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Lake 62, Cotswold Water Park

Quinque Stella Holdings Limited

Flood Evacuation Management Plan

April 2026



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1 Glossary and Abbreviation

EA – Environment Agency

FRA - Flood Risk Assessment

Hydraulic Model – A collection a collection of mathematical equations that give a simple representation of reality. They estimate flow, water level and velocity in river channels; pipe networks; tidal systems and floodplains.

Defended - Benefits from formal flood defences, these can include: flood walls, embankments/bunds, flood storage areas etc.

Undefended – No formal flood defences are indicated to benefit the site.

2 Introduction

Background

- 2.1 This Flood Evacuation Management Plan (referred hereafter as 'Plan') has been prepared by Rappor on behalf of Quinque Stella Holdings Limited to support a planning application for a proposed holiday lodges on pontoons and land at Lake 62, Cotswold Water Park.
- 2.2 The Plan is intended to inform the site management and occupants of the potential flood risks and to outline the recommended response to be adopted in the event of flooding at the site. The specific objectives of the Plan are as follows:
- Raise awareness of the risk of flooding at the site including the likely source, frequency and mechanism.
 - Describe the measures proposed to protect the holiday lodges on pontoons and land from flooding.
 - Recommend actions to be undertaken before, during and after a flood, and the responsibilities of those involved in the Plan.
 - Identification of safe evacuation routes to a point of safe refuge in the event of an extreme flood.
- 2.3 The content and instructions within this document are to form a part of the Health & Safety at Work Register maintained by Quinque Stella Holdings Limited. This is to be disseminated to all site staff and should constitute part of the induction for any new staff members.
- 2.4 The Plan is designed to be treated as a 'live' document which may be updated because of: lessons learned (through drills or a real flood event); changes to site management arrangement or operation; or as a result of notified changes in the predicted flood risk to the site. Responsibility for maintaining, reviewing, and updating this Plan rests with the site owner, Quinque Stella Holdings Limited.
- 2.5 It should be acknowledged that a reasonable direct instruction from the Emergency Services and/or person in authority during a flood event will outweigh any recommendations given within this document.

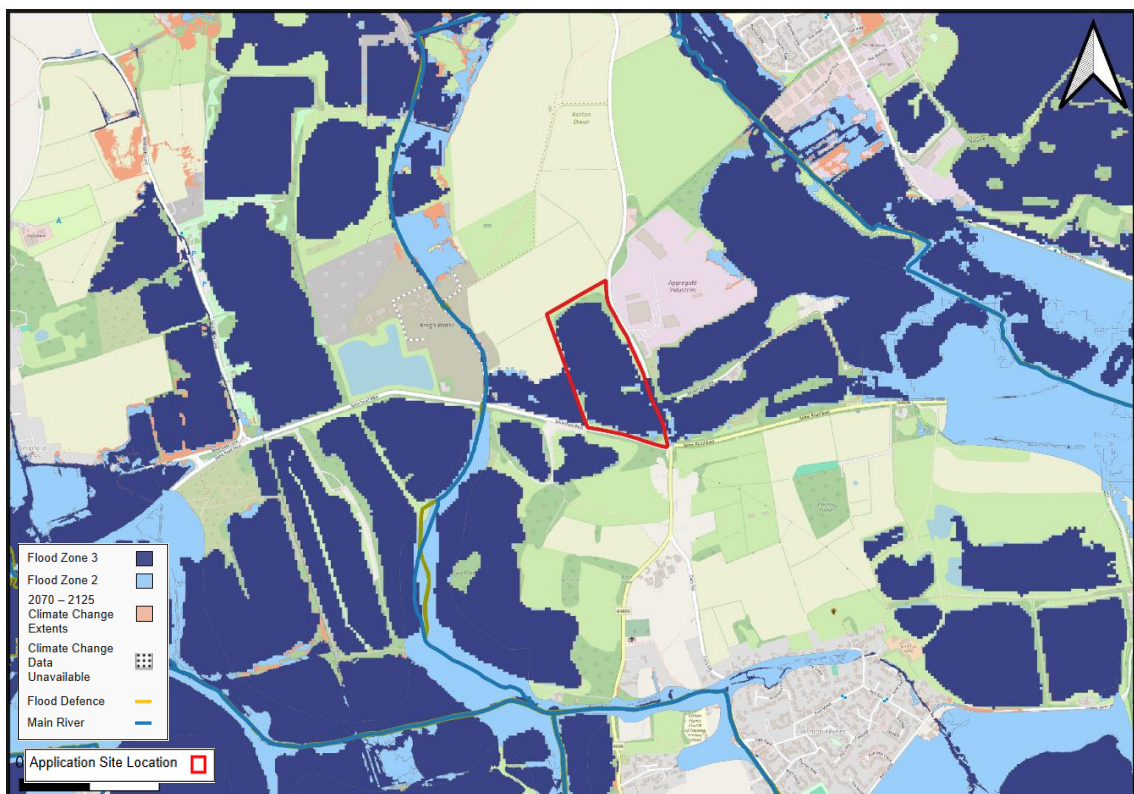
Document Control

- 2.6 This FEMP shall be owned, maintained, and updated by the end site user/ associated management company. All stakeholders of the plan are asked to inform the above of any changes in circumstances that may materially affect the plan in any way.
- 2.7 This plan should be reviewed:
- Every 3 years following first occupation or;
 - As a result of lessons identified following a flood event or exercise, or;

