, thus addressing Objective 1 of the FPP Guidance; "minimise the likelihood of a fire occurring". Potential causes of fire, taken from the FPP Guidance, are listed in Table 2 below. Information on how these potential causes of fire apply to the Site are also included in Table 2.

Table 2: Potential causes of fire

Potential Cause of Fire	Applicable to the Site	Comments
Arson / Vandalism	Yes	There is a low risk of unauthorised access on to the Site. The industrial estate has a fence around the permit boundary. The Site has concrete walls (4m high), fencing, security gates and bunds around the perimeter boundary.
Malfunctioning / breakdown of mobile plant, equipment, or vehicles.	Yes	There is a risk of plant / equipment on the Site malfunctioning and/or breaking down.
Electrical faults (including damaged / exposed cables).	Yes	There is mains electricity located on the Site. Electricity is utilised for lighting and the Site office. Therefore, there is a risk of electrical faults.
Discarded smoking materials	Yes	There is a risk of discarded smoking materials presenting a source of ignition.
Hot works undertaken for maintenance	No	Hot works are not completed on the Site.
Industrial heaters, furnaces, incinerators or any other naked flames.	No	No industrial heaters, furnaces, incinerators or any other naked flames will be present on the Site.
Hot exhausts on mobile plant, equipment or vehicles.	Yes	There is a risk of exhausts of plant and equipment remaining 'hot' after use.
Batteries in End-of-Life Vehicles.	No	End of Life Vehicles are not imported on to the Site.
Fuel stored on the Site.	Yes	There is a risk that fuel oil could present a fire risk or source of ignition.
Leaks and spills from site vehicles.	Yes	Vehicles will be used on the Site to import/export waste loads. There is a risk of one of these vehicles leaking fuel or oil.
Leaks and spills from End of Life Vehicles.	No	End of Life Vehicles are not imported on to the Site.
Build-up of loose combustible waste, dust and fluff.	Yes	There is a risk of loose combustible waste, dust and fluff building up within storage areas of combustible waste.
Reactions between wastes.	No	There are no waste types accepted on to the Site that, when mixed, would create a reaction e.g. an explosion. Waste Acceptance Procedures within the EMS will ensure that only permitted waste types are accepted on to the Site. Waste Acceptance Procedures will include: • The List of Waste codes from the Environmental Permit. • Instructions to visually check loads upon reception, acceptance and unloading.
Deposited hot loads.	No	'Hot loads' are not accepted at the Site.
Self-heating resulting in self-combustion.	Yes	There is a risk of self-heating within piles of combustible waste stored on the Site. There is a risk of this self-heating resulting in self-combustion of the pile.

Potential Cause of Fire	Applicable to the Site	Comments
Operations carried out by neighbouring businesses.	Yes	The Site is located within an industrial estate and therefore has neighbouring businesses.

3.2. The remainder of the points in this section describe in detail how the Operator will minimise the risks associated with the potential causes of fire that relate to this Site, as identified in Table 2 above.

Site Security

3.3. Site security is important to reduce the likelihood of unauthorised access to the Site.

3.4. There is CCTV cameras on Site, that overlook the entire Site. Therefore, will be able to pick up if an intruder enters the Site.

3.5. The CCTV camera feed can be accessed 24/7 by Site directors and managers via their mobile phones.

3.6. The risk of an intruder entering the Site is reduced due to the Site being secured by concrete walls (4m high), fencing, security gates and bunds around the entire permit boundary.

3.7. The Site is manned during operational hours. Businesses on Wem Industrial Estate are open 24/7. Therefore, during non-operational hours, there will be personnel on the industrial estate that will be able to notice any unusual behaviour or security threats.

3.8. The Site entrances are kept securely closed during non-operational hours or when the Site is unattended.

Plant, Equipment and Vehicles

3.9. Plant, equipment and vehicles are used on the Site. Plant and equipment include machinery for the movement and treatment of waste on the Site. Vehicles are used to import and remove waste to and from the Site.

3.10. Mobile plant / equipment that is not being used will be stored at least 6 m away from combustible waste types and combustible materials, see Drawing No. 19/013m 001 Fire Prevention Layout Plan.

3.11. Plant and equipment have the potential to malfunction / breakdown. In some instances, this could cause a fire, which in turn could spread to combustible waste stored on the Site. Plant and equipment will be maintained in line with manufacturers recommendations to reduce the risk of breakdown / malfunction. Plant and equipment will be checked for malfunctions daily, using Appendix 1 Inspection Checklists. Any fault will be noted on the Inspection Checklists and rectified as soon as possible.

3.12. Dust or particles settling on hot exhausts / engines can cause fires. However, no materials that consist of mainly dust are stored or handled on the Site and consequently the risk of fire from this cause is considered very low. Therefore, frequently inspecting the cooling of engines and exhausts for plant / vehicles / equipment is not proposed.

3.13. There is potential for vehicles entering the Site to leak fuels and oils. Vehicles entering the Site will be owned by the Operator or their customers. Spill kits will be available in the site office.

3.14. Incoming loads containing ‘hot loads’ have the potential to spread fire to other waste types stored on the Site. In extreme circumstances, hot loads may result in the carrying vehicle catching fire. Hot loads are immediately directed to the Fire Quarantine Area shown on the Fire Prevention Layout Plan Drawing No. 19/013m 001. The risk of this is considered to be negligible as hot loads are not likely to enter the Site.

Ignition Sources

3.15. A no smoking policy is enforced within the permit boundary to reduce the likelihood of any naked flames.

3.16. No other naked flames, including incinerators, industrial heaters, space heaters, furnaces, are present on the Site.

3.17. The storage of flammable liquids is considered as an ignition source in the FPP Guidance. There is a risk of fuel leaking / spilling during refuelling of vehicles / mobile plant on the Site. Spill kits are available on the Site and will be made available during refuelling.

3.18. Oil and fuel storage at the Site will comply with the Oil Storage Regulations for Businesses (last updated 4th August 2020). Fuel is stored in bunded tanks in accordance with the Oil Storage Regulations.

Electricity

3.19. Electricity is used on the Site to power some of the operations, including the Site office. The cut-off for electricity is shown on the Fire Prevention Layout Plan Drawing No. 19/013m 001.

3.20. The waste operations are not reliant on mains electricity and therefore will continue in the event of a mains electricity outage.

3.21. Damaged or exposed electrical cables and fittings have the potential to give off excess heat / create sparks. Power sockets can be overloaded which may result in the overheating of these sockets and wires.

3.22. Inspections of electrics, including wiring and equipment, are carried out by site staff on a monthly basis to ensure that cables are in a good condition and sockets are not overloaded. Inspections are recorded using the Inspection Checklists form included within the EMS, see Appendix 1 Inspections Checklists.

3.23. Inspections of electrics, including wiring and equipment, are carried out by Site staff, on a monthly basis to ensure that cables are in a good condition and sockets are not overloaded. Inspections are recorded using the Inspection Checklists, see Appendix 1 Inspections Checklists.

Build-up of Loose Combustible Waste

3.24. Combustible residues collecting around waste storage areas can present a fire risk.

3.25. Storage areas will be inspected on a daily basis. When emptied, the storage area or container will be cleaned to remove any residual waste / dust / fluff.

3.26. Checks will be made to ensure that all storage areas are cleared to ensure that the maximum storage durations for the waste are not exceeded.

Self-Heating resulting in Self-Combustion

3.27. The risk of self-heating occurring within waste piles is influenced by the following:

- Waste type.
- Particle size.
- Storage time.
- Volume of stockpile.
- Ambient temperature / external conditions (including heat produced from waste operations).

