

Document Title: **Fire Prevention Plan**

Mandatory

Guidance

Project Specific



Allington HWRC

Fire Prevention Plan

Version Control			
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1	April 2022	First Issue	Y
1.1	April 2023	Annual Review – No Change	N
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Introduction

This Fire Prevention Plan (FPP) has been written following consultation with the following guidance documents:

- 'Fire Prevention Plans: environmental permits' the Environment Agency and template FPP, 11 Jan 2021 (To be read in conjunction with 'Fire prevention plan consultation: summary of consultation responses and decisions, and Appendix 1: review of guidance and test results').
- 'Reducing Fire Risk at Waste Management Sites', Waste industry Safety & Health Forum, February 2020
- 'Fire Prevention and Mitigation plan guidance – Waste Management' Guidance note 16, V2.

The FPP forms part of the sites management system and sets out the fire prevention measures and procedures in place on 'the site'. This is a standalone document; however it may be useful to read this in conjunction with the Fire Risk Assessment and Emergency Management Plan.

This FPP and the fire prevention measures specified within it have been designed to meet these three main objectives:

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

All site staff shall be made aware of the location of this FPP and be able to access it at all times, including during an incident. Site staff and contractors working on site shall be made aware of the contents of the FPP so that they know what they must do:

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

There are regular exercises to test how well the Fire Prevention Plan works and ensure site staff know what to do. The exercises will cover different scenarios to ensure all elements of the plan work and are up to date. This will be done at a minimum 6 monthly interval. The exercise when conducted on site, will incorporate all emergency procedures e.g. Fire drills and emergency management plan.

2. Site activities

Allington HWRC is a civic amenity site for the Allington and surrounding Maidstone area. The site is a split level operation with bulk storage in open 40yrd waste containers on the top level with a canopy protection from the elements. On the bottom level there is closed container storage and an area for small waste storage. The site also operates a separate Reuse Shop inside the permitted boundary of the site. Storage areas for the Reuse Shop are separated by locked fences to prevent accidental waste storage in this area. No formal waste processing takes place on the site, there is a limited bag splitting operation to research content of 'black bag' waste that comes to site. This is completed by Staff members.

The site accepts the following combustible wastes:

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- Mixed waste (containing any combustible wastes)
- Paper and cardboard
- Plastics
- Wood (including planks, boards, sawdust, shavings, logs, firewood or chips, crates, pallets, casts or barrels)
- Rags and textiles
- Scrap metal
- Waste electrical and electronic equipment such as fridges, computers and televisions containing combustible materials such as plastic (including any batteries within this equipment)
- Compost and plant material
- Used engine oils
- Used cooking oils
- Mixed media (books and DVDs/CDs)
- Gas cylinders
- Car batteries
- Household batteries
- Household Chemicals

The site also stores combustible liquids including fuel and oils for site plant and machinery:

- Bunded Fuel Tank – 5000ltrs

Maintenance oils & fluids – 50ltrs . The location of all combustible wastes and liquids is shown on Drawing 2

Sensitive receptors within 1 km of the site are identified in Table 1 and on Drawing 1.

Table 1. Key receptors within 1 km of site

Key receptor	Direction	Distance from facility boundary (metres)
Industrial Units	East, West & North	125 metres
Residential areas	South	300 metres
M20	North	50 metres
River Medway	North East	300 metres
Allington Recreation Grounds	South East	600 mt
Kent Police HQ	South West	800 meters
Allington School	South	600 meters
shopping Centre	South	700 meters
Fuel Station	South	800 metres

3. Managing common causes of fire

The possible causes of a fire at 'the site' have been identified in the fire risk assessment and measures in place to reduce the risk are detailed below.

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3.1 Arson

To prevent or reduce risk of arson, the site is fitted with 2.4m high fencing and CCTV, which is monitored out of hours. All access gates are locked during non-operational hours.

3.2 Plant and equipment

All plant and equipment is subject to a maintenance and inspection programme. Daily inspections of the site are conducted by the site Team Leader. The plant is inspected daily by the plant operator. The site is inspected weekly by a Technically Competent Person. Both the site and machine are subjected to formal inspections by the Area Supervisor/Contract Manager monthly.

Plant is on an R&M agreement with the original equipment supplier, including an annual preventative maintenance service. The plant is monitored remotely by telematics.

Site plant is fitted with fire extinguishers, and mobile plant is parked away from combustible materials during non-operational hours.

3.3 Electrical certification & electrical faults

Fixed electrics are installed by a qualified electrician certified by NICEIC and are inspected 3 yearly. Portable appliances are tested annually.

