Paper Mill Lane Works

Code of Construction Practice

Requirement 22 (1) and (2)(c)

Appendix 2 - Flood Plan

(Applicable to Work Numbers 50 and 51)

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Description of Revisions			
Rev	**Page**	**Section**	**Description**
1	ALL	ALL	New Document
2	ALL	ALL	Amended in accordance with comments received from MSDC (24/11/21) and SCC (24/11/21).
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4	8, 9 13, 14	5.3 5.9	Amended in accordance with comments received from SCC (20/05/22).

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1. INTRODUCTION AND SCOPE

1.1. Project Overview

1. East Anglia Three Limited (EATL) was awarded a Development Consent Order (DCO) by the Secretary of State, Department of Business, Energy and Industrial Strategy (DBEIS) on 7 August 2017 for the East Anglia THREE Offshore Windfarm (EA THREE). The DCO granted consent for the development of a 1200MW offshore windfarm and associated infrastructure and is live until 28 August 2022. The DCO has now been subject to three non-material variations:

- In March 2019 EATL submitted a non-material change application to DBEIS to amend the consent to increase the maximum generating capacity from 1,200MW to 1,400MW and to limit the maximum number of gravity base foundations to 100. In June 2019 DBEIS authorised the proposed change application and issued an Amendments Order.
- In July 2020 EATL submitted a second non-material change application to DBEIS to amend the parameters of its offshore substations (reducing the number of these to one) and wind turbines (a decrease in the number of turbines and an increase in their hub height and rotor radius). On 15 April 2021 DBEIS authorised this proposed change application and issued an Amendments Order.
- In August 2021 EATL submitted a third non-material change application to DBEIS to amend the consent to remove the maximum generating capacity of 1,400MW and to amend the parameters of its wind turbines (a decrease in the number of turbines and an increase in their hub height and rotor radius). The application is currently in the consultation phase.

2. The onshore construction works associated with EA THREE will have a capacity of 1400MW and transmission connection of 1320MW. The construction works will be spread across a 37km corridor between the Suffolk coast at Bawdsey and the Converter Station at Bramford, passing the northern side of Ipswich. As a result of the strategic approach taken, the cables will be pulled through pre-installed ducts laid during the onshore works for East Anglia ONE Offshore Windfarm (EA ONE), thereby substantially reducing the impacts of connecting to the National Grid (NG) at the same location. The infrastructure to be installed for EA THREE, therefore, comprises:

- The landfall site with one associated transition bay location with two transition bays containing the connection between the offshore and onshore cables;
- Two onshore electrical cables (single core);
- Up to 62 jointing bay locations each with up to two jointing bays;
- One onshore Converter Station, adjacent to the EA ONE Substation;
- Three cables to link the Converter Station to the National Grid Bramford Substation;
- Up to three onshore fibre optic cables; and
- Landscaping and tree planting around the onshore Converter Station location.

3. Since the granting of the DCO, the decision has been made that the electrical connection for EA THREE will comprise a high voltage direct current (HVDC) cable rather than a high voltage alternating current cable and, therefore, the type of substation that will be required is a HVDC Converter Station. The substation will, therefore, be referred to here as a 'converter station' and this amended terminology has been agreed with the relevant authorities on 15 October 2020. It has also been determined that only one converter station will be constructed rather than two and that the Converter Station will be installed in a single construction phase.

1.2. Scope and Purpose

4. This Flood Plan identifies the flood risk areas and sets outs the procedures to be followed in the unlikely event of a flood emergency during the construction of the Paper Mill Lane Works Stage of the EA THREE construction works. This document forms an appendix to the Code of Construction Practice (CoCP) and fulfils DCO Requirement 20 (2) (c) which states:

> ***22***.—*(1) No stage of the connection works may commence until for that stage a code of construction practice (which must accord with the outline code of construction practice) has been submitted to and approved by the relevant local planning authority, in consultation with the relevant highway authority (...)*
>
> *(2) The code of construction practice must include—*
>
> *(c) a flood plan*

5. The scope of this document is the Flood Plan associated with the construction of the Paper Mill Lane Works Stage (Work No.s 50 and 51), of the EA THREE onshore cable route running from the landfall location at Bawdsey to the Converter Station works located near

Bramford, Suffolk (Figure 1 Site Context Plan). Flood Plans have been produced for each stage of the onshore works and are provided under separate cover as part of the respective Codes of Construction Practice.

6. The Paper Mill Lane Works will be some of the first works to be undertaken along the cable route. These works have been designated as a stage in their own right to allow the works to commence at this location prior to works commencing along the cable route as a whole (i.e. the main cable works construction phase). The access and Construction Consolidation Site (CCS) will be constructed in Summer 2022 and the jointing bay installation, cable pull through and reinstatement will be undertaken as part of the main cable works construction phase.

7. With respect to Paper Mill Lane Works, it is Mid Suffolk District Council (MSDC) who are the relevant planning authority. However, EATL has acknowledged from an early stage that Suffolk County Council (SCC) (as the Lead Local Flood Authority), the East Suffolk Internal Drainage Board, and the Environment Agency (EA) are important consultees in the process for the Flood Plan.