3.28. Self-heating is a potential cause of fire, as it may lead to self-combustion. Self-heating can be managed in a number of ways. The FPP Guidance states the following:

- Management of storage duration times for combustible waste.
- Good stock rotation to ensure quick-turnaround of materials i.e. first-in, first-out principle. Complete turnaround of waste and use of first-in, first-out principle will ensure that waste is not stored on Site for periods longer than the maximum storage duration.
- Minimising stockpile dimensions, including height.
- Minimising stockpile volumes.
- Managing any seasonal variations in waste types.

For waste stored on Site for longer than 3 months:

- Routine turning of piles to ensure waste remains cool and localised heating is dissipated.

3.29. Tyre shred stored on the Site will be stored for a maximum of six months. It is often the case that tyre shred will have been removed off Site within three months. If tyre shred is on the Site for longer than three months, Site Operatives will conduct daily temperature monitoring, see Appendix 5 Daily Temperature Monitoring Log.

Neighbouring Businesses

3.30. The Site is located within an industrial estate. Neighbouring businesses include a cafe, timber manufacturers, a car mechanic, and a used tyre supplier.

3.31. There is a risk of fire spreading to / from neighbouring businesses as combustible materials such as virgin timber, metals and tyres are stored within these premises. These businesses include Timber Frame Services (190m northeast of the Site), Motorcast (160m south of the Site), Malkin Motors (190m south of the Site) and Border Hardwood Ltd (340m northeast of the Site).

3.32. The risk of fire spreading is mitigated by the best practice storage conditions used by the Operator. Neighbouring local businesses on the Wem Industrial Estate are screened by fencing, bunds and concrete walls (4m high) surrounding the Site perimeter and other businesses.

4. Managing fire risks from the storage of waste

Storage Duration

4.1. The maximum storage time for combustible waste suggested in the FPP Guidance is six months. The maximum storage time for combustible tyre shred stored on this Site is six months. Tyre shred can be stored on the Site for six months, however, it is often the case that tyre shred will be removed within three months.

4.2. All other wastes are stored for a maximum of three months.

4.3. Good stock rotation will ensure that waste storage does not exceed the three months maximum storage durations. Good stock rotation is in the Operators best interest commercially. Daily inspections and weekly reviews of storage areas will be recorded using Appendix 2 Stock Rotation Forms.

Stock Rotation Policy

4.4. Employment of good stock rotation procedures ensures that maximum waste storage times are managed effectively.

4.5. End-of-life tyres are unloaded into the Reception Area. The end-of-life tyres are then taken to be treated and then taken to their designated storage area.

4.6. If a load arrives onto Site that contains only one type of waste, this is put straight into a bay for storage.

4.7. If a load contains end-of-life-tyres, mixed with other waste, then this will be put into the Reception Area, then sorted and put into designated bays. Waste from a storage area that is being sent off Site will be removed in its entirety, when possible, to ensure full stock rotation.

4.8. The Operator aims to provide a quick turnaround of waste on the Site to ensure no waste is stored for longer than the six-month limit. The clearing of storage areas is recorded on the Appendix 2 Stock Rotation Forms.

Pile Dimensions, Volumes and Separation Distances

4.9. The recommendations within the FPP Guidance in relation to pile sizes are met by the proposed waste storage on this Site. Pile volumes of waste stored on the Site are lower than the recommendations included within the FPP Guidance.

4.10. Table 3 below summarises storage area sizes and maximum individual pile sizes, the volume for each waste type and the maximum storage times. Storage areas are shown on Drawing No. 19/013m 001 Fire Prevention Layout Plan.

Table 3: Storage area details

Contents	Storage type	Size (LWH)	Maximum volume per bay	FPP Guidance maximum stockpile volume	Maximum storage time
Whole Tyres	Bay	12 x 11 x 3	396m^3	450m^3	3 month
Tyre Shred	Bay	12 x 11 x 3	396m^3	450m^3	6 months
Baled Tyres	Bay	12 x 12 x 2	288m^3	300m^3	3 month
Reception Area	Stockpile	15 x 15 x 2	450m^3	450m^3	24 hours
Other waste containing rubber	Bay	12 x 11 x 3	396m^3	450m^3	3 months
Metal	Bay	12 x 11 x 3	396m^3	450m^3	3 months
Plastic	Bay	12 x 11 x 3	396m^3	450m^3	3 months

Note: The dimensions listed above are approximate. The maximum volume per bay will not be exceeded.

4.11. A maximum pile height will be enforced on the Site in accordance with the FPP Guidance. The pile height shall not exceed three metres, this will ensure that there is a one metre freeboard space below the bay walls.

4.12. Individual stockpile maximum volumes will be no more than 300m^3 for baled waste and no more than 450m^3 for whole tyres and tyre shred and other rubber waste and metal, in accordance with the FPP Guidance.

4.13. Combustible waste is stored in bays. The bays are constructed from fire-resistant concrete. Therefore, in line with the FPP guidance, a six-metre firebreak will not be implemented.

Particle Size

4.14. Waste stored on the Site is not generally stored in small particle sizes. Rough Tyre shred has the smallest particle size with a size range of 100 to 300mm. Therefore, it is considered that the particle size of waste will not be a significant contributor to self-heating.

4.15. Rough tyre shred is produced in accordance with PAS107. Tyre shred is stored within the maximum pile sizes included in the FPP Guidance (450m^3) to help prevent the risk of self-combustion and limit the scale of a fire if one breaks out.

4.16. It is in the best interest of the Operator to remove treated waste (typically with a smaller particle size) as soon as possible to make space for incoming waste. Ensuring that processed waste, with a smaller particle size, is removed as soon as possible will ensure that waste on the Site will be stored in its largest form, which is considered to be of a lower fire risk.

Storage Bays and Waste Reception Stockpile

4.17. Waste is stored in bays and stockpiles on Site, see Drawing No. 19/013m 001 Fire Prevention Layout Plan.

4.18. Tyres, other rubber waste and metals that are brought onto Site are placed in the Waste Reception Area. The waste is then sorted and treated and put into the relevant storage bays.

Risk to Surface and Groundwater

4.19. Combustible waste is stored and treated on impermeable surfacing with sealed drainage. This containment of surface water run-off will prevent potentially contaminated surface water reaching land, groundwater and /or water courses.

4.20. In the event of a fire and the need for water suppression measures, firewater will collect on the impermeable surfacing before being removed by a licensed contractor to suitably licensed facility.

4.21. The perimeter of the Site is edged with kerbing and concrete walls to prevent the escape of firewater.

Seasonal Variations

4.22. It is not anticipated that there will be a significant seasonal variation in demand or supply of the waste accepted on to the Site.

4.23. Similarly changing outside temperatures e.g. in summer is unlikely to pose a risk of overheating of the waste types stored on Site.

Managing Temperatures within Waste Piles

4.24. For waste stored less than three months, managing temperatures is not required in accordance with the FPP Guidance.

4.25. Tyre shred will be stored for up to six months. It is often the case that tyre shred will be removed within three months. However, if the tyre shred is on Site longer than three months, the Operator will undertake daily temperature monitoring of the tyre shred, see Appendix 5 Daily Temperature Monitoring Log.

4.26. If elevated temperatures is detected (more than 75 degrees), Site staff will take action to prevent any further self-heating. Such measures include:

- Application of water to aid cooling.
- Turning the waste to encourage air flow (may be less suitable in hot summer).
- Moving all or part of the waste to another storage area (in shade / improve air flow).
- Remove from Site.

