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# **Clappits Works**

# Code of Construction Practice Requirement 22 (1) and (2)(c) Appendix 2 - Flood Plan

(Applicable to Work Numbers 21 to 24)

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1	28/10/21	Daniel Watson	Felicity Cole	Gareth Mills
2	11/01/22	Daniel Watson	Phil Rew-Williamson	Gareth Mills
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1	ALL	ALL	New Document
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### 1. INTRODUCTION AND SCOPE

### 1.1. Project Overview

- 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.
- 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.
- 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 Clappits 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
- The scope of this document is the Flood Plan associated with the construction of the Clappits Works Stage (Work No.s 21 to 24), of
  the EA THREE onshore cable route running from the landfall location at Bawdsey to the Converter Station works located near

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Bramford, Suffolk (Figure 1 Overview Plan and Figure 2 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.

- 5. The Clappits 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.
- 6. With respect to Clappits Works, it is East Suffolk Council (ESC) 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.
- 7. This Flood Plan contains information on flood emergency response actions for the construction of the Clappits 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.
- 8. 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.
- 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 ESC.

### 2. ABBREVIATIONS

ccs	Construction Consolidation Site	
СоСР	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	
EDMS	Electronic Document Management System	
EnvCoW	Environmental Clerk of Works	
ESC	East Suffolk Council	
FRA	Flood Risk Assessment	
FWEP	Flood Warning Evacuation Plan	
IBR	Scottish Power / Iberdrola Renewables Offshore	
M aOD	Metres above Ordinance Datum	
MW	Megawatt	
NG	National Grid Plc	
scc	Suffolk County Council	
SFRA	Strategic Flood Risk Assessment	

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### 3. FLOOD PLAN GOVERNANCE

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 (ESC, 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

The key aim of this Plan is to provide the Principal Contractor clear indicators confirming when the Clappits 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

- The Clappits Works location is illustrated in Figure 1 Site Context Plan. This land comprises arable land previously used for the construction of the EA ONE CCS, haul road and cable installation works. Access onto the site is obtained from the west via Woodleigh Road, to the north via Ipswich Road and to the east via Mill Road.
- Appendix 1 Local Hydrology provides an overview of the Clappits Works and local water features (based on 1:25,000 scale OS mapping). The site at Clappits is approximately 3.2km in length and extends south from Waldringfield past Newbourne, ending just north of Kirton. Main access is afforded off Woodbridge Road in the east-central portion of the site, with another access track just further north extending eastwards to the site from Newbourne Road. The site runs through arable fields throughout its extent, and main areas of work are located at Waldringfield and Newbourne.
- Topography at the site generally ranges from 15m aOD to 25m aOD¹, with much of the site situated on ground higher than 21m aOD along a topographic ridge running between a tributary of Mill River to the west and the Debden Estuary to the east. The prevailing slopes on the site are to the west.
- There are no surface water features present on the site however the tributary of Mill River flows from north to south parallel and around 300m to the west of the site. A series of small springs and drains are present between the site and the main flowing channel and will pick up surface runoff from much of the site area. The main channel of this system is designated as a Main River by the Environment Agency and drains an approximate upstream catchment of 7.1km<sup>2</sup> at the point where it discharges into Mill River to the southwest of the site.
- At its closest Mill River is located around 50m to the south of the Clappits Works area. This larger watercourse, which drains an upstream catchment of approximately 45km², flows from flows from west to east towards the Debden Estuary.
- The Deben Estuary is located approximately 1km east of the site at its closest point and is tidal in nature adjacent to the site. The estuary drains an upstream fluvial catchment area of in excess of 185km<sup>2</sup>.
- The site is underlain by Red Crag Formation (Sand), which is designated by the Environment Agency as a Principal Aquifer. This is almost wholly overlain by superficial deposits of the Kesgrave Group Sand and Gravel, which is designated as a Secondary A Aquifer. These designations are applied to more permeable units that are likely to be important for water resources and supply of baseflows to local watercourses. It is considered likely that groundwater flows from the deposits beneath the site drain westwards and contribute to flows in the springs and channel present to the west between the site and the tributary of Mill Brook.

### 4.3. Flood Risk

- A Flood Risk Assessment (FRA) has been undertaken (Royal HaskoningDHV, 2015) in November 2015 for the converter station, which alludes to the onshore works as a whole, but this did not consider the Clappits Works area in isolation.
- Based on a data contained in the FRA, and a review of current EA Flood Mapping, the entire site is located in Flood Zone 1. This indicates that the risk of flooding from tidal or major fluvial sources is low. Given the elevation of the site relative to nearby major

<sup>&</sup>lt;sup>1</sup> Elevations are referred to as levels relative to Ordinance Survey Datum (i.e. m aOD).