- Following changes of ownership/use of the property or;
- Following changes to the Flood Warning process

Current Flood Risk & Available Information

- 2.8 A detailed assessment of flood risk at the site has been undertaken and is presented in a Flood Risk Assessment (FRA) report (Rappor Ref: 24-0247-FRA-02) dated April 2026. This document should be consulted for further information on the flood risk posed to the site. A summary of the key flood information is provided below.
- 2.9 The Environment Agency Flood Zones are the current best information on the extent of the extremes of flooding from rivers or the sea that would occur without the presence of flood defences, since these can be breached, overtopped and may not be in existence for the lifetime of a development.
- 2.10 The site is currently shown to be located in Flood Zone 3 as shown on the Environment Agency Flood Map for Planning¹ and **Figure 1.1**. This is the area shown to be at high risk of river flooding. The site is shown to be within an area benefiting from flood defences (as shown in **Figure 1.1**)



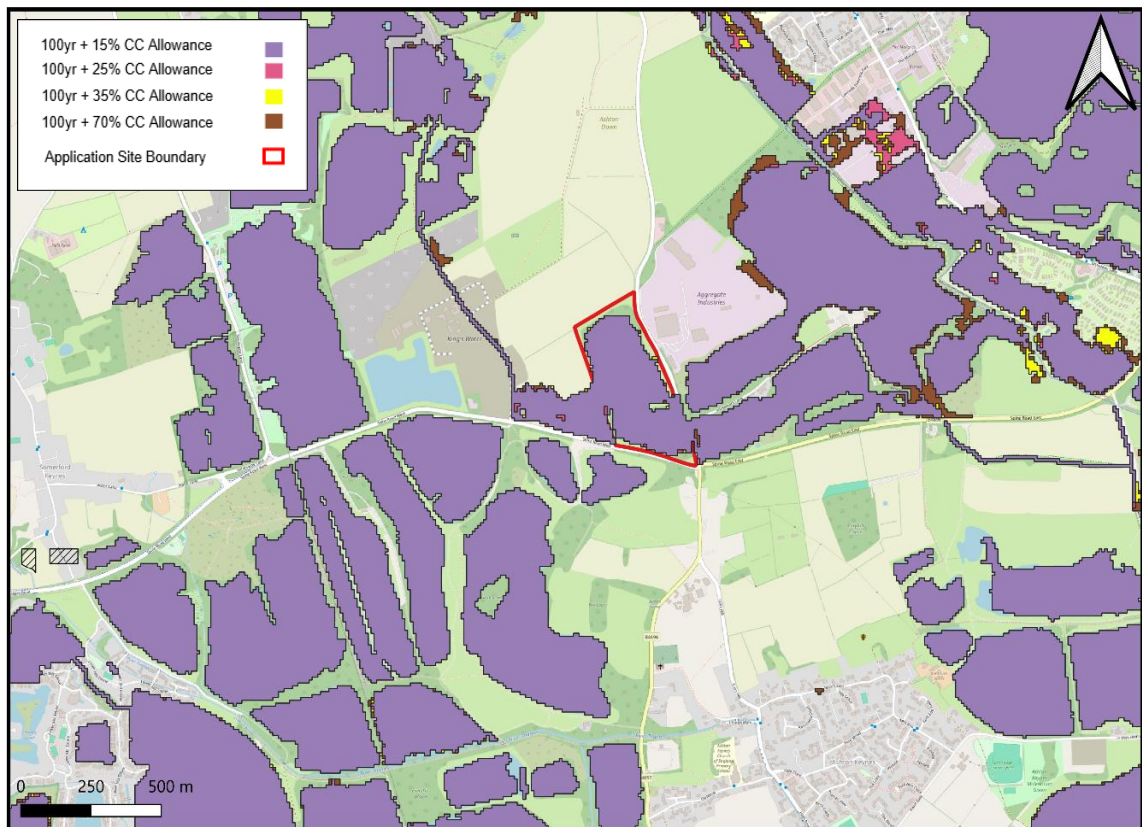
(Source: OpenStreetMap/Environment Agency)

Figure 1.1 Environment Agency Flood Map for Planning

- 2.11 To fully understand the risk from these sources, a freedom for information request from the Environment Agency (EA) has been undertaken for Products 4, 5, 6 & 7.

¹ <https://flood-map-for-planning.service.gov.uk/>

- 2.12 Following this request the EA returned data for products 5, 6 and 7 with the EA stating that they cannot provide Product 4 data at this time.
- 2.13 The data returned confirmed that whilst there is fluvial risk posed to the site (**Figure 1.3 and 1.4**), the areas of high risk are mostly confined to the extent of the lake. The EA provided data from the Thames (MRL to St Johns) 2014 Model, for only the 100yr return event, including scenarios allowing for a range of climate change allowances, the extents of which can be seen in **Figure 1.2**.