3.4 Smoking on site policies

The site operates a no smoking policy and has a designated staff smoking area situated behind the Staff Welfare Cabins away from combustible materials to prevent accidental ignition.

3.5 Hot works safe working practices

Any hot works such as welding or cutting undertaken by staff or contractors are done so with a suitable risk assessment and safe working procedure in place. Hot works undertaken by contractors are done so under a Permit to Work and a fire watch is set for a minimum of 30 minutes after work has been completed with a final check after 60 minutes.

3.6 Industrial Heaters

There are no industrial heaters on site

3.7 Hot exhausts & Engine Parts

A fire watch, consisting of a visual check, is carried out after each use to detect signs of a fire caused by dust settling on hot exhaust and engine parts. A final fire watch is carried out at the end of the operational day.

3.8 Sources of ignition

Sources of ignition, such as naked flames, are kept at least 6m away from combustible and flammable materials.

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3.9 Batteries

To prevent the risk of fire caused by incorrect disposal of batteries waste is visually inspected upon receipt with signage to raise awareness and dedicated containers placed to promote easy disposal. In items that are designed to have the batteries removed, members of staff can remove them. No processing to remove batteries is completed by members of staff. If batteries are damaged, they are isolated from other batteries, stored away from buildings and other combustible materials. The damaged batteries are stored in a weatherproof container filled with sand or similar inert material.

3.10 Batteries in End of Life Vehicles

ELVs are not accepted on this site

3.11 Leaks and spillages of oils and fuels

Site vehicles and plant are subject to regular inspection and maintenance as identified in section 3.2. Oils and fuels are stored within bunded tanks to prevent spillage, and spill containment equipment is stored adjacent to these areas.

3.12 Build-up of loose combustible waste, dust and fluff

The site is inspected daily for build-up of loose combustible waste, dust and fluff. Cleaning is undertaken daily.

3.13 Reactions between incompatible wastes/materials

All wastes are inspected by an operative as they are being tipped. Any identified non-conforming wastes and/or incompatible wastes will be separated and quarantined immediately in an area with sealed drainage where necessary.

3.14 Hot loads

Hot loads identified prior to tipping will be placed within a quarantine area immediately. Any hot loads that have been deposited will either be removed to a quarantine area where safe to do so, or any combustible wastes adjacent to the deposited hot load will be removed to prevent spread.

3.15 Hot & Dry Weather

Actions that will be undertaken to reduce the fire risk caused by external heating due to hot and dry weather will be as follows:

- shading waste from direct sunlight
- temperature monitoring equipment on site
- minimising storage times
- moving or covering any reflective surfaces to prevent sunlight reflecting onto waste

4. Prevent Self-combustion

To minimise the risk of self-combustion storage times, pile volumes and heights, and temperatures of wastes are managed.

4.1 Storage time

To minimise the risk of self-combustion all combustible materials are stored for less than 6 months, see the table in Appendix 1 for storage times of each material. The following materials stored on site could present a risk of self-combustion if stored for more than 3 months:

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- Green materials, compost, wood, paper, general waste

These materials are therefore stored for no longer than 3 months.

Container capacities for each material stream are reported to the Contract Manager & Transport Office on a daily basis and collections arranged as required, usually next day.

The maximum total amount of combustible waste stored on site at any one time is 70 tonnes

5. Waste Stored in Container

Wastes stored within containers and container sizes are detailed in Appendix 1.

In the event of a fire containers can be moved with the use of on-site plant to limit the scale of a fire if one breaks out, the site has dedicated haulage which can be called in to support the movement of containers within 30mins

The site is monitored by CCTV out of hours, they have Out of Hours contact numbers as detailed in the Site Emergency Plan along with response times. Call outs will include the Contract Manager, Site Supervisor and Site Team Leader who are licenced to use the site plant.

6. Preventing Fire Spread

Portable fire extinguishers are available on site, in the site office and in the Material Handler cab

6.1 Containing and mitigating

Allington HWRC has a locked hazardous waste container available at all times, identified on Drawing 2.

There are insufficient water supplies available on site to manage a worst case scenario incident.

The largest single waste container is 40 cubic yards and a fire is likely to be in one container only. There are three fire hydrants on site that can be accessed by the emergency services. The hydrants are marked on the site plan.

7. Quarantine area

Each container acts as it's quarantine area and will be used in the event of a fire to either hold burning wastes or to hold unburnt wastes to isolate and prevent them catching fire. The wastes can be transported with use of the site mobile plant.