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fluvial and tidal waterbodies this assessment is reasonable. Access from the site to the west, north and east is all also within Flood Zone 1 and routes away from the site to the northeast allows access towards the A12 that is wholly within Flood Zone 1.

- 21. It can therefore be concluded that the risk of flooding from tidal or major fluvial sources at the site is low.
- The EA Surface Water Flood Map (Appendix 2 Surface Water Flood Plan) seeks to model how surface runoff from the land would be routed given ground conditions and topography. This is useful for assessing major surface water flow paths and the risk of flooding along minor channels that have not formally been assessed.
- At the site this map indicates that the risk of surface water flooding is very low. This is consistent with the site running along a topographic ridge containing the greatest elevations locally.
- Other sources of potential flooding, including flooding from groundwater, flooding from sewers, flooding from infrastructure failure and flooding from artificial sources have been considered and are not considered to be significant at the Clappits Works area.

### 5. FLOOD WARNING AND EVACUATION PROCEDURE

### 5.1. Evacuation Triggers

- EA flood warnings provide advance notice of flooding from tidal or major fluvial systems. As discussed above these do not pose a risk of flooding at this site and flooding from such systems locally will not prevent safe and dry access and egress onto the site. Nevertheless, it is considered to be beneficial for the Flood Coordinator to sign up to the EA Flood Warning Service to receive warning of flood risk in the local area (e.g. a nearby address that is at risk of flooding), although any warning should not affect works at the site itself.
- 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.
- During construction all construction workers, as part of their Site Induction, will be made aware of the sections of Clappits Works construction works area which are 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.
- The Principal Contractor's Flood Coordinator will be required to sign up to the Met Office severe weather warning service so that automated warning messages are received by the Flood Coordinator.

### 5.2. Pre-Occupation Actions

<sup>29.</sup> Prior to the commencement of the construction works at Clappits, it will be the responsibility of the Principal Contractor's Site Manager, monitored by EATL, to ensure that all actions outlined in Table 5-1 are completed.

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### **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 Met Office Severe Weather Warning service.  Register with the EA Floodline Warnings Direct service.	Details on how to access weather warnings can be obtained at the following website:  https://www.metoffice.gov.uk/weather/guides/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.	
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 verify and confirm the flood rendezvous point and evacuation route.	The rendezvous point (NGR 627279, 243772) and emergency evacuation route are included in Appendix 3.	

### 5.3. Key Contacts and Information

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	ТВС	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

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Position	Name	Role	Contact Number
Construction Manager	ТВС	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.	ТВС
Site Manager	ТВС	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	ТВС	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

- Table 5-3 provides contact numbers for the relevant Emergency Services.
- 32. 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

- 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.
- 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

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.

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### **Table 5-4 Other Useful Numbers**

Body	Name	Contact Number
Electricity Provider	UK Power Networks	ТВС
Gas Provider	Cadent	ТВС
Water Company	Anglian Water	0345 791 9155
		Emergency number - 0800771881
Telephone Provider	ТВС	ТВС
Local Authority	East Suffolk Council	01394 444453 / 0800 440 2516
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

Table 5-5 provides 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
ТВС		

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

### 5.7. Location of Services

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

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### 5.8. Met Office Severe Weather Warnings

- 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.
- 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."

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.

### 5.9. Flood Warning and Evacuation Procedures

41. 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.

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# **TRIGGER LEVEL 1**

**Local EA Flood Alert** 

Met Office Yellow Warning for rainfall, snow or thunderstorms

# **Green Alert**

This represents a state of readiness ahead of a potential flood situation. See Table 5-7 for actions.

# **TRIGGER LEVEL 2**

**Local EA Flood Warning** 

Met Office Amber Warning for rainfall, snow or thunderstorms

### Red Alert – Evacuate Site

This represents as action state ahead of a near-imminent flood situation. See Table 5-7 for actions.

# **TRIGGER LEVEL 3**

**Local EA Severe Flood Warning** 

Met Office Red Warning for rainfall, snow or thunderstorms

### Red Alert - Evacuate Site

This represents as action state ahead of an imminent flood situation that poses a significant threat to life.

Diagram 1 Trigger Levels and Actions

Flood evacuation procedures are outlined in Table 5-7.