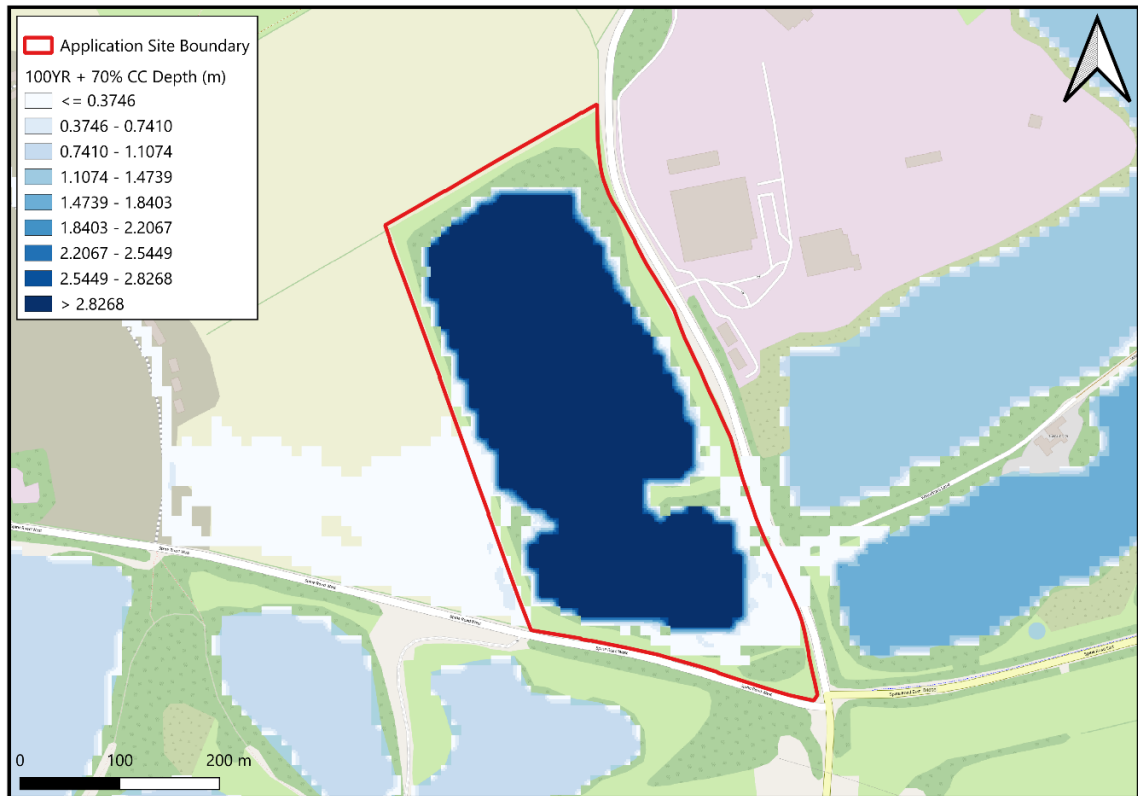


(Source: OpenStreetMap/EA)

Figure 1.2 100 year return event flood extents with varying climate change allowances