A locked steel box is the quarantine area for non-conforming wastes and will be available at all times. Where it has been used to store non-conforming wastes these will be removed as soon as practicable by use of a suitable contractor.

In the event of fire, safe movement of the containers using a hook-lift lorry must only be undertaken under instruction from the Fire Rescue Service.

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8. Detecting and suppressing fires

8.1 Detecting fires

There are no automated fire detection systems on site. Fire detection during opening hours is by staff observation. Outside of opening hours fire detection would be by CCTV monitoring and alarms being raised if smoke or a fire is observed.

If any hot works have been carried out a 2 hour fire watch is kept once all hot works have ceased.

8.2 Suppressing fires

There are insufficient water supplies available on site to manage a worst case scenario incident. However the largest single waste container is 40 cubic yards and a fire is likely to be in one container only. There are three fire hydrants on site that can be accessed by the emergency services. The hydrants are marked on the site plan.

9. Firefighting techniques

The site is designed and operated to allow for active firefighting. Appropriate resources are available to fight a fire including:

- Mobile plant to move waste – 360 excavator
- Trained operators
- Fire extinguishers
- Onsite emergency water supply
- Finances

Firefighting techniques will include some or all of the following:

- Applying water to cool unburned material and other hazards
- Separating unburned material from the fire using mobile plant
- Separating burning material from the fire to quench it
-

These actions will be taken under supervision from the fire and rescue service.

This Fire Prevention Plan should be forwarded to the local Fire and Rescue Authority (FRA) for comment.

Safe access for fire and rescue services will be achieved by maintaining routes for fire engines and access points around the site perimeter through good pile layout as indicated in Drawing 2.

10. Water supplies

There are insufficient water supplies available on site to manage a worst case scenario incident of the largest waste pile catching fire. The estimated volume needed is 36,000 litres. There are three fire hydrants on site that can be accessed by the emergency services. The hydrants are marked on the site plan.

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Maximum pile volume in cubic metres	Water Supply needed in litres per minute	Overall water supply needed over 3 hours in litres	Total water available on site in litres
Enter volume, e.g., 300	Pile volume x 6.67	Water supply per minute x 180	15mm hose pipe on site
30	200	36,000	3,270 in 3 hours

All waste is stored in containers and compartmental to reduce spread.

11. Managing fire water

The following secondary and tertiary containment facilities for fire water run-off are in place: Impermeable bunds

- Pollution Control equipment such as firewater booms and drain mats
- Pollution Control Valve (Pen Stock)

The site slopes from right to left towards drain gullies along the back left hand fence line. These gullies discharge to the ground water via an oil retention separator. Clay drain sealing mats are held in the welfare unit spill kit store and are to be used to seal the drain gullies if required.

The site is within an SPZ1 groundwater zone. The site has a 148 mt/cu attenuation tank with pump controls to contain fire water.

12. During and after an incident

In the event of a fire incoming wastes will be stopped and where required diverted to alternative sites. The alternative sites are:

- Maidstone, Burial Ground Lane, Tovil, Maidstone, ME15 or
- Cuxton HWRS, Sundridge Hill, Cuxton, Rochester, Kent ME2 1LF

Residents and businesses that may be affected by a fire will be contacted if considered necessary, contact details are found within the Emergency Management Plan (stored in emergency box near the site entrance).

Once safe to do so contaminated materials and fire water will be removed from site and disposed of by authorised parties.

The site will then be inspected and all necessary rectifications made to make the site safe prior to any operations commencing, this will be done in agreement with the site's Health and Safety Advisor, Environment Advisor and Engineering Department where necessary.