8. This Flood Plan contains information on flood emergency response actions for the construction of the Paper Mill Lane Works. This Plan has been informed by a Flood Risk Assessment (FRA) (Royal HaskoningDHV, 2015), which demonstrates that the development meets the requirements of the National Planning Policy Framework (NPPF). Ordnance Survey LiDAR data and EA flood maps have also been accessed online and used as evidence within this Flood Plan.

9. The Flood Warning and Evacuation Procedure detailed in this plan will continue to be updated and reviewed during the construction works. As such, it has been necessary to include areas within the document where additional information will continue to be added as the document remains live throughout the works.

10. The measures contained herein shall be adhered to by the Principal Contractor and the implementation and compliance will be monitored by the Construction Management Team. These measures will only be revised with the agreement of MSDC.

2. ABBREVIATIONS

M aOD	Metres above Ordinance Datum
CCS	Construction Consolidation Site
CoCP	Code of Construction Practice
DBEIS	Department of Business, Energy and Industrial Strategy
DC	Direct Current
DCO	Development Consent Order
EA	Environment Agency
EA ONE	East Anglia ONE
EA THREE	East Anglia THREE
EATL	East Anglia THREE Limited
EnvCoW	Environmental Clerk of Works
FRA	Flood Risk Assessment
FWEP	Flood Warning Evacuation Plan
IBR	Scottish Power / Iberdrola Renewables Offshore
MSDSC	Mid Suffolk District Council
MW	Megawatt
NG	National Grid Plc
SCC	Suffolk County Council
SFRA	Strategic Flood Risk Assessment

3. FLOOD PLAN GOVERNANCE

11. Prior to the commencement of construction, a Flood Coordinator will be appointed by the Principal Contractor to manage the implementation of the Flood Plan. Contact details for the Flood Coordinator will be submitted to stakeholders (MSDC, SCC, the Environment Agency and East Suffolk Internal Drainage Board) for their records prior to commencement of construction.

4. FLOOD RISK IDENTIFICATION

4.1. Aim and Objectives

12. This Flood Plan has been developed in order to manage flood risk during the Paper Mill Lane Works and thereby ensure the preparedness of construction site personnel, in the event of a flood emergency.

13. The key aim of this Plan is to provide the Principal Contractor clear indicators confirming when the Paper Mill Lane Works construction works area should be evacuated in the unlikely event of a flood emergency. The Plan also provides key information for planning and responding to an evacuation.

4.2. Background

14. The Paper Mill Lane Works location illustrated in Figure 1, comprises arable land previously used for the construction of the EA ONE CCS, haul road and cable installation works and is located in Flood Zone 1. Access on to the site is provided from the northwest of the site via Paper Mill Lane.

15. Approximately 245m west of the site is the River Gipping, a main river as designated by the EA (approximate NGR 612501, 248936). This river drains an upstream catchment of 263.2km^2 adjacent to the site, flowing from Mendlesham Green southwards to Ipswich, where it becomes the River Orwell. A drainage ditch runs parallel to the northern site boundary. This channel is designated as an Ordinary Watercourse and flows from east to west before joining the River Gipping some 240m west of the site (NGR 613283, 248983) (Appendix 1). This minor drainage ditch has a very small upstream catchment and runs dry in summer months.

16. Based on the EA Flood Zone map the Paper Mill Lane Works site and the majority of the access route to the site (i.e. Paper Mill Lane itself) are located in Flood Zone 1 (land defined as having less than 1 in 1000 annual probability of flooding from rivers or the sea). However, there are two sections of Paper Mill Lane (the only vehicle access route on to the site) that encroach into Flood Zone 2 (land having between 1 in 1000 and 1 in 100 annual probability of flooding from rivers or the sea) and Flood Zone 3 (greater than 1 in 100 annual probability of flooding). The road sections at risk are shown on Appendix 2 and include an area north (NGR 612852, 249106) and south (NGR 612651, 248157) of the site. These areas of high risk can create potential for access to and egress from the site to be impeded in times of peak fluvial flow from the River Gipping and its tributaries. The River Gipping is the only surface water feature posing a risk to the site's surrounding areas.

17. There are other surface water features located on the opposite side of the river approximately 420m west of the site boundary including a series of ponds and lakes comprising the Suffolk Water Park. These are not considered to pose a risk to the Paper Mill Lane site and may even act as relief zones in times of high fluvial flow.

4.3. Flood Risk

18. A Flood Risk Assessment (FRA) has been undertaken (Royal HaskoningDHV, 2015) in November 2015 for the converter station which alludes to onshore works as a whole but did not consider the Paper Mill Lane Works in isolation. The EA Flood Map for Planning (Environment Agency, 2021) and the Mid Suffolk & Babergh Level 1 Strategic Flood Risk Assessment (SFRA)(JBA Consulting, 2020) confirm that Paper Mill Lane Commencement Works is not at risk of flooding from any source and is wholly in Flood Zone 1.

19. The EA Flood Map for Planning has established that there is one area of Paper Mill Lane (the road used to access the Works) to the north of the site at risk from flooding along the drainage channel which runs parallel to the northern boundary of the site and one area to the south of the site at risk from flooding from the River Gipping, where this runs close to the road. This is confirmed within the SFRA (JBA Consulting, 2020) where more detailed hydraulic modelling has placed both of these road sections within the functional floodplain of the River Gipping catchment (Flood Zone 3).