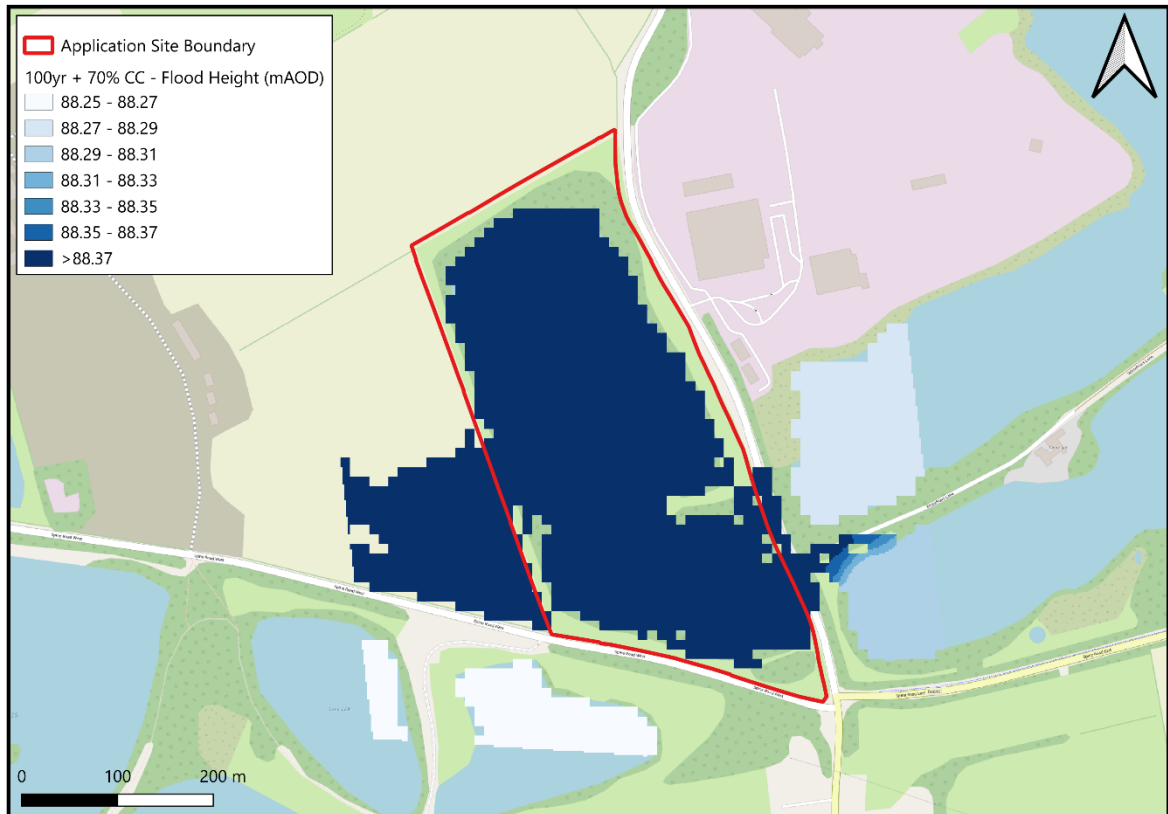
- 2.14 As shown in **Figures 1.3 and 1.4**, the site is shown to be most impacted during the 100yr + 70% climate change allowance event. For this return period, flood depths of up to 3.17m are seen, however these extents are shown to be predominantly confined within the banks of the lake.
- 2.15 The typical water level in the south of the lake is shown to be 86.77mAOD with the top of bank in this area of the lake being 87.54mAOD. In the north of the site the typical water level is 86.65mAOD with the top of bank in this area of the lake being 87.91mAOD.
- 2.16 Ashton Road is partly located within Flood Zone 3 in the southeastern corner of site however, following the review of EA data, no flooding is shown to affect the access and egress within the site with maximum flood depths that affect Ashton Road of 0.143m which is deemed shallow and not a risk as such.

- 2.17 Using the EA flood height data (**Figure 1.4**) and Lidar data, a maximum flood height level of 88.34 mAOD has been identified. Given a maximum flood level of 88.34 mAOD which is above the bank elevations, the resulting maximum flood depth beyond the lake banks is 0.80 m in the south of the lake and 0.43m in the north of the lake.



(Source: OpenStreetMap/EA)

Figure 1.3 100yr + 70% Climate Change Allowance – Flood Depths



(Source: OpenStreetMap/EA)

Figure 1.4 100yr + 70% Climate Change Allowance – Flood Heights

Property Flood Resilience

- 2.18 For the 100-year (1% AEP) plus 70% climate change scenario, maximum flood levels site indicates a max flood level of 88.34mAOD. However, the majority of the higher-risk flooding is confined to the lake extent, with surrounding areas experiencing more limited impacts. It is recommended to raise the finished floor level of the proposed lodges to 88.94 mAOD to account for a 600mm freeboard above the maximum flood level. However, given the variability in flood levels across the site, raising development levels uniformly to exceed the maximum predicted flood level (with an 600mm freeboard allowance) may not be practicable in all areas.
- 2.19 Although the site benefits from existing flood defences and much of the highest flood risk is contained within the lake, it remains located within Flood Zone 3 and is therefore at a residual risk of fluvial flooding over the lifetime of the development. As such, it is recommended that appropriate flood resistance and resilience measures are incorporated into the design and construction of the proposed development, particularly at ground floor level. The purpose of such measures is to reduce the risk of flood water entry wherever possible and limit the impact should internal building flooding occur.
- 2.20 The following potential measures for the ground floor level are in accordance with the Government's Improving the Flood Performance of New Buildings document, and include where practicable:
- The setting of ground FFLs as high a level as feasible.

- Ground supported floor construction.
- Water resistant floor finishes, i.e. tiles as opposed to carpet.
- External and internal ground floor level walls constructed of materials with low water penetration, good drying ability, and good retention of pre-flood integrity.
- Sensitive services (i.e. electrics) brought in and continued at a high a level as possible, and ideally at a minimum level of 88.94 mAOD (based on providing a 600mm 'freeboard' above the 100-year event + climate change).
- Temporary flood barriers to be installed on all ground floor entrances with a threshold level of <88.94 mAOD, (based on providing a 600mm 'freeboard' above the 100-year event + climate change).

Vulnerability & Flood Warning

- 2.21 The site is located within an area that can receive both Flood Alerts and Flood Warnings. This plan is based on registering to receive flood warnings. Site management should register the site with the Environment Agency Flood Line Warnings Direct service, (<https://www.gov.uk/sign-up-for-flood-warnings>).