Detecting of a Fire Outside of Operational Hours

4.27. Kingpin Recycling Limited operate a CCTV system, which overlooks the entire Site. The CCTV can be accessed 24/7 by Site managers and directors via smart devices e.g. mobile phones. The CCTV is primarily for security purposes, however signs of fire (smoke and flames) can also be viewed.

4.28. A manual system is in place on Site for fire detection, in the form of a procedure.

4.29. Kingpin Recycling Limited implement the following measures to minimise the likelihood of a fire occurring during non-operational hours.

- Fire watch daily at the end of the working day to inspects for signs of self-heating, smoke and fire, and ensure exhausts are cool etc.
- Mobile plant is stored outside when not in use / at the end of the day, to aid in the dissipation of any heat.
- Plant and equipment will be shut down 1-hour before the Site closes.
- During the event that a fire was to break out during non-operational hours, businesses on Wem Industrial Estate are open during the night and there is a residential area located 130m west, therefore signs of fire will be identified quickly.
- Waste is stored in bays and stockpiles, outside, therefore waste is cooler, especially during non-operational hours.

4.30. The above is included in the Inspection Checklists, see Appendix 4 Fire Detection and What to do Procedure.

4.31. The nearest fire station, Wem Fire Station is located a five minute (1.5 mile) drive from the Site.

4.32. In the event that the Director (or other senior management that have keys to the Site) are the first responder, they will attempt to suppress the fire before the Emergency Services arrive if it is safe to do so. Information relating to active firefighting measures are included in Section 6 Suppressing a Fire and Firefighting Techniques.

Detection of a Fire during Operational Hours

4.33. All members of staff are trained to be vigilant to the signs of fire and to report any incidents to site management. Staff members will sound the fire alarm to ensure all members of staff are aware of the fire.

4.34. Visual inspections are carried out throughout the working day to check for fires / potential causes of fire. Staff are working to sort / separate the tyres throughout the day and will therefore be able to quickly identify any signs that the waste is producing smoke or showing any other signs of a fire. Staff are trained on how to identify a fire and what to do in the event of a fire.

4.35. A trained operative is assigned responsibility for overseeing the fire watch. During operational hours, the fire watch is undertaken by site personnel, daily.

4.36. Site security staff will contact the emergency services and the Site Manager / Director immediately upon discovery of a fire.

4.37. The emergency services will be informed immediately, by the operator, if there is any evidence / suspicion of a fire on the Site.

5. Contingency measures during a fire

5.1. The Operator will implement fire contingency plans via procedures contained within the EMS.

5.2. The Operator can quickly cease waste imports in the event of a fire. Vehicles used to import waste on to the Site are operated by Kingpin Recycling Limited and customers. All Site staff will be instructed to cease the importation of waste in the event of a fire.

5.3. During the event of a fire there will be no deliveries or export activity from the site, with such operations only allowed once all decontamination activities have been completed to a satisfactory standard. 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 Environment Agency's public register.

5.4. Nearby residents will be contacted in the event of a fire. Contact details for these contacts are included on the Key Contacts Form within the EMS. In the event of a fire, all staff will inform others of the fire by activating the fire alarm / bell / horn.

5.5. In case of circumstances where maximum waste storage time are likely to be exceeded then stockpiles of combustible waste tyres will be frequently inspected for any signs that the waste is heating up, producing smoke, or showing any other signs of a fire.

6. Suppressing a fire and firefighting techniques

Use of the Quarantine Area

6.1. The Operator has a Fire Quarantine Area that accords with the FPP Guidance requirements. The Fire Quarantine Area may be used for storing materials to prevent the spread of fire to isolate materials that are likely to re-ignite or have been burned. This will aid in the overall suppression of a fire. The Fire Quarantine Area will be kept free of materials so that it can be used in the event of a fire. The location of the Quarantine Area is shown on the Fire Prevention Layout Plan, Drawing No. 19/013m 001.

6.2. The Fire Quarantine Area has sufficient separation distances (minimum of six metres) from any sources of ignition or stored combustible waste. The Fire Quarantine Area will be able to store approximately 225m^3 of waste (8m long x 8m wide), which is 50% of the volume of the largest pile of waste stored on the Site.

6.3. The Fire Quarantine Area will allow for expedited active firefighting with regard to the removal of burning / burned material.

Fire Suppression Techniques

6.4. A manual fire suppression system will be in place on Site in the form of a mains water and hoses and fire extinguishers.

Use of Water and Fire Extinguishers

6.5. The Site has access to mains water, located outside of the permit boundary to the east of the Site. Fire extinguishers are located within the Site office, see Fire Prevention Layout Plan 19/013m 001.

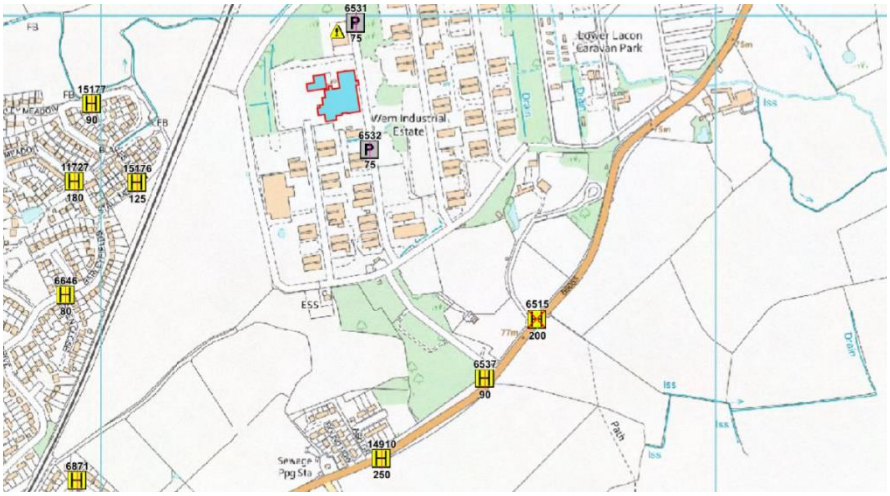
6.6. Fire extinguishers and hoses connected to the mains water will be used as a first response measure in the event of a fire or to extinguish fires.

6.7. Site operatives must only tackle small fires on the Site and must not put themselves at risk by trying to fight medium / large fires. In the event of a medium / large fire, the emergency services will always be contacted. Upon arrival on Site, the fire service will assume overall control of all firefighting activities.

6.8. Site management can be deployed to the Site within 30 minutes. When they are on Site, they will put in place the requirements of the EMS Procedure No. 6.7.2 Fire Suppression and use fire water as the main fire suppressant method.

6.9. Shropshire Fire and Rescue Service have confirmed that there are fire hydrants in the vicinity of the Site, see Figure 1 below.

Figure 1 Fire hydrant map locations sent by Shropshire Fire and Rescue Service



6.10. The FFP Guidance states that fire hydrants should be able to produce a reasonable flow if they are located within 100m of the Site. The nearest hydrant is located 150m west of the Site. Other hydrants are located 500m south of the Site.

6.11. During correspondence with the Shropshire Fire and Rescue Service, it was confirmed that the fire engine, above water features or hydrants would be utilised to suppress a fire. It was confirmed that the fire hydrants will be utilised using a Light Pumping Unit, see Appendix 3 Correspondence with Shropshire Fire and Rescue Service.

Figure 2 Contingency plan for fire suppression for Kingpin Recycling Limited, sent by Craig Jackson from Shropshire Fire and Rescue Service, email dated 8th March 2022.