20. LiDAR data has been extracted (Department for Environment, Food & Rural Affairs, 2020), to ascertain ground elevations adjacent to the riverbank, roads, and the site. This shows that the lowest point on the site is elevated to 12.3m aOD[1] (3m higher than adjacent channel level), with the highest extending up to 31m aOD.

21. The drainage ditch which runs parallel to the northern boundary of the site crosses Paper Mill Lane 38m north of the site, resulting in a portion of the road being in Flood Zones 2 and 3. The road crossing (i.e. bridge) is however raised, elevated at approximately 11.4m aOD, with the adjacent channel level estimated to be at 9.3m aOD. EA model data (Gipping Model, 2020) indicates flood levels at 10m aOD in this channel for the 1 in 1000 annual exceedance event adjacent to Paper Mill Lane. Based on this any floodwater will remain within the grassland area and the probability of flooding on the road is very low.

22. The second area of elevated flood risk covers around a 100m length of Paper Mill Lane (Flood Zone 2 & Flood Zone 3) where the River Gipping meanders eastward towards the road around 615m south of the site. The channel, which in this area is immediately adjacent to the road, has a bank height at 7.6m aOD with the lowest part of the road at an elevation of 8.74m aOD. In that area the modelled flood levels for in the 1 in 1000 annual exceedance event (Gipping Model) are at 9.7m aOD and would therefore result in deep and dangerous flooding along this section of the road. For the 1 in 20 annual exceedance event the model predicts a flood level of 8.75m aOD. This indicates that even for relatively minor flood events some flooding along this stretch of the road is possible.

23. As the probability and risk of flooding along this section of the road to the south of the site is high, the route in and out of site during periods of flooding or periods when flooding is considered to be possible should be to the north along Paper Mill Lane which should remain flood free even during very severe flood conditions.

24. The EA Long-Term Flood Risk Map (Environment Agency, 2019) places the site in an area of very low risk of surface water flooding, excepting a small slither of land at the northwest corner of the site which is at low risk. Identical mapping for surface water flooding contained in the SFRA. It can be concluded that the risk from this source to the site is not significant.

5. FLOOD WARNING AND EVACUATION PROCEDURE

5.1. Evacuation Triggers

25. EA flood warnings, Met Office severe weather warnings and observations on local conditions will all be used to initiate the flood procedures set out in this Flood Plan and have, therefore, been used to set evacuation triggers. Across three trigger levels, two stages have been identified: either to place staff on a green alert (state of readiness) and implement a review of the Emergency Plan procedures; or to issue a red alert (triggering site evacuation). Further detail on these stages is given in Section 5.9.

26. During construction all construction workers, as part of their Site Induction, will be made aware of the sections of Paper Mill Lane which are located in areas of elevated flood risk (Appendix 2) and of the evacuation process from the site in the event of a Flood Alert or Warning as set out in Table 5-7.

27. The Principal Contractor's Flood Coordinator will be required to sign up to both the EA's flood warning service and the Met Office severe weather warning service so that automated warning messages are received by the Flood Coordinator.

5.2. Pre-Occupation Actions

28. Prior to the commencement of the construction works at Paper Mill Lane, it will be the responsibility of the Principal Contractor's Site Manager, monitored by EATL and working with the Flood Coordinator, to ensure that all actions outlined in Table 5-1 are completed.

[1] Elevations are referred to as levels relative to Ordinance Survey Datum (i.e. m aOD).

Table 5-1 Pre-Occupation Actions

No	Action	Further Information	Completion Date and Signature
1	Undertake a review of the Flood Warning and Evacuation Procedure and make updates to take into account new or additional information.	Flood Warning and Evacuation Procedure to be incorporated into contractor Emergency Response Plan.	
2	Register with the EA Floodline Warnings Direct service and the Met Office Weather Warnings.	Floodline Warnings Direct can be signed up to using the following link https://www.gov.uk/sign-up-for-flood-warnings or by calling either the Floodline on 0345 988 1188 or the National Customer Contact Centre (03708 506 506) to receive flood warnings for more than one site. Details on how to access weather warnings can be obtained at the following website: https://www.metoffice.gov.uk/weather/guides/warnings	
3	Ensure all construction personnel are aware of the Flood Warning and Evacuation Procedure and are trained sufficiently to implement the procedures set out in the Plan.	Include as part of the Site Induction training.	
4	Principal Contractor to implement the appropriate designated evacuation route.	The evacuation point (NGR 612914, 249192) and emergency evacuation route are included in Appendix 3.	

5.3. Key Contacts and Information

29. Table 5-2 lists contact numbers for personnel and Agencies that have key roles during a flooding emergency. This table will be completed by the Principal Contractor. This table will be periodically reviewed, and if necessary updated, with this review process monitored by EATL.