3 Communications Plan & Evacuation Procedure

Lines of Communication

- 3.1 In order that this FEMP can be implemented smoothly, clear lines of communication are required.
- 3.2 A 'Lead Flood Co-ordinator' should be appointed, who has a vested interest in the functioning of the site. The coordinator should have good organisational skills, know the site layout and be familiar with exit routes and emergency procedures.

Flood Actions

- 3.3 The Lead Flood Co-ordinator's role should be to:
- Sign up to Environment Agency Flood Alerts and Warnings, and Met Office severe weather warnings so they will be made aware of a flood event, and reviewing onsite CCTV for encroaching floodwaters where available;
 - Disseminate information on flood evacuation procedures and roles and responsibilities of any staff on duty during activation of procedures;
 - Ensure staff are made aware of the potential flood risk to the site, access roads and wider area;
 - Compile and maintain a list of important contact information;
 - Know how to locate and switch off critical services such as gas, electricity and water where applicable;
 - Be trained in organising and conducting practise evacuation drills with site staff;
 - Trigger requirement to move/raise equipment/storage and water sensitive materials to higher levels of the buildings and/or storage racking;
 - Organise/trigger site evacuation should it be appropriate and safe to do so;
 - Be trained in the process of the installation and operation of temporary flood proofing barriers and initiate their deployment when required;
 - Be trained to periodically check status of property flood resilience measures so that it is fit for purpose in case of the need to deploy it;
 - Periodically monitor and check the status of the access bridge to the site so that it is in good condition in case of the need to use it to evacuate the site prior to flooding occurring;
 - Inspect the site post-event to ensure the site has returned to normal operation condition, and arrange for clearance and maintenance works to be completed as necessary;

- Review and update this FEMP regularly, on an annual basis and following each evacuation/flood event as a minimum; and
 - Conduct regular drills to ensure techniques are efficient, staff are aware and outlined procedures are effective.
- 3.4 Additional Flood Co-ordinators should be briefed on the relevant action to be taken, should the Lead Flood Coordinator be unavailable and/or if additional assistance is required.
- 3.5 Please refer to **Appendix B** for tabulated details of the measures to take ahead of an advised flood event.
- 3.6 In the event of high risk or extreme flooding occurring over the lifetime of the development, the first course of action is to heed Environment Agency flood warnings received and safely evacuate the site if possible.
- 3.7 The Environment Agency (EA) operate a flood forecasting and warning service in areas at risk of flooding from rivers or the sea. Forecasting and warning rely on direct measurements of rainfall, river levels, tide levels, in-house predictive models, rainfall radar data and information from the Met Office. This service operates 24 hours a day, 365 days a year. If flooding is forecast, warnings are issued using a set of four easily recognisable codes (see **Appendix A**). EA Floodline: 0345 988 1188.
- 3.8 The site will be registered with the Environment Agency Flood Warning service to receive direct alerts/warnings.