Open water sites	Available
Location	EWS located on site 75000ltrs by café, see map River Roden, Aston Bridge open water via Church Lane, approx. 1.8 km see map
Access Points	Aston Bridge via Church Lane
Distance to risk (in metres)	1800
Pump type	• Main pump • LPP • HVP
Seasonal or capacity issues	River Roden seasonal flow
Water Plans	Due to poor water supplies on site early make up or PDA to include HVP unit from PR for setting in to open water at Aston Bridge 1.8 km away. Consider LPU from SY to set in to either of the HYs shown on map.

"As with any fire our first attack will be with the water on appliances that hold 3000ltrs +. This would then be supplemented from the above water supplies within the hour of attendance. Our Light Pumping Unit can set into the hydrant and run an over ground main for the distance mentioned."

6.12. The use of fire hydrants would be utilised using a light pumping unit, that would be able to produce a flow rate of 2,000l/min.

6.13. The volume of water required for waste stored in the Reception Area and in the bays on Site has been calculated below. The Reception Area is the largest stockpile on Site (450m^3). However, the waste in the Reception Area will be moved to the treatment area and bays as soon as possible. Therefore, it is considered unlikely that this maximum stockpile size will be reached.

6.14. Therefore, it may be the case that the waste in the bays will be the largest pile (396m^3).

Reception Area

6.15. It is calculated that a total of 540,000l of water would be required to extinguish a fire involving the largest pile of combustible waste stored on the Site (450m^3). It is calculated that it will take approximately 270 minutes (4.5 hours) to extinguish this fire using the water from the nearby hydrants alone. The calculation is as follows:

- 2000l/min (flow rate required in FPP guidance) / 30 m^3 (pile size in FPP guidance) x 180 minutes (3 hours in FPP guidance) = 1200l/m^3 of waste water requirement
- 1200l x 450m^3 (largest pile size on Site) = 540,000l (volume of water required to extinguish largest pile size)
- 540,000l / 2,000l/min (actual flow rate) = 270 minutes (4.5 hours in accordance with FPP guidance)

6.16. It will take 4.5 hours to extinguish the largest stockpile of waste on Site (Reception Area). However, it is considered unlikely that the maximum stockpile size will be met, as tyres are sorted and moved from the Reception Area as soon as possible when they arrive on the Site.

6.17. Additionally, the Reception Area will not be at maximum capacity overnight. The Reception Area will only be at maximum capacity during operating hours, where there are Site Operatives on the Site that will continually watch for signs of fire whilst they are working on the pile.

Waste Stored in Bays

6.18. It is calculated that a total of 475,200l of water would be required to extinguish a fire involving a pile of waste stored in a bay on the Site (396m^3). It is calculated that it will take approximately 238 minutes (approximately 4 hours) to extinguish this fire using the water from the nearby hydrants alone, which is within the maximum 4-hour time stated in the FPP Guidance. The calculation is as follows:

- 2000l/min (flow rate required in FPP guidance) / 300m^3 (pile size in FPP guidance) x 180 minutes (3 hours in FPP guidance) = 1200l/m^3 of waste water requirement
- 1200l x 396m^3 (largest bay size on Site) = 475,200l (volume of water required to extinguish largest bay size)
- 475,200l / 2,000l/min (actual flow rate) = 238 minutes (3.96 hours in accordance with FPP guidance)

6.19. Further information regarding managing firewater on the Site is provided in Section 8 Recovery after a fire.

Firefighting Techniques – Outside of Operational Hours

6.20. Once a fire is detected and the Key Holder (Director) is alerted, the Key Holder will take approximately 30 minutes to reach the Site.

6.21. Generally, the steps described in the section below on 'Firefighting Techniques - Within Operational Hours' would be implemented in the likely even the operator arrives on the Site prior to the emergency services.

6.22. Firefighting techniques outside of operational hours (if the Operator arrives at the site prior to the fire service) will be limited to the use of mains water and fire extinguishers located on the Site, if it is safe to do so, prior to the arrival of the fire service.

6.23. Shropshire Fire and Rescue Service will suppress a fire using the water within the fire engine, the above water sources and the nearby fire hydrants.

6.24. Shropshire Fire & Rescue Service have confirmed that the emergency services will enter the Site through force if they arrive at the Site before a key holder is present.

Firefighting Techniques – Within Operational Hours

6.25. The Operator will implement the following suppression and firefighting measures to minimise the impact of a fire:

- The emergency services will be contacted if they have not been already.
- Neighbouring residents and key contacts) will be contacted.
- If safe to do so, fire extinguishers will be used to tackle any small fire on the Site, the location of the fire extinguishers is shown on Drawing No. 19/013m 001 Fire Prevention Layout Plan.
- If safe to do so, mobile plant will be used to remove combustible waste from the vicinity of the fire, to minimise the likelihood of a fire spreading.
- If safe to do so, mobile plant will be used to remove burned waste from the vicinity of the fire, to minimise the likelihood of a fire spreading as burned waste may reignite. Burned waste will be transported to the Fire Quarantine Area.

- The Site Manager will liaise with the emergency services upon arrival to inform them of the locations of combustible materials and the active firefighting actions taken up to this point e.g. any chance of reignition of burned waste.

6.26. Fire Procedures within the EMS will implement the requirements of this FPP on the Site. These procedures form the basis for training and shall be followed in the event of a fire.

7. Recovery after a fire

Contingency Measures – Managing Burned Materials

7.1. In general, there is a chance that waste re-ignites after it has been extinguished. Burned waste will be monitored following a fire to identify any signs that the waste is re-igniting and to ensure that the waste is completely extinguished. Combustible waste may be removed from the location of the fire to the Fire Quarantine Area if necessary. Movement of burned waste may minimise the risk of the fire spreading.

7.2. The importation of waste will resume as soon as the risk of further fires has been considered and the Site is determined to be safe.

Managing Firewater

7.3. The calculation in Section 7 Suppressing a Fire & Firefighting Techniques states that a maximum of 540,000l (540m^3) of firewater may be produced when tackling a fire involving the largest pile of waste stored on the Site (450m^3).

7.4. The Site is split into two distinct areas, the western and eastern side, separated by the 4m high concrete walls. It is considered that firewater will be contained in each side of the Site, it will not be able to escape to the other side/leave the Site boundary.

7.5. Both sides of the Site are relatively flat at similar ground levels, there is less than 1m difference across the Site.

Western Side of the Site

7.6. The firewater containment area in the western side of the Site is as calculated as follows:

45m (width of firewater containment area) x 60m (length of water containment area) x 0.2m (height of water) = 540m^3

7.7. Therefore, the volume of water required to extinguish the largest pile size on Site (540m^3) will be able to be contained in this western area.

7.8. The worst-case scenario is that there will be 20cm of water that needs to be contained.

7.9. There is kerbing around the western side of the Site that will be able to contain 20cm of water. The levels of the Site surface of the western side of the Site increase at the edge. Therefore, firewater will be contained in this area, see Drawing No. 19/013m 002 Firewater Containment Plan.

7.10. Firewater will be removed via vacuum tanker by a suitably licensed contractor.

7.11. Drains will be covered to ensure firewater does not escape down them.

Eastern Side of the Site

7.12. The firewater containment area in the eastern side of the Site is as calculated as follows:

45m (width of firewater containment area) x 60m (length of water containment area) x 0.2m (height of water) = 540m^3

7.13. Therefore, the volume of water required to extinguish the largest pile size on Site (540m^3) will be able to be contained in this eastern area.