Table 5-2 Contact Numbers

Position	Name	Role	Contact Number
Flood Coordinator	TBC	Once flood or weather warning alerts have been received, it is the Flood Co-ordinator's responsibility to disseminate the alerts to all members of staff. The Flood Co-ordinator should lead in directing the evacuation of the site and help other members of staff to move to the designated evacuation point(s) located in Flood Zone 1. The Flood Coordinator should also take a register to ensure all staff are accounted for and provide an update to any on-site emergency services confirming that the site has been evacuated.	
Project Manager	TBC	Ensure that the Flood Warning and Evacuation Procedure has been put in place and monitor to ensure that periodic updates are made to the procedure as necessary. Ensure sufficient resources (people, time and money) are provided to implement the procedure.	TBC

Position	Name	Role	Contact Number
Construction Manager	TBC	The Construction Manager's role is to ensure all the Pre-Occupation Actions (Table 5-1) have been completed as well as to ensure that the Flood Warning Evacuation Plan is reviewed and updated when deemed appropriate.	TBC
Site Manager	TBC	It is the Site Manager's responsibility to operate emergency electrical shut off switches that terminate electricity supply to the works. The Site Manager should assist the Flood Coordinator in directing the evacuation of the site and help other members of staff to move to the designated evacuation point(s) located in Flood Zone 1. The Site Manager should also take a register to ensure all staff are accounted for and provide an update to any on-site emergency services confirming that the site has been evacuated. When severe flood or weather warnings have been issued it is the Site Manager's responsibility to contact the Emergency Services and EA to confirm that the site is being closed due to potential flooding	TBC
EA Floodline Contact	TBC	The EA will issue a flood warning to nominated construction management personnel.	0345 9881188

Note: TBC fields to be completed prior to start of construction

5.4. Emergency Contacts

30. Table 5-3 provides contact numbers for the relevant Emergency Services.

31. **In an emergency where there is a real and immediate threat to life or property always dial 999.**

Table 5-3 Contact Numbers for Relevant Emergency Services

Body	Contact Number
Suffolk Fire & Rescue Service	01473 260588
Suffolk Police (Ipswich Police Station)	01473 613500
Environment Agency National Contact	03708 506 506
Suffolk County Council (reporting a flood, even in an emergency)	0345 606 6171
Environment Agency Incident Hotline	0800 80 70 60

32. If medical attention is required within the workplace, First Aiders should be in attendance and a record of the individual affected and the circumstances relating to the incident should be kept.

33. The closest hospital to the onshore construction works with an Accident and Emergency Department is the Ipswich Hospital. **The Hospital can be contacted on 01473 712233 The address is: Heath Road, Ipswich, Suffolk, IP4 5PD.**

5.5. Other Useful Numbers

34. Table 5-4 provides a list of other useful numbers. This table will be completed by the Principal Contractor. This table will be periodically reviewed, and if necessary updated, during the onshore construction works.

Table 5-4 Other Useful Numbers

Body	Name	Contact Number
Electricity Provider	UK Power Networks	TBC
Gas Provider	Cadent	TBC
Water Company	Anglian Water	0345 791 9155 Emergency number - 0800771881
Telephone Provider	TBC	TBC
Local Authority	Mid Suffolk District Council	0300 1234000
Local Radio Station	BBC Radio Suffolk	01473 250000
Local TV Stations	BBC – Suffolk	01473 250000

Note: TBC fields to be completed prior to start of construction

5.6. Insurance Details

35. Table 5-5provides Insurance details for the onshore construction works. This table will be completed by the Principal Contractor.

Table 5-5 Insurance Details

Insurance Company	Policy Number	Contact Number
TBC		
TBC		
TBC		
TBC		

Note: TBC fields to be completed prior to start of construction

5.7. Location of services

36. Table 5-6 provides details of the locations of cut offs and valves for key services. This table will be completed by the Principal Contractor. This table should be periodically reviewed, and if necessary updated, during the onshore construction works.

Table 5-6 Location of Services

Service	Location of Cut Off and Values
Electricity	TBC
Gas	TBC
Water	TBC

Note: TBC fields to be completed prior to start of construction

5.8. Environment Agency Flood Warning Service

37. The Environment Agency issues three tiers of flood warning depending upon prevailing conditions. These are detailed in Table 5-7 below.

38. There is no single standard or trigger that will result in a Flood Warning or Flood Alert being issued by the Environment Agency. Instead, each river, section of river, estuary and section of coastline is considered independently based on the local specifics and the prevailing conditions.

Table 5-7 *The EA Flood Warnings as Outlined in Diagram 1*

Symbol	Risk	Status	When it is used
	High Risk	**Severe Flood Warning** Severe flooding. Danger to life.	When flooding poses a significant threat to life. Dangerous weather is expected and action should be taken to keep personnel and workforce safe from the impact of the severe weather. It is very likely that there will be a substantial widespread disruption to travel, energy supplies. Avoid travelling, where possible, and follow the advice of the emergency services and local authorities.
	Medium Risk	**Flood Warning** Flooding is expected. Immediate action required.	Half an hour to one day in advance of flooding. There is an increased likelihood of impacts from severe weather, which could potentially disrupt works plans. This means there is the possibility of travel delays, road and rail closures, power cuts and the potential risk to life and property.
	Low Risk	**Flood Alert** Flooding is possible. Be prepared	Two hours to two days in advance of flooding. Weather may cause some low level impacts, including some disruption to travel in a few places. Weather could bring much more severe impacts to many people but the certainty of those impacts occurring is much lower. It is important to read the content of yellow warnings to determine which weather situation is being covered by the yellow warning.
None	Very Low Risk	**Warnings no longer in force** No further flooding is currently expected in your area.	When river conditions begin to return to normal.