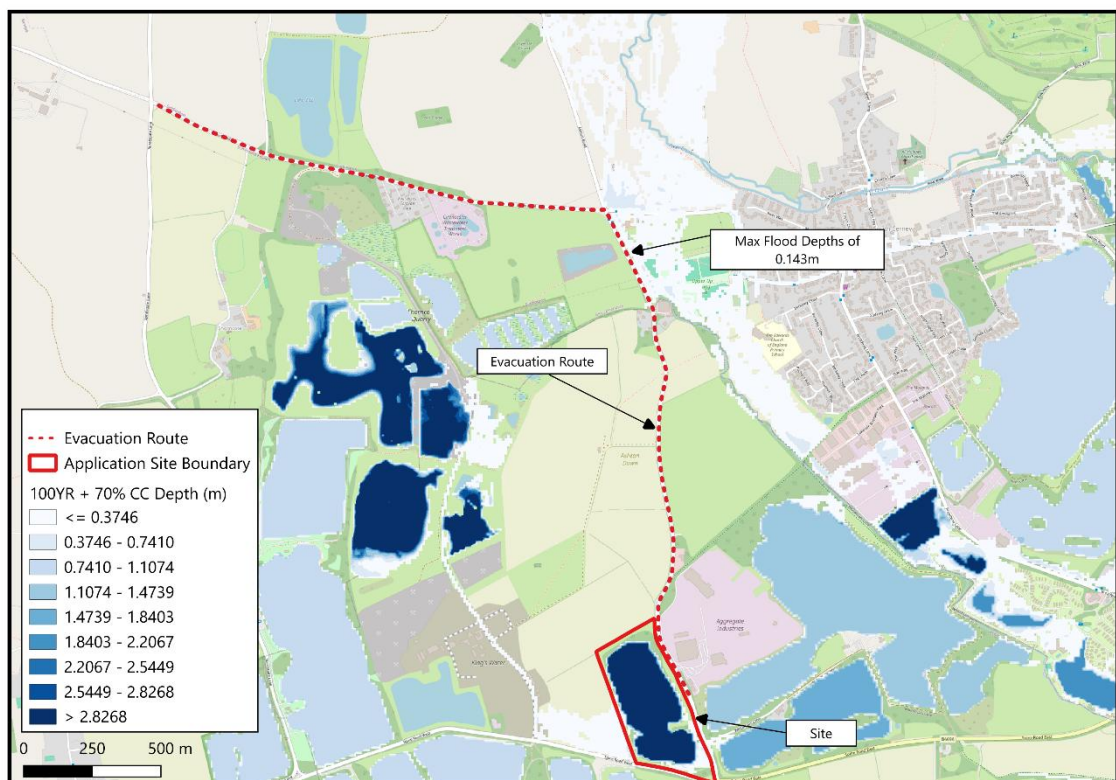
Evacuation Arrangements

- 3.9 Evacuation arrangements include:
- The issuing of a FLOOD ALERT would be too presumptuous to activate the flood plan for the site but could be used as a first stage to prepare for the initialisation of the flood plan.
 - The stage to consider evacuating the site would be the issuing of a FLOOD WARNING.
 - Persons within each building should be directed to the appropriate evacuation access points by the Local Flood Co-ordinator and/or support staff.
 - The Local Flood Co-ordinator and support staff shall deploy flood barriers to the door entrances to the buildings to protect them from internal flooding.
 - In the event of a FLOOD WARNING being received, the building tenants will need to advise staff / visitors expected to travel to the site to avoid doing so and advise to work from home where possible.
 - Should a high-risk event occur a SEVERE FLOOD WARNING will be issued. The site and the area surrounding the site could be flooded in this situation. No persons should still be present within the buildings. However, if there are, they should be evacuated if safe to do so on foot. If this is not possible, they should seek temporary refuge and inform the emergency services and await rescue.

- 3.10 It is recognised that receipt of a flood warning may not ultimately mean flooding occurs that affects the site or surrounding area, however it is the only and best information available to base a decision on to close the premises. It may be that river levels recede and do not reach a level in which flooding could occur. So, in this situation, the site can be returned to its intended function.

Safe Evacuation Route

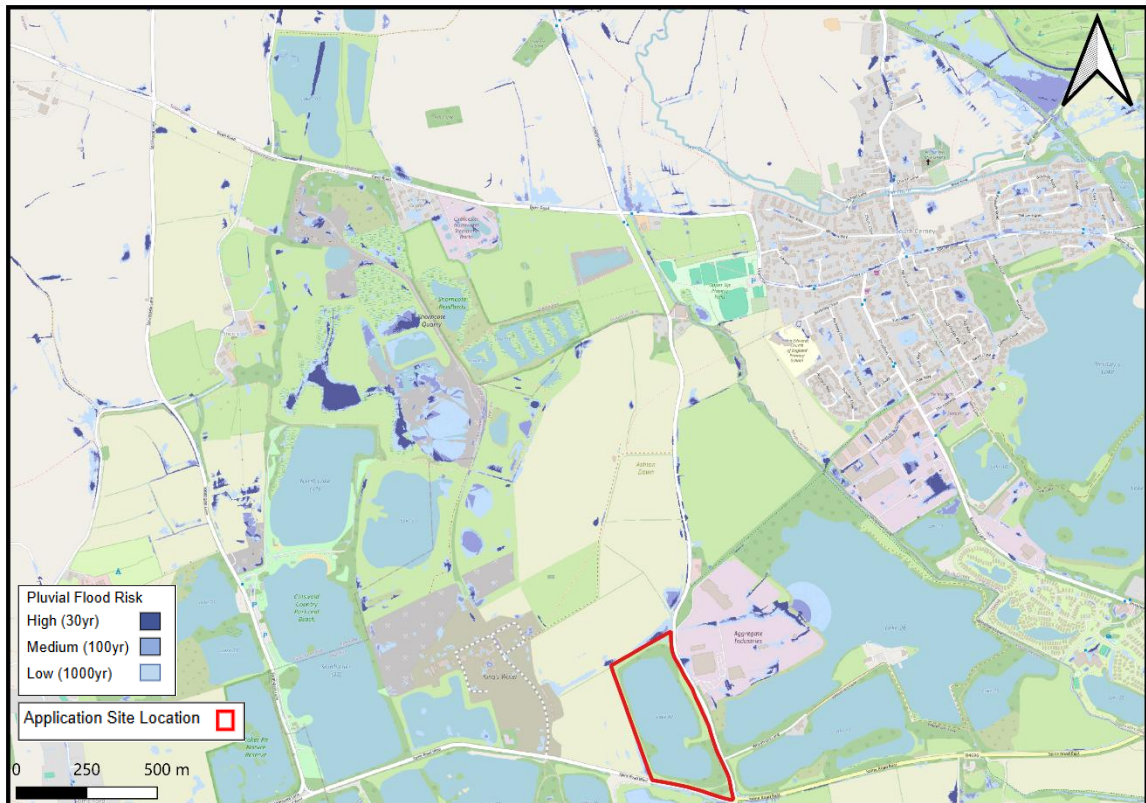
- 3.11 Clear signage within the buildings on site should be provided highlighting the potential requirement for evacuation details and the appropriate evacuation route. Signage should clearly direct persons to only evacuate via designated access doors.
- 3.12 A safe exit route, (**Figure 3.1**) on receipt of a Flood Warning prior to the onset of flooding, would currently be to travel north on Ashton Road which has a maximum flood depth of 0.143m observed in localised areas, which is deemed shallow and not a risk as such. The exit route would turn south onto Ewen Road and away from the floodplain area. Upon reaching the crossroads on Ewen Road, multiple onward routes are available, providing access to areas of lower flood risk and the wider highway network.