7.14. The worst-case scenario is that there will be 20cm of water that needs to be contained.

7.15. There are 3m high concrete walls and 20cm high kerbing around the perimeter of the eastern side of the Site that will contain the firewater. Flood barriers will be placed across the entrances on the eastern boundary of the Site to ensure that firewater does not escape. The drains on the eastern boundary will be covered to prevent firewater escaping down, see Drawing No. 19/013m 002 Firewater Containment Plan.

7.16. Firewater will be removed via vacuum tanker by a suitably licensed contractor.

Fire in the Treatment Area

7.17. The risk of fire is highest within the shredder and during other treatment activities undertaken within the building. The treatment building is located in the northern section of the eastern side of the Site, see Drawing No. 19/013m 001 Fire Prevention Layout Plan.

7.18. If a fire breaks out in the treatment activity building, firewater will most likely flow to the south of the Site or escape from the entrance to the east of the treatment building. Flood barriers will be placed across the entrances on the eastern boundary of the Site to ensure that firewater does not escape. The drain on the eastern boundary will be covered to prevent firewater escaping down, see Drawing No. 19/013m 002 Firewater Containment Plan.

7.19. Firewater will be removed via vacuum tanker by a suitably licensed contractor.

Steps to Becoming Operational

7.20. Following a fire, Kingpin Recycling Limited will employ the following steps before accepting waste and becoming operational:

- All burned materials and residues will be removed to a suitably licensed facility.
- Following any environmental incident on the Site including fires, details of the event will be recorded on an Accident / Incident form included within the EMS. Completion of the form will enable all the details of the fire to be recorded including sequence of events, causation, size and extent of fire, damage sustained (internally and externally), recording of the investigation and actions taken.

Drawings

Fire Prevention Layout Plan	Drawing No. 19/013m 001 V4
Sensitive Receptor Plan	Drawing No. 19/013f 001 V3
Firewater Containment Plan	Drawing No. 19/013m 002 V3

Kingpin Recycling Limited

Fire Prevention Layout Plan

19/013m 001 V4

Kingpin Recycling Limited, Wem Industrial Estate, Soulton Road, SY4 5SD

Scale: 1:900

22/01/2024

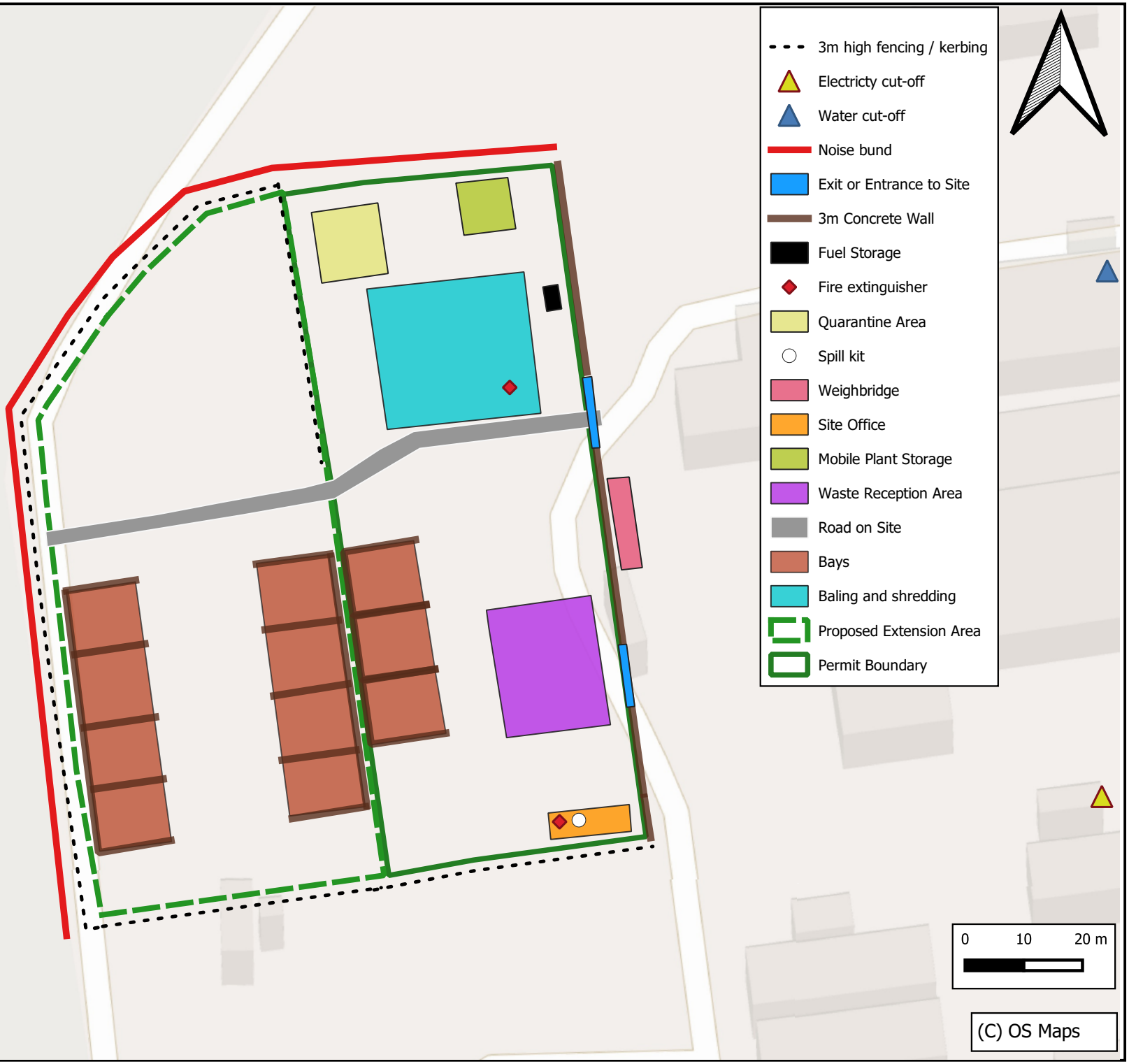
Created by: LR
Checked by: TW

WESTBURY ENVIRONMENTAL

T 01952 879705 E info@westburyenv.co

A Agriculture House, Southwater Way Telford, Shropshire, TF3 4NR

W www.westburyenv.co.uk

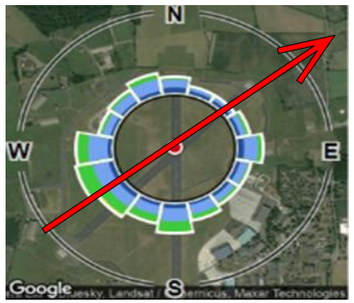


Kingpin Recycling Limited

Client	**Kingpin Recycling Limited**
Title	Sensitive Receptors Plan
Drawing No.	19/013f 001 V3
Site	Unit 8, Wem Industrial Estate, Soulton Road, Wem, Shropshire, SY4 5SD.
Date	27/05/2022
Scale	1:14,000

Predominant Wind Direction

(Data from nearest weather station – Shawbury)