5.9. Met Office Severe Weather Warnings

39. The Met Office is responsible for issuing weather warnings, which warn of impacts caused by severe weather. The warnings are designed to let people, businesses, emergency responders and governments know what weather is in store and what the impacts of that weather may be. Warnings are provided up to seven days ahead for rain, thunderstorms, wind, snow, lightning, ice and fog, although in relation to this plan the warnings for rain and thunderstorms are the ones of direct relevance.

40. Surface water runoff from the works in periods of heavy rainfall may lead to pollution of nearby watercourses and therefore Met Office warnings for adverse rainfall should be utilised at the site to adapt, limit and cease work in response to projected weather condition. This has therefore been included in the Flood Warning and Evacuation Procedures.

41. Severe weather warnings are provided at four different levels that relate to the potential level of impact that the forecast weather is expected to bring and the likelihood of those impacts occurring. The levels used are detailed below, alongside the definitions stated on the Met Office website:

- Very low (green)

  "On many days of the year, the weather has the potential to impact our lives. Most of the time these impacts are quite small so we do not notice them. These are the days we often describe as 'typical weather' in the UK. These types of weather days are often assessed as having a 'very low' impact. The Met Office does not send out warnings for these days but there could still be some impacts caused by the weather. However, these impacts would be expected to be short-lived or fairly localised."

- Low (yellow)

  "Issued when it is likely that the weather will cause some low level impacts, including some disruption to travel in a few places. Many people may be able to continue with their daily routine, but there will be some that will be directly impacted and so it is important to assess if you could be affected. Other yellow warnings are issued when the weather could bring much more severe impacts to the majority of people but the certainty of those impacts occurring is much lower. It is important to read the content of yellow warnings to determine which weather situation is being covered by the yellow warning."

- Medium (amber)

  "There is an increased likelihood of impacts from severe weather, which could potentially disrupt your plans. This means there is the possibility of travel delays, road and rail closures, power cuts and the potential risk to life and property. You should think about changing your plans and taking action to protect yourself and your property. You may want to consider the impact of the weather on your family and your community and whether there is anything you need to do ahead of the severe weather to minimise the impact."

- High (red)

  "Dangerous weather is expected and, if you haven't already done so, you should take action now to keep yourself and others safe from the impact of the severe weather. It is very likely that there will be a risk to life, with substantial disruption to travel, energy supplies and possibly widespread damage to property and infrastructure. You should avoid travelling, where possible, and follow the advice of the emergency services and local authorities."

42. The precise impacts of a warning issued will depend on the nature of the predicted weather systems and, as the rating are derived based on both probability and level of impact, may be notably different in nature on different occasion (i.e. an amber warning for rainfall may be issued in response to very different types of events). As a result, care should be taken to read the details of the warnings issued.

5.10. Flood Warning and Evacuation Procedures

43. An overview of the Flood Warning and Evacuation Procedures is illustrated in Diagram 1. This diagram shows the three trigger levels and the corresponding actions that will need to be implemented.