(Source: OpenStreetMap/EA)

Figure 3.1 Evacuation Route

- 3.13 The evacuation route is shown to be predominantly low risk from pluvial flooding with minimal localised area of surface water along the route which can be seen in **Figure 3.2**. The maximum depth of surface water along the evacuation route is shown to be 0.3m which is deemed shallow and not a risk as such.



(Source: OpenStreetMap/EA)

Figure 3.2 Surface Water Extent Along Evacuation Route

Additional Preparedness Measures

- 3.14 Flooding is usually well forecast to enable suitable evacuation and flood mitigation measures to be acted upon. However, it is acknowledged that the nature of flood risk can be sudden and unpredictable. Therefore, monitoring of any higher water levels or encroaching flood waters using CCTV is also advised.
- 3.15 It is worth considering keeping an emergency 'flood kit' on site, primarily for use by the Lead Flood Coordinator and support staff. This could include:
- Blankets;
 - Rubber gloves;
 - Waterproof clothing; and
 - Wellington boots, or similar footwear.

Flood Response Measures

- 3.16 Even at shallow depths, the velocity of floodwater could be enough to knock someone off their feet. Furthermore, manhole covers in the area may have been lifted by water pressure in the sewer system and shallow depths of water could hide such manhole openings from view, creating a serious hazard. Therefore, movement through floodwater should be avoided where possible, but should it be necessary to move through flooded streets to evacuate the site this should be done in a calm and safe manner. If required, contact the Fire Service by dialling 999 to arrange for rescue.
- 3.17 When leaving the site following a flood event, extreme care should be taken, as debris may be scattered across the site and manholes may have been lifted by water pressure in the sewer system. Moreover, surfaces may be covered with a layer of silt, acting as a further hazard. Similar conditions could also be experienced when returning to the site following notification that it is safe to return.
- 3.18 Depending on the extent of the flooding, building surveys may be required to establish building integrity. Checks should also be made for signs of dampness, particularly close to service inlets. It is advisable to hire accredited flood remediation specialists to remove any silt and debris from the site as the sediment is likely to be contaminated.

4 Role of Other Bodies

Other Bodies

- 4.1 There are many organisations that will play a part in response to a major flooding incident; emergency services, utility companies and voluntary agencies to name but a few. Below are the roles and responsibilities of some of the principal organisations that will be involved in the early stages of a response.
- 4.2 As stated earlier, the emergency services have the power to overrule the timing of evacuation and routes specified by this FEMP. The FEMP serves as a positive step in implementing actions to protect life and property of occupants on site.

Environment Agency (EA)

- Predicting flooding from statutory main rivers and the sea including the location, timing and magnitude.
- Issuing of Flood Warnings to partner agencies and ensuring that the public are warned and informed.
- Monitor and clear blockages of culverts and repair breaches of defences.
- Support the Police and Local Authority by providing materials, equipment and manpower as far as resources and other duties permit.
- Advisory role in dealing with pollution issues as a result of flooding.

MET Office

- The Met office issues severe weather warnings for heavy rain, snow, severe gales etc. These warnings are delivered directly to the Environment Agency, local authorities, the emergency services and the media.

Police

- Co-ordination of the emergency services at a major flood event, as well as helping to save lives and protect property.
- Establishment of cordons, where practical, to facilitate the work of the emergency services.
- In conjunction with other emergency services, to evacuate people from properties at risk, if necessary.
- Collation and dissemination of casualty information.

Fire & Rescue

- Saving life and rescuing trapped persons.

- Provide monitoring procedures in respect of health and safety of those persons operating within an established cordon.
- Carry out essential damage control measures including pumping out flood water and salvage work.
- Rendering humanitarian services in support of the local authority.

Local Authority

- Providing support to the emergency services.
- Mitigation of the effects of an emergency on people, including emergency feeding, accommodation and welfare.
- Co-ordination of the voluntary sector response.
- Information services to the public and media.
- Flood alleviation measures where possible.
- Environmental health advice.
- Rehabilitation of the community and restoration of the environment.

Utility Companies

- In the event of a flood, will secure their services and equipment to ensure continuity of supply.
- Repair services disrupted by flood.
- Provide alternative means of supply, during service disruption, if life and death health risks are identified.

5 Summary and Conclusion

Summary

- 5.1 This plan has been produced to determine the procedure and measures that will need to be undertaken to safely manage risk in the event of a flood, either by evacuation or appropriate preparedness measures to manage the situation on site.