WESTBURY ENVIRONMENTAL

T 01952 879705 E info@westburyenv.co.uk

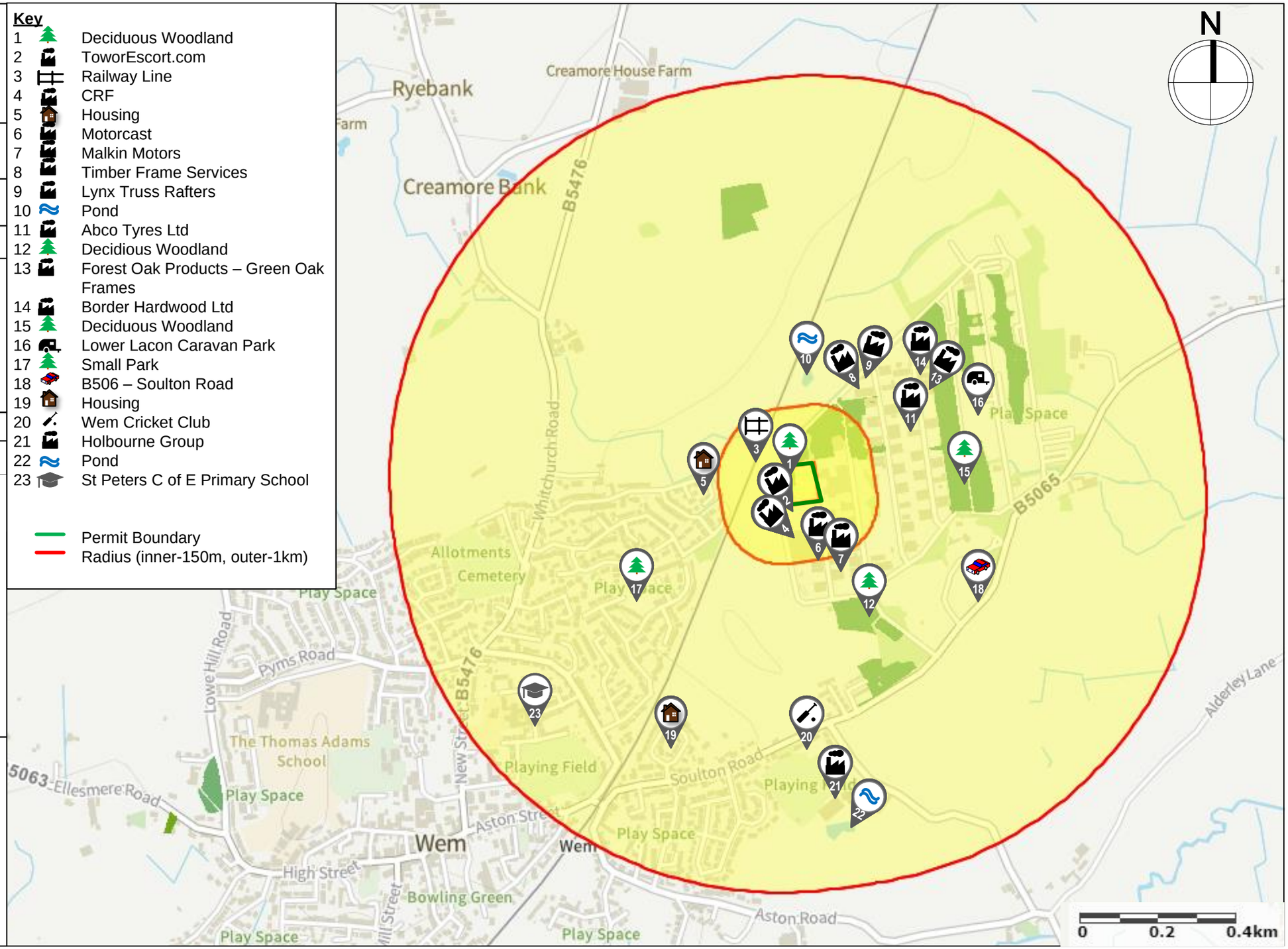
A Agriculture House, Southwater Way
Telford, Shropshire, TF3 4NR

W www.westburyenv.co.uk

Key

1 Deciduous Woodland
2 ToworEscort.com
3 Railway Line
4 CRF
5 Housing
6 Motorcast
7 Malkin Motors
8 Timber Frame Services
9 Lynx Truss Rafters
10 Pond
11 Abco Tyres Ltd
12 Decidious Woodland
13 Forest Oak Products – Green Oak Frames
14 Border Hardwood Ltd
15 Deciduous Woodland
16 Lower Lacon Caravan Park
17 Small Park
18 B506 – Soulton Road
19 Housing
20 Wem Cricket Club
21 Holbourne Group
22 Pond
23 St Peters C of E Primary School

Permit Boundary
Radius (inner-150m, outer-1km)



Client	**Kingpin Recycling Limited**
Title	Firewater Containment Plan
Drawing No.	19013m 002 V3
Site	Unit 8, Wem Industrial Estate, Soulton Road, Wem, SY4 5SD
Date	18/08/2023
Scale	Not to scale

WESTBURY ENVIRONMENTAL

T 01952 879705 E info@westburyenv.co.uk

A Agriculture House, Southwater Way
Telford, Shropshire, TF3 4NR

W www.westburyenv.co.uk

Appendix 1

Inspection Checklists

Inspection Checklists

Daily Inspection Checklists			
Item for Visual Inspection	**Aspects for Inspection**	**Checked?**	**Remedial Action Required?**
Litter	None present within yard area.		
	None present within waste storage areas.		
	None present within treatment building.		
	None present along site boundaries (concrete walls etc.).		
Fire	Fire watch daily at the end of the working day to inspects for signs of self-heating, smoke and fire, and ensure exhausts are cool etc.		
	Plant and equipment will be shut down 1-hour before the Site closes.		
Dust emissions	No dust emissions should be escaping the boundary of the site. Recorded visual monitoring will be undertaken at least twice a day, for a minimum of five minutes each time.		
Mobile plant	Mobile plant should not have defects.		

Date: _____ Completed by: _____ Signature: _____

Weekly Inspection Checklists			
Item for Visual Inspection	**Aspects for Inspection**	**Checked?**	**Remedial Action Required?**
Site Security	Gates for the entrance to Site must be working and lockable.		
	Concrete walls, fencing, kerbing and bund along the permit boundary of the Site in good condition.		
Waste Storage	Pile heights should be no more than 3m in height in the bays.		
	Pile are not exceeding the dimensions included in the Fire Prevention Plan.		
Fire Quarantine Area	Fire Quarantine area is clear (*There should be an available space on site measuring 8m x 8m, that is at least 6m away from combustible waste.*)		

Date: _____ Completed by: _____ Signature: _____

Monthly Inspection Checklists			
Item for Visual Inspection	**Aspects for Inspection**	**Checked?**	**Remedial Action Required?**
Hoses	Hoses should be in good condition and free from holes.		
Drains	Drains should be free from blockages.		
Electrics	Wires should not be frayed / damaged.		
	Sockets should not be overloaded.		

Date: _____ Completed by: _____ Signature: _____

Annual Inspection Checklists			
Item for Visual Inspection	**Aspects for Inspection**	**Checked?**	**Remedial Action Required?**
Fire extinguishers	Fire extinguishers should function properly.		

Date: _____ Completed by: _____ Signature: _____

Appendix 2

Stock rotation checklists

Stock Rotation Daily Checklist

Date:

Storage Area Contents	Storage Facility	Maximum Storage Time	Cleared
Reception Area	Stockpile	24 Hours	

Monthly Stock Rotation Record

Storage Area Contents	Maximum Storage Time	Date area cleared	Date area cleared	Date area cleared	Date area cleared	Date area cleared	Date area cleared
Whole tyres	3 months						
Tyre shred	6 months						
Baled tyres	3 months						
Rubber	3 months						
Metal	3 months						
Plastic	3 months						

Appendix 3

Correspondence with Shropshire Fire and Rescue Service

Lauren Raby

From: Paul Jones <Paul.Jones@shropshirefire.gov.uk>
Sent: 02 March 2022 15:40
To: Lauren Raby
Subject: FW: Fire Hydrant information
Attachments: Kingpin Recycling Ltd - Fire Hydrants.pdf

Please find screenshot attached.