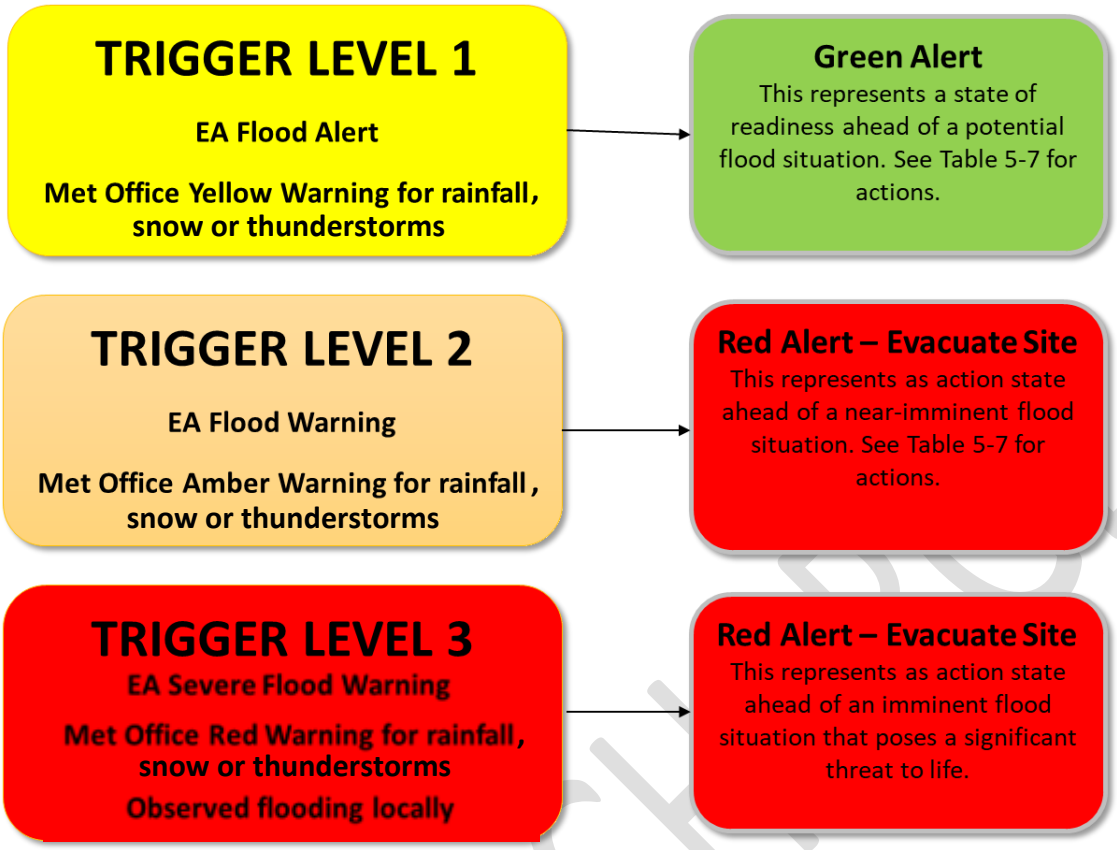

Diagram 1 Trigger Levels and Actions

44. Flood evacuation procedures are outlined in Table 5-8.

Table 5-8 Flood Evacuation Procedures

Warning Triggers	General Procedures	Specific Actions
Trigger Level 1	General actions include: • Communicate risk to all staff • Make sure you know who is on site • Take basic measures to prepare for flooding • Stay in a safe place with a means of escape. • Be ready should you need to evacuate.	• Place Staff on Green Alert • Check access and availability to, and condition of equipment: closed road signs, torches (check battery life/spares), high visibility jackets for all staff • Allow for handover should shift change occur before the warning is lowered • Check staff registers are complete and available to ensure all staff are accounted for post- evacuation Where trigger relates to rainfall, in addition to the actions above the Principal Contractor will: • Speak to construction teams and request implementation of active measures to reduce the mobilisation fo sediment and other pollutants in storm water runoff. This is likley to take the form of bringing forward basic house keeping measures such a road sweeping and clearance of intercept ditches. • Reschedule (if reasonably possible and will not make situation worse) all engineering works which are liable to generate turbid runoff. This should

Warning Triggers	General Procedures	Specific Actions
		include all earthworks. • Review active work programme and associated temporary drainage arrangements and confirm that these are all in place and functional. • Undertake survey of all active storm water drainage arranagments to check for damage, blockages or other problems which could impair their correct function and, in the event that definciencies are identfied, action urgent remedial works.
Trigger Level 2	• Stay away from high risk areas • Turn off gas, electricity and water supplies if safe to do so. • Put flood protection equipment in place if safe to do so. • Cooperate with the emergency services. • Call 999 if you are in immediate danger. • Evacuate site in an orderly and controlled way.	• Stop active work on the site and communicate change in flood status to all staff. • If reasonably possible within a short timeframe (1hr) remove plant and equipment and relocate to elevated area that is away from potential flooding. • Place staff on Red Alert and begin evacuation of jointing bay compound/CCS (Trigger Fire Alarm) • Operate the emergency electrical shut off switches terminating the electricity supply and all power supplies to construction works sites/compounds, but only if safe to do so. • Use allocated evacuation route to facilitate / direct the safe evacuation of all personnel to the agreed refuge location. • Take register to ensure all staff are accounted for. • Contact the Emergency Services and EA to confirm that the work sites are being closed due to the risk of flooding
Trigger Level 3	• Evacuate site as quickly as can be safely achieved. • Account for all personnel • Leave the area	• Immediately start evacuation of jointing bay compound and CCS if not actioned on receipt of the Flood Warning or Met Office Weather Warning (Trigger Fire Alarm at compounds) • Use allocated evacuation route to facilitate / direct the safe evacuation of all personnel. • Take register to ensure all staff are accounted for • Contact the Emergency Services and EA to confirm that the jointing bay compound and/or CCS is being closed due to the risk of flooding.
All Clear	• Be careful. Flood water may still be around for several days. • If you've been flooded, ring your insurance company as soon as possible.	Where the preceeding event related to rainfall or resulted in flood water entering or passing through the site storm water management systems, the Principal Contractor will: • Undertake a survey of all active storm water drainage arranagments to check for damage, blockages or other problems resulting from the storm / flood. • Remedial works should be urgently undertaken on deficient drainage equipment. • Signficiant pollution of any surface waterbody should be reported to the Environment Agency.

45. Flooding is very complex and is controlled by a number of highly variable physical factors such as the volume and intensity of rainfall and subsequent upstream flow. Ground level data has been analysed to estimate likely flood conditions at Paper Mill Lane and built into this FWEP. However, it is recommended that the Principal Contractor consults with the EA to gain understanding how much time is likely to be available between receiving a flood alert and flood waters first affecting the construction works.

5.11. Evacuation Route and Designed Evacuation Point

46. The emergency evacuation route is included in Appendix 3. The route heads north of the site along Paper Mill Lane. While this route uses the raised crossing over the drainage ditch, analysis (Section 3.3) has evaluated the crossing as unlikely to flood in times of peak fluvial flow.