Conclusions

- 5.2 There are many organisations that will play a part in response to a major flooding incident; emergency services, utility companies and voluntary agencies to name but a few. Below are the roles and responsibilities of some of the principal organisations that will be involved in the early stages of a response.
- 5.3 Site operators should register to receive updates for the Environment Agency's FloodLine Service and MET Office Severe Weather Warnings.
- 5.4 A Lead Flood Coordinator should be appointed to disseminate flood risk information to site staff. Additional Flood Coordinators should be identified, in the event that the Lead Coordinator is unavailable.
- 5.5 This Flood Evacuation Management Plan should be treated as a live document. It should be reviewed and updated regularly, on an annual basis and following each evacuation/flood event as a minimum.



Appendix A – Environment agency Flood Warning Codes



Flood Alert



Key Message: Flooding is possible. Be prepared.

Timing: 2 hours to 2 days in advance of flooding

Actions: Be prepared for flooding
Prepare a flood kit of essential items
Monitor local water levels and flood forecasts.

Flood Alerts are to warn people of the possibility of flooding and encourage them to be alert, stay vigilant and to make early preparations for flooding.

Flood Warning



Key Message: Flooding is expected. Immediate Action Required

Timing: Half an hour to 1 day in advance of flooding

Actions: Act now to protect your property
Block doors with flood boards or sandbags and cover airbricks and other ventilation holes
Move family, pets and valuables to a safe place
Turn off gas, electricity and water supplies if safe to do so
Keep a flood kit ready
Move cars, pets, food, valuables and important documents to safety

Flood Warnings are to warn people flooding is expected and encourage them to take immediate action to protect themselves and their property.

Severe Flood Warning



Key Message: Severe flooding. Danger to life

Timing: When flooding poses a significant threat to life and different actions are required

Actions: Stay in a safe place with a means of escape
Be ready should you need to evacuate from your home
Co-operate with the emergency services
Call 999 if you are in immediate danger.

Severe Flood Warnings are to warn people of a significant risk to life or significant disruption to communities caused by widespread or prolonged flooding and encourage them to take immediate action to protect themselves and follow the advice of the emergency services.

Warnings no longer in force

(no icon)

Key Message: No further flooding is currently expected for your area.

Timing: When river or sea conditions begin to return to normal

Actions: Be Careful. Flood water may still be around for several days and could be contaminated
If you have been flooded, ring your insurance company as soon as possible.

Warnings are removed to inform people that the threat has now passed.



Appendix B – Flood Evacuation Procedures



Warnings		EA recommended actions	Site		
			Actions	Communications	Responsible person
	What it means Flooding is possible. Be prepared. When it is used Two hours to two days in advance of flooding.	Be prepared to act on your flood plan.	Once a flood alert is received by site, the message shall be passed to all staff. Observations should be made of changing conditions on site (CCTV would assist) and whether floodwaters are encroaching to aid decision whether to evacuate at this stage. Review of local media reports of the developing flooding situation should be undertaken. Contact should be made with key stakeholders on the developing situation and appropriate time to trigger an evacuation.	Mobile phone call/text/email/face to face.	Flood coordinator. Deputy coordinators in absence.



Warnings		EA recommended actions	Site		
			Actions	Communications	Responsible person
 FLOOD WARNING FLOODING IS EXPECTED. IMMEDIATE ACTION REQUIRED.	What it means Flooding is expected. When it is used Used half an hour to one day in advance of flooding.	Be prepared to act on your flood plan.	Once a flood warning is received by site management, the message shall be passed to all staff/building management. Persons present on site shall be instructed to leave and remove vehicles from the car park or on foot via the designated route.	Mobile phone call/text/email/face to face. Staff/visitors advised not to travel to the site. Appointments may need to be cancelled, and alternative arrangements required.	Flood coordinator. Deputy in coordinators absence.
 SEVERE FLOOD WARNING SEVERE FLOODING. DANGER TO LIFE.	What it means Flooding is happening. When it is used Used when flooding poses a significant threat to life.	Be ready should you need to evacuate. Call 999 if in immediate danger.	Once a severe flood warning is received by site management signed up to receive notifications, the message shall be passed to all staff. A decision should be taken on whether it is safe to evacuate the site on foot. Safe evacuation routes include traveling east to reach land located within Flood Zone 1.	Mobile phone call/text/email/face to face to/with all staff. Message passed on to site staff and future patients not to travel to the site and for alternative appointment	Flood coordinator. Deputy in coordinators absence.



Warnings		EA recommended actions	Site		
			Actions	Communications	Responsible person
			If the onset of floodwaters is occurring rapidly, staff present on site should be directed to seek refuge within the designated safe refuge point and await assistance from the Emergency Services so that it is safe to attempt to leave the site.	arrangements to be made.	
All Clear – Warnings no longer in force	What it means No further flooding is currently expected. When it is used Used when river or sea conditions begin to return to normal.	Be careful. Flood water may still be around for several days. If you have been flooded, ring your insurance company as soon as possible.	Return to work if safe to do so following evacuation.	Mobile phone call/text/email/face to face to/with all staff. Message passed on to external delivery operators, site staff and expected patients that business as usual can resume once the site becomes operational again.	Flood coordinator. Deputy in coordinators absence.

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