**Table 5-7 Flood Evacuation Procedures** 

Warning Triggers	General Procedures	Specific Actions
Trigger Level 1	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.	<ul> <li>Place Staff on Green Alert</li> <li>Check access and availability to, and condition of equipment: closed road signs, torches (check battery life/spares), high visibility jackets for all staff</li> <li>Allow for handover should shift change occur before the warning is lowered</li> <li>Check staff registers are complete and available to ensure all staff are accounted for post- evacuation</li> <li>Speak to construction teams and request implementation of active measures to reduce the mobilisation fo sediment and other pollutants in</li> </ul>

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Warning Triggers	General Procedures	Specific Actions
		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 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	<ul> <li>Stay away from high risk areas</li> <li>Turn off gas, electricity and water supplies if safe to do so.</li> <li>Put flood protection equipment in place if safe to do so.</li> <li>Cooperate with the emergency services.</li> <li>Call 999 if you are in immediate danger.</li> <li>Evacuate site in an orderly and controlled way.</li> </ul>	<ul> <li>Stop active work on the site and communicate change in flood status to all staff.</li> <li>If reasonably possible within a short timeframe (1hr) remove plant and equipment and relocate to elevated area that is away from potential flooding.</li> <li>Place staff on Red Alert and begin evacuation of jointing bay compound/CCS (Trigger Fire Alarm)</li> <li>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.</li> <li>Direct staff toward the flood rendezvous location avoiding any areas that are flooded.</li> <li>Take register to ensure all staff are accounted for.</li> <li>Direct all staff to depart the area using the agreed flood evacuation route.</li> <li>Contact the Emergency Services and EA to confirm that the work sites are being closed due to the risk of flooding</li> </ul>
Trigger Level 3	<ul> <li>Evacuate site as quickly as can be safely achieved.</li> <li>Account for all personnel</li> <li>Leave the area</li> </ul>	<ul> <li>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)</li> <li>Direct staff toward the flood rendezvous location avoiding any areas that are flooded.</li> <li>Take register to ensure all staff are accounted for.</li> <li>Direct all staff to depart the area using the agreed flood evacuation route.</li> <li>Contact the Emergency Services and EA to confirm that the work sites are being closed due to the risk of flooding</li> </ul>
All Clear	<ul> <li>Be careful. Flood water may still be around for several days.</li> <li>If you've been flooded, ring your insurance company as soon as possible.</li> </ul>	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,

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Warning Triggers	General Procedures	Specific Actions
		<ul> <li>blockages or other problems resulting from the storm / flood.</li> <li>Remedial works should be urgently undertaken on deficient drainage equipment.</li> <li>Signficiant pollution of any surface waterbody should be reported to the Environment Agency.</li> </ul>

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 Clappits Works construction works area and built into this FWEP. However, it is recommended that the Principal Contractor reviews advice provided by the Met Office and, if necessary, adapts the actions detailed to reflect the time available between receiving a severe weather warning and severe inclement weather affecting the construction works site.

### 5.10. Designated Rendezvous Point and Evacuation Route

- The recommended flood rendezvous point for the Clappits Works construction works area is at the southern of the two access points from the site onto Newbourne Road. This location, at NGR 627279, 243772 includes a widened section of the access road where cars can pull up without impeding traffic along the road. This location is elevated and remote from areas of elevated flood risk as indicated by EA flood mapping.
- In the event of site evacuation being initiated all staff should be directed to the flood rendezvous point. A register should be completed to confirm that all staff have cleared the operational site and then staff should be directed to leave the area by vehicle heading to the north and west towards the A12. This route aims to avoid all area of significant elevated flood risk.
- 46. The recommended flood rendezvous point and the emergency evacuation route for the Clappits Works construction works area are included in Appendix 3.

### 5.11. Water Level Falling

- 47. As detailed, the Met Office Severe Weather 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.
- 48. 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.
- 49. On receipt of such a notification the Principal Contractor's Site Manager can downgrade the trigger level response as appropriate.

### 6. MONITORING AND REVIEW

- 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.

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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.

- 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.
- 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
				137	