47. A recommended evacuation point is centred at NGR 612914, 249192 and is located on the fork of Paper Mill Lane north of the site, before the entrance to the Premier Inn North Ipswich. It encompasses a grass verge area on the side of the road leading into the Premier Inn, as to not impede road traffic. The A14 and surrounding road network is accessible from here without the need to traverse potential floodwater.

48. In the extremely unlikely event that flooding on the raised crossing used to evacuate the site was to flood and staff were unable to evacuate prior to this, it is important that staff remain on the site and do not attempt to traverse floodwater, particularly in such severe flood events. Supplies should be kept on site in case of this, which include non-perishable food, bottled water, blankets, and a first aid kit. Emergency tools including flashlights, a battery-powered radio, batteries, and a fire extinguisher should also be kept on site.

5.12. Water Level Falling

49. As detailed, the EA Flood Warnings identify a 'potential' rather than 'actual' threat. It should be noted that not all events would result in an automatic progression from one warning to another with the end result being flooding and evacuation of the construction site. It is possible for smaller events to trigger initial warnings with water levels subsequently falling before flooding occurs.

50. Should water levels within the watercourse/s thought to be at risk of flooding or exhibit a sustained fall at any point during the event, this will be identified by the EA Flood Warning Service and an automatic notification sent to the Principal Contractor's Site Manager via phone and email.

51. On receipt of such a notification the Principal Contractor's Site Manager can downgrade the trigger level response as appropriate.

6. MONITORING AND REVIEW

52. During the construction works, the Flood Coordinator would ensure that all construction personnel are aware of the potential flood risk and of how to respond in the event of a flooding emergency. The training for construction personnel as a minimum, will cover:

- Requirements of the FWEP (detailed in Section 5).
- Confirmation of Key Roles, clearly identifying positions held, responsibilities, communication, and chain of command.
- Staff duties.
- Evacuation Routes.
- Staff safety during a flood event.
- Electrical systems emergency shut off procedures.
- Operation of communications systems, signage and traffic management systems.
- All construction staff will be trained as part of the site induction process.

53. All training completed will be documented and recorded. Staff will also be made aware of any updates to the FWEP through appropriate internal staff briefings or toolbox talks.

54. The FWEP will be subject to update / review:

- Whenever there are changes to any of the contact numbers, names or roles held within the Procedure.
- All updates / reviews shall be documented and recorded.
- The Principal Contractor's Site Manager will ensure an up-to-date version of the Procedure is available at all times during the construction phase.

55. When the FWEP is updated a document control record, as presented in Table 6-1, will be completed for document control and to understand why changes were needed.

Table 6-1 Flood Plan Evacuation Procedures Document Control

Version	Date	Prepared by	Checked by	Approved by	Reasons for Revision

7. REFERENCES

Department for Environment, Food & Rural Affairs, 2020. *Defra Data Services Platform.* [Online] Available at: https://environment.data.gov.uk/ [Accessed 10 August 2021].

Environment Agency, 2019. Check your long term flood risk. [Online] Available at: https://check-long-term-flood-risk.service.gov.uk/map [Accessed 24 February 2022].

Environment Agency, 2021, Flood Map for Planning. [Online] Available at: https://flood-map-for-planning.service.gov.uk/ [Accessed 13 August 2021].

JBA Consulting, 2020. *Babergh & Mid Suffolk Level 1 Strategic Flood Risk Assessment,* Ipswich: Babergh & Mid Suffolk District Councils.

Royal HaskoningDHV, 2015. *East Anglia Three Appendix 21.2 Flood Risk Assessment,* Ipswich: East Anglia Offshore Wind.

APPENDIX 1 – WATERCOURSES ADJACENT TO PAPER MILL LANE WORKS

612000 612500 613000 613500 614000

249500 249000 248500

B 1113 BRAMFORD ROAD B1113 LORAINE WAY PAPER MILL LANE A14 NEWELL MS THE BEECHES CLOSE LIMEKILN CL ORCHARD OLD IPSWICH ROAD OLD NORWICH ROAD Posts Path (um) Track Path River Gipping

Paper Mill Lane PCCS

Access AP-AG

Acess AP-AF

Jointing Bay 4

Coordinate System: British National Grid
Projection: Transverse Mercator
Datum: OSGB 1936
Units: Meter

- EA THREE DCO Corridor
- Primary Construction Consolidation Site
- Jointing Bay Compound
- HGV Turning, Cleaning and Washing
- Trackway
- Access Track
- Haul Road
- Top Soil
- EA THREE Existing Cable Ducts
- Statutory Main River
- Surface Water (Linear)
- Surface Water (Area)
- Watercourse Flow Direction

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Rev	Date	By	Comment
B	12/04/2022	PW	Second Issue
A	23/12/2021	PW	First Issue

Original A3 Plot Scale 1:7,500

0 150 300 Metres

Paper Mill Lane Works Stage

Watercourses in the Vicinity of Paper Mill Lane Works

Drg No	05356.00006.12.0052.1 Watercourses Paper Mill Lane
Rev	2
Date	12/04/2022
Layout	N/A