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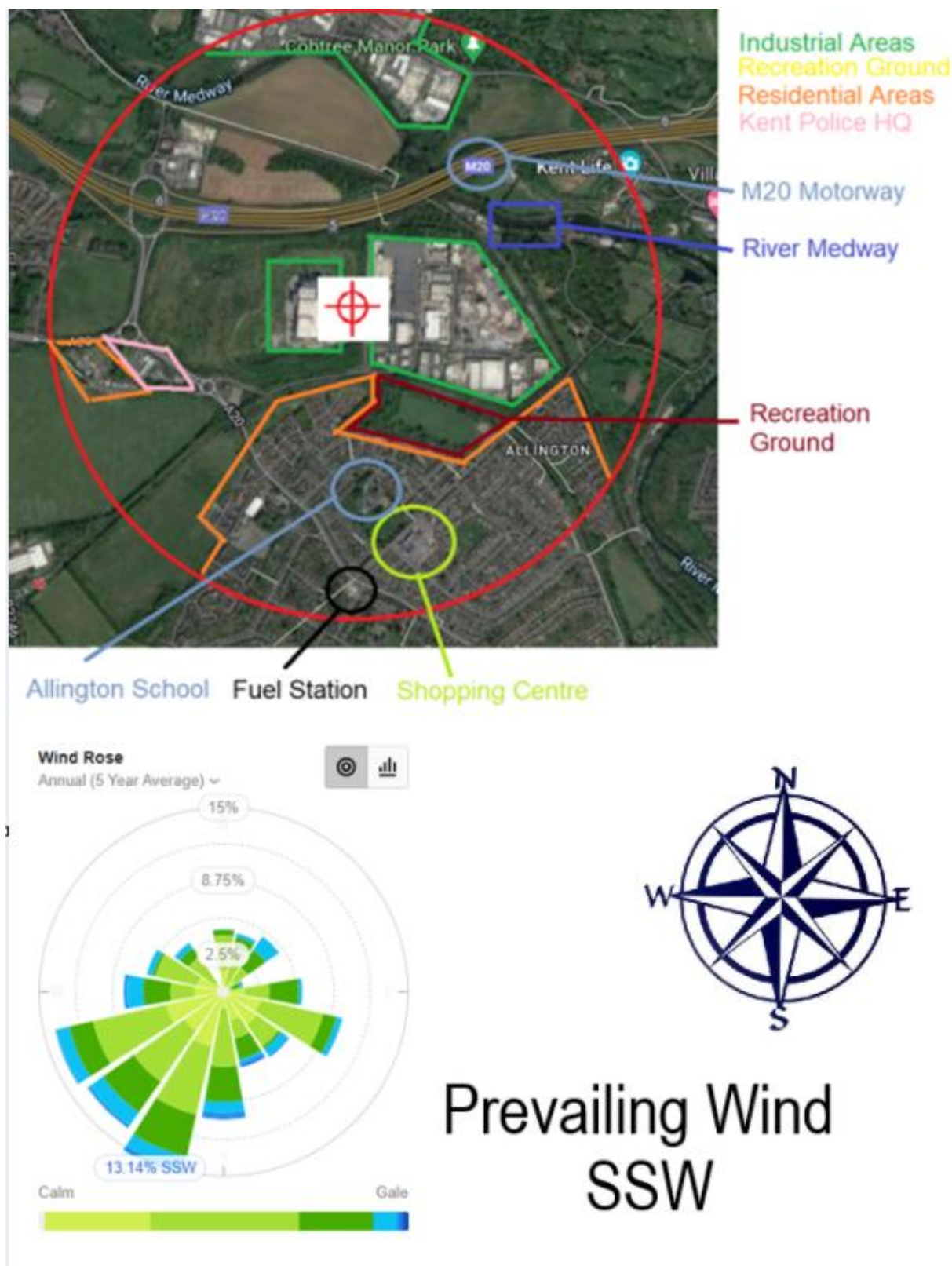
Appendix 1: Waste types and storage

Waste type	How is it stored? E.g. piles, containers, bays, skips, racks, bales	Form		Max. storage time (days)	Location	Max. volume of waste Container (m3)
		Unprocessed; shredded; baled	>150mm; 30-150mm; <30mm			
Wood	40 yd Containers	unprocessed	>150mm	7	Line of 40yd containers	30
Green garden waste	40 yd Containers	unprocessed	30-150mm	7	Line of 40yd containers	30
Plastics	40 yd Containers	unprocessed	>150mm	7	Line of 40yd containers /bag store	30
Non-Recyclable	40 yd Containers	unprocessed	>150mm	7	Line of 40yd containers	30
Engine oil	Double bunded tank	Unprocessed	Liquid	60	Tank behind bottle banks	1.5
Cooking oil	Double bunded tank	Unprocessed	Liquid	150	Tank behind bottle banks	1.5
Textiles	Metal Textile bank	Unprocessed	>150mm	7	Textile banks on right of gate	1
Card	40 yd Containers	Unprocessed	>150mm	7	Line of 40yd containers	30
Paper	Metal Paper bank	Unprocessed	>150mm	7	Line of 40yd containers	1
Gas cylinders	Locked Gas cage	Unprocessed	>150mm	30	Gas cage behind bag store	8
Furniture	20' Shipping Container	Unprocessed	>150mm	7	Re-use shipping container	30
Scrap metal	40 yd Container	unprocessed	>150mm	7	Line of 40yd containers	30
Small WEEE	40 yd Container	unprocessed	>150mm	7	Line of 40yd containers/Shipping container	60
Car batteries	Plastic pallet boxes	Unprocessed	>150mm	14	Pallet boxes along right hand fence	1
Household batteries	Plastic pallet box	Unprocessed	>150mm	14	Pallet box along right hand fence	1