There are two legacy private hydrants indicated on the plan.
PFH 6531 was in place as of March 2019 at the time of the last communication.
PFH 6532 may have been covered over by shipping containers at that time.
It would be up to the responsible person for the site to ensure that the private hydrants were inspected & maintained on a regular basis and details & advice about that were supplied to the factory manager in May 2019 at the request of the Protection Department.

The details of the nearest adopted hydrants in the highway are as follows.
FH 6537 (90mm) – 23 lengths from the site.
Flow measured 23 l/sec* @ 4 BAR on 28/11/2017 @ approx. midday.
This hydrant is on a 90mm leg off 250mm main.

FH 6515 (200mm) is a further 130m away from the site than 6537.
No flow rates on record as the hydrant is in a dangerous location for testing & below ground inspection.
At time of last visual inspection in Feb 2019 the hydrant frame & cover were sound following repair.

FH 14910 (250mm) is a further 215m away from the site than 6537.
Flow measured 24 l/sec* @ 4 BAR on 28/11/2017 @ approx. midday.

FH's 6515 & 14910 are fairly new hydrants that would have been covered by BS750:2012 specification.
FH 6515 was adopted in 1986 and would have been covered by an earlier version of the standard.
It should be noted that the minimum BS flow requirement of 2000 l/min @ Bar (Kv=92) is not a guarantee of 33 l/sec as actual flow once the hydrant is connected to the water mains network.

*Disclaimer. The measured flow rate is a snapshot taken at a particular time and cannot be guaranteed to be the same over a 24 hour period.
The water distribution network is dynamic hence flows and pressures will fluctuate as a result of demand for water by connected customers and that of unplanned events such as burst mains, power cuts and other types of equipment failure.

From: Kiara Gallop <Kiara.Gallop@shropshirefire.gov.uk> **On Behalf Of** Enquiries
Sent: 02 March 2022 12:33
To: Paul Jones <Paul.Jones@shropshirefire.gov.uk>
Subject: FW: Fire Hydrant information

Hi Paul,

Please see the email about fire hydrants below.

Can you send a response to Lauren please?

Many thanks,

Kiara Gallop

Kiara Gallop | Admin Support Officer

Shropshire Fire and Rescue Service, St Michael's Street, Shrewsbury, SY1 2HJ
T: 01743 260221 | **E:** kiara.gallop@shropshirefire.gov.uk | **W:** www.shropshirefire.gov.uk

Shropshire
Fire and Rescue Service

Were you happy with the product or service we provided today?

We would be grateful if you could click here to complete a short survey for us to tell us how we performed.

From: Lauren Raby <lauren@westburyenv.co.uk>
Sent: 02 March 2022 10:14
To: Enquiries <enquiries@shropshirefire.gov.uk>
Subject: Fire Hydrant information

Dear Sir/Madam,

I am enquiring about the location of nearby fire hydrants for the purpose of creating a Fire Prevention Plan for a tyre treatment facility.

Please would you send me a map showing the locations of fire hydrants within the vicinity of postcode SY4 5SD (Kingpin Recycling Limited, Unit 8, Wem Industrial Estate).

Furthermore, please would you be able to confirm that the fire hydrants located in this area meet the British Standard (BS750:2012) and therefore are able to deliver a flow rate of 2,000 litres per minute to a device.

Kind regards,
Lauren Raby

WESTBURY ENVIRONMENTAL

Lauren Raby
BSc (hons), MSc
Graduate Environmental Consultant

T 01952 879705
W www.westburyenv.co.uk
A Agriculture House
Southwater Way, Telford
TF3 4NR

Find us on facebook: http://facebook.com/shropsfire
Follow us on twitter: http://twitter.com/shropsfire

Find us on facebook: http://facebook.com/shropsfire
Follow us on twitter: http://twitter.com/shropsfire

Lauren Raby

From: Craig Jackson <Craig.Jackson@shropshirefire.gov.uk>
Sent: 08 March 2022 11:13
To: Paul Jones; Lauren Raby
Cc: DG_Operations Department
Subject: Re: Fire Hydrant information

Hi Lauren,

Our contingency plans for this site are held within a risk management workbook. I can confirm that our contingency is as below,

Open water sites	Availa
Location	EWS map F via Cl
Access Points	Aston
Distance to risk (in metres)	1800
Pump type	Ma
Water Plans	Due t make for se 1.8 k

As with any fire our first attack will be with the water on appliances that hold 3000ltrs +. This would then be supplemented from the above water supplies within the hour of attendance. Our Light Pumping Unit can set into the hydrant and run an over ground main for the distance mentioned.

If you require any further information, then please let me know.

Many Thanks

Craig

Craig Jackson | Station Manager - Operational Risk, HQ.
A: Shrewsbury Telford & Wrekin Area Command, Shrewsbury Fire Station, St.Michael's Street, Shrewsbury, Shropshire SY1 2HJ

T: 01743 260271 | M: 07793 288578

From: Paul Jones <Paul.Jones@shropshirefire.gov.uk>
Sent: 07 March 2022 14:47
To: Lauren Raby <lauren@westburyenv.co.uk>
Cc: DG_Operations Department <OperationsDepartment@shropshirefire.gov.uk>
Subject: RE: Fire Hydrant information

I cannot answer questions regarding fire breaking out on site as this is operational information.

I have copied in our Operations Department who may be able to give this information to you, as this would be on the MDT on the fire appliances.

OPS

This is in relation to Kingpin Recycling in Wem.

Many thanks

Regards

Paul

Paul Jones | Facilities and Water Contracts Officer |

Shropshire Fire and Rescue Service, St Michael's Street, Shrewsbury, SY1 2HJ
T: 01743 260242 | **M:** 07814 661198 | **W:** www.shropshirefire.gov.uk

Shropshire
Fire and Rescue Service

From: Lauren Raby <lauren@westburyenv.co.uk>
Sent: 07 March 2022 14:18
To: Paul Jones <Paul.Jones@shropshirefire.gov.uk>
Subject: RE: Fire Hydrant information

Good afternoon Paul,

I tried to reach you earlier. I just have a few queries regarding the fire hydrant information you sent over. What would the Site do if a fire broke out on Site?

The nearest adopted hydrants are too far away to be utilised, does this mean that water within the fire engine truck will be the only source of water? If so, how much water is in a full truck of water and what is the flow rate of this?

I'd appreciate if you could get back to me as soon as possible, please give me a call if you need.

Kind Regards,
Lauren

Lauren Raby
T 01952 879705

From: Paul Jones <Paul.Jones@shropshirefire.gov.uk>
Sent: 02 March 2022 15:40
To: Lauren Raby <lauren@westburyenv.co.uk>
Subject: FW: Fire Hydrant information [Filed 02 Mar 2022 15:44]

Please find screenshot attached.

There are two legacy private hydrants indicated on the plan.
PFH 6531 was in place as of March 2019 at the time of the last communication.
PFH 6532 may have been covered over by shipping containers at that time.
It would be up to the responsible person for the site to ensure that the private hydrants were inspected & maintained on a regular basis and details & advice about that were supplied to the factory manager in May 2019 at the request of the Protection Department.

The details of the nearest adopted hydrants in the highway are as follows.
FH 6537 (90mm) – 23 lengths from the site.
Flow measured 23 l/sec* @ 4 BAR on 28/11/2017 @ approx. midday.
This hydrant is on a 90mm leg off 250mm main.

FH 6515 (200mm) is a further 130m away from the site than 6537.
No flow rates on record as the hydrant is in a dangerous location for testing & below ground inspection.
At time of last visual inspection in Feb 2019 the hydrant frame & cover were sound following repair.