### 7. REFERENCES

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

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

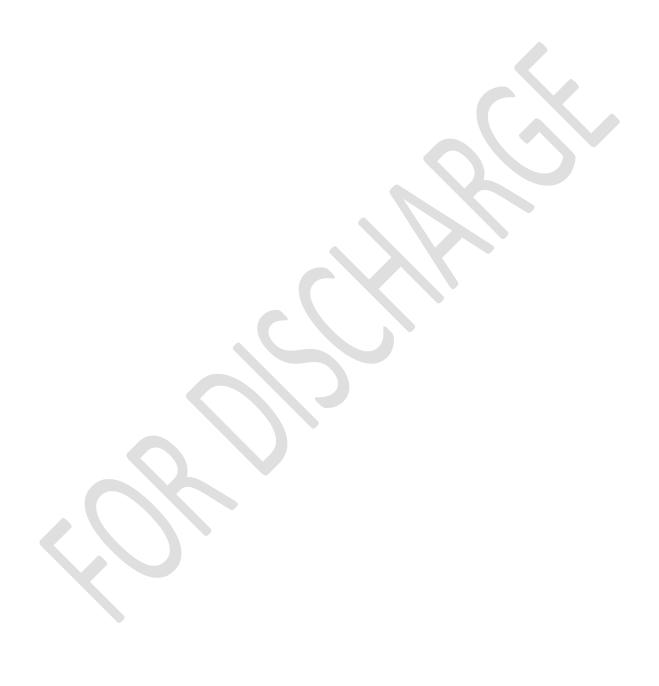
Royal HaskoningDHV, 2015. East Anglia Three Appendix 21.2 Flood Risk Assessment, Ipswich: East Anglia Offshore Wind.

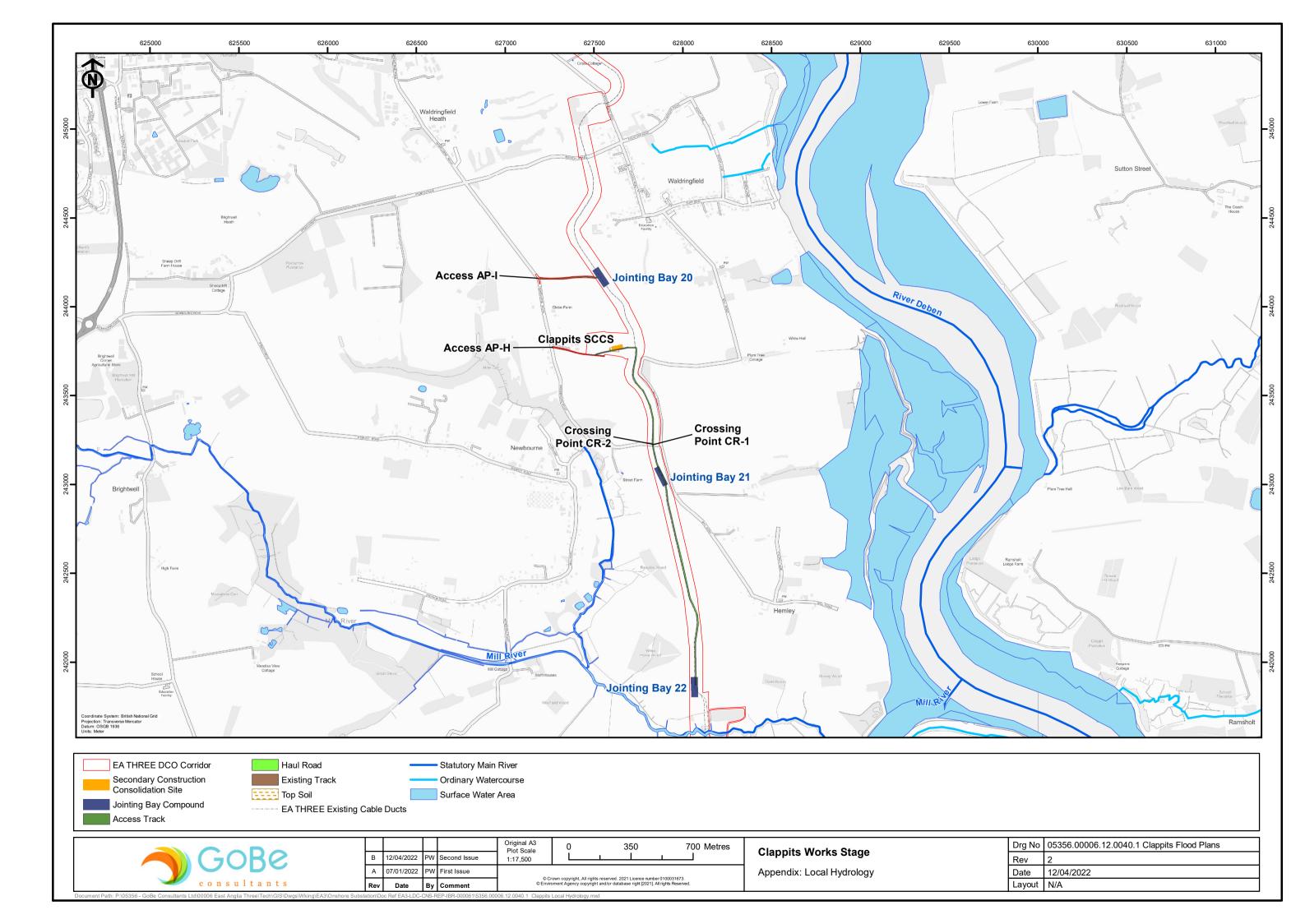
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# **APPENDIX 1 LOCAL HYDROLOGY**