Document Path: P:\05356 - GoBe Consultants Ltd\00006 East Anglia Three\Tech\GIS\Dwgs\Wking\EA3\Onshore Substation\Doc Ref EA3-OND-CNS-REP-IBR-000003\5356.00006.12.0052.1 Watercrossing Crossings Adjacent to CCS at Papermill Lane.mxd

APPENDIX 2 – EA FLOOD ZONES IN VICINITY OF PAPER MILL LANE WORKS

612000 612500 613000 613500 614000

249500 249000 248500

Paper Mill Lane PCCS
Access AP-AG
Acess AP-AF
Jointing Bay 4

B 1113 BRAMFORD ROAD PAPER MILL LANE A14 LIMEKILN CL ORCHARD CLOSE THE BEECHES NEWELL MS Path Track Path (um) Posts OLD IPSWICH ROAD OLD NORWICH ROAD LORAINE WAY Tk

Coordinate System: British National Grid
Projection: Transverse Mercator
Datum: OSGB 1936
Units: Meter

- EA THREE DCO Corridor
- Primary Construction Consolidation Site
- Jointing Bay Compound
- HGV Turning, Cleaning and Washing
- Trackway
- Access Track
- Haul Road
- Top Soil
- EA THREE Existing Cable Ducts
- EA Flood Zone 3
- EA Flood Zone 2

GoBe consultants

Rev	Date	By	Comment
A	12/04/2022	PW	First Issue

Original A3 Plot Scale 1:7,500

0 150 300 Metres

Paper Mill Lane Works Stage
EA Flood Zones in Vicinity of Paper Mill Lane Works

Drg No	05356.00006.12.0089.1 PML EA Flood Zones
Rev	1
Date	13/04/2022
Layout	N/A

Document Path: P:\05356 - GoBe Consultants Ltd\00006 East Anglia Three\Tech\GIS\Dwgs\Wking\EA3\Onshore Substation\Doc Ref EA3-LDC-CNS-REP-IBR-000066\5356.00006.12.0089.1 PML EA Flood Zones.mxd

APPENDIX 3 - EMERGENCY EVACUATION ROUTE FOR PAPER MILL LANE WORKS

612000 612500 613000 613500 614000

249500 249000 248500

N

River Gipping

Paper Mill Lane PCCS

Acess AP-AF

Access AP-AG

Jointing Bay 4

B 1113 BRAMFORD ROAD LORAINE WAY PAPER MILL LANE A14 OLD IPSWICH ROAD OLD NORWICH ROAD NEWELL THE BEECHES CLOSE LIMEKILN CL ORCHARD MS Posts Track Path (um) Path

Coordinate System: British National Grid
Projection: Transverse Mercator
Datum: OSGB 1936
Units: Meter

EA THREE DCO Corridor
Primary Construction Consolidation Site
Jointing Bay Compound
HGV Turning, Cleaning and Washing
Trackway
Access Track
Haul Road
Top Soil
EA THREE Existing Cable Ducts
Evacuation Point
Emergency Egress Route
Statutory Main River
EA Flood Zone 3
EA Flood Zone 2
Surface Water (Linear)
Surface Water (Area)

GoBe consultants

Rev	Date	By	Comment
B	12/04/2022	PW	Second Issue
A	12/04/2022	PW	First Issue

Original A3 Plot Scale 1:7,500

0 150 300 Metres

Paper Mill Lane Works Stage

Emergency Evacuation Route

Drg No	05356.00006.12.0050.1 Emergency Evacuation Route
Rev	2
Date	13/04/2022
Layout	N/A

Document Path: P:\05356 - GoBe Consultants Ltd\00006 East Anglia Three\Tech\GIS\Dwgs\Wking\EA3\Onshore Substation\Doc Ref EA3-OND-CNS-REP-IBR-000003\5356.00006.12.0050.1 Emergency Evacuation Route for CCS Papermill Lane.mxd

613000

249000

Paper Mill Lane PCCS

Acess AP-AF

Access AP-AG

Jointing Bay 4

A14

OLD IPSWICH ROAD

Works No.s Overview

51

50

River Gipping

Meckbeggars Hall

Coordinate System: British National Grid
Projection: Transverse Mercator
Datum: OSGB 1936
Units: Meter

EA THREE DCO Corridor
Primary Construction Consolidation Site
Jointing Bay Compound
Top Soil
HGV Turning, Cleaning and Washing
Trackway
Access Track
Haul Road
EA THREE Existing Cable Ducts
EA ONE Existing Cable Ducts

Works No.s
50
51

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Rev	Date	By	Comment
B	05/04/2022	PW	Second Issue
A	31/03/2022	JRS	First Issue

Original A3 Plot Scale 1:2,500

0 50 100 Metres

Paper Mill Lane Works Stage

Figure 1: Site Context Plan

Drg No	05356.00006.12.0021.1 Site Context Plan
Rev	2
Date	05/04/2022
Layout	N/A

Document Path: P:\05356 - GoBe Consultants Ltd\00006 East Anglia Three\Tech\GIS\Dwgs\Wking\EA3\Onshore Substation\ONCS and Commencement Master\5356.00006.12.0021.1 Works Site Context.mxd