FH 14910 (250mm) is a further 215m away from the site than 6537.
Flow measured 24 l/sec* @ 4 BAR on 28/11/2017 @ approx. midday.

FH's 6515 & 14910 are fairly new hydrants that would have been covered by BS750:2012 specification.
FH 6515 was adopted in 1986 and would have been covered by an earlier version of the standard.
It should be noted that the minimum BS flow requirement of 2000 l/min @ Bar (Kv=92) is not a guarantee of 33 l/sec as actual flow once the hydrant is connected to the water mains network.

*Disclaimer. The measured flow rate is a snapshot taken at a particular time and cannot be guaranteed to be the same over a 24 hour period.
The water distribution network is dynamic hence flows and pressures will fluctuate as a result of demand for water by connected customers and that of unplanned events such as burst mains, power cuts and other types of equipment failure.

From: Kiara Gallop <Kiara.Gallop@shropshirefire.gov.uk> **On Behalf Of** Enquiries
Sent: 02 March 2022 12:33
To: Paul Jones <Paul.Jones@shropshirefire.gov.uk>
Subject: FW: Fire Hydrant information

Hi Paul,

Please see the email about fire hydrants below.

Can you send a response to Lauren please?

Many thanks,

Kiara Gallop

Kiara Gallop | Admin Support Officer

Shropshire Fire and Rescue Service, St Michael's Street, Shrewsbury, SY1 2HJ
T: 01743 260221 | **E:** kiara.gallop@shropshirefire.gov.uk | **W:** www.shropshirefire.gov.uk

Shropshire
Fire and Rescue Service

Were you happy with the product or service we provided today?

We would be grateful if you could click here to complete a short survey for us to tell us how we performed.

From: Lauren Raby <lauren@westburyenv.co.uk>
Sent: 02 March 2022 10:14
To: Enquiries <enquiries@shropshirefire.gov.uk>
Subject: Fire Hydrant information

Dear Sir/Madam,

I am enquiring about the location of nearby fire hydrants for the purpose of creating a Fire Prevention Plan for a tyre treatment facility.

Please would you send me a map showing the locations of fire hydrants within the vicinity of postcode SY4 5SD (Kingpin Recycling Limited, Unit 8, Wem Industrial Estate).

Furthermore, please would you be able to confirm that the fire hydrants located in this area meet the British Standard (BS750:2012) and therefore are able to deliver a flow rate of 2,000 litres per minute to a device.

Kind regards,
Lauren Raby

WESTBURY ENVIRONMENTAL

Lauren Raby
BSc (hons), MSc
Graduate Environmental Consultant

T 01952 879705
W www.westburyenv.co.uk
A Agriculture House
Southwater Way, Telford
TF3 4NR

Find us on facebook: http://facebook.com/shropsfire
Follow us on twitter: http://twitter.com/shropsfire

Find us on facebook: http://facebook.com/shropsfire
Follow us on twitter: http://twitter.com/shropsfire

Find us on facebook: http://facebook.com/shropsfire
Follow us on twitter: http://twitter.com/shropsfire

Appendix 4

Fire Detection and What to do Procedure

Procedure No. 6.7.1 Fire Detection and What to do **V.2, January 2023**

Purpose: To ensure measures are taken to detect a fire on the Site and provide information on what to do in the event of a fire.

		RESPONSIBLE PERSON	RECORD
1.	This procedure outlines fire detection measures used across different sections of the Site and actions to be taken following the detection of a fire.		
2.	Fires will be detected by identifying visual (smoke and vapour etc), increased heat and burning odours. Fires or suspected fires may be detected when completing Fire Watches.	All	
3.	Appropriate action will be taken to ensure the affected area is isolated and that vehicles and staff are prevented from entering the area.		Procedure No. 6.7.2 Fire Suppression
4.	Waste will not be accepted on to Site in the event of a substantial fire. It may be necessary to divert incoming waste loads to another facility in this instance so as not to disrupt the access and egress of the emergency services.	Site Manager	Appendix A.9 Contingency Plan
	Detection and What To Do During Operational Hours		
5.	Upon detection of a fire or suspected fire by staff or the CCTV system, the Site Manager will be notified immediately. The Site Manager will contact the Fire and Rescue Service.	Site Manager	Form No 6.1 Key Contacts
6.	It will typically take the Fire and Rescue Service within twelve minutes to attend Site once called.		
7.	Shutdown and make safe any plant or equipment that is in use.	Site Operative	
8.	If the fire is within a specific area or container, trained staff use mobile plant to remove other wastes and containers from the area as much as possible. This will help to isolate the fire.	Site Operative	Procedure No 1.1 Environmental Training, Awareness and Competence
9.	Other staff and any drivers will evacuate the area. If a full site evacuation is needed, people will assemble at the emergency assembly point.	All	
10.	Neighbours, the Environment Agency and firewater removal company will be contacted in the event of a fire.	Site Manager Site Operative	Form No 6.1 Key Contacts
	Detection and What To Do During Non-Operational Hours		
11.	Checks are completed to reduce the risk of a fire breaking out on Site.		
12.	A fire watch is completed daily at the end of the working day to inspects for signs of self-heating, smoke and fire, and ensure exhausts are cool etc.		

13.	Mobile plant is stored outside when not in use / at the end of the day, to aid in the dissipation of any heat.		
14.	Plant and equipment will be shut down 1-hour before the Site closes.		
15.	Businesses on Wem Industrial Estate are open during the night.		
16.	Therefore, a breakout of fire will be detected. Then, the emergency services as well as the Site Manager or Director will be called.		
17.	The Site Manager or Director may also contact mobile plant drivers to attend Site to move burning wastes to help the Fire and Rescue Service.	Site Manager	Form No. 6.1a Key Contacts
18.	If the Site Manager or Director arrives on Site before the Fire and Rescue Service, they unlock the gates and provide access to the Site through the transport yard. If safe, the Site Manager or Director will start fire suppression.	Site Operative	Procedure No 1.1 Environmental Training, Awareness and Competence
19.	If attending Site, trained staff use mobile plant to remove other wastes and containers from the area as much as possible. This will help to isolate the fire.		
	<u>Fire Drill</u>		
20.	A fire drill will be completed on a 6-monthly basis. The drills will go through what is to be done in the event of a fire and will typically include: • Check staff are trained on relevant procedures, • Stockpile management • Fire detection • Fire suppression techniques • Use of the Fire Quarantine Area	All	Appendix A.5 Fire Prevention Plan
21.	Records relating to fire drills will be retained.	Site Manager	
22.	The results of the fire drills will be reviewed. If it is determined that the fire response is inadequate, then this will be updated to ensure responses are efficient and effective. If necessary, the Environmental Accident Management Plan, Fire Prevention Plan and Contingency Plan will be updated.	Site Manager	Appendix A.3 Environmental Accident Management Plan Appendix A.5 Fire Prevention Plan Appendix A.11 Contingency Plan

Appendix 5

Daily Temperature Monitoring Log

Daily Temperature Monitoring Log

Date	Day	Time	Tyre Shred	Temperature	Name	Signature
	Sunday					
	Monday					
	Tuesday					
	Wednesday					
	Thursday					
	Friday					
	Saturday					
	Sunday					
	Monday					
	Tuesday					
	Wednesday					
	Thursday					
	Friday					
	Saturday					
	Sunday					
	Monday					
	Tuesday					
	Wednesday					
	Thursday					
	Friday					
	Saturday					
	Sunday					
	Monday					
	Tuesday					
	Wednesday					
	Thursday					
	Friday					
	Saturday					
	Sunday					