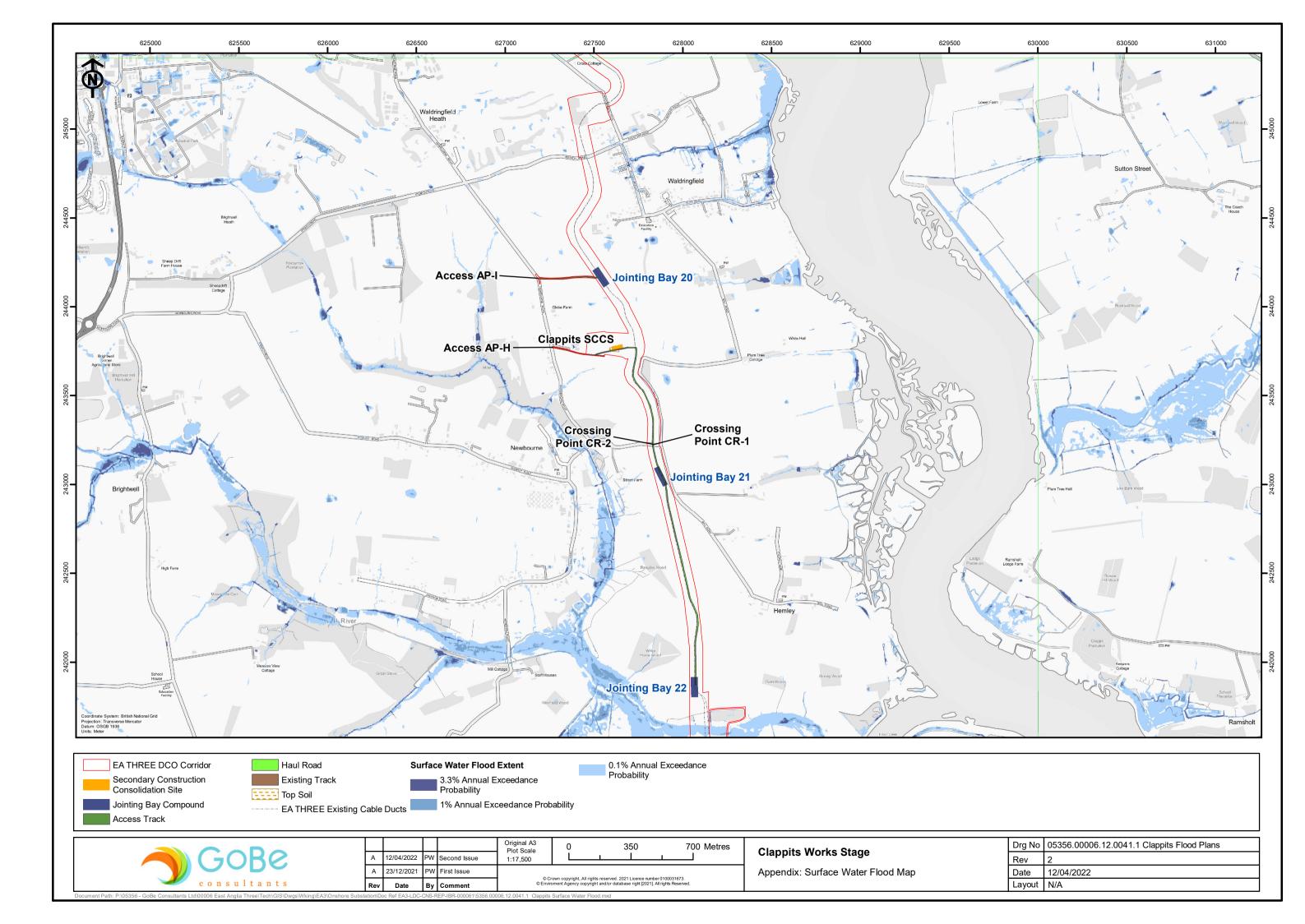
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# APPENDIX 2 SURFACE WATER FLOOD MAP





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# **APPENDIX 3 RENDEZVOUS POINT AND EVACUATION ROUTE**