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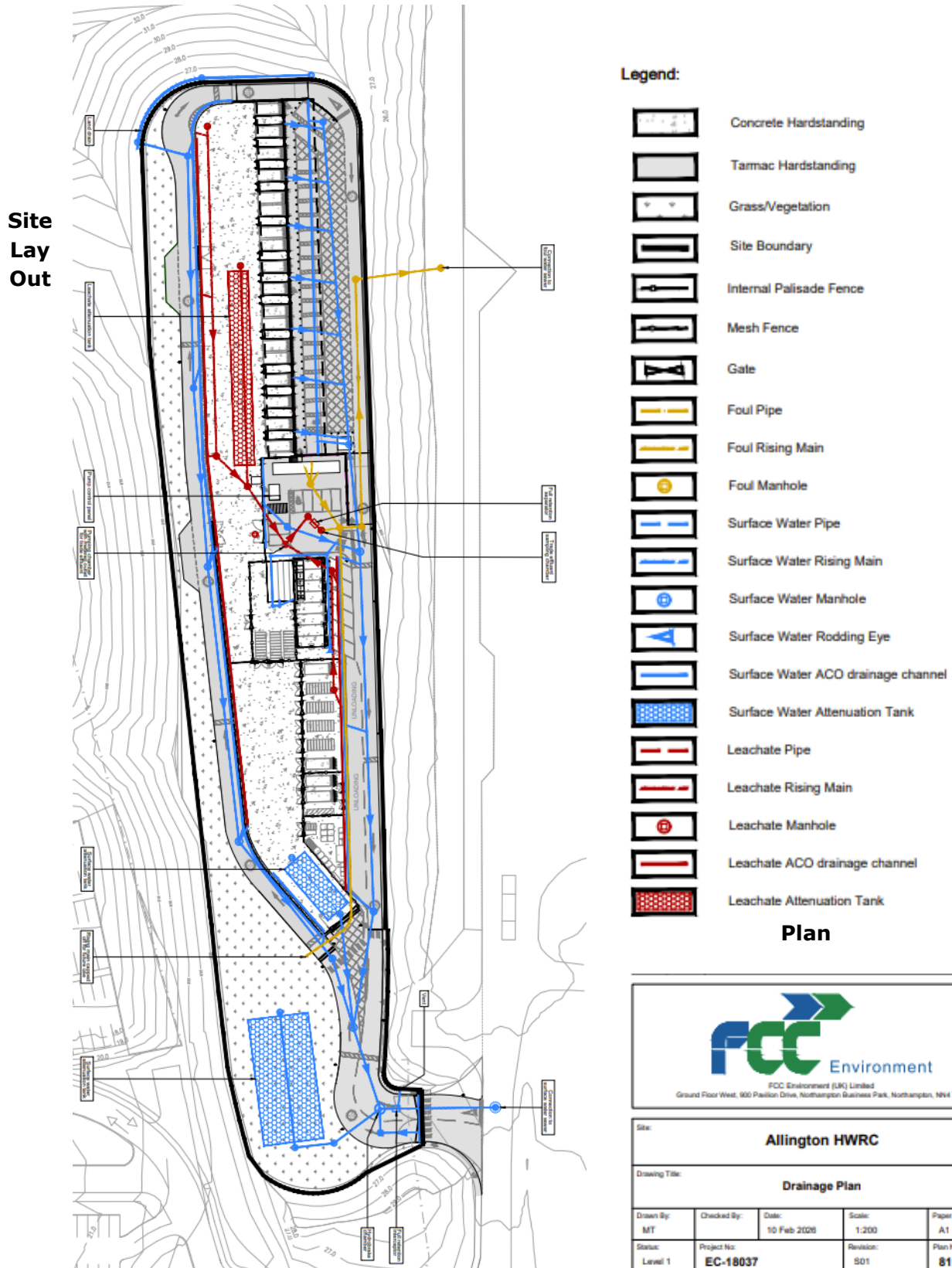
Drawing 1. Location of sensitive receptors



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Drawing 2. Site Drainage Plan



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Drawing 3. Site Layout Plan

